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# BC TREATY RANGE STRATEGY



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Final Report

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*For the Ministry of Aboriginal Relations and Reconciliation – Strategic  
Policy Branch and the Ministry of Forests, Lands and Natural Resource  
Operations – Range Branch*

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## Statement of Limitations

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This report was prepared, based on information obtained from a broad range of sources. The findings, analysis and recommendations rely on the methods and assumptions described in the report, and have been developed with the level of care required of a professional agrologist given the scope of the project. Every effort was made to fairly represent the interests involved in the BC Treaty Process including First Nations, Crown range users, the province and the general public. The conditions on which the analysis and recommendations are based are highly dynamic and will change over time, and the contents of the report should be re-evaluated and amended as required prior to any reliance upon the information presented herein.

*Opinions and views outlined in this independent report are those of the author, who was engaged by the province to support the development of the BC Treaty Range Strategy. They are not necessarily the opinions or views of the Government of British Columbia.*

## Notes to Reader

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**Legal References:** Various BC laws including the *Range Act*, the *Land Act* and other common statutes are cited frequently throughout this report. The source for this reference is:

Province of British Columbia, "BC Laws, Statutes & Regulations," *Queen's Printer BC*, 2015, <http://www.bclaws.ca/civix/content/complete/statreg/?xsl=/templates/browse.xsl>.

**Photo Credits:** All photos were taken by the author, unless otherwise noted.

## Executive Summary

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Crown range forage is a critically important resource for ranching and guide outfitter operations throughout BC. Grazing and hay cutting agreements over Crown range cover much of the interior of the province, including areas where treaty negotiations are progressing toward the agreement in principle (AIP) stage in the BC Treaty Process. The Ministry of Aboriginal Relations and Reconciliation (ARR) and Ministry of Forests, Lands and Natural Resource Operations (FLNR) – Range Branch, recognized the need for policies and guidance to support treaty negotiations in these areas. The Treaty Range Strategy project was initiated to meet this need.

The project focused on four different areas of the province with active treaty negotiations to provide information for the development of guidance and policy recommendations. A broad-based approach was used and included the review of documents and spatial data, meetings and interviews with First Nations representatives, ranchers, guide outfitters, FLNR range staff, as well as field visits to range areas.

This report has three main purposes. First, to provide background information on the policy context, Crown range administration and use, and to help build knowledge and understanding among individuals who are supporting, or participating in, treaty negotiations. Second, to provide a framework for treaty negotiators that includes both guidance and potential options for dealing with range interests in treaty. Third, to identify policy development initiatives for the province that are considered essential to give greater certainty to negotiators as they work through the options with the various interests.

Understanding First Nation interests in land and range resources is the first step in identifying opportunities for dealing with Crown range in treaty. A number of mechanisms are explored to help facilitate First Nations' access to the range resource for the purposes of economic development. An acquisition fund to facilitate willing buyer and willing seller transactions of ranches and guide outfitter territories as part of treaty-related measures (TRMs) or incremental treaty agreements (ITAs) is recommended to support the acquisition of assets to address First Nations' interests in range resources and economic development.

First Nation's interests also define the scope of options for accommodating the interests of affected third parties. A number of options were identified and evaluated based on their relative acceptability to ranchers, and their effectiveness for mitigating impacts related to treaty. In general, as the size of the treaty land (TL) quantum increases the effectiveness of most mitigation options decreases. As the size of the TL quantum within a range tenure area increases, the potential mitigation options also shift. Measures that are focused on improving the production and utilization of forage on the remaining Crown tenure area, which may effectively address marginal impacts, have to be replaced by options that might include negotiating the continuation of tenure or a replacement tenure issued by the First Nation on TL. As one moves along this mitigation spectrum, the prospect of having to use compensation measures increases.

This work suggests that a set of options— rather than any single option—found through a highly informed and iterative process of consultation, analysis and negotiation will be required to satisfy the needs of a specific treaty and all the interests involved. The relevance of different options will shift as First Nations and other interests become more clearly identified. Likewise, the acceptance of any particular option could vary substantially from one tenure holder to another depending on the level of

impacts, and the circumstances of a particular operation. Moreover, First Nation interests, and the characteristics of the social-ecological system in the region where the treaty is being negotiated, including its range use and livestock production, will be a major factor in determining what options show utility and/or feasibility. In later stages, the land selection itself will determine what options can and should be pursued. Differences in the mitigation options in terms of their timing within the negotiation process, and where they sit relative to a treaty agreement must also be considered. Somewhat different, but related approaches and options are required for accommodating the interests of guide outfitters, and the holders of hay cutting agreements.

It is also important for negotiators to understand the implications of each option, including the relative costs, and where additional input, analysis and policy development will be required before an option can be successfully implemented. A number of policy development initiatives are recommended to support application of the negotiation and mitigation options in ongoing and future treaty negotiations.

The initiatives are provincial in scope and it is expected that the outcomes from the proposed work will help clarify options and continue to build knowledge and understanding among all parties involved in the treaty negotiation and implementation processes. A Crown range/treaty land boundary fence policy, an acquisition fund to support willing buyer and willing seller purchase of ranches, analysis to facilitate disposition of alternate Crown tenures to impacted third-parties, forage enhancement on Crown land, and the development of compensation policy and procedures for impacted tenure holders, are considered among the top priorities. As these and other policy initiatives are implemented, the guidance for negotiators can continue to be refined. At this time, it is critical for tenure holders who may be impacted by TL selections to have a better understanding of what might be possible within a treaty negotiation.

One of the most challenging aspects of dealing with Crown range in treaty negotiations is the dynamic process of land selection, and its effect on mitigation options. The resulting uncertainty around the timing and scale of impacts is a major concern of range tenure holders. The recommended policy development initiatives are important steps in a process that will lead to greater certainty for all parties engaged in or potentially affected by treaty negotiations.



# 1 Introduction

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Crown range tenures, which authorize the use of forage under the *Range Act*, are a critically important resource for ranching and guide outfitter operations throughout BC. These interests in Crown range cover much of the interior of the province, including areas where treaty negotiations are progressing toward agreement in principle (AIP) stage (Figure 1).

Treaty negotiations that have moved beyond the AIP stage have occurred mostly in coastal regions, and have not involved Crown range resources to any great extent.<sup>i</sup> Consequently, provincial policies related to Crown range and treaty negotiations have remained largely undeveloped. As reconciliation with First Nations advances in other areas of the province through treaty and other related measures, there is an immediate need for both guidance and policy options for dealing with the third-party interests in Crown range.

To meet this need, the Ministry of Aboriginal Relations and Reconciliation (ARR) – Strategic Policy Branch and Ministry of Forests, Lands and Natural Resource Operations (FLNR) – Range Branch, collaboratively developed the Treaty Range Strategy Project. The project identified a number of objectives and outcomes to help address the identified policy gap. The information and analysis contained in this report are intended to fulfill those objectives and are the main deliverables of the project.

## 1.1 Project Objectives

The Treaty Range Strategy Project outlined a broad-based consultative approach to meet its objectives, and specifically requested communication and engagement with ranchers, guide outfitters, the BC Cattlemen’s Association (BCCA) the Guide Outfitters Association of BC (GOABC), FLNR range officers, negotiators, other government staff and First Nations. This report focuses on four key project objectives:

1. Identify and prioritize current and anticipated Crown range issues for BC relating to First Nations who are in treaty negotiations.
2. Develop principles for addressing existing rangeland interests and potential rangeland interests for First Nations in treaty, acknowledging the economic, social and environmental attributes of the associated businesses.
3. Identify actions to develop appropriate policy, advice and guidance for treaty negotiators and relevant line agency staff.

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<sup>i</sup> There are four First Nations or First Nations groups implementing completed treaties under the BC Treaty Process (Tsawwassen First Nation, Maa-nulth First Nations, Tla’amin Nation, and Yale First Nation). An unratified Final Agreement for the Lheidli T’enneh a First Nation in the Interior near Prince George, included 3416 ha of former Crown land. These lands are to be delivered unencumbered with third-party licenses; there are few range tenures in this particular area and it is likely none were affected by the land selection. (*Lheidli T’enneh Lands*, accessed October 26, 2014, [http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/Ind\\_1100100022560\\_eng.pdf](http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-BC/STAGING/texte-text/Ind_1100100022560_eng.pdf).) The Yekooche Nation in the Ft. St. James area is the only other Interior First Nation in the final agreement stage; there is a very low density of small range tenures in this area.

4. Identify mitigation options or tenure management solutions to address Crown range interests in treaty discussions.

This report is meant primarily to serve the needs of provincial government staff working on range and treaty-related issues. It is also hoped that it will inform and serve the interests of First Nations who are negotiating treaties, and third parties potentially impacted by treaties. The report has three main purposes. First, to provide background information on the current policy context and Crown range administration and use, and to help build knowledge and understanding among individuals who are supporting, or participating in, treaty negotiations. Second, using a contextual analysis, develop a framework for treaty negotiators, which includes both guidance and potential options for dealing with range interests in treaty. Third, to identify policy development initiatives for the province that are considered essential to give greater certainty to negotiators as they work through the options with the various interests.

Information and examples are drawn from four different focus areas in the province and used throughout the document to provide context for the analysis. The report content is organized into the following six sections:

- Background on the current policy context for range resources and treaty and a frame of reference for analysis of the issues involved (*Sections 1 and 2*).
- Some important fundamentals of Crown range administration and a brief overview of Crown range use (*Section 3*).
- Exploration and analysis of options to accommodate First Nations and third-party interests in range resources in treaty (*Section 4*).
- Options framework and guidance recommendations for treaty negotiators (*Section 5*).
- Recommended policy development initiatives to support treaty negotiations (*Section 6*).

Just as the project got underway, the Supreme Court of Canada (SCC) delivered its ruling on Aboriginal Title in *Tsilhqot'in Nation v. British Columbia*.<sup>1</sup> This is considered a ground-breaking decision, being the first ever declaration of proven Aboriginal title by a Canadian court; in this case lands covering some 1900 square km in *Tsilhqot'in* territory.<sup>2</sup> First Nations groups, the province and the BC Treaty Commission have all acknowledged the importance of this decision. Of particular relevance to this work, are the *Range Act* tenures that were issued over portions of the proven title area, and how these interests may be managed in the future.

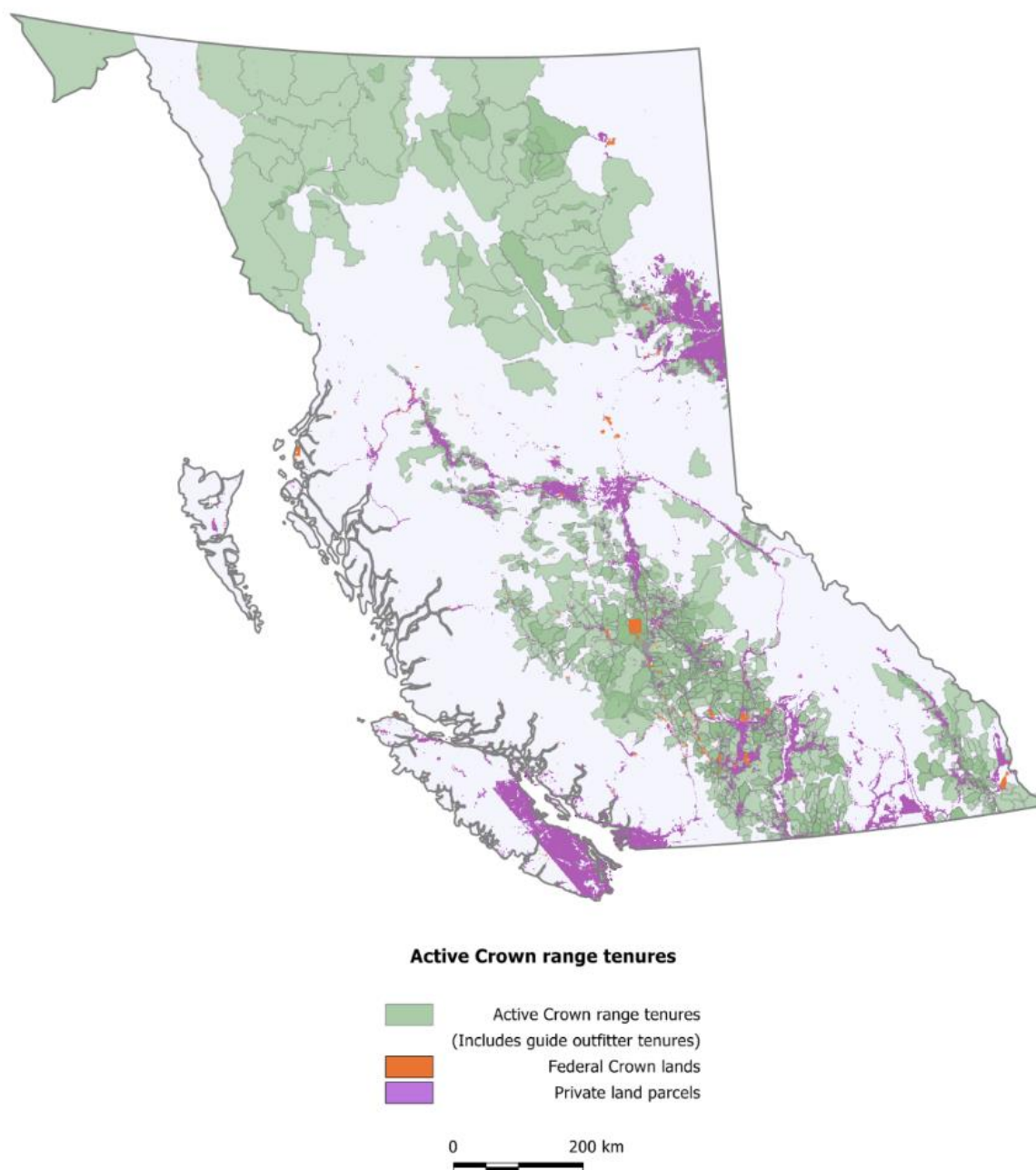


Figure 1 Map of active Crown range tenures, October 2014 (Source: Range Tenure database, BC Geographic Warehouse)

## 1.2 Project Focus Areas and Information Gathering

To ground the policy development work in this project, four different areas with active negotiations (treaty tables), and substantial Crown range interests, were chosen to provide context for focused information gathering and analysis (Figure 2). All the treaty negotiations in the focus areas are in the AIP stage (Stage 4) of the treaty process:

- **Kaska Dena** – Dease River-Good Hope Lake, Lower Post-Liard River, Kwadacha
- **Nazko** - northwest of Quesnel and southwest of Prince George
- **NStQ** - Northern Secwepemc te Qelmucw, the Northern Shuswap Tribal Council Society comprises four member communities located around the Williams Lake area: Williams Lake Band (T'exelc), Canoe Creek Band (Stswecem'c/Xgat'tem), Canim Lake Band (Tsq'escen') and the Soda Creek Band (Xats'ull/Cmetem')
- **Ktunaxa** - Ktunaxa Kinbasket Treaty Council (KKTC); includes ?Akisq'nuk First Nation (formerly, Columbia Lake Band), Lower Kootenay Band, St. Mary's Indian Band and Tobacco Plains Indian Band

Prior to fieldwork, meetings were held with the provincial negotiating teams working in each focus area to share information on the project and the progress of negotiations. Background documents were collected and reviewed. These included provincial resource mandate chapters, strategic engagement agreements, incremental treaty agreements (ITAs) and prospective land selections. The range tenures database was downloaded from the BC Geographic Warehouse to identify Crown range interests in the focus areas and to contrast these with land selections. This background overview analysis was used to develop the information gathering strategy for the focus areas, which included the identification of First Nations treaty representatives and individual stakeholder interests for in-person meetings and interviews. The information gathering and analysis process is described in more detail in Appendix 1.

## 1.3 Communications

Communication around the Treaty Range Strategy project and its objectives took place at an individual level during in-person meetings and interviews in the focus areas described above, and also at a provincial level with the respective stakeholder groups. An outline of the project was provided to the Land Stewardship and Aboriginal Affairs Committee of the BCCA at its AGM, held in Creston, on May 22, 2014. A written summary was later provided to the program coordinator of the committee. A background meeting was held with the Executive Director of the GOABC on June 11, 2014. A project summary was provided for presentation to a GOABC committee engaged on First Nations related issues meeting during a GOABC sponsored wildlife symposium, held in Richmond, on June 18-19, 2014.

A key message delivered in meetings and interviews was that the Treaty Range Strategy Project was intended to support provincial level policy related to Crown range resources and treaty, but was not part of the negotiations taking place at the treaty tables in the focus areas. An informed consent document was prepared for tenure holders, explaining the purpose of the project and that personal and business information provided in interviews would be kept confidential, and used only for purposes of policy development. At the same time, information on treaty land (TL) selections and other information shared by negotiating teams to support the Range Treaty Strategy Project were held in strict confidence, and were not shared with tenure holders or other contacts.



Figure 2 Map showing Range Treaty Strategy focus areas corresponding to four First Nation treaty statement of interest areas (SOI).

## 2 Analysis Framework

The use of Crown range in BC can be viewed as a complex social-ecological system, and thus requires an analysis framework that balances social, economic and ecological considerations. The social aspects of the system include the spheres of influence of the different actors involved: First Nations with their constitutionally protected rights, the current tenure holders, the BCCA and GOABC and other Crown range users, and the province in its regulatory and public interest role. The ecological components of the system include the Crown range forage resource, its quality and quantity, and distribution across the landscape; and other ecological goods and services provided by rangeland. Economics come to bear in all parts of the system, both at the macro (public benefits) and micro (private benefit) levels, and influence how the range is used.

Ultimately adjustments to this system, in so far as treaty is concerned, must first satisfy a concept of reconciliation in terms that are acceptable to a First Nation engaged in a treaty negotiation; and consistent with the aboriginal rights recognized and affirmed under *Section 35(1)* of the Canadian Constitution, and in compliance with the legal framework that has been established by the courts. At

the same time, the social and economic context surrounding historic and current Crown range use by ranchers and guide outfitters, and their relations with First Nations, must also be acknowledged to find realistic and pragmatic options for dealing the various interests in the range resource.

## 2.1 Treaty and Non-treaty Agreements

The BC Treaty Commission and treaty-making process were established in 1992 by agreement between the Governments of Canada, British Columbia and a group of BC First Nations. The six-stage Treaty Process and the Commission, were designed to facilitate negotiations leading to fair and long-lasting treaties between the parties. To date, four final agreements have reached the implementation stage (Tsawwassen First Nation and Maa-nulth First Nations, Tla'amin Nation and Yale First Nation).<sup>3</sup>

The province has negotiated a substantial number of non-treaty agreements in the spirit of reconciliation and to develop its relationship with First Nations. There are several types of agreements, and those that involve collaborative engagements related to resource use, or to allow greater access to resources, may enhance the discussion around range resources in treaty. Strategic engagement agreements and range opportunity agreements are examples. Treaty-related measures and ITAs, are directly linked to treaties and must be negotiated at the treaty table. These treaty-specific agreements may also have a potential role to play in the future management of range resources. Both types of agreements will be referred to in the following sections of this report.

## 2.2 Treaty Range Policy Development Background

Finding ways to provide treaty lands (TL)<sup>i</sup> that are unencumbered by grazing licences issued by the province has been the starting point for much of the thinking around Crown range and treaty up to this point. As indicated in the introduction to this report, tenured Crown range interests have not been an issue for treaties in the Coastal regions or for the Lhedidli T'enneh near Prince George, where the relatively small land selection had little, if any, impact on range tenures. This is different in the NStQ area in the Cariboo region, for example, where there are some 321 active Crown range tenure agreements within, or overlapping with, the NStQ Statement of Interest (SOI) area. In the Cariboo region, rangeland is part of the ecology and it has a significant sociocultural and economic importance.

Since at least 2001, the BCCA, representing interests from the ranching industry, has been engaged in the discussion regarding Crown range resources and treaty negotiations. The BCCA has taken a proactive approach geared toward building a constructive relationship with the province, and in finding solutions for minimizing the potential impacts of treaty on Crown range use. It has commissioned work ranging from an evaluation of increasing forage production on Crown range as a mitigation tool in treaty settlement, to estimating the capital value of Crown range tenures in ranching operations, as well as examining issues around compensation. This is important work and highly relevant to the development of a treaty range strategy. There is, however, a need to explore and evaluate other potential options for future range use, and at this point to bring First Nations' interests into the analysis.

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<sup>i</sup> Treaty lands are those lands that become First Nation Lands on the effective date of treaty, and are sometimes referred to as Treaty Settlement Land (TSL). Treaty land (TL) more accurately describes the status of these lands post treaty.

The GOABC, which represents some 70% of guide outfitters in the province, is advocating treaty policy that establishes continued access to resources under existing conditions, or full compensation where there is disruption to businesses as a result of a treaty agreement. There is no concern with having land transferred from the Crown to the First Nation, provided the interest in the resource is sustained without a disruption in business.<sup>i</sup>

Thus far, guide outfitters' have seen replacement and transfer provisions for guiding territory certificates – their main interest in Crown land – continue in a treaty agreement under the conditions established in provincial law (see *Maa-nulth Final Agreement Act 2007*).<sup>4</sup> The guide outfitters in this area did not require an interest in range, given the nature of their operations (i.e., no grazing animals). So while a part of the bundle of the Crown land interests on which guide outfitters depend has been dealt with in agreements with coastal First Nations, guide outfitter interests in Crown range have not yet been dealt with specifically in treaty. The Maa-nulth treaty establishes that each Maa-nulth First Nation owns the forest and range resources on its First Nations Lands, and has exclusive authority to manage the harvesting of those resources. This would allow the First Nation to issue a range tenure were it required. However, the prospect of a replacement tenure issued by a First Nation cannot be left to chance where guide outfitters depend on horses for transportation and have existing grazing licences for those animals. Some form of replacement range tenure needs to be a subject of treaty negotiation in these areas.

While the courts have been considering the Tsilhqot'in decision, there has also been significant progress made in the NStQ treaty negotiations since the First Nation's rejection of the province's first land offer presented in June 2009. In this region of concentrated Crown range interests, the shift in the negotiations has been toward a larger land component in the treaty negotiations, not less. With this set of circumstances comes greater First Nation interest in land management participation within traditional territories and outside future TL. These factors begin to influence what might be achievable in treaty for future range use, but they also present challenges for minimizing the potential impacts on third-party interests in range.

## 2.3 Treaty Land and Shared Decision Making

Within these new parameters, the notion of finding two distinct management spaces on the landscape – one First Nations, and one status quo, does not fit like it once might have. The relationship between these two spaces will continue to be tested, both in court and in treaty negotiations, and will need to be resolved in some way. Depending on the goals and circumstances of the particular First Nation, this may suggest a range of co-management (shared decision making) models on Crown land; and could also include everything from replacement interests being offered by the First Nation on TL, to the co-administration of continuing tenures on TL under an existing provincial regulatory framework, or a combination of these alternatives. All of these options, with some preliminary analysis at least, should be explored by those involved in finding agreement in treaties.

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<sup>i</sup> This is sometimes referred to by stakeholder interests as, "a change in landlord".



### 3 The Crown Range Resource

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Crown range provides forage for grazing by domestic livestock, primarily beef cattle and horses, and for wildlife. It includes lower elevation grasslands, upland forests and alpine. There are differences in how Crown range is used in various regions of the province, depending on whether the purpose is beef production (ranching operations), or for maintaining horses primarily for transportation and packing (guide outfitting and other outdoor recreation operations). Native meadows and sloughs are sometimes cut for hay, for the winterfeeding of livestock, although this is not a predominant use.

As noted earlier, the Crown range resource is part of a complex social-ecological system. The characteristics of this system and the resource itself have a determining effect on its management. This may appear self-evident, but these characteristics are at the root of many of the issues that must be considered as a system of range management changes, including fencing, establishing administrative boundaries, advancing co-operative management, putting a value on the resource for the purposes of establishing a grazing fee, or compensation, and so on. Some of the more important characteristics of the range resource and the implications are noted below:<sup>i</sup>

- Harvested annually (in many cases) by grazing animals – user requires yearly access for animals.
- Harvested seasonally (in most cases harvest shifts from one area to another at different periods of the year) - the general location of animals changes over the grazing season, and animals in most cases are removed from the Crown range in winter.
- Stationary resource (non-mobile) - production can be dynamic, but the forage is harvested and used where it grows by grazing animals.
- Harvested by free-roaming grazing animals – animals are guided by the location of forage, water sources, salting, herders, predators, fences, or natural barriers; within this matrix administrative boundaries (i.e., between private land and Crown range), do not restrict this movement unless they are demarcated by a maintained fence, a natural barrier, or the animals are constantly tended – which is impractical and ineffective in most cases especially on forested range.
- Harvesting of forage may be in competition with wild ungulates and free-roaming horses – increases management complexity.
- Management is required to ensure the long-term sustainability of the range resource and protect other resource values - knowledge inputs are required.
- Management may include investment in infrastructure in some areas (e.g., fences, corrals, water developments) – capital inputs are required.
- Substantial number of animals and users in some areas – management inputs, complexity and the number of manager/user relationships are increased.
- Use may be in common with other range tenure holders – increases management complexity
- Quality and quantity of range (forage) is highly variable across the landscape – increases management complexity.

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<sup>i</sup> The importance of these characteristics for management is highlighted when contrasted with the timber resource. For example, timber is non-mobile, but is harvested by humans and then transported. Cut-blocks and boundaries can be laid out and followed, to the point of selecting individual trees (in a selective harvest system). Harvest on a specific area is not annual, and the supply can be shifted within a region without significantly affecting infrastructure.



- Access, production and management are influenced by natural and human disturbance and other multiple resource users, e.g., fire, timber harvest, road construction – the forage supply is dynamic.
- Grazing and animal impacts are a minor-level disturbance relative to timber harvest, and other resource development activities, but can have long-term effects on ecology.
- Range supplies an intermediate product (forage) for beef production (ranching) and for horses (guide outfitting – packing, transport, and ranching – to support livestock management) – makes the valuation of the base resource (forage) challenging.
- Mix of traditional cultural values, many small and large commercial interests in businesses that use range resources – introduces management complexity.
- Agreement holders have cultural and historic connection to their use of Crown range, which includes the integration of private land and infrastructure; for some the use of Crown range represents agrarian values that include contributing to the well-being of society through the production of a high-quality and high-protein food source from a forage resource which is otherwise un-edible by humans; the associated businesses are “a way of life” – introduces social-economic complexity.

### 3.1 Administration

The use of Crown range is authorized under the *Range Act* by the province. There are four types of tenure agreements issued:

- Grazing licence
- Grazing permit
- Hay cutting licence
- Hay cutting permit

Licences and permits must describe the Crown range over which they apply and specify the amount of forage to which the holder is entitled on an annual basis, either in animal unit months (AUMs) or tonnes, for grazing and hay respectfully.<sup>i</sup> The attributes of the different range tenure types are summarized in Table 1. All are forage-based agreements, meaning that the use is described in terms of the amount of forage (AUM or tonne) authorized. Hay cutting tenures are land-based only in the sense that the authorization to cut hay is exclusive to the tenure holder in the area described in the agreement. Only the licences are replaceable, although permits were replaceable for a specified number of periods, prior to *Range Act* amendments passed in 2014. There are some 1560 active range tenures in the province,<sup>5</sup> and the majority of these agreements are grazing licences.

#### 3.1.1 Associated Private Lands and Tenures

Associated private lands are lands that are leased or owned and committed for use in conjunction with the Crown range. Under provincial range policy the continued retention of the associated private lands

<sup>i</sup> An AUM (Animal Unit Month) is the amount of air-dry forage in kg required to sustain one animal unit (considered to be 1 cow with or without calf) for one month and is defined by the *Range Act* as 450 kg. Animal unit equivalent (AUE), is the factor applied to each kind and class of animal to establish its equivalency with an animal unit, i.e., a bull is equivalent to 1.5 animal units; a yearling steer or heifer .7 animal units, a horse is 1.25 and a sheep is .2 animal units.

is made a condition of grazing and hay cutting agreements. Typically when the associated private lands (the ranch) are sold, the Crown range tenure is also transferred to the new owner. The associated private land policy applies primarily to ranching operations. A separate policy applies to back country operations with grazing licences. For this group, retention of the guiding territory certificate, and/or *Land Act* authorizations are required conditions in the grazing licence agreement. The inclusion of associated private lands and tenures in grazing and hay cutting agreements allows for more effective management and administration of the resource under the current system.

### 3.1.2 Range Use Plans

The *Forest and Range Practices Act* (FRPA) requires that a Range Use Plan (RUP) or a Range Stewardship Plan (RSP) must be prepared by the agreement holder before the forage specified in a licence or permit can be used (FRPA Sec 32.1). The purpose of the RUP and RSP is to guide the management of the range covered under tenure agreements. The RUP or RSP must have a map that shows the area for the agreement that pertains to the plan, specifies the location and type of range developments and the pastures that are in that area. It must also include a grazing schedule that describes the number, kind and class of livestock, and the periods of use for each pasture. Thus the RUP plays an important role in the sustainable management of the range, by optimizing the use of various plant communities in a range tenure area.

Table 1 Selected attributes of the four Crown range tenure types

	Grazing Licence	Grazing Permit	Hay cutting Licence	Hay cutting Permit
Forage-based Agreement	Yes	Yes	Yes	Yes
Land-based Agreement	No	No	Yes <sup>a</sup>	Yes <sup>a</sup>
Exclusive <sup>b</sup>	No	No	Yes <sup>b</sup>	Yes <sup>b</sup>
Obligation to Use total forage authorized	Yes, 90% or non-use agreement	Yes, 90% or non-use agreement	No	No
Term	15-25 years	Up to 10 years	15-25 years	Up to 10 years
Replaceable	Yes	No	Yes	No

<sup>a</sup> Land-based, as used here, refers to use of the forage allocated within the agreement area for the purpose indicated.

<sup>b</sup> The forage agreement for hay cutting is not in-common with other users; fencing may be required to make this operationally effective in some circumstances

Source: FLNR, Range Branch, Integrated Resource Information System (IRIS), Draft 2014

### 3.1.3 Annual Fees for Crown Range Forage

The *Range Act* Range Regulation (Sec. 15-16) establishes the annual fees charged for Crown range forage. The annual grazing fee per authorized AUM is 93% of the average gross sales revenue per kg for live beef cattle marketed through BC Livestock Producers the previous 3 years. The annual fee for hay harvested under a hay cutting licence or permit is 279% of the 3 year-average live cattle price per kg. An

additional ground rent of 20 cents per AUM is charged for grazing licences and permits, and a ground rent of 60 cents per tonne is applied to hay cutting. The 2014 Crown range charges including ground rent were \$2.62 per AUM for grazing and \$7.87 per tonne for hay cutting. In 2009, the combined grazing fee and ground rent was \$1.88 per AUM, reflecting the poor cattle prices that were experienced in the previous 3 years.

Grazing fees are an example of an administered price system that includes use regulations enabled by legislation to help achieve sustainable resource use. There are costs associated with the administration and enforcement in this type of system, but the stocking is also regulated. This is one reason why the private pasture rental rates of \$25-30/AUM are not directly comparable to Crown range grazing fees. There are also the higher user-costs on Crown range, which can include increased losses from predation, range riders, and inputs related to multiple-use management. Having to monitor gates in areas where there is high a level of public recreational use is a good example. On more productive private land pastures, grazing is more efficient and higher stocking rates can be achieved, which justifies higher rents.

The province has occasionally visited the issue of grazing fees as part of Range Program reviews, and there have been recommendations in the past to move to a more market-based system for determining grazing fees.<sup>6</sup> The current grazing fee policy reflects a view that a stable and healthy ranching and guide outfitting sector provides greater economic benefit to rural communities and to the province as a whole, than would any increase in direct revenue from a substantially higher grazing fee.

#### 3.1.4 Range Developments and Improvements

There is a long history of investment in improvements on BC's Crown range, especially in the central and southern interior. As a result, there exists a complex network of fences, pastures and water developments on Crown range. In the 1940s, and 50s, a portion (one-third to a half) of the grazing fees from Crown range was reinvested back into range improvements.<sup>7</sup> Through the 1970s, and early 1980s, fencing, rangeland seeding and water developments were supported through the ARDA (Agriculture and Rural Development Agreement) and ARDSA (Agriculture and Rural Development Subsidiary Agreement) programs. In addition, these programs supported the development of Coordinated Resource Management Plans (CRMPs) on Crown land. In the East Kootenay, between 1974 and 1983, most range units had CRMPs completed, and 692 km of fencing was constructed under the program to implement rotational grazing.<sup>8</sup> The total ARDA investment for this work was \$2,980,745.

The provincial Grazing Enhancement Fund was created by legislation, in 1996, to fund projects for the maintenance and enhancement of range resources consistent with regional land use planning objectives.<sup>9</sup> The Grazing Enhancement Fund was repealed in 2002. Funding for forest and range programs is now consolidated under the provincial Land-based Investment Strategy. In 2012/13, \$827,159 was spent on various Crown range improvements throughout the province, including fencing, fence-line protection (eliminating potential MPB deadfall), water developments, riparian management projects, soil stabilization and rangeland seeding.<sup>10</sup> An additional \$946,525 was spent on ecosystem restoration (ER),<sup>i</sup> which in some cases likely also provided additional indirect improvement benefits to Crown range.

<sup>i</sup> Ecosystem restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed (see Sec. 4.3.11)

### 3.1.5 Guide outfitter tenures

A grazing licence is but one part of a bundle of Crown authorizations required by guide outfitters who use horses in their operations. As with all grazing licences a RUP is required, and in the case of guide outfitters, the plan might specifically discuss management measures and the schedule for grazing around base lodges and camps. Guide outfitters also require:

1. Guiding territory certificate over an area authorized under the *Wildlife Act*
2. Guide outfitter licence authorized under the *Wildlife Act*
3. Assistant guide licence authorized under the *Wildlife Act* for each employee that guides
4. Licences of occupation authorized under the *Land Act* for cabins and other developments on Crown land
5. Commercial Recreation Park Use Permit including management plan for areas covered under the *Parks Act*

It is range policy that the guiding territory certificate associated with a range agreement must be retained by the holder for the term of the agreement. This is made a condition of the licence. The range agreement can be transferred to another person, but the guide certificate must also be transferred.

### 3.1.6 Other Commercial Back Country Operators

Other back country operators offer trail riding, wildlife viewing and packing services for resident and non-resident hunters (transporters). Transporters are licenced and regulated under the *Wildlife Act* Commercial Activities Regulation:<sup>11</sup>

*A "transporter" means a person who, for money or other compensation, transports a hunter to, from or between locations so that the hunter can hunt but does not include a person who operates a scheduled commercial flight or a chartered aircraft unless the person also provides ground transportation, accommodation or other ground services to the hunter.*

The transporter must provide a detailed management plan with the licence application, and it must describe the area of operations, existing or planned improvements, and, if the area overlaps with a guiding territory how the two businesses will work together. Licenced guide outfitters are not required to have a transporter licence. Transporters and other back country operators will have additional authorizations for their activities on Crown land in addition to a grazing licence or permit for their horses. The potential for overlapping operating areas explains why in some cases there can be more than one grazing licence authorized in a guiding territory.

## 3.2 Authorized Crown Range Use in the Treaty Range Project Focus Areas

The provincial Range Tenure database provides a spatial representation of all the range tenure area boundaries (Figure 1), and basic information about the tenure including the amount of forage authorized. In many, but not all records, livestock numbers are provided. Tenures associated with guide outfitters are not explicitly identified in the database, and so these must be confirmed with district range staff. Some can be cross-referenced with the guide outfitter territories database.

A high-level overview of range tenure information for each focus area is provided in Table 2. The focus areas differ considerably in their size, and the determination of tenure numbers and authorized AUMs is based on tenures that fall within or overlap with the focus areas. Nonetheless, it is clear from the tenure

information that there is a very high level of range use in the NStQ, both by number of authorized AUMs and number of tenures when compared to the other areas. The NStQ also has the greatest number of hay cutting tenures, which is a reflection of the many native hay meadows that exist on the mid-elevation plateau of the NStQ area.

The Kaska Dena area has the lowest level of authorized AUMs and tenures, which clearly reflects its primary use by horses associated with guide outfitter and other recreational operations. The Nazko and the KKTC areas have comparable levels of authorized use at close to 40,000 AUMs. However, the overall use in the KKTC is more dispersed because it covers a much larger area than the Nazko. On average there are only 1.7 tenures per 100,000 ha in the KKTC while there are 4.5 in Nazko. The relative measure of Ha/AUM also reflects a proportionally higher level of use in the Nazko compared to the KKTC at 47 vs 181.

These figures need to be interpreted carefully, because they describe only a part of the pattern of range use as it occurs on the landscape. Yet they serve to highlight some of the differences in Crown range use between the focus areas. These basic measures also allow some inferences to be made about the number of tenure holders, intensity of use and the overall importance of the Crown range resource in an area of interest for treaty negotiations. This and other regional information is important background for treaty negotiators.

*Table 2 Range tenure information for the Treaty Range Strategy focus areas*

Area	Hay tenures	Tonnes (annual)	Grazing tenures	Authorized AUMs	Total Tenures	Tenures/ 100,000 ha	Ha/AUM
Kaska Dena	1	10	46	9,766	47	.5	1,026
Nazko	7	127	76	39,514	83	4.5	47
NStQ	29	583	292	220,156	321	6.5	23
KKTC	1	25	112	37,280	113	1.7	181

*Source: Range tenure database, BC Geographic Warehouse, downloaded October 28, 2014. Notes: Number of tenures refers to unique and active forest tenure file ID numbers either within or touching the focus area SOI. Ha/AUM is a reference indicator only to show differences in intensity of authorized use, and is not a stocking rate or a reflection of carrying capacity. Grazing tenures include both licences and permits issued to ranchers primarily for cattle, and some horses, and to guide outfitters for horses.*

### 3.3 Crown Range Use

The utility of Crown range varies considerably throughout the province in terms of the forage quantity and quality it supplies, and in its accessibility for grazing by domestic livestock. Regional differences in how the resource is used reflect geography, settlement history, the availability of higher capability agricultural land to produce winter forage, and regional economic factors. Some of these differences are reflected in the authorized Crown range use described in the previous section (Table 2).

#### 3.3.1 Ranching Operations

Most ranching operations using Crown range in BC are cow-calf enterprises. A small number may have supplemental yearling or feedlot operations as well, but the forage used in these enterprises would be produced almost entirely on private land. Cattle operations, including the ranching sector, are a

significant part of the BC economy contributing \$316 million to the nominal GDP of the province.<sup>12</sup> In 2011, beef ranked seventh among the top agricultural commodities in BC in terms of sales.

In a typical grazing season cattle might calve and spring graze on private land, or a *Land Act* grazing lease, before moving to Crown range, which for many producers is considered their summer and fall range. Cattle usually return to fall graze on private pasture or hayfields in mid to late October or November. In the northern parts of the NStQ and Nazko the grazing period on Crown range is shorter, usually 4-5 months. Further south the grazing on Crown range can be extended from 5-6 months and sometimes longer, if there is lower elevation range available for spring and fall grazing (southern part of the NStQ, the KKTC areas).

Ranchers often have adjoining access to Crown range from their private lands, and turnout simply means opening a gate. For others, getting animals onto Crown range may mean a short cattle-drive, or a haul in liners or trailers. Once on Crown range, cattle will graze in an established and sometimes managed pattern from pasture to pasture (or area to area) following the readiness and availability of forage in different plant communities. In many areas of BC, this involves moving from low elevation to higher elevation grazing areas as the season progresses, and then back again. These grazing patterns are described in the RUP and grazing schedule. Grazing, fences and gates need to be monitored so that adjustments can be made in order to meet the objectives of the RUP and management.

### 3.3.2 Guide Outfitter Operations

The Crown range tenures associated with guide outfitters authorize horse grazing almost exclusively. A few guide outfitters, particularly in the central and southern Interior, may also have small ranching operations, and therefore may also graze cattle under their agreements. Horse transportation to move hunters and camp supplies is a key part of many, but not all, guide outfitting businesses in BC. For the most part, the range tenure areas of guide outfitters typically follow the same boundaries as their guiding territory certificates. In a few situations other horse operators, including transporters and packers, have range tenures that overlap portions of guide outfitter territories.

There are guide outfitters with grazing licences in all of the focus areas, with the highest concentration in the Kaska Dena area. There are 37 active guiding territory certificates within or overlapping with the Kaska Dena SOI, while there are 46 active grazing tenures (Table 2). The base operations for guide outfitter operations in the North are often on Crown land, and occasionally on small isolated Crown granted surveyed parcels.<sup>i</sup> A few of these outfitters keep horses on Crown land year round, and bring in supplemental feed for the winter. Others trailer out their horses and winter them further south on private land that is leased or owned.

Many of the operations in the Kaska Dena area are long-established businesses, and some have connections to the exploration and settlement history of the Northern Rocky Mountains. Many have long-standing relationships with local First Nations and have employed First Nation members as guides and wranglers over the years. One guide outfitter operation contacted for this work raises all its own horses in the territory, from genetic lines that go back to animals owned by Ogilvie “Skook” Davidson.

<sup>i</sup> This area of northern BC is essentially un-surveyed. There are clusters of small surveyed parcels around settlements, and some isolated lots along the Alaska Highway (Highway 97) and scattered across the landscape.



Davidson was a wrangler, guide outfitter and rancher who worked for the early land surveyor Frank Swannell, among others, and moved to the Kechika River valley at the end of 1939.<sup>13</sup>

Having dependable horses that are well-adapted to the work and the local environment is critical for guide outfitters. The number of horses required depends on the size of the business. The number of horses used currently in operations among the guide outfitters contacted in the Kaska Dena area ranged from 15-65. A couple of guide outfitters mentioned running fewer horses than they had in earlier periods, reflecting a decrease in the demand for hunts brought about by the economic downturn in 2008.

The guide outfitting field season begins in late May or June when operators return to ready main lodges, cabins and trails.<sup>i</sup> Clearing trails from winter deadfalls is a major activity during this period. As the first hunt approaches – the thin-horn sheep season opens on August 1 for most Wildlife Management Units in this area – horses are gathered, shod and camps are supplied with provisions for the season. By the end of October, camps are closed up for the winter. A large seasonal labour component is needed to wrangle and shoe horses, clear trails, supply camps and guide hunters.

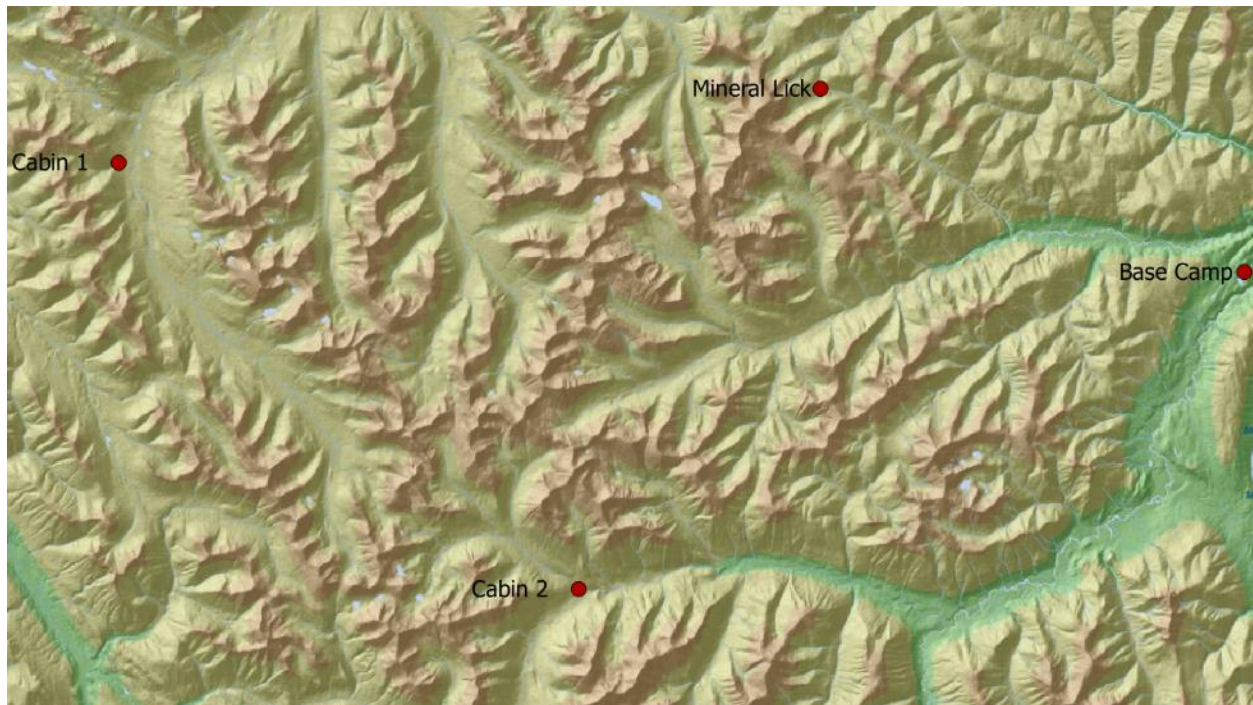
During the early part of field season horses will free roam on range close to the base camps (i.e., up to 6 km radius depending on circumstances). Operators frequently bring horses into base camp for grain. This kind of feeding strategy helps wranglers manage horses when they are out at camps away from base. Permanent satellite hunting camps are located throughout a territory to facilitate hunts for different species, and to provide reasonable access to water and forage for horses. Many guide outfitters use small aircraft to move hunters from base into the hunting camps. Camps may have a cabin and other minor improvements, including a short landing strip cleared of rocks and vegetation. Tent or “spike camps” are also used strategically to increase the prospect of a hunt’s success; these camps also need to be located near water and forage. A number of horses are usually hobbled or picketed at camps. These horses can hopefully be easily caught and then used to wrangle the main herd. Horses are essentially free roaming, but are tended on the hunts which last 10-14 days; they might graze in up to a 3 km (or more) radius around the camps.

Spike camps allow for some contingency to plan around factors like bad weather, predators and unexpected conditions like a summer wildfire, all of which may change the location of game. Several guide outfitters mentioned the positive effects of wildfire and prescribed burning, and wildlife management efforts (reduced from former levels), for their operations. They emphasized the importance of maintaining the size of guiding territories so that they can successfully manage around these dynamic factors. Established camps may not be used every single season depending on the conditions.

A portion of a guiding territory, and associated range tenure area located in the Kaska Dena focus area are shown in the terrain map in Figure 3 to help illustrate how these tenures function. The area shown in the map has no roads and covers around 130, 000 ha of the total tenure area which is 413, 270 ha. The base camp is located at an elevation of 928 meters on a private land parcel of 7.5 ha. There are a

<sup>i</sup> This is a general seasonal pattern for guide outfitters in the North. The guide outfitting field season and horse use in the back country might range from spring to fall depending on the location in the province, species hunted, and other activities provided by the business.

total of 6 main camps in the guide territory, and a couple of the associated cabins are shown in the figure.



*Figure 3 Terrain map showing a partial guide outfitter territory and range tenure in the Kaska Dena area*

Cabin 1 is located upslope from a valley bottom at around 1323 meters elevation and about 61 km from the base camp. Cabin 2 is at an elevation of 1180 meters and is about 35 km from base camp. Both have rough dirt landing strips nearby, and there is another landing strip part way between the base and Cabin 2. Horse trails follow the rivers' edges in the valley bottoms leading to the cabins, and river crossings are required at various points along the way. Crossings can be challenging, and camps like this can be difficult to supply when the rivers are high. A photograph of the valley, 4 km from Cabin 1 at an elevation of around 1320 meters is shown in Figure 4.





*Figure 4 View of open valley bottom in a guiding territory and range tenure in the Northern Rocky Mountains in the Kaska Dena focus area*

## 4 Crown Range Interests in Treaty

Clearly, there are geographic differences in Crown range use, some of which are highlighted in the previous section. There is also a profound difference in the way Crown range is used by ranching operations and guide outfitters. Yet, the type of tenure these two groups of users hold, the grazing licence, is the same. The respective uses provide different opportunities for the accommodation of the interests of these two groups in treaty negotiations. Hay cutting tenures are a specialized use of Crown range that also requires different consideration. The following discussion can be applied to Crown range interests broadly, but its main point of analysis are the grazing licences held by cattle ranching operations. The treatment of grazing licences held by guide outfitters, used mostly for horse grazing, is dealt with in separate sections.

### 4.1 First Nations Interests

Understanding First Nations' interests in land and range resources is the first step in identifying opportunities for dealing with Crown range in treaty. Essentially, First Nations' interests define the scope of options for accommodating the interests of affected third parties. A First Nation's larger interest in land is likely to be paramount, however, a discussion specific to the range resources on those lands, and the current use of those resources needs to take place. Negotiators should initiate

appropriately timed discussions on this topic with FLNR District Range and First Nations Relations staff as well. Gathering detailed and locally based knowledge about range interests at an early stage in the negotiations leading to AIP is recommended.

Interests in range are likely to be shaped by a First Nation's traditional uses, including livestock raising, history of ranch employment, proximity to ranching operations, and first-hand experience with Crown range administration. Interests will also be framed in relation to other alternative economic opportunities and the compliment of natural resources in an area.

Four specific areas of interest in range resources were identified by the First Nations representatives who were engaged for this work. Each of these could potentially influence and shape the outcome of negotiations and are discussed in the following sections:

1. *Range Opportunities* – how to facilitate access to range resources to support First Nations economic enterprises (livestock production, guide outfitting)
2. *Role in Economic Development* – the role range resources could play in economic development plans (revenues, community economic activity)
3. *Ecological Impacts of Livestock Grazing* – the importance of fish, wildlife and traditional uses, and addressing First Nation's concerns around impacts related to range use by livestock
4. *Compatibility with Future Land Use* – considerations related to the compatibility with planned land uses on TL (e.g., both cultural sites, recreation developments or other development)

#### 4.1.1 Range Opportunities

A First Nation's interest in a range opportunity for an economic enterprise such as ranch, or guide outfitter operation, may be addressed in a treaty-related measure (TRM) or Incremental Treaty Agreement (ITA). Interests in range might also be met through the land selection process and the transfer of TL with the implementation of a treaty, or with settlement cash that might be used to buy private lands (a ranch) – which would directly facilitate the access to Crown range. Currently, there are a number of practical constraints that work against each of these options. Nevertheless, an examination of these alternatives within the current policy environment could lead to new approaches that allow for greater accommodation of all interests.<sup>i</sup>

##### 4.1.1.1 Crown Range Vacancies

A Crown range vacancy occurs when an agreement holder surrenders a grazing licence or permit. This can happen for several reasons. Frequently it occurs when a ranch (private land) with range tenure is sold, and the new owner is not interested in ranching or maintaining the tenure.<sup>ii</sup> The surrendered

<sup>i</sup> The discussion here refers to range opportunities for a First Nation as a collective entity (likely as a First Nations corporation), and not individual members of a First Nation. A First Nation would manage range opportunities for individual members within this framework. Members of First Nations are also free to apply directly for Crown range.

<sup>ii</sup> This could happen with a guide outfitter tenure as well. In this case the guiding territory certificate, and the associated business could be sold. The new owner may decide to operate as a fly-in and walk-in only business without horses. The range tenure would be cancelled. This could potentially leave room for a separate horse-based transporter business to pick up part of the vacant range tenure in this area. The transporter must have a management plan that includes agreement from the holder of the guide outfitter territory to operate in the area.

tenure is then available for disposition. A vacancy can also occur when new a new forage opportunity is identified over a previously un-tenured area. When making an application proponents must commit private lands (owned or leased) for use with the Crown range to be awarded a grazing licence over the area.

Although there are historical reasons for the institutional connection between a ranch's private land and Crown range, i.e., the associated private land – a major motive is to ensure the proper management and use of Crown range. A private land base is necessary to form an economic livestock production unit using a traditional cow-calf production model that relies on Crown range forage for 4-6 months per year, and private land to produce spring, fall and winter forage. While there are examples of individual member and collective First Nation (Corporation) range tenures, provincial policy around First Nations tenure administration has not been clearly articulated, especially as it relates to the issue of associated private lands.<sup>i</sup> Work is currently underway in FLNR Range Branch to develop policy and this should help alleviate some of the misunderstanding that has occurred around the treatment of First Nations range tenures. However, the point is that Crown range cannot be authorized unless there is assurance the livestock can be supported during the period when they are not allowed on Crown range.

The location of a vacancy in relation to a base of operations is important for First Nations as it is for other ranching interests. Management inputs and costs go up considerably when the tenure area is too distant from the ranch base or headquarters.

There is another constraint related to the direct award of a vacancy to a First Nation, in that the *Range Act* Sec. 17.2, which specifies that the minister may enter into:

*(a) a grazing or hay cutting permit or licence with a first nation or its representative to implement or further an agreement between the first nation and the government respecting treaty-related measures, interim measures or economic measures...*

Clearly, an agreement must be in place before a vacancy can be direct awarded to a First Nation. This would require treaty negotiators to anticipate the value of a direct award, which would depend on the context of the larger negotiation. However, it should be made clear that *Range Act* Sec. 17, does not prevent a First Nation from applying for a vacancy. It is also important to acknowledge that a direct award in and of itself may not serve First Nations interests. Other resources, including a private land base for hay production and operations, would also need to be in place in order to efficiently use and manage the range tenure. Another option could be for the First Nation to acquire the range opportunity, with the intention of transferring the interest in the range through a lease agreement with another party (i.e., rancher). An arrangement of this type would need to be signaled in advance, and documentation of the lease agreement would be required. The proposal would also need to be viable from an operational point of view and supported by district range staff. Additional policy development work may be needed in this area. In any case, treaty negotiators need to understand the conditions that would need to be in place to facilitate a direct award to a First Nation in a given situation.

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<sup>i</sup> The objective is to provide direction on how to include land held in common as a substitute for associated private land in a policy.

Where a First Nation's interests in range are clearly established, a framework agreement could be negotiated and made ready to allow a direct award should a suitably located vacancy become available. The precondition for an agreement respecting a "treaty-related measure" for the direct award could serve to help bring associated private lands together and make them available for use with the Crown range. Thus the direct award of a Crown range vacancy may be a sufficiently flexible, but perhaps an underused tool to help advance reconciliation and treaty in important range areas.<sup>i</sup>

#### 4.1.1.2 Ranch Acquisition

Buying a ranch that is attached to a Crown range tenure, through its associated private lands, is a direct way for First Nations to get access to range. There are examples of First Nations owning ranches, like the Basque Ranch near Ashcroft and the small operation run by the NStQ affiliated Stswecem'c Xgat'tem Development Limited Partnership. Interestingly, ranchers and the BCCA have long supported the willing buyer and willing seller approach as an acceptable way to satisfy First Nations interests in range. To date, the federal government and the province have not yet been able to find a way to facilitate these transactions as an interim step in the treaty process. The major stumbling block is that neither government wants to be in a position of buying and then holding a ranch for the purposes of treaty, when there is the risk that a final agreement fails to be reached or is not reached within a reasonable timeframe.

In May 2014 the Government of Canada's announced the following change in its mandate respecting ITAs:

*The Government of Canada is introducing a more flexible national mandate for incremental treaty agreements with Aboriginal groups already in the treaty process. While a final treaty remains the ultimate goal, these incremental treaty agreements will be designed to deliver more immediate results for Aboriginal communities and build momentum toward concluding treaties.<sup>14</sup>*

It remains to be seen if this is a real shift in position, and if it represents an opening that Canada may be more willing to support a bi-lateral TRM or ITA that allows the purchase of land to advance a treaty negotiation. Still, a mechanism needs to be found to allow this to happen within the government's operational constraints, while, at the same time, meeting the needs of treaty negotiations.

Linking the range opportunity to the First Nation interest both in time and in space, within a treaty negotiation – which requires an agreement on the funding from both governments – is a substantial obstacle. Quite simply, ranches do not come up for sale with any predictability, and the ranch that does come up for sale may be too distant from the First Nation to be of interest (i.e., location in relation to reserve lands or other land interests). Certainly, one way to eliminate the problem of the government holding land, is to put the ownership of the ranch into First Nation hands at the outset. This may

<sup>i</sup> There may be elements of existing agreements that can provide some guidance. One such agreement is the Range Opportunity Agreement with Osoyoos Indian Band, dated March 22, 2011. Provisions specific to treaty-related objectives could potentially be added, i.e., language in the agreement to allow eventual conversion of part of the tenure area to TL. Such an agreement would provide land for TL unencumbered from range tenure, provided the original vacancy was for exclusive use.

introduce its own risks, but it may also have the effect of significantly advancing treaty if the agreement is appropriately structured. It may be possible to minimize the risk by entering into a long-term lease-purchase type arrangement with the First Nation, with a condition registered on title that allows reversion of ownership, if for some reason a final treaty agreement is not reached.

Issues around timing could be buffered somewhat by the establishment of a fund to support the acquisition of ranches through TRMs or ITAs. The acquisition fund would be set up exclusively for the purpose of private land purchases by First Nations to advance treaty negotiations. The purpose of the fund could be limited or more broadly defined; it might be set up to serve all treaty tables where range interests are involved, and potentially provide capital for buying guide outfitter businesses as well. An established fund for this purpose would help eliminate the delay in acting on a ranch sale opportunity by effectively having a federal-provincial agreement around financing in advance.

A framework, or letter of understanding, for a TRM or ITA would have to be negotiated with the First Nation as well. Where range interests are clearly established, it should be possible, using local knowledge, to develop a list of ranches that could potentially satisfy those interests. If, during the process of treaty negotiations, one of the ranches were to come up for sale, an offer could then be made by the First Nation within the parameters of the framework that was previously negotiated, much like the vacancy agreement mentioned in the previous section. The challenge will be linking the land acquisition to a meaningful and binding step forward in the treaty process through the terms of a TRM or ITA. There needs to be reasonable assurance that the acquisition would advance the treaty negotiations and eventually lead to a final agreement. The opportunity to find agreement on these terms is likely to be in the latter stages of negotiation toward an AIP, or just after the approval of an AIP.

For this tool to work, some flexibility is needed in the land selection process to acknowledge the possibility of an unencumbered range tenure area coming into the negotiation via a ranch acquisition.<sup>i</sup> It would be preferable for owners of this small sub-set of ranches – those in close proximity to known First Nation's interests – to have an opportunity to negotiate ahead of any formal identification of a TL selection(s) that impact their range tenure. Evidence of future TL on a range tenure could affect the value of the ranch, and therefore the position of the ranch owner in such a negotiation. In this situation, a transaction would not be considered at arms-length (i.e., buyer and the seller in an equal bargaining position).

There may be opportunities to satisfy the interests of both First Nations and third-parties through this type of ranch acquisition process. More active approaches to find willing buyer and willing seller opportunities, like first right of refusal agreements, and lease-back conditions that allow ranchers to continue their operations after a sale, are additional arrangements that may help accommodate the interests of First Nations and ranchers. Though there are costs, and a certain amount of risk associated with these approaches, they in the end have to be weighed against other alternatives for dealing with the interests of First Nations and third parties.

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<sup>i</sup> The question of whether the range tenure area would eventually become TL, either in whole or in a part, would depend on other resource values, and the context of the larger negotiation. It likely would continue to operate as Crown range tenure until implementation of a final agreement.



Some related work has been done in this area. At least two reports were prepared on the subject of prospective First Nation ranching operations as part of treaty interim measures work for the NStQ. The first examined a multi-faceted ranch enterprise model based on the purchase of a large ranch in the Dog Creek area,<sup>15</sup> and the second looked at the economics of an existing production model on a ranch near Williams Lake.<sup>16</sup> The full extent of ranch ownership potential for First Nations in the area was not examined in these reports, however, both of the ranches used in the analyses were of specific interest to First Nations. This work is definitely informative but further analysis may be needed to support First Nations decision making.

#### 4.1.2 Role in Economic Development

No doubt, both range and ranch opportunities are being weighed by First Nations within the context of economic development. The reports mentioned above highlight the challenging economic circumstances the ranching industry faces. After a decade of poor returns, caused initially by the BSE (*Bovine Spongiform Encephalopathy*) crisis in 2003, and then rising production costs, a reduced North American cattle inventory and steady consumer demand has led to a major price resurgence in the beef market. Still, even with the improved prices, a typical ranch using a traditional production model does not generate a high rate of return. A recent update of ranch enterprise budgets for typical operations in different regions of BC showed that while the contribution margins of beef cow enterprises has increased, net farm incomes (revenue less direct costs, indirect costs and depreciation) are insufficient to support a single family. Only the largest example ranch (400 head) based near Kamloops, produced a reasonable level of income (\$65,434).<sup>17</sup>

##### 4.1.2.1 Production Models

There may be greater economic development potential for ranches that employ a multi-enterprise or vertically integrated approach that capitalizes on the recent consumer interest in branded beef (i.e., “natural” or “grass-fed”). One company employing this model has been responsible for the consolidation of some significant ranch properties in the Cariboo region. Another, Black Creek Ranch, a First Nation enterprise based in Kamloops is also successfully applying a branded beef model involving First Nation beef producers.<sup>18</sup> The First Nation in the KKTC focus area expressed some interest in this type of approach.

There are also potential benefits that could be realized with the integrated management of ranching and forestry operations under a holistic management model. Progressive management and alternative production models can offer an upside to ranch ownership, but also demand a high capacity on the human resources side. This was one constraint for First Nations ranch ownership identified in the ranch opportunities reports mentioned in the previous section.

A current labor shortage is also negatively affecting both ranches and guide outfitting operations. The wage rates in these sectors can’t compete with much higher paying jobs available in the resource development sector, and some businesses have had to use the Temporary Foreign Worker Program to fill their labor needs. Workers employed in ranching and guide outfitting value the land-based lifestyle it offers, which may point to an opportunity for First Nations to reconnect with their own traditional values and activities as well. Not to discount the importance of economic conditions in planning, but the less tangible socio-cultural values that are associated with ranch ownership are likely to continue over multi-generational timeframes and may fit well with First Nations’ longer-term perspectives around land management.

#### 4.1.2.2 *Ranch Ownership and Production*

A key element in the economics of ranch ownership, and the profitable use of rangeland by First Nations, is the access to private land it would enable. A ranch's private lands generally have higher agriculture capability than extensive rangelands, and are an important source of forage production under both traditional and integrated ranch management models. The pattern of settlement and allocation of Indian Reserves in BC meant that First Nations ended up with small amounts of land with limited agricultural potential. In many cases, colonizing settlers received Crown grants in land before the reserves were allocated, leaving only the more marginal lands for the First Nations.<sup>19</sup> With the limited agriculture capability on reserve lands, and with only a limited potential to acquire lands with higher capability through the transfer of Crown land to TL, private land purchase or lease is the only way to get access to more productive agricultural land.

Moreover, there is an economic advantage in having ownership of a complete ranch unit that has evolved over decades of operation. A long-established ranch will have a complimentary balance of productive private lands suitable for more intensive management, and upland or forested summer range. While there generally has been reduced investment in ranch infrastructure and maintenance over the last decade because of poor profit margins, there is considerable value in existing buildings, fences, corrals and water developments that are adapted to the local ecology and the needs of a specific operation.

#### 4.1.2.3 *Resource Rents from TL*

As well as direct involvement in ranching, and or guide outfitting, a First Nation may consider renting, leasing or offering longer-term grazing tenures on its lands (TL). Most of the First Nation representatives contacted for this project were open to consider the possibility of having livestock grazing on TL in principle, with exceptions and conditions. Defining the operational details, or the potential terms, of prospective use of TL for grazing was not intended within the scope of this work and is clearly the job of negotiators. However, a higher-level conversation was pursued on this topic in all the focus areas – more so perhaps with the Nazko and NStQ. Some members of the NStQ acknowledged the social and economic importance of grazing in their area, and will specifically address range resources in their treaty agreement. Some general principles, like the potential for range tenures on TL, have been discussed at the NStQ negotiating table, but the details have not yet been considered.

A part of the discussion that is also beyond the scope of the work for this report, were First Nation's ideas around revenue from grazing fees – although the basis for measuring grazing use – either by the AUM, or by the acre – was discussed in some detail in one instance. In another, it was clearly stated that the First Nation would be administering and collecting any fees from grazing on their lands. It will be important that knowledge of range use and livestock production, and the economics of these systems, is introduced at the appropriate time to support negotiations and help inform the positions of each party. In the current provincial mandates, and in treaties negotiated thus far, First Nations own and have the right to manage timber and range resources on TL. To receive the maximum sustainable economic benefit from range resources through use agreements on TL, First Nations will need to assess the expected demand for replacement grazing on the TL with the existing use and management circumstances of the adjoining Crown range.

The revenue potential from grazing fees is not great, and there are costs to administer and regulate grazing to ensure the sustainability of the resource. Moreover, these costs will likely be greater if the

First Nation's land base consists of unconnected parcels scattered across its territory. It can be argued that the resource rent being charged for Crown grazing is too low, and that the grazing fee structure needs to be modified, which does leave some room for increased rents. On the other hand, there is a cost associated with using extensive rangelands; and it's difficult to say if the economics of livestock production would sustain substantially higher grazing fees, in a radically different system of administration. The willingness of ranchers to pay higher fees will be determined by a number of factors including the risk and uncertainty in the new tenure arrangements, the costs of alternative forage, and the degree to which the TL affects operations on the adjoining Crown range.

In some areas, existing tenure holder's access to the surrounding Crown range and other lands will limit the demand for grazing on the adjoining TL. As an example, poor access to isolated sections was cited as one reason for the lack of competitive bidding for leases on state lands in Montana. The fees paid on these lands remained at the minimum rate per AUM established by the state, and below the level paid on other leases that were competitively bid.<sup>20</sup> In a related grazing survey, ranchers were asked a question on their willingness to bid against neighbours for state land leases. Over 55% of ranchers responded that they would not place a competing bid at the time of lease renewal against a neighbour who currently held the lease.<sup>21</sup>

There may be alternative models of resource management and range use that help achieve both economic efficiency and ecological sustainability goals, and that also fit with First Nation's perspectives on management. Some of these alternatives could be described as co-management or cooperative management models, and they might include mechanisms that promote self-regulation and reduce administration costs.<sup>i</sup> Rules around access to the resource and management responsibilities, for example, could be contingent on user performance. This is not totally dissimilar from the user requirements on Crown range. There are however, a number of identified structural conditions that need to be in place to improve the prospect of success for these systems, e.g., clearly identified boundaries is but one. Yet, these models are largely unexplored in the context of range management in BC. Support of various kinds would be needed for their further development. Economic efficiency may require that they have at least some integration with the existing Crown range administration. This too will depend on First Nations' interests, the local conditions, the spatial arrangement and extent of the TL. (See Land Selection 4.3.1)

#### 4.1.3 Ecological Impacts of Livestock Grazing

First Nations may have views on the ecological impacts of grazing and this could influence the direction of negotiations around range resources. This was documented in the Nazko and NStQ areas. In both, concerns were raised about the negative impacts of cattle grazing in riparian areas, and on traditional plant gathering activities (e.g., berry picking). The inability to hunt freely near local communities, where they adjoin open range areas, was also mentioned. In the Nazko area, range barriers (i.e., debris fences) were proposed as a requirement for allowing grazing on critical riparian habitat (primarily for fish). The objectives of a higher-level land management plan for the First Nation, which includes the maintenance

<sup>i</sup> The broader provincial perspective of co-management in relation to First Nations and reconciliation pertains specifically to shared decision making on Crown land. More generally, co-management can take many forms depending on the management problem and the interests involved; as discussed in this section and in other areas of this report, its application is not necessarily restricted to Crown land, and may include resource users as part of the co-management model (see Sec. 4.6).



of a healthy elk herd, will be a factor in determining how range resources on TL lands might be used in the Nazko.

The ecological impacts of livestock grazing are a critical interest of First Nations, and it is difficult to predict how in each case this interest might shape the future use and management of range resources on TL. The outcome could certainly affect how third-party interests may be accommodated in these areas.

Management systems and practices can go some way to address some concerns around ecological impacts, but the question of whether they can be successfully implemented, within economic and social (capacity) constraints, has to be considered as well. The characteristics of the range resource and how it is used mean that concepts formed around higher-level management principles must also have a practical operational basis and foundation with resource users to find implementation on the ground.

#### *4.1.3.1 Nazko Debris Fence Example*

A debris fence installation project at a site along the Nazko River provides a good example to illustrate a number of considerations involved in reducing the ecological impacts of grazing in riparian areas (Figure 5). The heavily grazed meadow site was identified for fencing to protect and allow rehabilitation of the riparian corridor at km 10 on the Honolulu Road. Previous attempts to control grazing, including the use of drift fences had been ineffective. Approximately 1 km of debris fence was constructed in the fall of 2007, to an average height of 1.5 meters and a nominal thickness of 3 meters.

The project required development of a site plan, an archeological assessment, a cut-block layout – to provide timber for the project – compliance monitoring and reporting by a qualified professional, and administration. The results of the archeological assessment required adjustments to the site plan to avoid identified archaeological sites. The total cost for the project, which also included in-kind support from the Ministry of Forests and Range staff, was \$20,479.97. A summary of the project costs is shown in Table 3.

While this practice is proven to be effective, it represents a substantial investment. Costs might be reduced if the construction is coordinated with on-going timber harvest activities, but any broad-scale application will require significant funding. Debris fence of this type is appropriately applied on a site-specific basis, as it was in this example, and coordinated with other measures. Another disadvantage of this specific practice, is that the life of a debris fence is limited; the effective life of the barrier depends on how quickly the wood settles into the ground and decomposes. New material can be added over time to maintain the height of the structure, but this would require heavy equipment to be transported to the site. It is possible that maintenance of the debris-fence could be relaxed after the riparian area is fully rehabilitated, if other measures like additional fencing and planned grazing are applied successfully. If measures cannot be practically implemented to address ecological impacts, then range use by livestock may be determined to be an incompatible land use.



Figure 5 Debris-fence project along the Nazko River August 28, 2014, seven years after installation

Table 3 Cost summary for debris-fence project along the Nechako River (2007)

Activity	Cost
Archeological Assessment	\$2,500
Construction	\$12,338
Environmental Monitoring	\$ 4,667
Administration	\$ 975
<b>Total</b>	<b>\$20,480</b>

Source: BCCA Program Delivery Inc.

#### 4.1.4 Compatibility with Future Land Use

The compatibility of livestock grazing with planned land uses on the TL, and the timing of those uses, will be major factors in determining the acceptability of range use by livestock. If there is demand for grazing on TL from a First Nation's members, those interests will likely be served first. The continuation, or replacement of a third-party tenure might be considered on a given parcel of TL if it fits a First Nation's land use objectives.

A similar compatibility analysis occurs for public access on land that becomes TL. The intent in the provincial mandate on access (*Access Reference Chapter*) is to have First Nations provide reasonable public access on land where it previously existed (these are referred to as *First Nations Public Lands*). Within the mandate language there is a provision for the designation of *First Nations Private Lands* on which public access can be restricted because of an incompatible land use, e.g., commercial, cultural, resource development. However, the *Access Reference Chapter* also provides that residents and other interest holders on TL will have access to their property and interests subject to the terms and conditions of those interests. In addition, a First Nation will allow "reasonable" access across its TL for identified interests (tenures) on adjacent lands, consistent with the terms and conditions of those interests.

A compatibility analysis for range use may be considered along with public access, but should be tracked separately. If possible this information would be developed in the land selection process, and carried through to the Final Agreement. There may be situations where public access might be restricted, but access for an individual range user may be acceptable to the First Nation and vice versa. The range use compatibility information can then inform the negotiations, and may be used to assess third-party impacts. Third-party impacts will be different if range is determined to be an incompatible use on a particular parcel, and will vary depending on the size of the land selection and other circumstances. Obviously, all the future land uses won't be known early in the negotiation process. However, consideration of both short and longer-term time horizons and higher-level land use objectives would be helpful for planning future range use. Figure 6 illustrates how grazing may begin as a negotiated and compatible use, and then sunset based on a planned change in land use.

The question of compatibility of range use with other land uses was discussed specifically with the Kaska Dena and KKTC. First Nations representatives from the Kaska Dena made clear their interest in special cultural management areas where public access would be restricted. Future range use may also be restricted in these areas. Since, in this case, the range use is related to guide outfitting operations, it may be possible to amend range tenure boundaries to avoid small areas with little or no impact to the particular guide outfitting business. However, there could be situations where the potential range use (grazing on TL) associated with trail access to interests on land adjacent to TL requires detailed consideration. It would be advisable to identify these linkages between access and range use in the Forests (and/or Range) Chapter(s) (see Sec. 4.3.6).

Comments received from the KKTC representative were framed around the present TL selection as the parties move toward a signed AIP. Recreational use is one of the main drivers for land development in the East Kootenay, which provides an economic development opportunity for the Ktunaxa Nation. This is especially true around the Koocanusa Reservoir; the Ktunaxa Nation is involved in recreation property developments in this area. A number of properties in the current land selection have recreational development potential, and these parcels are strategically located but relatively contained in terms of

area. These circumstances will likely result in future land use that is incompatible with grazing. Since the future land uses are more predictable, the effects on future range use, and the related impacts are also more predictable, in this case. However, an agreement on fencing to restrict livestock access will be needed where these lands adjoin Crown range. The issue of fencing is dealt with in more detail under land selection (See 4.3.1.3).

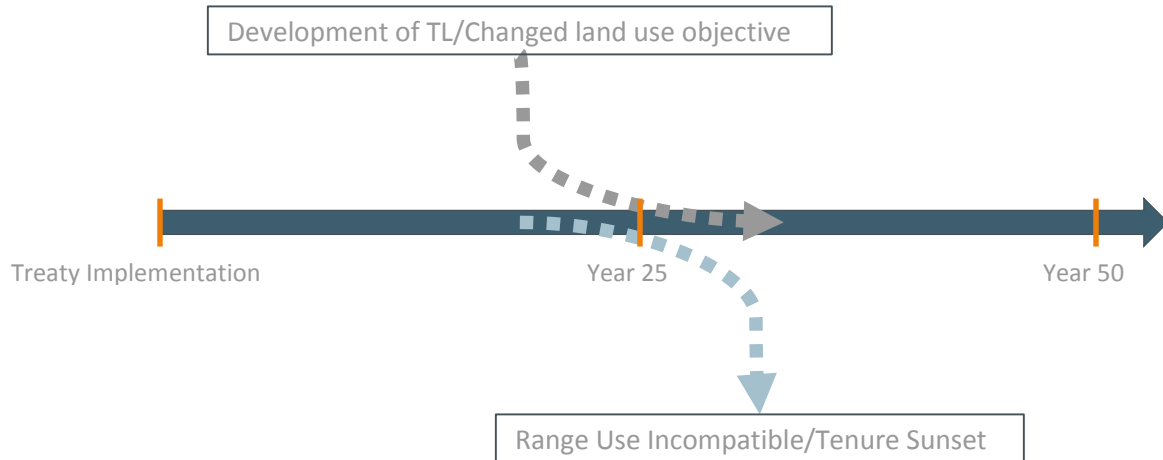


Figure 6 Timeline representation of changing land use on treaty lands and effect on range use

## 4.2 Avoidance of Impacts to Third-Parties

As the area of land offered in treaties increases, there will be less opportunity to avoid impacts to third-party interests in Crown range entirely. This will be especially true in areas where the level of Crown range use is high like the NStQ. There is likely to be more opportunity to fully accommodate the interests of guide outfitters than ranchers, in part because their range use is less intensive. For ranching operations, there will be some level of impact. Even if a suitable replacement tenure area can be found on Crown land, there could still be an impact to ranch operations (e.g., increased travel distance to tenure). Questions remain as to how substantial the impacts of a treaty agreement will be, and how these might be mitigated, or, in extreme cases, how an impacted tenure holder will be compensated. It is possible that with a well-informed land selection process, a single and specific impact to a range tenure holder might be avoided. For example, shifting the boundary of a TL selection to avoid a critical livestock watering location. However, there could be other impacts depending on the size and location of the land selection in the tenure area, and a host of other circumstances. For this reason, all of the

options for addressing the interests of existing range tenure holders in treaty are dealt with here as forms of mitigation.<sup>i</sup>

### 4.3 Mitigation of Impacts on Third-Party Interests

The need for mitigation presumes there will be some impact on the interests of an existing range tenure holder affected by treaty. The purpose of mitigation is to lessen or reduce these impacts. In some cases it may be possible to nearly eliminate impacts with a mitigating measure, i.e., with the direct award of another Crown range tenure; in others, impacts will remain but may be reduced.<sup>ii</sup> The effectiveness of the mitigation, or whether mitigation is possible at all, will depend to a great degree on the size and location of the TL in a treaty agreement, and the interests of the First Nation managing those lands. It will also depend on ecological and physical factors, economics, including the availability of resources for implementing mitigation, and the characteristics of the existing range use.

The mitigation of impacts to third-party interests can be addressed within the negotiations process (i.e., as in land selection), and also as a program response to follow in the implementation stage of a treaty. There are three stages in the BC Treaty Negotiation Process during which impacts to third-party interests in range may potentially be mitigated (Figure 7). The first, and most critical, is during stage 4, the AIP stage, where interests in TL and resources are discussed; and a framework for the management of potentially affected third-party interests might be negotiated.

The second is during stage 5, the final agreement stage, during which technical and legal issues are resolved. Considerable room may still be left at this stage to shape some of the operational principles around the use of range resources, depending on the First Nation's interests, and the structure of the AIP. For example, at the NStQ table there has been substantial discussion around the future management of range on TL, but establishing the details will be left to the final agreement stage. Finally, mitigation measures, like ecosystem restoration, water development, forage enhancement and fencing aimed directly at Crown land would follow during the implementation stage (Stage 6). This type of mitigation would not be part of the treaty agreement, but would be implemented as part of a government program to mitigate the effects of such an agreement. Partial funding for this type of program would appear to be justified under the federal-provincial cost sharing arrangements for treaty implementation. Under the 1993 Memorandum of Understanding (MOU) between Canada and the province of British Columbia, the federal government will pay such costs at the rate of \$3 million (1993 dollars) <sup>iii</sup> at the conclusion of each treaty, until all the treaties have been concluded or until the total of all payments reaches \$40 million, whichever comes first.<sup>22</sup> Additional funding by the province would likely be required, depending on the impacts related to a specific treaty.

<sup>i</sup> Under the *Range Act* (Sec. 42) compensation may take the form of another grazing licence or permit. For the purposes of this work all forms of replacement tenure, including a potential tenure on TL, are considered as mitigation. Here compensation refers specifically to payment in cash.

<sup>ii</sup> The *Range Act* (Sec. 42) allows the replacement licence or permit to be awarded without giving public notice or inviting other applications; Sec. 17.2 allows the direct award of a grazing or hay cutting permit for the purposes of mitigating the effect of a treaty.

<sup>iii</sup> The value in March 2015 is \$4,410,316.53, estimated using the Bank of Canada inflation calculator: <http://www.bankofcanada.ca/rates/related/inflation-calculator/>

Practically speaking, the full impacts to third-party interests may not be determined until there is a complete view of the direction being taken in the final agreement. There could be variable impacts if, for example, replacement tenures are accepted on TL by a First Nation in a specific area but not in another. On the other hand, there may be clear direction from the First Nations involved in treaty negotiations that all lands are to be delivered unencumbered by range licences, and without any provision for replacement tenures included in the treaty agreement. This outcome is perhaps the most clear in terms of assessing potential impacts; establishing whether they can be mitigated; and determining if compensation will be required.

The assessment of potential impacts is important and the process would best be served by establishing some clear guidelines that also allows input from tenure holders. The effect of impacts will vary among operations and individual tenure holders, and this should shape what measures are employed to mitigate those impacts. It was clear from the rancher input for this project that there are commonly held concerns around how range interests might be accommodated in the treaty process, but views on how treaty-related impacts to an individual interest might be addressed were more varied. These views may also change during the treaty negotiation process as the land selection is confirmed and specific mitigation options are clarified.

Potential impacts and key concerns of ranchers include:

- Reduced tenure security both in the term, and future replacement
- Loss of access to forage (AUMs of grazing or tonnes of hay), and resources needed to use forage, e.g., water
- Loss of improvements including fences, corrals, water developments
- Increased cost of forage (higher grazing fees)
- Increased planning uncertainty and business risk related to livestock operations
- Increased management costs related to changes in tenure and tenure administration
- Loss in ranch value (private land equity), because of treaty-related impacts to a Crown range tenure

Discussion around options for mitigating these impacts has taken place at various levels for more than a decade. However, it has been challenging to fully assess those options without the more serious consideration of First Nations' interests. More active treaty negotiations in the Interior of the province have also produced potential TL selections that help bring at least some practical basis to the analysis of mitigation options. The following sections examine the full series of mitigation options with references to on-going negotiations, and economic, social and ecological factors in the focus areas.

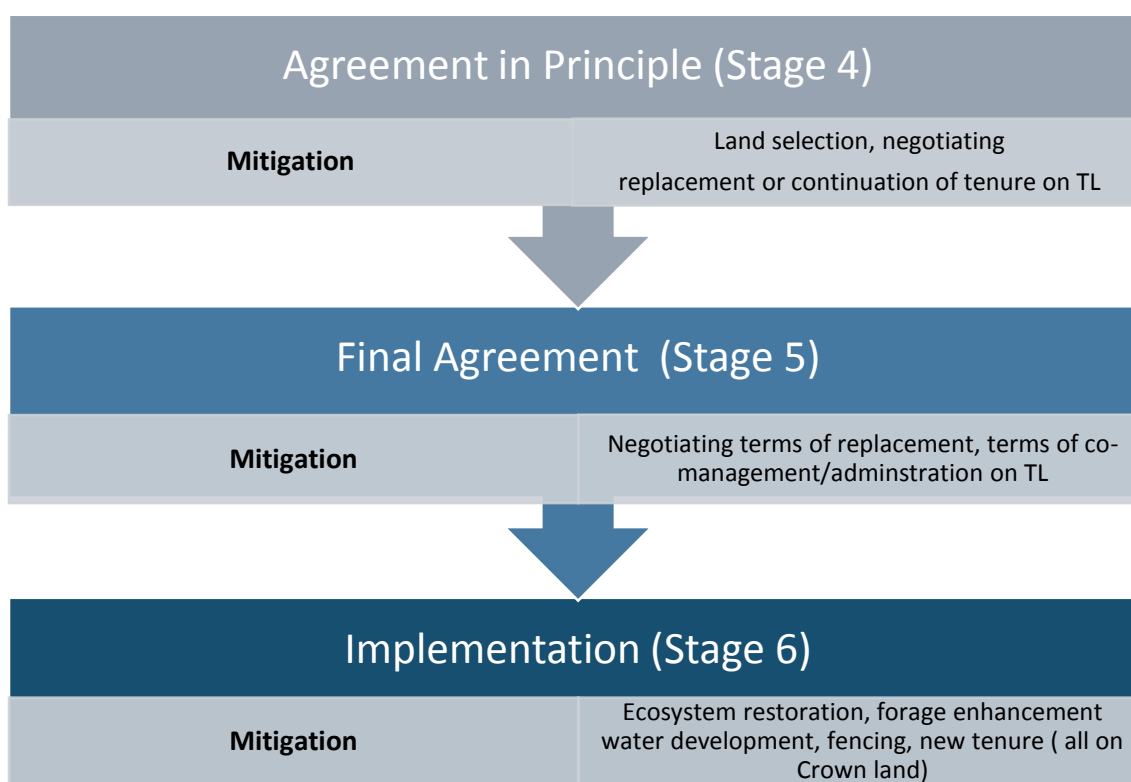


Figure 7 Application and timing of different mitigation measures in the BC Treaty Process

#### 4.3.1 Land Selection

All range tenures have an operational functionality and productive capacity. These characteristics determine the optimal levels for management and labor inputs, and thus have an effect on the overall profitability of a ranch business. Various physical and ecological factors interact together to create tenure functionality and productive capacity, including:

- Distance from ranch headquarters or base of operations
- Location and condition of improvements (fences, corrals, water developments)
- Livestock trails and accessibility to water and forage
- Natural barriers and topography (including slope, elevation)
- Natural water sources
- Forestry operations and natural disturbances (timber harvest, roads, fire, and insects, e.g., MPB)
- Plant communities, and their value for forage (quantity and quality)

The interactive nature of these characteristics means that relatively small-scale changes to any one factor can have an impact on tenure functionality and productive capacity. Similarly, the removal of an area from a grazing tenure to provide unencumbered TL could negatively impact any number of the



tenure conditions, depending on the size and location of the deletion. Using this base assumption – that TL will need to be unencumbered – two example land selections, one from the NStQ and one from the KKTC areas, will be used to illustrate some of the different impacts.

#### 4.3.1.1 NStQ Land Selection Example

The land selection shown in Figure 8 is from the NStQ and covers approximately 5039 ha (12,446 acres). It is more or less centered in a valley represented by the lakes in the figure. The general topography is characteristic of the Fraser Plateau, with rolling uplands occasionally divided by narrow valleys and with more deeply cut channels and narrower benches of land close to the Fraser River. Timbered uplands occupy the north-sloping land in the south, and open-timber and grasslands dominate the south-facing slopes to the north. The identified land selection is one of four relatively large parcels of potential TL affecting the tenure agreement holder (Tenure A). This particular selection also impacts a second tenure holder (Tenure B), with the most southern fence running east and west in the figure being the boundary between the two tenures. The cross fence running from the cattle guard to the tenure boundary fence to the south separates fall pasture on the west from a summer pasture on the east. The north fence separates the fall pasture from higher elevation summer range.

Under the base assumption, the impacts related to this single land selection are substantial.<sup>23</sup> They include:

- Loss of AUMs – estimated at around 1700 AUMs on the TL, and greater without access to remaining areas
- Loss of access – the valley is the main natural travel route from summer pasture to fall pasture
- Loss of watering sites – important watering sites on the land selection serve areas of the fall pasture remaining outside the selection
- Loss of improvements – for example, loss of gathering pasture making corral located on the TL boundary obsolete
- Loss of management flexibility – significant reduction of suitable fall grazing will likely mean a greater dependency on other areas that may be less suitable, which will likely require an additional reduction in AUMs on the remaining tenure



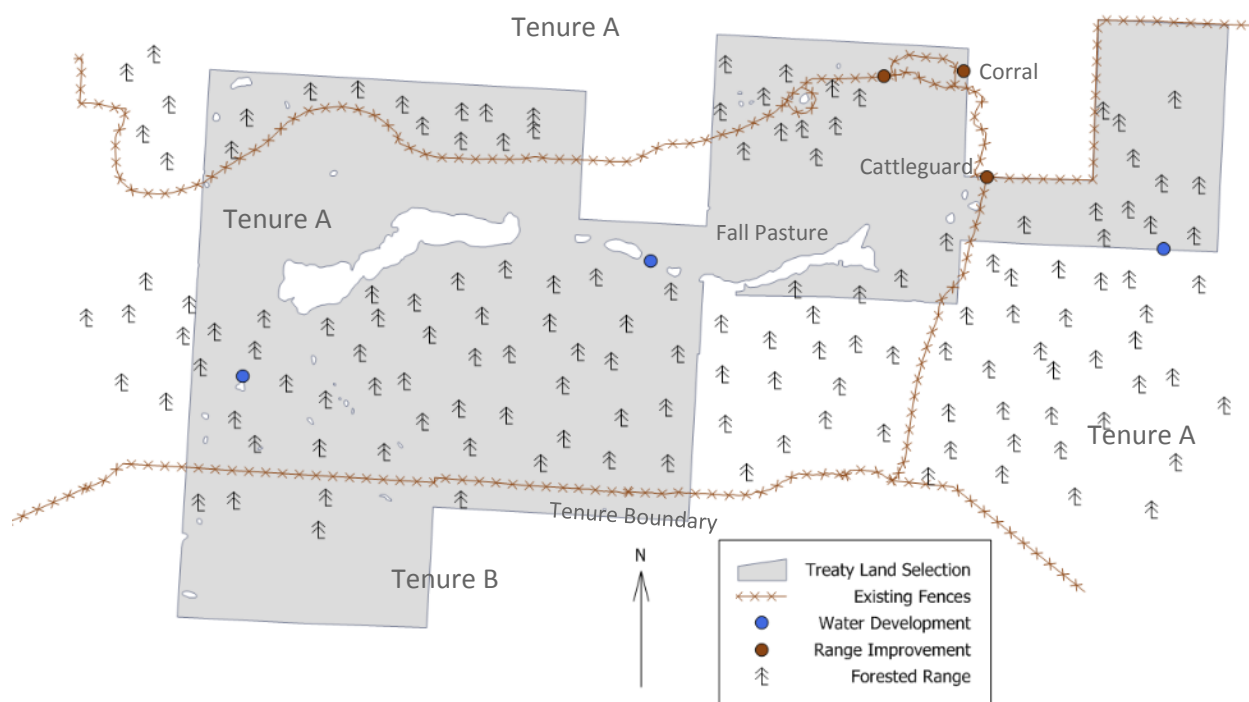


Figure 8 Land selection example from range tenure in the NStQ focus area

It is difficult to suggest how the land selection in this case might have been adjusted to minimize the related impacts to the range tenure. The valley has high value for both grazing and access, and these landscape characteristics likely hold similar value for First Nations in the area. A reduction in the scale of the selection in this particular location would have reduced the level of impacts, but the position over the valley would have to shift as well to maintain the access.

The existing land survey is likely to have had an influence on the shape of the land selections in this area. Rather than systematically surveying the difficult mountainous and valley terrain of BC in a township and range system, like the one employed on the prairies and elsewhere in North America, the early surveyors used a triangulation network and surveyed only areas that looked to have potential for settlement and agriculture.<sup>24</sup> There are exceptions to this pattern where the township and range system was used, for example, in the Peace and Nechako regions. The surveyed lands in the area of Figure 8 generally follow the valleys, and the flatter terrain, where agriculture potential was suspected. The example land selection consists of some 28 surveyed parcels, and its boundaries follow the existing surveyed lot lines, or lines that fit with the existing survey pattern. The selection connects with reserve lands at one end.

It may have been possible to maintain a contiguous valley corridor of intact Crown land for the range tenure within this matrix of lots, while designating the bordering upland on both sides as TL. This selection may have substantially reduced the impacts to the tenure, but may also have been

unacceptable to the First Nations. A more functional land selection, meeting the interests of both First Nations, and third parties, might have been identified if the lands had not been surveyed. In that case, it may have been possible to more closely follow landscape contours and features and divide the land based on its different functions.

However, within the context of the existing land survey it would have been possible to nearly eliminate impacts to Tenure B. The major projection of TL into Tenure B is an un-surveyed parcel of land with a northern border that aligns with the tenure boundary, which also happens to be an existing fence line. Had this land not been included, the total land selection would have been reduced by 574 ha to 4465 ha. A narrow strip of TL just east of the protruding section that falls into Tenure B would still be south of the boundary fence as shown Figure 8, but any loss of AUMs to Tenure B would be negligible on this area. Using the existing fence line as the TL boundary would have eliminated 6.5 km of future fence construction to either protect that section of TL from grazing by animals authorized on Tenure B, or to allow for the integration of that parcel with the other land in the TL selection in a different management scenario. The need for new fence to either restrict grazing on TL by animals authorized on Tenure A, or fully integrate grazing management on the entire area of TL is also an issue.

The relatively large-scale land selection in this area is based on its inherent value for forest and range and undeveloped recreation opportunities. There may be some rural subdivision potential, however, this type of development would carry a certain amount of risk, and there would be some associated environmental impacts. The general area is relatively isolated, with the nearest major population centre of Kamloops located 180 km to the southeast. There are some higher value Douglas-fir areas on northeast slopes, but by and large the higher elevation plateaus are much lower productivity pine forests.

These factors suggest that land selections in this area need to be of a substantial size to generate a reasonable level of economic activity for First Nations. Hence, a reduction in the land quantum would likely not enable the parties to successfully conclude a treaty agreement.

#### *4.3.1.2 KKTC Land Selection Example*

In contrast to the situation over much of the NStQ area, the geography and pattern of land use in the KKTC area presents greater opportunity for the adjustment of land selections to reduce impacts on range tenures. This was demonstrated when, after consultation with district range staff around impacts, negotiators were able to reduce the total percentage of range tenure area impacted from about 10% in early land selections to 3% in the land offer made for the AIP. There are several contributing factors that made this possible.

The KKTC is a large area, but it has less than one-fifth of the authorized AUMs compared to the NStQ (see Table 2). The number of tenures per 100,000 ha is 1.7 compared to 6.5 for the NStQ. The narrow valley and steep mountain topography of the Rocky Mountain trench, means most tenured areas used by ranchers are on the benches and lower ranges in the bottom of the trench. Guide outfitter tenures are located mainly in the adjoining higher elevation mountain ranges. The lower density of range use, and more fragmentation in the coverage of active tenures on the land base leaves areas of vacant Crown land between tenures. This allows for more strategic land selection, and increases the possibility that selected lands could be located at the edges of tenured areas, rather than being located within the central part of a tenured area.

Another geographical factor is the substantial area along the Kootenay River impacted by the construction of the Libby Dam and the creation of the Koocanusa Reservoir in 1973.<sup>25</sup> Although the dam is located in Montana, the reservoir extends 67 km into Canada. The reservoir resulted in the loss of fertile agricultural land, the displacement of farm and ranch families and a significant decline in the number of cattle on Crown range. Beef cow numbers in the East Kootenay region took another drop from 11,022 to 7,694 between 2005 and 2011,<sup>26</sup> brought about by the BSE crisis, poor prices and rising production costs. Despite this decline, ranching remains an important economic activity around the reservoir and the communities of Grasmere, Jaffray and Wardner.

The reservoir is now a major feature in the landscape creating a significant natural barrier to wildlife and livestock, and it is also a popular water recreation destination for visitors from Alberta, the U.S. and other areas of BC. As a result, recreation development is now a potentially significant economic land use on the foreshore of the reservoir.

An aerial image of the Koocanusa Reservoir area just west of the community of Grasmere is shown in Figure 9. Though likely not without some impacts to range tenure holders, strategic and focused TL selection has been made possible by the reservoir feature. Since it is a natural barrier to livestock, land selections on the waterfront are always at the edge of range tenures.<sup>i</sup> Moreover, because of the associated recreation values on the water frontage, relatively smaller land selections have been possible, while meeting objectives for future economic development. Currently there are some 11 parcels identified for the AIP in the immediate area of the reservoir, ranging from 40 to 292 ha in size. The selection in this area impacts 6 distinct tenure areas, and 9 different agreement holders.

One substantial impact of land selections along the reservoir is the potential loss of watering access for livestock. In places along the reservoir cattle travel from timbered uplands above, down as much as 200 feet to the foreshore of the reservoir which is mostly exposed sand and gravel. Using the local knowledge of range staff and tenure holders to identify important watering sites, adjustments were made to the land selection to partially avoid the loss of watering access. Nonetheless, there will still be a potential loss of AUMs, but with the scale of land selection proposed in this area the impacts should be manageable. The marginal loss of AUMs can likely be mitigated with range improvement measures, including ER, fencing and water development. It was noted in a visit to one of the affected tenure areas that the current condition of fences and other developments is poor, and this is affecting overall management and productivity on the range.

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<sup>i</sup> Although the Koocanusa reservoir is a significant natural barrier, there are substantial changes in the water levels on a seasonal basis. This will be a consideration where fencing is required to prevent livestock from entering TL from adjoining Crown range.



*Figure 9 Koocanusa Reservoir just north of the Canada and U.S. boundary and west of Grasmere in the KKTC area, with range pasture units delineated in yellow; the orange square near the middle of the image is for scale reference and represents 100 ha*

Another aspect of land selection that should be mentioned in relation to the KKTC example is the identification of a cultural landscape in the land package. In this case, the cultural landscape is located on the higher elevation portions of the Steeples mountain range (the area above 2000 meters elevation; Figure 10). The land will not be transferred to the Ktunaxa Nation, but will be identified for protection by provincial legislation on the effective date of the treaty. This is just one element of a complex land package that, while it may seem minor, allows a tangible connection to an important Ktunaxa cultural landscape. A minor amount of range tenure area is affected, but there are likely to be no direct impacts since there is little vegetation above the 2000-meter elevation. The inclusion of the cultural landscape may have allowed adjustments in other areas, and also illustrates the interrelated and dynamic aspects of land selection in treaty negotiations. This type of land consideration, or a similar one, may have application in other treaty negotiations.





Figure 10 View toward the Steeples Range in the KKTC area (Photo Credit: M. Osberg)

#### 4.3.1.3 Fences and Natural Barriers

The land selection examples described above serve to highlight some other important considerations in land selection. The influence of existing land survey and fencing was mentioned in the NStQ land selection example, and the benefit of the natural barrier formed by the Koocanusa Reservoir was discussed in the KKTC. The future management of rangeland, whether TL, aboriginal title land or Crown land, will be defined by legal boundaries. Regardless of the future use of TL, the administrative boundaries separating Crown and TL will need to be considered in treaty negotiations.

The main issue relates to the uncontrolled movement of livestock across administrative boundaries if there is no fence or natural barrier in place to restrict livestock. The specific language dealing with livestock in treaty must do so with a full view of existing legislation. If consequential amendments to legislation result from a treaty agreement, it is important that the prescribed circumstances and/or the area in the province where amendments are to have effect be identified. In other words, the effect of any legislative changes need to be considered for all areas of the province.

Three major pieces of legislation govern where livestock are allowed to roam in BC. The *Livestock Act* establishes livestock districts as areas where livestock may be at large, and pound districts where livestock are subject to capture. The act also allows the establishment of bull control areas and committees (Sec. 4 and 5). Livestock are not considered to be at large if they are:

- Tethered,
- In the direct or continuous charge of a person,
- Confined in a structure, or
- On enclosed land owned or occupied by the owner of the livestock

The *Range Act* authorizes livestock to graze Crown range, and these livestock are free to be at large in livestock districts, subject to any other provisions (e.g., bull control area). Unless otherwise agreed, the *Trespass Act* requires owners of adjoining land in rural areas to keep up and repair their fences, and any natural boundary between their respective lands. This provision is not binding on government, and does not apply on treaty lands (*Trespass Act* Sec. 3.3, 3.4). Therefore where private land adjoins Crown range, it becomes the responsibility of the private landowner to maintain a fence to prevent livestock from coming on to their land and grazing.

The *Trespass Act Regulation* is also relevant. It defines what constitutes a lawful fence and includes specifications for log, picket, woven wire and barbed wire fence. It also allows that, “any hedge of the height of at least 4 feet 6 inches, and any river bank or other natural boundary, if sufficient to keep cattle out of any land, and any unfordable lake, pond, river, or sea, shall be deemed to be a lawful fence, including any suitably constructed gates and cattle-guards” (Sec. 4).

Not surprisingly, several ranchers contacted for this work linked the establishment of TL to rural subdivision development. Many have experienced impacts created by rural subdivisions in range areas. The problem is related both to the existing laws related to livestock at large and fencing, and an apparent inability of Regional Districts to deal effectively with the issue in subdivision bylaws. The owners of rural subdivision properties don’t always fence or maintain the fence on their property. When cattle from an adjoining range area come on to the private land, a complaint is raised with the rancher. Any number of strategies is usually employed to try to keep cattle from entering the subdivision, usually at a cost to the rancher. Yet, in law, the owner of private land in an open range area (livestock district) is responsible for fencing their property.

The question arises as to who should build and maintain fences between Crown range and TL, when neither party has an obligation to fence. The *Trespass Act* provision waiving the requirement to fence TL is a consequential amendment triggered by the Maa-nulth Final Agreement.<sup>27</sup> The most likely scenario creating the situation in the near-term, will occur where grazing is not a desired use on a TL parcel that adjoins Crown range and the existing fence crosses the TL somewhere other than at its border. This is quite clearly illustrated in the NStQ land selection in Figure 8, where there is only 5 km of existing fence on the parcel boundary. The rest of the existing fence (some 22 km) is on the TL. It would take approximately 53.5 km of fence to completely fence the border of this land selection parcel to prevent unwanted livestock use. This type of situation is common among the land selections in the NStQ, and is one reason why existing fences and natural boundaries should be considered in land selection when possible.

One option may be for the province to construct fence as part of treaty implementation and mitigation – where it is required – transferring maintenance to the tenure holder of the adjoining Crown range. This is just one alternative for dealing with fences. The other option would involve an amendment to the *Trespass Act*, to remove Sec. 3.4, which would transfer responsibility for fence construction and maintenance to First Nations on TL boundaries with Crown range, if livestock at large are not wanted on those lands. There are likely other options, but in any case this issue will require thorough consultation with Ministry of Justice Attorney General, Legal Services Branch, Ministry of FLNR Range Branch, Ministry of Agriculture, First Nations, the BCCA, and/or affected tenure holders. The development of a treaty fencing policy should be discussed with reference to the *Livestock Act*, *Trespass Act* and *Range Act*, and how those statutes will apply on lands adjoining TL.



Ranchers who expressed concerns about fencing frequently mentioned future maintenance as an issue. There was some divergence in views around the subject with some willing to accept the obligation of maintenance, and others rejecting the idea that they should be responsible for a fence created for the purposes of treaty.

#### 4.3.1.4 Fence Construction and Removal Costs

A properly constructed fence will last 35 years in most areas of the Interior. A summary of current barbed wire fencing costs per km is shown in Table 4.

*Table 4 Summary of average fencing cost constructed on a contract basis (2014)*

Type	Cost/km
Highway fence	\$12,800
Fence on range	\$13,200
Fence removal	\$900-1200
Archeological (new fence)	\$2,500

Source: BCCA Program Delivery Inc.

The costs of highway fence construction are slightly lower than on range, because fence-line clearing is usually only required on one side. Construction of fences on range is slightly more costly because fence-line clearing is likely to be required on both sides (Figure 11). In addition, new fence-lines may require an archeological assessment because of the physical disturbance created by clearing the fence right-of-way. These fencing costs are an average, based on many km of construction using a competitive bid process, and do not include planning and assessment. The archeological cost would be variable depending on the site, and fencing costs on difficult terrain will be appreciably higher than these averages. If the land selection in Figure 8 were to require a boundary fence, the estimated cost, excluding any archeological assessment, would be estimated at \$706,200. Removal of existing fence might be needed along with the construction of the perimeter fences to make functional pastures.

Besides the potential cost involved, if land selection were better able to take advantage of existing fences, it would also increase the possibility that First Nations would also benefit from more manageable land units. Clearly this is an issue for consideration where there is a long history of grazing and investment in range infrastructure, like the NStQ and the KKTC areas. There are fewer fences and more open range in the Nazko area, mainly because there is less development and lower human density, but there the consideration of natural barriers and their effect on cattle movement is important. There is likely to be little issue with fences in land selection in the Kaska Dena area, and with a large portion of guide outfitter range tenure area generally. The exception for guide outfitter tenures would be in some situations near base camps, or home bases, where fences to manage horse grazing on Crown range are integrated with those on private land holdings or a licence of occupation (issued under the *Land Act*).



*Figure 11 Good condition range fence with wildlife visibility strip crosses a TL selection parcel in the NStQ area*

#### 4.3.1.5 Land Survey

In more remote areas of the province like the Kaska, and parts of Nazko, land selection for TL might be guided by the use of natural boundaries rather than existing survey. A suitable natural boundary might be a dividing height of land (i.e., watershed boundary) or a river. Often these types of boundaries better match landscape function. In addition to the benefits of this approach for future range use, there would also be benefits for the management of other resources including timber and wildlife. Future administrative and management costs would also be lower for land units created by natural boundaries, as would the potential survey costs for establishing the boundaries of the TL. A consequential amendment to the *Land Act*, now allows the Surveyor General to issue instructions to a British Columbia land surveyor for the purposes of a survey of treaty lands, consistent with the final agreement of the treaty first nation. Furthermore, the Land Act Sec. 69.2, provides that district lots may be polygonal in shape and oriented to conform to the topography.

It is possible that some issues for future range management created by the existing land survey, the location of existing fencing and TL selection could be solved with land exchanges, i.e., sub-division and land swaps between designated TL and the adjoining Crown land within the existing land survey. This would likely be most appropriate where small un-usable areas are created by the existing fencing or natural barriers and the TL boundaries.

### 4.3.2 Willing Buyer and Willing seller

Aspects of the willing buyer and willing seller option were discussed in relation to First Nations interests in ranch acquisition (Sec. 4.1.1.2). There are practical constraints that continue to limit this approach for accommodating the interests of both First Nations and ranchers in treaty negotiations. The development of an acquisition fund – that could also fund the purchase of guide outfitting businesses – is proposed as one mechanism to help deal with the timing issues associated with ranch purchases. An on-going assessment of opportunities and the proactive use of acquisition tools, like the first right of refusal agreement, and owner lease-back conditions in sales agreements is suggested.<sup>i</sup> Finding a way to break these constraints is considered a priority.

In the last several years there has been increasing consolidation in ranch ownership. Corporate interests, some with already substantial ranch holdings, continue buying large ranches. This trend in consolidation is expected to continue. At the same time, the demand around the world for high quality forage is increasing rapidly, especially in China. As a result, there is a substantial amount of foreign capital looking at the investment in agricultural land in BC.<sup>ii</sup> Both these trends could substantially limit future opportunities for First Nations investment in private land. Another issue is that once larger corporate ownership structures are in place, buying opportunities and changes in ownership are difficult to monitor. Large established corporate ranches change hands through the sale of shares rather than by transfer of title, and so sales information is hard to follow and verify.

There are currently some 16 guiding territory certificates with First Nations ownership, with two additional transfers pending. This represents an increase in First Nations participation in the industry at this level, and the trend is expected to continue. Facilitating transfer of guiding territory certificates within the context of treaty should have positive benefits in negotiations, and also assist with the accommodation of guide outfitters' interests overall. First Nation acquisition of guide outfitter territories appears to be easier to facilitate, and this is perhaps due to a number of factors. A substantial part of the value associated with guiding businesses is in Crown land interests, including the guiding territory certificate and range tenure. If these interests revert to government, they are easily managed within existing policy structures. The major part of a ranch's value, on the other hand, is tied up in private land holdings (in the range of 70%).

Commercial guiding also seems to have cultural fit with First Nations, providing a connection to traditional land use and values, so there is natural interest in the activity as well. Still, a mechanism like the suggested Acquisition Fund would be helpful for facilitating willing buyer and willing seller transactions between First Nations and guide outfitters, especially for those operations with substantial infrastructure investment.

### 4.3.3 Alternate Crown Range Tenure

A replacement Crown range tenure for an agreement holder impacted by treaty may be an effective form of mitigation, but the practicability of this option will depend on:

<sup>i</sup> A lease-back condition on a sale would allow a rancher or guide outfitter to continue operating for a defined term. This would secure ownership for a First Nation, and at the same time allow for a delayed transition out of the business for the rancher or guide outfitter.

<sup>ii</sup> There is no foreign ownership restriction on agricultural land in BC, while there is in Alberta.

- Availability of a vacancy or new range opportunity
- Location of the new tenure in relation to the tenure holder's existing operations
- Number of AUMs attached to the vacancy
- Number of tenure holders impacted by the treaty

A vacancy or a new range opportunity must first be available in order to entertain this option. The availability of Crown range is a function of the forage demand in any given area. There are likely to be fewer tenure cancellations and more completed transfers when the demand is high.<sup>i</sup> In some resource districts where treaty negotiations are active, it has been a practice not to post vacancies after tenures have been cancelled. Areas with vacant tenure that are not transferred to TL or included in a TRM would have at least some potential for use in the mitigation of third-party impacts.

Holding vacant tenures may be challenging if local livestock producers are interested in expanding, or if new entrants are looking for a Crown range opportunity. However, vacant tenures would be unencumbered for the purpose of establishing TL, or for use in a TRM or ITA intended to satisfy a specific First Nations interest in range. The advertisement of a Crown range vacancy requires consultation with First Nations, with the level of consultation determined by current guidelines and existing agreements with the First Nations in the area. There will be knowledge of First Nations' interests at the district in relation to vacancies, and this locally based knowledge should be shared with provincial negotiators. A provincial level policy on vacancies in relation to treaty could help support negotiations.

The location of the vacancy in relation to the tenure holder's existing operation – and existing tenure – is critical for effective mitigation. If the new tenure is too distant operating costs will increase, possibly to the point where the new tenure award has a substantial negative impact on the business. This was certainly the predominant view among ranchers that mentioned replacement with another Crown range tenure as a mitigation option. It is possible that a gathering corral or other handling facilities might have to be constructed on a new tenure, and this was also part of the added cost considerations for ranchers under this scenario. However, this type of required development could be eligible for compensation. This potential scenario points to the need for continued work in this area of treaty range policy.

There may be some operations that are better able to integrate a more distant tenure into their operations. A ranch of this type might already have several bases of operation, dispersed private lands, and thus the added costs of managing a more distant tenure could be minimized. This appeared to be the case for one particular rancher in the KKTC, who was managing several tenures and had stated a preference for this type of mitigation. However, even in this situation there would likely be a limit to the acceptability of an alternate Crown range tenure as mitigation based on the distance from existing operations and other factors.

In addition to tenure availability and location, there would need to be sufficient AUMs attached to a vacancy to replace those lost from the original tenure area. Though the transfer to TL may create only a partial impact in terms of the reduced AUMs, there will likely be other impacts that would suggest a complete replacement would be the preferred option of most ranchers. In other words, if a rancher had

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<sup>i</sup> It is possible that the overall demand for Crown range could increase if beef prices remain stable and the provincial cowherd were to return to pre-BSE levels.

a grazing licence authorizing 1250 AUMs, it would be expected that a new alternate tenure area would provide 1187 AUMs or more.<sup>i</sup> It is possible the original tenure with reduced AUMs could be retained, and that the partial impacts could be mitigated with a new tenure supplying the additional AUMs. However there would be additional costs for a rancher to manage a second and separate tenure, thus creating another impact to the operation. Still, there may be specific situations where a partial loss in AUMs could be made up on an adjoining tenure area. But again, the forage would have to be available to provide those additional AUMs, and other aspects of management would also need to be compatible.

Finally, the number of tenure holders potentially affected by treaty is likely to outstrip the availability of vacant range to help mitigate impacts. For example, in the NStQ area, in particular the Cariboo Chilcotin Resource District, there is a high demand for Crown range and there are few vacancies. There are a number of non-use agreements in place reflecting the reduced provincial cow inventory, however, in terms of authorized AUMs, ranges are essentially fully stocked. Despite the potential to minimize impacts with other forms of mitigation, there are some 15-20 tenures substantially impacted by the current TL selection in the NStQ area. There may be only a few cases that could be mitigated with an alternate Crown range tenure.

#### 4.3.4 Continuation of Tenure on TL

This alternative would see the continuation of a range tenure on TL, with little to no change to the agreement, at least in the near to mid-term. The lands would be transferred to First Nations, however grazing administration would be carried out under provincial law, including the regulations establishing grazing fees. This alternative would minimize impacts for tenure holders by allowing use of the existing Crown tenure area in conjunction with TL. There could be a number of conditions attached to this scenario, however, it is likely that the key for First Nations will be the term of the tenure and under what, if any, conditions a replacement tenure (continuation of the agreement) would be offered.

One advantage of this option would be that infrastructure and management units could initially remain intact across the ownership boundaries, but could be reshaped over time as old fences are replaced. Another benefit would be that First Nations would not carry the full cost of administering these tenures, and the province would collect the grazing fee on behalf of the First Nation. The revenue from grazing fees on TL could be based on an agreed estimated annual use (in AUMs). This could be based on a range utilization analysis (see range tenure appraisal Sec. 4.4.2.1), but the actual amount paid to First Nations could still be a matter of negotiation. A greater proportion of the combined resource revenues (total AUMs from the Crown range and the TL) might be paid to First Nations for the continuing interests in order to have them entertain this option, and this may be a pragmatic position for the province if the overall amount of compensation paid to third parties is reduced.

There is at least a partial template for this type of arrangement in the Maa-nulth Final Agreement, with the continuation of the transfer and replacement provisions for guiding territory certificates. However, a more complex set of considerations will have to be dealt with to address First Nations interests around the range resource (see Sec. 4.1.1). The continuation of existing tenures on TL has also been applied to subsurface resources in treaty final agreements (e.g., Yale First Nation Final Agreement).<sup>28</sup>

<sup>i</sup> This is the number of AUMs exceeding the allowable 5% reduction specified in the Range Act (Sec. 39.2).



In the case of tenured subsurface resources, the province collects resource rents and royalties on TL on behalf of the First Nation and remits these with any interest earned. Under the agreement the province is entitled to retain any fees charges or other payments for administrative services. This arrangement does not apply to subsurface resources owned by the First Nation (i.e., subsurface resources on TL) that were not tenured by the province on the effective date of the treaty. As another example, there is an existing arrangement for grazing tenures that cover both provincial Crown and Federal DND (Department of Natural Defense) lands near Riske Creek.<sup>i</sup> Grazing fees are paid separately to each separate landowner based on the proportional levels of use established in the agreement. At one point, all grazing fees were paid to the province, and then distributed. The grazing fee set by the province is used to determine the annual amount paid; however, the Federal Government does not charge the additional ground rent of 20 cents per AUM on its land.

Elements of this option were brought up and discussed by ranchers in the NStQ area. The term of the tenure is likely to be the primary factor determining their acceptance of this option. With the recent *Range Act* amendment, which provides for grazing licence terms of 15-25 years, and where a replacement must be offered, the period remaining on an existing licence is unlikely to be acceptable to rancher interests. A ranch's operating history in years was suggested as one way to find a reasonable term for the continuation of tenure, and in many cases this would equate to several decades. All else being equal, some variation of this option may find application in areas with intensive range use like the NStQ, and where substantial impacts to third-party range tenure holder's interests are expected.

#### 4.3.5 Replacement Tenure on TL

This scenario is similar to the continuation of range tenures outlined above, but in this case the First Nation would issue a replacement agreement over the portion that becomes TL. The First Nation would assume the management and administration of the tenures, including the collection of grazing fees. This aligns with provisions in existing treaties and negotiating mandates which provide First Nations with exclusive authority to determine, collect and administer any fees, rents or other charges, except taxes, for the harvest of forest and range resources on TL. However, the conditions, including the grazing fee and term, for replacement grazing tenures could be negotiated, and made part of the treaty. Again, a First Nation's interests and future land use plans (see Sec. 4.1.4), will be critical in determining the main features and conditions of the replacement tenure, especially around the term length (in years) and any future replacement option.

There is little confidence among ranchers that this option would provide the security of tenure necessary to sustain operations. Ranchers also feel they would be vulnerable to ad-hoc grazing fee increases or tenure cancellation. The degree of risk would depend upon the conditions negotiated for the replacement grazing tenures. The point of discussing the replacement tenure as a mitigation option is that impacts to existing business operations could be minimized to the greatest extent possible through a negotiated replacement. The alternative to negotiated replacement tenure is the complete cancellation of the grazing rights on the TL on the effective date of the treaty. If the First Nation wished to have grazing on TL completely on its own terms, they could enter into a private lease or annual rental agreement directly with ranchers. This appears to be the arrangement most ranchers think of when they

<sup>i</sup> The DND Chilcotin Military Training Area covers approximately 40,731 ha.



describe having to deal with a “new landlord” over some part of their grazing tenure. If no other mitigation measure is applied in this case, then compensation would be payable under the *Range Act*.

One of the main impacts flowing from the possible risks associated with replacement tenures, or the private lease arrangements, is their potential negative effect on ranch value (private land equity of third parties). There is an implied price attached to an AUM of Crown range grazing, and it is capitalized into ranch values; changes in characteristics of the tenure affect its value.<sup>29</sup> Any uncertainty around tenure security, or decrease in the number of authorized AUMs on tenure that is attached to a ranch, will have a depreciating effect on its value as a ranch. In fact, a recent ranch sale that included tenure over both Crown range and the DND Chilcotin Military Training Area, nearly fell apart when the DND indicated it would not replace its portion of the tenure with the pending ownership transfer.

As with the continuation of an existing tenure (i.e., interest) on TL, this option could be important in areas with intensive range use like the NStQ, and where substantial impacts to third-party interests are expected. The terms and conditions of these arrangements will have to be formed by negotiation.

#### 4.3.6 Access Provisions on TL

General guidance and the mandate for access provisions on TL are well established. There is, however, a need to clarify “on” or “across” access for livestock being driven, or left to drift, across TL to reach range interests beyond. A linkage between the Access Chapter and other sections of the treaty may be required (i.e., Forests, or Range if required, Lands and Appendices), where these and other exceptions can be detailed. Driving livestock across TL may be a permitted use, or, it may require a special permit. However, a grazing permit authorization may be preferred where livestock drift across TL, to access lands beyond. There is also a linkage to the legal issues around livestock at large, trespass and boundary fence. How the *Trespass Act* and the *Livestock Act* will apply on TL needs to be clarified and included in the relevant sections for greater certainty.

The access and range use issue should also be explored in relation to the use of heritage trails by guide outfitters. The Davie heritage trail in the Kaska Dena area is 330 km long and links the communities of Lower Post in the north and Kwadacha in the south.<sup>30</sup> The trail lies along the Rocky Mountain Trench and was a traditional Kaska Dena trade route. There are likely to be special management areas and TL along the route, some of which may be designated private or for cultural uses. A discussion around specially permitted incidental range use by guide outfitters and transporters may be necessary. Guide outfitters mentioned there were tensions with some First Nations members regarding their use of the trail, even after meeting with elders ahead of the planned use and getting authorization to use the trail.

#### 4.3.7 Alternate Crown Land Tenures

There are alternate Crown land tenures that if put into the hands of impacted range tenure holders could provide added forage, to mitigate losses incurred because of TL deductions from Crown range. Tenures of this type issued under the *Land Act* include grazing leases, and extensive agricultural leases. The disposition and terms of these tenures is regulated by policy rather than statute. For this reason, there is some potential flexibility around the use of these tenures. However, without explicit policy direction, there will be resistance to dispositions that depart substantially from existing policy. For example, only replacement grazing leases are currently available and new applications for grazing are not accepted. On the other hand, new extensive agriculture lease dispositions are available under current policy and show some potential for mitigating treaty impacts in certain circumstances. The

woodlot licence issued under the *Forest Act* may also have some application in mitigating the impacts of a treaty agreement. Agriculture leases and woodlot licences are discussed in the following sections.

#### 4.3.7.1 Crown Land Agriculture Lease

An agriculture lease on Crown land could provide an exclusive long-term tenure to a smaller more productive area of land as a replacement for the loss of AUMs on Crown range. This mitigation option would likely have the most potential for application in the central interior and the north, in areas where there is unalienated Crown land with sufficient agricultural capability for improved forage production. There are certain areas, particularly in the central interior where Agriculture Development Areas (ADA lands) are already identified as part of higher-level land use plans.<sup>31</sup>

Improved pasture can be created with minimal land preparation and seeding following timber removal or land clearing. A pasture seeded with introduced agronomic forage species could produce 2200 – 6600 kg/ha, depending on the site conditions. A five-year study on the Sunset Community Pasture west of Dawson Creek estimated stocking rates on improved pasture at .13 -.17 ha/AUM.<sup>32</sup> This would suggest that a fully developed 64 ha parcel, the standard unit for agricultural lease disposition,<sup>i</sup> could provide as many as 381 to 498 AUMs of grazing. This would represent as much as 1/3 of the total amount of forage authorized under an average grazing licence (estimated at 1200-1500 AUMs).

Presumably, any Crown land parcel could be of potential interest to First Nations engaged in treaty negotiations, especially in the early stages of land selection. As a matter of course, First Nations consultation at the normal to deep level would be required for this type disposition.<sup>33</sup> In this case, consultation could be carried out within the context of the treaty negotiations and the land selection process. This small-footprint disposition may be viewed favorably, and address a First Nation's interests, if it allowed other significant lands to be added to a settlement package completely unencumbered with third-party grazing tenures.

Several ranchers contacted as part of this work suggested the agriculture lease option when the topic of mitigation was raised. The idea was most prevalent in areas where there is a recent land development history, including land clearing for improved pasture. It was most frequently mentioned in the Nazko area (3 respondents), but was also proposed by a rancher located on the eastern and wetter edge of the NStQ area (Sub-Boreal Pine Spruce zone east of Hwy 97). One producer in the dry south central NStQ area (Interior Douglas-fir zone) indicated that a Crown grant in fee-simple would be a suitable mitigation for lost grazing on Crown range. Another respondent in the NStQ area, felt improved pasture development would not be a beneficial approach given the drier conditions of their range area.

From a policy and implementation point of view, it makes sense to follow existing Agriculture Crown Land policy to the extent this is possible, when applying this as a tool in mitigation. However, the process will need to be facilitated and supported within treaty to be effective, and with an application procedure established especially for purposes of treaty mitigation. By following existing policy in this way, any perception that a rancher might be receiving benefits in excess of those necessary to offset the impacts of treaty will be avoided.

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<sup>i</sup> The limit on the amount of land that may be leased to any one applicant is specified in the *Land Act* (Sec. 21) and is 520 ha. It is unlikely that a single section of 64 ha would be fully developed because of varying land capability and other considerations; the assumption is made here to simplify analysis.

A preliminary review of Crown lands policy for extensive agriculture, and discussions with senior staff in FLNR Tenures Branch, and Regional Operations, Authorizations, suggests there are no significant policy constraints to restrict this option at the provincial level.<sup>34</sup> There may, however, be operational constraints at the regional level for implementation. One area that was identified was the limited capacity of the line agency to provide the necessary analysis for the application of this option in treaty negotiations. The analysis would require a review to determine all the interests in the land, and a soils investigation to determine agriculture capability. Current policy requires that 70% of the Crown land under application must be arable (B.C.L.I. agricultural capability rating 1-4, with some flexibility allowed for class 5).<sup>35</sup> A land appraisal would also be needed to establish the annual lease rate (3% of the appraised value at the time of lease issuance), and a timber appraisal would be required to assess the value of any timber on the land. Most if not all of this work, would likely need to be facilitated through the treaty process.

A 30-year lease, with replacement, is allowable for extensive agriculture on surveyed parcels. This form of tenure would most resemble the Crown range tenure that it would be replacing. Unless there is a future public purpose, or a need for management flexibility to reduce land-use conflicts, most agricultural Crown land is disposed through a lease-purchase agreement (5 year term and available in the northern service region only) or through direct sale. It is assumed that once the land is designated to have agricultural value, the goal is get it into private hands as quickly as possible to reduce administrative costs. This would be one shortcoming of the lease-only alternative for government, in that some administrative burden would be created with new long-term lease-only tenures. However, the number of situations where the agricultural lease option might be successfully applied for treaty mitigation purposes is not likely to be significant.

The details surrounding the land's development (pasture improvement) would also need to be established. An approved development plan is a requirement for lease only and lease-purchase dispositions.<sup>36</sup> One of the objectives of the development plan is to ensure that revenue from timber harvested on the land is reinvested in the land's development. In a disposition made for treaty mitigation, the returns from timber harvested on the lands would be absolutely essential for financing pasture development.

The guidelines for the preparation of agricultural lease development plans, which form part of the agriculture lands policy, also set requirements for cultivation. This is clearly one area that may need a policy directive to meet the needs of range treaty mitigation, however, this was not seen as significant obstacle. "Cultivation" as defined in the agriculture lands policy is not necessary to achieve a reasonable level of forage production in an improved pasture situation. With minimal land preparation a pasture can be seeded using a helicopter or fixed-wing aircraft. Recent cost estimates for pasture development, using two scenarios (piling only, and piling, double-disc and rolling) and aerial seeding with a fixed-wing aircraft ranged from \$215.15 - \$280.50 per acre (\$532.29 - \$692.84 per ha).<sup>37</sup> Any fencing and water development would be added costs.

The significant expense of land development, driven largely by fuel and heavy equipment costs, has led to some reduced input approaches to pasture development. Planned winter-feeding on cleared areas is one such approach that has proven successful (Figure 12). A reduced cost approach to pasture development may be practical in situations where the timber value is too low to finance more intensive development.

The appraised value of the Crown land will vary depending on its location in the province. For example in the Nazko area, which is relatively remote, a value of \$500 per acre (\$1235 per ha) would be within a current range of valuation.<sup>38</sup> The estimated annual lease fees for a 160 acre (64.7 ha) parcel would then be around \$2400, based on the standard lease rate of 3% of the initial land appraisal value. The taxes for 2014, were estimated at \$127.18.<sup>i</sup> If it were possible to fully develop the 160 acres (64.7 ha), and support the stocking rates noted earlier, this would represent annual lease fees (incl. taxes) of around \$5.07 - \$6.64 per AUM.<sup>ii</sup> With the reduced management costs that might be expected with grazing on the pasture, these values are reasonably comparable with the grazing fees charged on Crown range.

Depending on the circumstances and the interests of the rancher involved, a lease-purchase agreement may be considered for these lands. This would have the benefit of eliminating the longer-term lease administration costs that would be incurred by government. Conceptually at least, the Crown land agriculture lease option looks like it may have some potential for mitigating effects of a treaty agreement on impacted range tenure holders. There are, however, a number of conditions that will need to be met in order to successfully implement this alternative. Key among them will be to find suitably located and unalienated Crown land with sufficient agricultural capability to meet agriculture lease requirements. Land analysis and some specific case examples in the more promising areas (Nazko and eastern NStQ areas) would be useful to help evaluate the potential effectiveness of this option, and to develop procedures for implementation.



*Figure 12 Planned winter feeding area used for pasture development after aspen logging*

<sup>i</sup> Estimated using BC Assessment Farmland Valuation Schedule for the Cariboo Region for permanent pasture (seeded) on agriculture capability class 4 land, and the online tax calculator: [http://www.sbr.gov.bc.ca/applications/rpt/tax\\_calc/online\\_calculator.asp](http://www.sbr.gov.bc.ca/applications/rpt/tax_calc/online_calculator.asp)

<sup>ii</sup> Using the range in stocking rate of .13-.17 ha/AUM, the total AUMs produced from the developed pasture would be 380.6-497.7 AUMs.

#### 4.3.7.2 Woodlot Licence

The woodlot licence is an area-based tenure issued under the authority of the *Forest Act*. The term of the licence is up to 20 years, and like grazing licences a replacement must be offered near the end of the term. The Crown land on which the timber is growing must be otherwise unencumbered, and cannot be larger than 1200 ha (outside the coastal region); a woodlot licence may also include private land. A woodlot licence plan is required that is consistent with the objectives set out by government in the *Forest and Range Practices Act (FRPA)*. Like other managed forestland, woodlot licences produce a certain amount of forage following timber harvest. There is potential to allow for more intentional forage production with timber production in a silvopasture system.<sup>i</sup> If the woodlot and the forage (through a grazing licence) were held by the same individual, management for both objectives would be possible. Ranchers also hold some 30% of the woodlots in the province.<sup>ii</sup> Increased forage production could still be possible on woodlot areas, with different range and timber tenure holders if common interests around reforestation standards and other practices could be found, although this scenario would likely be challenging to implement.

Inflexibility in the application of re-stocking standards to allow increased forage production over the longer term, would appear to be one obstacle preventing the implementation of this option. However, these constraints are not strictly based in legislation. It is possible that both a cultural shift, and more clear direction around combined objectives for timber and forage under *FRPA* would support this option. If these constraints were removed, which a treaty agreement could help initiate, there would still be the questions of how much forage could be provided from a woodlot, and if the location of the forage could be usefully integrated into the ranching operation. The interests of that operation, and the availability of unencumbered land for a new woodlot licence disposition would be a factor in the application of this option.

#### 4.3.8 Fencing and other Range Developments

Fencing is required for the effective use of Crown range use in many areas of the province and has been discussed previously in relation to land selection (Sec. 4.3.1.3). That discussion was focused primarily on Crown range/TL boundaries and fence, and the implications for efficient range use and the application of the *Trespass Act* and the *Livestock Act* respecting TL. Despite the legal questions, from a practical point of view, establishing tenure boundary fences where necessary should be a fundamental requirement of any treaty involving Crown range.

Fencing will also be required to maximize the effectiveness of ER (see Sec. 4.3.11), forage enhancement, livestock water development, and other range improvements when these are used as mitigation measures. There may be situations where additional cross fencing – for pasture subdivision and improved grazing management – and fence replacement can be used effectively to increase the available AUMs on a tenure area. Like other mitigation measures focused on the remaining Crown range, overall effectiveness will be specific to individual tenure conditions and also related to the scale of the TL selection. Cost for barbed wire fence on range is estimated at \$13,200 per km (for cost

<sup>i</sup> Silvopasture is the intentional and complementary management of trees and forage.

<sup>ii</sup> As point of interest three range tenure holders in the NStQ area potentially impacted by TL selection also hold woodlot licences. These varied in size from 258 ha to 659 ha.



summary see Table 4, Sec.4.3.1.4). The installation of corrals, cattleguards and related infrastructure also may be effective mitigation in some circumstances.

#### 4.3.9 Livestock Water Development

The effectiveness of water development for mitigating treaty-related impacts on range tenures would depend on:

- The scale of the impacts (the number of AUMs needing to be replaced)
- An underutilized area in the remaining tenure, where access to water is the limiting factor
- Suitable water development potential in the underutilized area
- Sufficient knowledge and availability of program resources (treaty implementation dollars)
- Institutional capacity and regulatory environment that allows water licensing – under the *Water Sustainability Act* and its regulations (not yet in force)<sup>39</sup>

In some situations livestock water development may be required to replace a livestock watering location that might be deleted from the tenure because it is on TL. In this case a water development may be needed to maintain the existing level of use in the remaining tenure area. There may also be situations where existing water developments on remaining tenure area need replacement or maintenance, and in this case these interventions may have a positive effect on the overall carrying capacity. It is noted by range professionals and ranchers that some surface watering points (dugouts and closed-basin ponds) in dry range areas are becoming less dependable in certain periods, suggesting that more permanent watering alternatives may be required. Recent research has shown the surface area of closed-basin ponds at 8 different range study sites in the southern interior declined an average of 54% since the 1990s.<sup>40</sup>

Costs of water development can vary dramatically. Small scoop-outs to catch surface water are likely to be the lowest-cost type of water development, but they may also be ineffective in some situations. The changing hydrology on dry rangelands certainly suggests that more permanent and reliant systems (springs and groundwater wells) and possibly closed storage may be a better investment choice in certain areas. One rancher in the NStQ area described a substantial private investment in water development made on Crown range, which included drilling a 300-foot well, installing a solar pump, and a 16,000 gallon underground tank connected to a gravity-fed water trough. The water storage tank was buried to prevent vandalism and the total cost of the installation, in 2002, was \$23,000. This development took grazing pressure off other parts of the range tenure allowing for improvement in range condition, and provided water for wildlife. It was mentioned that other wells had also been drilled on the Crown range. If by chance these developments were included in a TL selection and transferred to a First Nation, compensation would have to be considered.

Like ER, water development as a single measure will be marginally effective as a mitigation option and will likely need to be considered along with a suite of other options, including fencing, ER, and other range improvements. However, there are likely to be situations where permanent water developments and storage, like the example noted above could provide suitable mitigation for a relatively small impact. For instance, there is likely to be some application for water development mitigation in the KKTC land selection example mentioned in Sec. 4.3.1.2.



#### 4.3.10 Forage Enhancement after Timber Harvest

In wetter zones, a more direct approach to forage enhancement might be applied on range tenures where there are active timber harvest operations. Seeding agronomic forage species on clearcuts following timber harvest can increase both the quantity and quality of forage, although these effects may not be long-lasting in some situations. At a site near Logan Lake in the Montane Spruce zone, forage production was equal to unseeded controls by the seventh year.<sup>41</sup> Research in the Engelmann Spruce–Sub-alpine Fir, and Montane Spruce zones in the southern Interior of the province has shown increases in forage production from 40 to 200% over unseeded controls, with yields of 500 to 1,500 kg/ha.<sup>42,43,44</sup> Forage production increases of this magnitude would provide additional AUMs of grazing in a tenured area. However, if the additional forage is created on a portion of the range that can only be used in the summer, it would not replace AUMs that are lost on lower elevation spring or fall range.

Costs for seeding will vary with the species used, the seeding rate, and the seeding method. Aerial seeding with a helicopter, or fixed-wing aircraft, is the only practical method for seeding clearcuts following timber harvest. The total area to be seeded, the type of aircraft, the distance from the flight centre and the staging area, are also factors that affect the cost of seeding. The cost for this type of seeding project is estimated to range from \$20 to \$60 per ha.<sup>1</sup>

There are a couple of other issues associated with increasing forage quantity by seeding after logging for range treaty mitigation. First, the increased forage from seeding is not permanent. As forest plantations mature and reach a free-to-grow condition, forage production declines and they become inaccessible to livestock. This means that new areas have to be seeded as they are logged, to maintain the total level of forage production in the range tenure. This also assumes that a sustainable timber harvest is possible within the spatial extent of the range tenure. Second, and perhaps more critically, seeding for forage objectives must be collaboratively planned with forest licencees, and also require broader FLNR district approval. Despite research to suggest the compatibility of forage and timber production, which could lead to a set of best management practices,<sup>45</sup> many forest companies are reluctant to take on additional risk to meeting their restocking obligations with increased forage production and use. An intentional policy directive from government will be required to give forage objectives a greater priority in management and forest stewardship plans, and to somehow respond to the concerns of the major forest licencees to change this situation.

Forage seeding of roadsides and other areas disturbed during timber harvest activities could provide additional forage in a range tenure area. Seeding these types of areas following timber harvest was a more common practice prior to the *Forest and Range Practices Act (FRPA, 2002)*. Seeding can be required under *FRPA* if it is specified in a management plan, and is in relation to the control of invasive plants (*FRPA* Sec. 47). Seeding might also be used to revegetate soil exposed during road construction or deactivation, in places where erosion of the soil would cause sediment to enter a stream (*FRPA* Forest Planning and Practices Regulation Sec. 40). Roads and other work areas are often excluded from the net area to be forested and could produce more forage if they were seeded (Figure 13). If this objective were directed by government on tenure areas impacted by treaty, it could help mitigate losses in AUMs

<sup>1</sup> This estimate is based on information provided by FLNR range officers in the Kamloops and Okanagan Shuswap districts, and the Ministry of Agriculture, Interior Agoforestry Specialist (February 2015); and the *BC Rangeland Seeding Manual* (2013).

that result from TL selections. The effectiveness of the mitigation would depend on the level of timber harvest activity in the tenure, and the amount of disturbed area.



*Figure 13 Forage production area along roadside and next to plantation forest in the NStQ area*

#### 4.3.11 Ecosystem Restoration (ER)

Ecosystem restoration is seen as a potential mitigation option to increase carrying capacity on range tenures affected by treaty. In fact, the Rocky Mountain Trench ER program grew out of a Land Use Plan and implementation strategy meant to solve conflicting land use demands (wildlife and cattle grazing) where the forage supply was shrinking because of forest ingrowth and encroachment. One of the main objectives of the ER program is to support a sustainable forage resource for grazing by wildlife and domestic livestock.

Ecosystem restoration is the “process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.”<sup>46</sup> In BC, ER efforts sponsored by government and other agencies have been primarily focused on restoring fire-maintained ecosystems. After decades of successful fire suppression efforts, forests have become ingrown, and trees have encroached into once-open grasslands. Forage production has declined, and forests are more susceptible to disease and insect outbreaks, and catastrophic fire events.

The ER program in the East Kootenay's began 16 years ago and was the model for a province-wide ER initiative starting in 2006.<sup>47</sup> ER prescriptions have been implemented all over BC's interior, including its northern regions. Appropriate ER treatments vary with region vegetation zone, and site. Prescriptions, or treatment plans, in the Rocky Mountain Trench, and similarly in the rest of the dry southern interior (Bunchgrass, Ponderosa Pine and Interior Douglas-fir zones), begin with the removal of trees by thinning and slashing to create Open Range or Open Forest density (Figure 14).<sup>i</sup> Fire is re-introduced with a prescribed burn, usually two years after thinning and/or slashing treatment.



*Figure 14 Ecosystem restoration treatment to an Open Forest density, and tree regeneration in the KKTC area*

The implementation of ER is a complex, challenging, and slow. A recent report by the Rocky Mountain Trench Society, documents the results of 15 years of ER in the East Kootenay.<sup>48</sup> Clearly there have been benefits to the program in this area, including increased forage production. However, monitoring data shows mixed results in terms of the expected understory plant composition, and it also demonstrates the need for continued management. The use of prescribed fire is important for on-going ecosystem maintenance, but there are significant constraints including limited manpower to conduct burns, and a limited number of burn “windows” in any given year.

In an ER program, areas are prioritized for treatment to maximize benefits and goals and objectives are considered at a landscape-level. Single area-focused ER treatments, however, might be applied to support range treaty mitigation. Where ER programs are active, they should be considered and planned

<sup>i</sup> Open Range: less than 75 stems per hectare (sph), with a target of 20 sph, Open Forest: a range of 76 to 400 sph, with a target of 150 sph (Rocky Mountain Trench Ecosystem Restoration Program, 2013).



within the context of existing activities. For example, some of the priority areas for future treatment in the East Kootenay look to be in, or close to, areas affected by TL selection.

These conditions would be required for ER to support range treaty mitigation:

- Area suitable for, or requiring, treatment is present in the remaining tenure area
- Physical and ecological factors limiting appropriate treatment options can be overcome
- Treatment is compatible with other land use objectives, other land users, and is consistent with higher-level plans
- Sufficient knowledge and program resources are available for treatment (treaty implementation dollars)
- Resources are available for ongoing maintenance (treaty implementation dollars)
- Other resources are made available for water development and fencing to maximize benefits

Assuming these conditions can be met there is still the question of the scale of impacts that might be mitigated. This will depend on the amount of TL removed from the Crown range tenure area and how it affects the tenure function, and on the specific site conditions. It is possible to make only a subjective estimate without a specific example to consider, however, it is expected that AUM losses in the range of 5-25% might be satisfactorily mitigated using ER and a combination of other range improvement measures.

#### *4.3.11.1 Rancher Perspectives*

Ranchers contacted for this work are generally aware of the impacts of forest ingrowth and encroachment on rangelands, and most are familiar with the concepts of ER. While there have been ER treatments implemented throughout the southern Interior in the last decade, the focused and long-term work in the East Kootenay (KKTC) area has perhaps left a stronger impression among the ranchers from that area. At the same time, there is skepticism as to whether ER would be an effective option to mitigate treaty-related impacts on range tenures. Ranchers seem to appreciate the long-term and broad-based benefits of the ER program, but as one individual put it, “we haven’t seen any increase in [authorized] AUMs as a result of ER”.

This notion around the lack of increased AUMs in the KKTC area acknowledges that there are other important ecological factors involved, like the forage demands of wildlife. From the point of view of range professionals in the area, there was likely an over-authorization of livestock grazing in the past, and ER and lower cattle numbers are what are needed to improve rangeland health. It is not a simple question of increasing available forage. Although there may be less experience with ER among ranchers in the Cariboo (NStQ) and other areas of the southern Interior than those in the East Kootenay, similar concerns around the effectiveness of ER will apply. The ecological response in terms of forage production is uncertain, delayed and incremental, and may not address the specific impacts of a treaty agreement on range tenure holders. Still there is some openness to consider ER in combination with water development, and fencing as means of improving forage production on the portion of Crown range tenure remaining after a treaty agreement. There is a general recognition that the program has been highly beneficial, and there would be less available for forage for both livestock and wildlife without it.

#### 4.3.11.2 Ecosystem Restoration Program Costs

The long-term work of the Rocky Mountain Trench Ecosystem Restoration Program provides the opportunity to comprehensively assess ER treatment costs. From 1997-2013, a total of \$14,258,313 from some 30 different sources funded fuel management treatments, monitoring and scientific research, mapping and other costs. The majority of funds came from different government sources, with the largest amount over the period coming from the provincial Job Opportunities Fund (\$3,460,288). A total of 48,172 ha in treatments were completed on Crown land, with additional areas treated in Parks, Conservation Areas and on First Nations' land.<sup>49</sup>

Restoration costs can vary considerably depending on the size of the project, site conditions, forest stand density, and road access. A summary of individual ER treatment and associated activity costs based on 2013 prices is shown in Table 5. Prescriptions (i.e., plans) are required for all treatments.

*Table 5 Summary of ecosystem restoration treatment and activity costs (2013 prices)*

Treatment/Activity	Cost Lower	Cost Upper
One Prescription	\$5,000	\$10,000
One Prescription with Timber Cruise	\$8,000	\$20,000
Create Wildlife Trees (inoculate or protect from fire)	\$75	\$250/ha
Hand Slash & Scatter Debris	\$90	\$500/ha
Hand Slash & Pile	\$780	\$1750/ha
Pile Burning & Seeding	\$50	\$500/ha
Machine Thinning (feller-buncher & skidder)	\$1700	\$2500/ha
Machine Mastication	\$900	\$1800/ha
One Prescribed Burn	\$15,000	\$35,000
Intensive Monitoring	\$800	\$2500 per plot

Source: Rocky Mountain Ecosystem Restoration Program (2013)

Note: A substantial part of the costs for prescribed burning are direct costs related to planning, implementation and supervision. Burns have to be carried out at moderate scales to be efficient and achieve the desired treatment effects. The average burn size on Crown land in the Rocky Mountain Ecosystem Restoration Program from 1997-2013 was 245 ha. The direct costs per ha were estimated at \$70, and are expected to be halved, if future burning can be carried out by the Wildfire Management Branch.<sup>50</sup>

#### 4.3.12 Mitigation Options Summary

In general, as the size of the TL quantum increases, the effectiveness of most mitigation options decreases. As the size of the TL quantum within a range tenure area increases, the range of potential mitigation options also shifts. Measures that are focused on improving the production and utilization of forage on the remaining Crown tenure area, which may effectively address marginal impacts, have to be replaced by options that might include negotiating the continuation of tenure or a replacement tenure issued by the First Nation on TL. Negotiated tenures on TL may have a cost in the negotiation because they may negatively impact First Nations' interests. Furthermore, if suitable conditions cannot be

included in the replacement tenure agreement, there will be an impact on tenure holders. As one moves along this mitigation spectrum the prospect of having to use compensation measures increases.

Alternative Crown land tenure options, which have a smaller footprint on the land but allow more focused management, show potential to mitigate even substantial impacts (i.e., agriculture lease). These can also be implemented at relatively low cost while also maintaining rancher social capital—provided they fit the interests of a particular operation. However, the ability to implement the *Land Act* agriculture lease option will be limited to those few areas where there is available Crown land with capability for agriculture. There may be some opportunity for similar forage enhancement on existing grazing leases, although the potential for improved production on these existing tenures is likely to be limited. There is potential to mitigate marginal losses in AUMs on the remaining Crown range by seeding agronomic forage species after commercial timber harvest. However, some institutional adjustments will be required to support this option. Integrated silvopasture systems, which combine timber and forage production objectives, could help mitigate impacts of a treaty agreement for some range tenure holders. There is sufficient flexibility in the woodlot licence tenure to allow a silvopasture management system. Still, there remain some practical limitations as to how a silvopasture system and woodlot licence might be incorporated into existing operations.

#### 4.4 Compensation

The overarching policy guiding compensation for third-party impacts resulting from treaty is that impacts should be avoided whenever possible. Compensation will be required, however, when the impacts cannot be mitigated. This follows from principles established for treaty by both BC and Canada, and also the compensation provisions set out in the *Range Act* (Sec. 39-45). The *Range Act* might be used to guide compensation for treaty, however, entirely new terms for compensation could also be created under the authority of the treaty's *Final Agreement Act* and its regulations. Although there is this flexibility, the *Range Act* provisions reflect established provincial government principles around compensation, and so there may be some policy advantage in aligning the compensation in future *Treaty Act* regulations with that legislation.

The *Maa-nulth Final Agreement Act* provides an example of compensation for reductions in allowable annual cut (AAC) and loss of improvements on *Forest Act* tenures affected by the treaty.<sup>51</sup> The *Maa-nulth Forest Compensation Interim Regulation* used the *Forest Act* legislative framework for compensation, however, it did not use the 5 % allowable reduction in AAC to trigger compensation. In other words, any reduction in AAC caused by a TL deletion was entitled to compensation.

The *Range Act* compensation language is nearly identical to those sections of the *Forest Act*, however the provisions under the *Range Act* have never been applied. Compensation under the *Forest Act* on the other hand has been applied frequently, and, therefore, knowledge and analysis specific to that resource have been developed within government. BC Timber Sales information and standardized cost schedules for various forestry operations are available and this allows for a more direct approach to the valuation of reductions in AAC. This is a major factor guiding the two parties, and helping them to find consensus in compensation agreements. Similar market and cost information does not exist for the range resource, and therefore indirect approaches are the only alternative available to value the Crown range resource.



In 2010, the BCCA and the Ministry of Forests and Range jointly funded a study that examined the issue of range valuation and compensation. Valuation methods were evaluated and a hedonic model was developed to estimate the value of Crown range for the purposes of compensation in treaty settlement on the Fraser Plateau (NStQ focus area). The value of a Crown range AUM, capitalized into ranch purchases, was estimated at \$174.<sup>52</sup> The work was supported with a broad review of range compensation and valuation literature from BC and other jurisdictions, as well as the legislative history of compensation provisions in the *Range Act*. The report was shared with senior staff from ARR and the Compensation and Business Analysis Branch of FLNR in a 2012 meeting presentation.<sup>i</sup>

The principles of compensation are better understood now, but what is unclear is how a reduction in AUMs is to be valued, and how compensation should be applied in a practical sense. The findings of the range compensation report have been widely discussed by the members and executive of the BCCA, and others. Despite some reservations by government around the valuation method used in the report, and whether the valuation can be applied under the current *Range Act* provisions, it is the suggested starting point for the policy discussion around compensation. A key point is the valuation was in line, with appropriate adjustment for BC conditions, with estimates from other jurisdictions. Moreover, the estimate aligned with traditional ranch appraisal estimates of Crown range value in the same area in which it was developed.

Also important in the discussion, is that despite the similarity between *Range Act* and *Forest Act* compensation provisions, the social and institutional aspects of Crown range use are substantially different from those in the forest industry, and these differences need to be accounted for to achieve fair compensation. Depending on the outcome of negotiations, a number of ranches in the NStQ area could be significantly impacted by treaty settlement. In order to meet the principles for treaty, it may be appropriate in this case to define additional terms for compensation entirely within negotiations with third-parties, outside the existing *Range Act* compensation framework.

#### 4.4.1 Rancher Views on Compensation

Ranchers in the focus areas were asked about their views on compensation in the event their range tenure was substantially impacted by a treaty agreement. In the main, ranchers felt that any form of compensation would not “keep their businesses whole”. A substantial number were concerned about the effect of an AUM reduction on their ranch “economy of scale”, or what are considered “damages” in the compensation language of the *Range Act* and *Forest Act*. Damages are not included in compensation under either act, and so addressing this impact with compensation in treaty would be a departure from current policy.

Apart from this major concern, most thought arriving at an acceptable benchmark or standard compensation value for an AUM, with some other adjustment factors, would be preferred over separate negotiated settlements. One rancher expressed a willingness to accept compensation in the range of \$175 per AUM for a reduction in AUMs, with the prospect of finding a lease arrangement with First Nations on TL with terms similar to a private pasture lease. This may be an option that other ranchers might accept, and it could reduce significantly the number of conditions that would have to be

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<sup>i</sup> The Compensation and Business Analysis Branch supports ARR with analysis for arriving at third-party compensation with forest licencees, and did so for the Maa-nulth agreements.

negotiated and attached to replacement tenures in order to limit compensation (this alternative needs further analysis see Policy Initiative 5).

Another rancher suggested he would provide an independent analysis to support a valuation that would include estimated losses to economy of scale based on historic costs and income. This comment highlights one of the main differences between the holders of range tenures and major forest licencees. Unlike this individual, many of the ranches that will be affected by treaty are small businesses and are unlikely to employ independent professionals to provide valuation information and assess a compensation package. Major forest licencees on the other hand have a much stronger position in negotiation. Most are mid and large sized corporations with access to regularly employed professional expertise. Furthermore, the major forest companies have already had experience with government compensation agreements, and this gives them a tremendous negotiating advantage. This is something that ranchers don't have.

Several ranchers also expressed the view that the district range staff had insufficient resources to do the necessary tenure analysis to assess impacts. Therefore, there is a lack of confidence that fair compensation could be delivered by government. Overall, the opinions expressed by ranchers indicated greater willingness to explore mitigation alternatives, than compensation, for dealing with the impacts of treaty.

#### 4.4.2 Compensation Policy and Procedures

Policy and procedural direction, as well as operational support, will be needed to arrive at fair and equitable compensation for the reduction in authorized AUMs and range improvements. At the policy level, the method of arriving at the value of an AUM for the purposes of compensation needs to be developed jointly between ranchers and the province, to find acceptance. This policy discussion requires building on the current knowledge that has been developed on Crown range valuation, and finding a process for determining compensation within the context of treaty negotiations. Solid work has been done in this area with the support of both parties, and it needs to be advanced further to assist the Nazko, NStQ, and KKTC negotiations.

##### 4.4.2.1 Compensation for a Reduction in AUMs

The clear case for compensation would occur if:

- TL must be transferred completely unencumbered to the First Nation
- There is no continuation or replacement of the tenure negotiated as part of the treaty agreement<sup>i</sup>
- There is a reduction in AUMs of more than 5% than the number authorized at the beginning of the term of the licence or permit because of the deletion of TL
- No other mitigation measures can be implemented, or the measures are unacceptable to the tenure holder

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<sup>i</sup> Depending on the circumstances, future Crown range use agreements may require additional conditions, for example, requiring the holder to continue to hold a replacement tenure on the TL portion of the range for the life of the agreement.

Although there is some reluctance on the part of government to prescribe additional guidance for range compensation in the form of regulation under the *Range Act*, there would appear to be sufficient flexibility within the Act's compensation framework to arrive at fair compensation using an interim regulation under treaty legislation. For example, the *Range Act* framework could be used to establish the general principles, much like the *Forest Act* in the Maa-nulth agreement. The adoption of a capitalized value per AUM, similar to the one estimated in the BCCA study, could be enabled through *Range Act* Sec. 39.2:

*The compensation to which the holder of a licence or permit is entitled under subsection (1) is an amount equal to the value, for the unexpired portion of the term of the licence or permit **or for a different period if a different period is prescribed**, of the*

*(a) number of animal unit months, or*

*(b) quantity of hay*

The bolded phrase, allows for a longer-term, and this could be included in a regulation under a treaty legislation. If the "different period described" was 25 years, an estimated annual value per AUM would become capitalized over the 25-year period. For example if the value per AUM of Crown range grazing were valued at \$7.00/AUM per annum, without discounting the annual payments to present value, the total compensation per AUM for the period would be \$175 (i.e., \$175 per AUM = \$7.00 per AUM per YR x 25 YR). This amount is equivalent to a capitalization rate of 4% using the perpetual bond formula (i.e., \$175 = \$7.00/.04). Likewise a value of \$8.00 AUM would produce a compensation value of \$200 per AUM.

The notion of a 25-year term for the determination of compensation aligns with how Crown range is tied to a ranch's associated private lands by the grazing licence agreement. It also matches the maximum term of a grazing licence and begins to reflect the "evergreen nature" of this type of Crown range tenure. Under the *Range Act* (Sec. 23), an offer to replace the agreement must be made during the 12 month period beginning two years before the date of expiry of the licence. The licence effectively continues indefinitely, provided the conditions of the agreement are satisfied.

The unexpired portion of the term on any particular Crown range licence on the effective date of a treaty agreement, as a basis for compensation, would be entirely arbitrary; the unexpired portion being completely a function of the normal administrative cycle of tenure renewal in a resource district. For example, it could result in one tenure holder receiving compensation for three years remaining on a licence term, and a second impacted tenure holder, in an adjoining area impacted by the same treaty agreement, receiving compensation for 20 years remaining on a licence. This more or less random result would not meet a fairness test expected from treaty making principles, nor would it reflect any objective measure of the impacts. There are other situations apart from treaty, where this situation could occur. Should the *Range Act* compensation framework be employed – without a regulation to prescribe a different period for compensation – serious consideration should be given to amend Sec. 39.2 to make it more consistent with the effect of Sec. 23, and to allow fair compensation to be delivered when several range holders are jointly impacted by a major land deletion from a range tenure area.

On the procedural side, a range tenure appraisal and impact analysis is recommended to support treaty negotiations at various stages. The appraisal impact analysis would provide the basis for the determination of compensation, should it be required. The work could be performed by a professional

agrologist, funded by the treaty process, with appropriate range experience and knowledge, but would need to be supported by FLNR range staff. The appraisal would be based on a combination of:

- The vegetation inventory and production information
- Tenure utilization
- Adjustment for lost access
- Adjustment for lost livestock watering access
- Inventory of range improvements and developments, and determination of ownership
- Input from the tenure holder and district range staff

The final reduction for the purposes of compensation would be on the recommendation of the district range officer using the information gathered in the appraisal. The tenure agreement would be amended accordingly, and a new RUP and grazing schedule would also be required.

#### *4.4.2.2 Compensation for Range Developments*

There are two parts of the *Range Act* compensation framework that refer to range developments. The first (Sec. 40. A), specifies that an agreement holder is entitled to compensation for developments (materials and labour) that are made necessary on the remaining Crown range by a deletion (in this case TL). This clearly has implication for how mitigation on remaining Crown land is considered in treaty. Clearly, if certain mitigation strategies are not prescribed as a consequence of treaty, but the agreement holder implements them, because of the TL deduction, compensation will be due. Mitigation should be dealt with as part of the implementation of the treaty, so that compensation is not triggered by this provision if at all possible.

The second part entitles agreement holders to compensation for the value of authorized range developments on the land that is deleted. Implementing compensation for range development and improvements should be straightforward. Compensation experience gained in the forest sector for bridges, and other related capital investments should be directly applicable. An inventory and valuation of range improvements would be part of the recommended tenure appraisal and impacts analysis (see previous section) and would include inspection of the development and determination of ownership (i.e., investment in the development by the tenure holder or previous tenure holder). The livestock water developments discussed in Sec. 4.3.9 are a good example of tenure holder investment that would need to be compensated if they were transferred with TL. Corrals, cabins, fences and other structures would also need consideration.

Compensation may be required for improvements transferred with TL regardless of whether a replacement tenure is negotiated. First Nations will become the owner of the developments with the transfer, and the tenure holder who made the investment may be restricted in their use of the development by a limitation in the term of a replacement tenure. At a minimum, compensation should be paid for the expected value of developments at the end of the term.

#### *4.4.2.3 Compensation for a Quantity of Hay*

Compensation for a quantity of hay under an agreement would be required if no mitigation for the reduction in the hay tonnes can be found. Hay tenures cover a much smaller land area than grazing licences. For example in the sample of 29 hay cutting tenures in the NStQ focus area (Table 2), the

maximum area covered by a tenure is 59 ha, and the minimum is .8 ha, while the median is 5 ha. A number of separately mapped areas may make up an individual tenure agreement. The small footprint of these tenures means there could be partial reductions in hay tenures, but there is also a reasonable chance that they will either be completely within a land selection, or completely outside. Likewise, it may be possible to avoid a hay cutting tenure with a minor adjustment in a land selection.

Three hay cutting tenures look to be affected by TL land selections in the NStQ. As with grazing licences it may be possible to mitigate the impact with a continuing or replacement tenure on TL. Finding replacement tenure on Crown land is also an option – subject to the inherent limitations. The Crown land agriculture lease could be used as a mitigating option where the impacts are substantial and the holder also has impacts to a grazing licence. However, measures aimed at increasing the amount of forage or access to forage in the remaining part of a tenure area do not apply to hay cutting agreements.

The clear case for compensation will be if:

- TL must be transferred completely unencumbered to the First Nation
- There is no continuation or replacement of the tenure negotiated as part of the treaty agreement
- There is a reduction in authorized quantity of hay because of the deletion of TL
- No other mitigation measures can be implemented, or the measures are unacceptable to the tenure holder

There are likely to be fewer applications for this type of compensation, but as is the case with grazing, compensation policy and procedure development is needed. There is no organized market for hay sales, but the price of hay can be observed in the informal market. Likewise, there is also information available to determine average haying costs, and this should allow for a reasonably direct valuation of the resource. Still clarification on treaty-related compensation for hay tenures, and specifically whether a standard term (i.e., 25 years) for determining value might be applied. Finding some agreement on the standards to be applied for the hay valuation would also be beneficial.

## 4.5 Guide Outfitter and other Back Country Interests

The interests of guide outfitters and other back country operators are tied up in a bundle of authorizations allowing them to carry out their businesses on Crown lands. For guide outfitters the primary interest is the guiding territory certificate, and improvements associated with the tenure authorized under the *Land Act* (e.g. base camp or lodge). The interest in Crown range is a secondary, but essential part of the business. Over most of the tenured area the grazing use will be incidental, and so the interest is not directly related to the amount of forage authorized, but rather to the right to graze within the described area associated with the main activity, i.e., guiding, transporting, wildlife viewing etc.

Depending on location and region, some commercial back country operators will use a portion of Crown range much like cattle ranchers would. There will also often be primary horse range near base camps or private land headquarters that will be used as the back country season gets under way, or in the off-season. These exceptions, and key areas within backcountry operations, need to be documented and the considerations that have already been discussed around mitigation of impacts for range should be applied to these locations as well.

#### 4.5.1 Continuation or Replacement of Back Country Interests

The prospect for the continuation and/or replacement of these interests, including grazing, on TL looks positive. The less intensive nature of back country use, and maybe a closer cultural identification with these activities among First Nations, may explain this direction (see 3.3.2). The guide outfitter tenures were mentioned explicitly by First Nations in all focus areas, with the exception of the NStQ. The discussion with the NStQ group was decidedly ranching-focused. Both the Kaska Dena and KKTC representatives indicated there would likely be no foreseeable problem with guide outfitter activities continuing on TL. However, the Kaska Dena mentioned a possible restriction on grazing in special cultural management areas. One guide outfitter based in the NStQ area, was also positive about the prospect of being able to continue business on TL, based on a positive working relationship with the specific First Nation group in the vicinity of the tenure.

As mentioned previously, the Maa-nulth Final Agreement included provisions to continue guiding territory certificates under existing terms and conditions. Park Use Permits were also continued under existing agreements. However, some interests like *Land Act* licences of occupation, e.g., cabin attached to trapline, were replaced with tenures issued by First Nations. Forest and range resources were transferred to TL without any third-party interests or conditions for replacement. In terms of the wildlife allocation, a Wildlife Council appointed by the Maa-nulth sets the wildlife harvest allocations for First Nations members and non-Maa-nulth, through a Wildlife Harvest Plan. The Wildlife Harvest plan is submitted to the Minister for approval. The agreement does not change Federal or provincial law in respect to wildlife ownership, or the Provincial Minister's authority for wildlife management, conservation and habitat.

If the necessary authorization for the main interest for back country operators continues as is, or is replaced with a tenure issued by a First Nation on TL, it follows that an associated range tenure would be authorized in a similar manner. If the range tenure is issued by a First Nation its terms will have to be negotiated. Depending on the specific interests of a First Nation, the tenures may be either continued or replaced. Having certainty around the term and renewal for any necessary replacement tenures will be key for guide outfitters.

#### 4.5.2 Compensation related to Back Country Operators

If the main interest or group of interests is not authorized on TL, then compensation will be required. However, compensation will have to be based on the value of the combined interests. If the guide outfitter operation is used as an example, value would be estimated using a combined income and appraisal approach that could also include prices paid on recent guiding territory certificate transfers. In the case of partial impacts, compensation would have to be individually assessed based on the percentage of the business affected. It would likely be the rare case where a land deletion for TL, would result in the reduction of the authorized AUMs on a tenure held by a guide outfitter, but such a deletion may cause an issue with access or timing of grazing use in a specific location. Depending on the circumstances this could result in a significant impact to the operation.

In a number of minor cases, compensation may be necessary for range developments associated with guide outfitting tenures, and the guidance developed for range development compensation (Sec. 4.4.2.2) could be applied. Similar compensation principles may be needed for *Land Act* improvements affected by TL. Improvements are often constructed at locations that offer shelter, water and other resources – sites that were also used by First Nations. There is potential that specific sites will overlap



with First Nation's land selection interests. A willing buyer and willing seller approach for an entire guide outfitting or backcountry business might be contemplated, where impacts are significant – if, for example a major improvement is in a cultural management area, and an agreement for an alternate tenure cannot be found.

#### 4.6 Co-management (Shared Decision Making)

The topic of co-management (or Collaborative Management) and shared decision making was raised frequently in this work. The concept figures prominently in the provincial response to find reconciliation with First Nations through a variety of government-to-government initiatives including strategic engagement agreements, forest consultation and revenue sharing agreements, and wildlife management agreements.

Co-management of range resources in relation to treaty was discussed at some length in meetings with the First Nations representatives in the NStQ. There is an appreciation among the NStQ treaty group of some of the impacts that the current TL selection could have for future range use at the operational level, both off and on TL. The discussion so far has been framed around how the parties might work across jurisdictional and administrative boundaries between TL and Crown range. The form co-management takes in treaty will ultimately be shaped by the negotiations, especially if continuing or replacement range tenures are part of the discussion. It would likely serve to distinguish specific co-management models that evolve to manage rangeland along the boundaries of TL and Crown range, from the broader more encompassing models of co-management that might be applied at a landscape-level scale within a First Nation's larger traditional territory.

There is no universally accepted definition of co-management. Rather, the term encompasses an entire spectrum of arrangements with varying degrees of power sharing for joint decision making by governments and user-groups (communities) for the management of an area, or resources.<sup>53</sup> The promise of co-management in the BC context is that it usefully fits the direction needed to find reconciliation with First Nations. However, the conditions for successful co-management aren't that well understood, and it will take time and considerable effort to find a process to enable this type of arrangement for management of the range resource in the Interior regions of the province. The prospect for the exploration of co-management is certainly there within the context of treaty negotiations with the NStQ.

The prospect for reaching successful co-management also exists in the largely unsettled northern parts of the province (Kaska Dena). Here, where there are generally fewer resource users, and a sense of larger unifying interests in the land and its wildlife, discrete and accepted co-management areas might be defined. A recently signed Strategic Engagement Agreement with the Kaska Dena is a step toward this direction. Likewise, the geographic conditions that allowed the *Tsilhqot'in* to prove their case of aboriginal title in the Supreme Court, and the relatively low number of range users from outside the title area, may allow the development of a new co-management model for range use over the territory.

What are the conditions for successful co-management? This is a difficult question to answer, and it certainly depends on the needs and the characteristics of the management problem and the resource. In that respect, co-management should develop in a way that fits those characteristics. However, one can begin to understand those conditions by examining factors that lead to the successful cooperative management of complex social-ecological systems more generally.

There has been a large amount of work in this area since the publication of Garrett Hardin's "Tragedy of the Commons" argument, which suggested users were trapped into resource overuse and could never organize themselves to successfully manage a common property resource. Some of the key factors that support successful management have been drawn together into a set of system design principles,<sup>54</sup> and evaluated with research studies of social-ecological systems from around the world.<sup>55,56</sup> The value of this work is that it provides a useful analysis framework for looking at the issue of co-management of the range resource in BC.

Some key variables common to this type of framework are:

- Clearly definable boundaries - Users must be able to identify the resource, and where they have access to it; and users and non-users must be distinguished. This is easier with a stationary resource like forage than it might be for a mobile resource like wildlife. However, the livestock harvesting the forage resource are mobile, and may need to be enclosed or herded.
- Size of the resource unit - This affects issues like fencing costs. If the unit is sufficiently large fencing might be avoided with natural barriers. Size also determines whether there is sufficient variation within the unit to provide all the resources, including water, for efficient grazing (i.e. spatial and temporal variation of forage for season-long grazing). An extremely large unit can make user organization difficult.
- Number of users – There are greater organizational costs with higher numbers of users. Other social factors like leadership, group norms, and knowledge transfer become more important.
- Norms and social capital – User groups with shared norms and values usually have lower transactions costs for administration because of higher levels of trust and reciprocity in relationships. This kind of common identification within a community of users, as well as easily identifiable boundaries, i.e., being an island, were major factors in the development of co-management on *Haida Gwaii*. This variable is also likely to play a role in future co-management around *Tsilhqot'in* title land.
- User groups need to be empowered to find self-defined operating and enforcement rules.

There will be additional variables to consider depending on the situation. The importance of each is likely to change depending on the degree to which the management model departs from the current system of range administration and regulation.

The community Pasture model represents one form of co-operative management within the current system of Crown range use. Most, if not all, of the associations operate under the *Societies Act*, and they may adopt membership rules by resolution or with a management plan. The grazing licence is issued to the society. All policies related to the administration of a grazing licence apply, however, the society is responsible for fulfilling these obligations on behalf of the members. One identified benefit of the community pasture is that it provides access to Crown range for operations with few livestock. Members may also benefit from cooperative livestock management and range improvement projects. However, conflict can occur when the inputs of members are disproportionate, and occasionally members will revert to grazing individual pastures in the tenure, basically eliminating the cooperative aspects of management.

## 5 Options Framework and Guidance Recommendations

A series of options and considerations for dealing with Crown range interests in treaty have been outlined in the previous section. All of the options have social, economic, ecological or geographic constraints or limits to their application and/or effectiveness when they are placed in the context of treaty. It would be impractical, and also unhelpful to suggest that there is an ordered process negotiators might follow to assess the appropriateness of an option one at time. The dynamic nature of treaty negotiations combined with the social and ecological complexity of the Crown range system suggests otherwise, and that an open exploration or consideration of a suite of options will ultimately find greater success. A set of options— rather than any single option—found through a highly informed and iterative process of consultation, analysis and negotiation will be required to satisfy the needs of a specific treaty and all the interests involved.

Keeping all of these considerations in mind, an options framework is still needed to help negotiators navigate the process. This is especially important leading up to the critical AIP stage, and particularly if it looks as though a set of options, rather than a single option, will need to be employed. It is important to point out that the options framework outlined below was developed with reference to grazing licences associated with beef cattle ranches as the predominant Crown range tenure. Certain principles established in this section will apply to hay cutting tenures, and grazing licences held by guide outfitters. The discussion around the treatment of those tenures (Sec. 4.4.2.3 and 4.5) should be referenced when reviewing this section.

### 5.1 Negotiation and Mitigation Options Framework

The options framework is illustrated by the flow chart in Figure 15. The chart is laid out along two relative scales: 1) potential acceptance and 2) suitability for addressing impacts. The top part of the figure sets out options that might be pursued to deal with substantial impacts to third parties as a result of land selection including: Willing buyer and willing seller, Alternate Crown Range Tenure, Continuing Interest on TL, and Replacement Interest on TL. The order reflects the likely declining acceptance of the option by affected tenure holders. If, for example, impacts can be avoided with land selection it would be preferred, so this option is placed at the top of the chart. The options at the bottom of the figure are aimed primarily at improving the forage productivity or the utility of the remaining Crown range, and therefore are helpful for dealing with only marginal impacts. These in general are considered to have lower potential acceptance since there is some uncertainty around the delivery and effectiveness of some of these options.<sup>1</sup> Alternate Crown land tenures occupy a middle position along both spectrums.

Practically speaking, the relevance of different options will shift as First Nations and other interests become more clearly identified. Likewise, the acceptance of any particular option could vary substantially from one tenure holder to another depending on the level of impacts, and the circumstances of a particular operation. Moreover, First Nation interests, and the characteristics of the social-ecological system in the region where the treaty is being negotiated, including its range use and

<sup>1</sup> Effectiveness in most cases will be the ability of a measure to create additional AUMs of useable forage. Effectiveness varies with specific site conditions and circumstances.

livestock production, will be a major factor in determining what options show utility and/or feasibility. In later stages, the land selection itself will determine what options can and should be pursued.

It is also important for negotiators to understand the implications of each option, including the relative costs, and where additional input, analysis and policy development will be required before an option can be successfully implemented. There is also a clear difference between options in terms of where they fit into the negotiation process, and where they sit relative to a treaty agreement. Options that involve TL, including the continuation of a tenure, or a replacement tenure issued by a First Nation and the negotiated terms of those interests are part of the treaty agreement.

A number of options including compensation, alternative Crown land tenures, and fencing for mitigation purposes, for example, are not part of a treaty agreement. These arrangements will need to be prescribed in different kinds of ancillary agreements that are triggered on the effective date of the treaty, and become operational during the implementation stage. To have effect, these options will need to be funded with implementation funding, or some other defined source (LBI – Land Based Investment funds). This knowledge is extremely important for the purposes of building trust and good faith in negotiations with impacted range tenure holders. All the options discussed in this report have been summarized in relation to these characteristics, limitations and other considerations and are presented in Table 6.

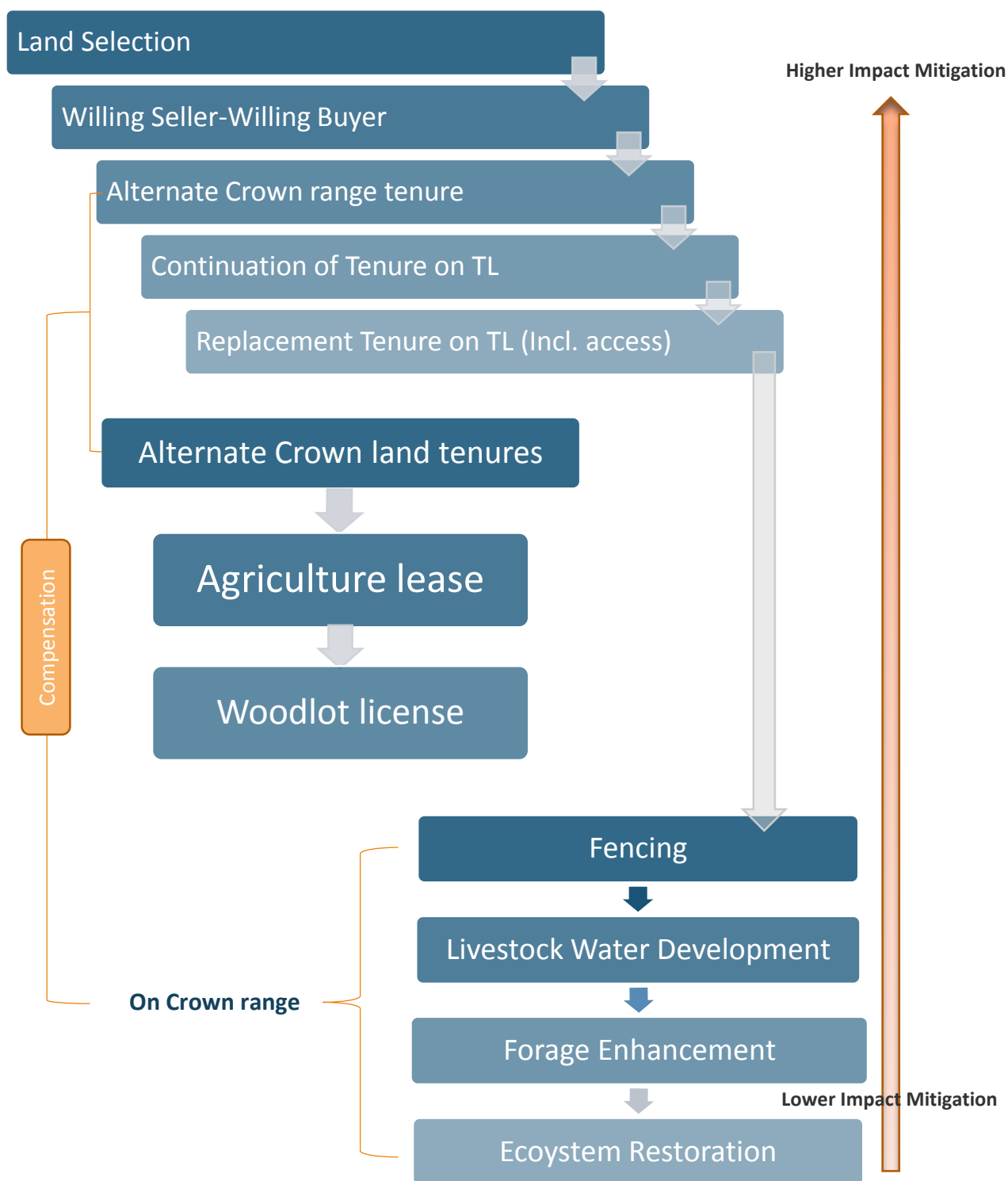


Figure 15 Negotiation options framework and relative mitigation continuum based on likely third-party acceptance (higher to lower), and the relative appropriateness of each measure for mitigating different levels of impact of treaty on grazing licences (high impact to lower impact)

Note: Compensation for range improvements and loss of authorized AUMs may be required at any number of levels depending on circumstances and outcomes. Mitigation measures on Crown range may be applied individually, or in combination to increase effectiveness.



Table 6 Negotiation and mitigation options for range resources (summary table)

Options	Relative costs	Timing in Process	Place in Treaty	Limitations/Considerations for Application in Treaty
Land Selection	Low – if adjustments can be made to accommodate First Nations' interests	AIP	In Final Agreement	Effectiveness is highly dependent on scale, location, First Nation interests, existing fences, improvements, natural barriers, and grazing tenure function
Willing Buyer and Willing Seller	Variable – high up front, but if successful high value in treaty, and could reduce costs of 3 <sup>rd</sup> party mitigation	AIP to Final Agreement, but prior to AIP preferred to increase options and protect ranch values	Treaty-related measure or incremental treaty agreement – land and other benefits documented in final agreement	Limited by timing in process, location of available properties, First Nation interests; risk in investments in information gathering, first right of refusal, lease- back and other agreements; requires development of acquisition fund and/or other mechanisms to buffer timing issues; potential to keep ranch business whole
Alternate Crown Range Tenure	Low cost, but depends on the nature of range improvements	Analysis AIP-Final Agreement	Implementation and compensation agreements	Vacancy must be available and acceptable in terms of authorized AUMs and location; compensation may be required for lost range improvements or AUMs; potential to keep ranch business whole
Continuation of Tenure on TL	Low cost but depends on revenue sharing arrangements for grazing fees and administration	AIP-final agreement	In final agreement	Completely dependent on First Nation interests and scale and location of land selection; if acceptable to First Nation, exact terms of management and administration need to be negotiated; potential to keep ranch business whole
Replacement Tenure (incl. access provisions for grazing animals)	Low-medium depending on terms	AIP-final agreement	In final agreement	The condition and terms, including length of term, terms of replacement and grazing fee schedule must be negotiated to have value; need third-party input to find acceptable terms; potential to keep ranch business whole under acceptable terms
Crown land Agriculture Lease	Low-medium depending on work required to establish capability and timber value	Analysis AIP-final agreement	Implementation - agreements with impacted range tenure holders	Availability of suitable land with agric. capability, must consider First Nations interests, resources available to establish capability; could keep ranch business whole
Woodlot licence	Low	Analysis through AIP – final agreement	Implementation – agreements with impacted range tenure holders	Scale and location may minimize value for mitigation; quantity of additional forage uncertain; obligations for forestry objectives may not fit with interests of affected parties; evaluation of re-forestation standards in appropriate areas; suitable areas for new dispositions

Table 6 Options summary table (cont.)

Fencing	Cost on range est. \$13,200 per Km for construction; \$900-1200 per km for removal	TL boundary fence in AIP-final agreement; analysis and planning for fence mitigation during AIP-final agreement	TL boundary fence in final agreement; fence for mitigation in Implementation-agreements with impacted range tenure holders	TL boundary fence requires policy clarification around the <i>Trespass Act</i> and the <i>Livestock Act</i> ; fencing may be necessary to enable other mitigation measures on Crown range; fencing alone for lower-level impacts; need to define program for delivery; funding needed for implementation
Livestock Water Development	Highly variable depending on circumstances	Analysis and planning during AIP-final agreement	Implementation - agreements with impacted range tenure holders	Applicable in specific situations; suitable for lower-level impacts; need to establish program for delivery; funding needed for implementation; potential water licencing constraints
Forage Enhancement after Timber Harvest	Relatively low - \$20-\$60 per ha depending on application method, seeding rates, area size staging time, and distance from flight centre	Analysis and planning during AIP-final agreement	Implementation – coordinated planning between range and timber interests; added conditions in Forest Stewardship Plans	Requires a change in the <i>FRPA</i> to identify conditions for forage objectives in areas impacted by treaty; requires cooperation between timber and range programs; partial funding needed for implementation; could be reasonably effective for mitigating lower to medium-level impacts on summer range
Ecosystem Restoration	Highly variable depending on treatment (\$75-\$2500 per ha); additional costs associated with planning	Analysis and planning during AIP-final agreement	Implementation - agreements with impacted range tenure holders, and ER programs	Requires suitable area for treatment; must be compatible with other land use objectives and users; sufficient knowledge and resources for implementation; resources for ongoing maintenance; suitable for lower-level to medium-level impacts, when combined with water development, fencing; complex, costly with a high institutional demand but high level of co-benefits
Compensation	Valuation for lost AUMs not yet accepted, range developments based on current value	Analysis and planning during AIP-final Agreement	<i>Final Agreement Compensation Regulation</i> at final Agreement	Policy decisions around AUM valuation required and essential for negotiations; standardized range impact appraisal guidelines required for assessment of lost AUMs and range developments; compensation-mitigation trade-off analysis required; compensation may not keep ranch businesses whole
Co-management	Costs related to future management inputs, and administrative costs	AIP-Final agreement	final Agreement	Determined by First Nation interests, negotiated terms and conditions in relation to any continuing or replacement tenures on TL; co-management outside these parameters will require additional analysis and policy development

## 5.2 Guidance Recommendations

Numerous points of guidance aimed at negotiators and others supporting negotiations have been offered throughout this report. The purpose of this section is to highlight those recommendations viewed as most essential to the process of finding accommodation for First Nations' interests and those of range tenure holders impacted by treaty. Not unlike the application of the options framework, the processes and/or actions summarized below may occur in phases or in steps, but some may also be continuous or ongoing throughout the different stages of treaty depending on the circumstances of the negotiation.

1. **Information Gathering and Knowledge Building** – Negotiators and support teams need to learn and understand current and historical range use and livestock production in the region they are working in. This will be a continual process informed by discussions with FLNR range staff, ranchers, guide outfitters, and First Nations and their staff. This should be supplemented with information from the range tenures database, and a review of relevant background documents. This process should also include visits to ranches and range tenure areas to better understand their function and operation. Local knowledge should be valued in this stage to learn of vacancies and businesses that might be in transition, for the purposes of developing willing buyer and /willing seller opportunities.
2. **Land Selection** – The scale and location of land selection is critical because it defines both impacts and future opportunities. Support and analysis for land selection should include the fence, range development, and natural barrier GIS spatial layers (where this data is available) to use in combination with the range tenures and surveyed parcels database. Analysis for land selection should include discussion with district range staff to incorporate information on tenure function, so that fencing, access, livestock-watering points, livestock-handling facilities, critical primary range and other resources can be considered, and so that adjustments can be made to mitigate impacts when possible.
3. **Future Land Use Compatibility Analysis on TL** – Negotiators and support teams need to track planned future land use on proposed TL for compatibility with future public access, and for future range use. This information is needed to assess the potential impacts to range tenure holders, and also to identify what options might be employed to mitigate impacts. If range use is incompatible on a selection of TL, this will limit mitigation to those measures that can be applied on Crown land (see Figure 15).
4. **Administrative Boundaries and Fencing** – Creating functional administrative boundaries should be a goal in land selection, and, hopefully, are an outcome whenever possible. If the future land use is not compatible with grazing, provisions will be required to create, and establish ownership and the future maintenance responsibility for, boundary fencing between TL and adjacent lands where this is required. Policy direction in this area is needed, however, the current legal framework does not preclude agreements that can specify the obligations of each party.
5. **Range Tenure Appraisal and Impacts Analysis** – Once the TL selection is accepted and future land use compatibility analysis is complete, a detailed range tenure appraisal and impact analysis is recommended. The tenure appraisal is required to establish how the use of the

tenure will be affected by the land selection, how many AUMs of grazing are involved, and the value and ownership of any range developments located on the TL. This analysis is needed to support mitigation and/or compensation, and negotiations around the terms (e.g., grazing fees and revenues) of any continuing or replacement grazing tenures on the TL. This work needs to be coordinated with and supported by FLNR range staff, and should include information gathered from the impacted tenure holder.

6. **Mitigation and Compensation Options and Funding** – Negotiators need to develop both knowledge and clarity on the practical application of mitigation and compensation options. Establishing what options can effectively be used to mitigate impacts on a specific tenure area and how those options will be funded and delivered is critical for building trust with impacted tenure holders. Policy and fiscal analysis support will be required.
7. **Communications with Impacted Tenure Holders** – Direct communication with individual tenure holders is absolutely essential. Every impacted tenure holder should have the opportunity to discuss the available options. Discussions may be ongoing and timed to reflect changes in land selection or areas of agreement. It is important that negotiators have a basic knowledge of the range use system, available options for mitigation, and the determination of compensation before engaging ranchers and/or guide outfitters. This knowledge should be used to help inform discussion with individual stakeholders about their operations. The first question should not be: “Will this land selection impact your operation?” The first step should be information gathering to establish “how” a range tenure is used and how various land selections may impact an operation. The options discussion should take place on an individual basis. Discussions to establish a negotiating position on the terms of replacement tenures will require broader-based input from the affected stakeholder group in the area (see recommendation 8.).
8. **Continuing and/or Replacement Tenures** – The baseline position for new grazing tenures on TL, in terms of third-party acceptance, is the continuation of the conditions and terms of existing Crown range tenures. Departures from this position will require consultation with third-parties to establish the range of acceptable limits in the terms and conditions for tenures on TL including: the tenure term, replacement, grazing fee, method for determining the grazing fee, and notifications. The negotiation of the grazing fee is critical; a measure of willingness-to-pay (WTP) could be gained through rancher focus groups, and used to estimate economic limits of a new grazing fee. The outcome of these consultations would support negotiations. If the relative costs of replacement tenures become too high, impacted ranchers may prefer – and would also be entitled to – other options (i.e., compensation). This discussion does not apply if First Nations do not want grazing on their lands, or want to issue tenures without any negotiated conditions.  
  
Suitable replacement grazing tenures for guide outfitters and back country operators must be negotiated and dealt with in the Final Agreement. It should not be assumed that grazing can or will continue as an incidental activity with the main right of access or use (i.e., the guiding territory certificate).
9. **Co-operative Management** – Specific co-management models that might evolve to administer rangeland along and across the boundaries of TL and Crown range, need to be distinguished from the broader models of co-management that might be applied at a landscape-level scale within a First Nation’s larger traditional territory. The co-management of rangeland will need to

be highly specific and operational in detail, and these requirements likely could not be addressed adequately within a higher-level shared decision-making model. It is possible that these specific areas of co-management for range could be integrated into a larger model of cooperation with First Nations if consistent with the direction of negotiations.

10. **Final Agreement** – All of the necessary components related to the future use of range resources on TL need to be addressed in appropriate sections of the treaty agreement. It may not be necessary to have a specific “Range” chapter if the respective topics can be covered in Forests, Land, Access, Water, Capital Transfer, Fiscal, or other chapters.

## 6 Recommended Policy Development Initiatives

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The intent of this section is to identify what are considered to be the highest priority areas for policy development to support application of these options in ongoing and future treaty negotiations. The initiatives are provincial in scope and it is expected that the outcomes from the proposed work will help clarify options and continue to build knowledge and understanding among all parties involved in the treaty negotiation and implementation processes. As these initiatives are implemented, the guidance for negotiators can continue to be refined.

At this time, it is critical for tenure holders who may be impacted by TL selections to have a better understanding of what might be possible within a treaty negotiation. One of the most challenging aspects of dealing with Crown range in treaty negotiations is the dynamic process of land selection, and its effect on mitigation options. The resulting uncertainty around the timing and scale of impacts is a major concern of range tenure holders. The recommended policy development initiatives are important steps in a process that will lead to greater certainty for all parties engaged in or potentially affected by treaty negotiations.

### 6.1 Policy Initiatives

1. **Crown range/TL Boundary Fence Policy** – A change in administrative boundaries is one of the primary effects of treaty, consequently clarification regarding the control of livestock and future fence construction in rural range areas is needed. Future policy should consider legal review of the *Livestock Act*, and the *Trespass Act* in relation to TL, Crown land and other private lands. Legislative changes may be required. Even where replacement tenures can be negotiated and existing fences retained, there may be TL designated as private lands that will create immediate impacts for users of Crown range under current legislation (i.e., *Trespass Act* Sec. 3.4).
2. **Agricultural Lease Mitigation: Analysis, Evaluation and Case Examples** – Facilitating the disposition of a *Land Act* agriculture lease could be a key mitigation opportunity in the central and north-central Interior and could be supported within current policy. A land analysis and some specific case examples, which would include an estimated valuation and assessment of land capability for agriculture in the Nazko and eastern NStQ areas of the Cariboo region, would be useful to help evaluate the potential effectiveness of this option. Case examples would help



identify issues and support development of policies and procedures for implementation. A project should be carried out in consultation with FLNR Range, Authorizations and Ministry of Agriculture staff in the Cariboo Region. Findings would be reported to the ARR Strategic Policy Branch, FLNR Range Branch, FLNR Regional Operations and the Nazko and NStQ negotiating teams.

3. **Range Tenure Appraisal and Impacts Analysis Guidelines and Standards** – A standardized approach for individual tenure appraisals and impact assessments is needed, and should include data forms that capture the different aspects of tenure function including the TL selection and potential changes in access. Appraisal results will directly affect the delivery of mitigation measures on remaining Crown tenure and compensation payments when required. Range tenure appraisal information will be useful in the final agreement stages of negotiation because it will provide an inventory of improvements and available AUMs of grazing transferred with TL. Separate or supplemental guidelines may be required for guide outfitter and other back country operators.
4. **Mitigation Options** – Clarification and refinement of mitigation options is needed to build knowledge among all range interests and negotiators, and to help reduce uncertainty for third-party interests. A high-level least cost analysis of various options, i.e., compensation vs. mitigation, using specific examples is needed. Program development or direct linkages with existing programs (e.g., ER, Land Based Investment) need to be investigated and then directed to support treaty negotiations. Least cost options and fiscal arrangements for program delivery of mitigation measures directed at Crown land should be identified and clearly articulated. The identification of sources of funding for mitigation is necessary to build confidence in the treaty process with third-parties, and allow individual business decision making.
5. **Range Compensation Policy and Procedure Development** – the development of compensation policy and procedures is required to support negotiations with third-parties, and address impacts related to treaty settlement. Consensus is needed on valuation and terms. High-level least cost analysis is needed to assess mitigation vs. compensation alternatives.
6. **Acquisition Fund** – The development of a fund for land and tenure acquisition as part of a TRM or ITA is recommended to facilitate willing buyer and willing seller transactions of ranches and guide outfitter territories to support First Nation's interests in treaty. Work should be initiated to identify necessary conditions, i.e., agreements, legislation and/or actions required to implement.
7. **Forage Enhancement on Crown land** – Although this option is part of the mitigation options above, it deserves special mention. There are opportunities for increasing forage production on Crown land at low cost, but they are currently not explicitly supported by operational policy, or in the objectives set by government on those types of tenures. Increasing forage production after timber harvest on both major and minor (woodlot licence) forest tenures in specific areas, would help mitigate the impacts of treaty. Silvopasture pilots that have been implemented by the Ministry of Agriculture and FLNR should be monitored and used to help shift policy in this direction.

8. **Co-management** – Additional support will be needed to inform and help shape co-management models to administer rangeland along and across the boundaries of TL and Crown range in some areas. Knowledge building around factors that are likely to result in successful co-management may also be required.

## 6.2 Additional Policy Development Activities

- Clarification of access provisions for livestock on TL and linkages to treaty chapter guidance
- Development of Vacancy Policy in relation to First Nations and treaty negotiations
- Implementation of Range Opportunity Framework Agreements for negotiators
- Monitor developments related to range resources in the *Tsilhqot'in* title area

## 7 Appendix

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Detailed information gathering in each of the focus areas took place during July, August and September 2014 and included:

- In-person interviews with range tenure holders
- Field visits to tenure areas
- In-person meetings with First Nations treaty representatives
- In-person meetings with FLNR staff (Range and First Nations Relations)

Interviews were unstructured and open-ended, but a frame of key questions was developed for tenure holder interviews. The questions related to tenure holder business operations, business history and Crown range use. A key part of the interviews involved a conversation around potential scenarios in the event a holder's range tenure were impacted by treaty settlement. This discussion was frequently initiated with a sketch map where a hypothetical tenure area and a land selection for treaty settlement were drawn. Discussion would start from a scenario where a small area of land might be designated TL within a tenure, and then go to a scenario where 25%-50% of the allowed authorization in AUMs might be affected by a TL selection. Potential impacts and outcomes were explored with participant tenure holders and included mitigation, co-management, compensation and First Nation tenure alternatives. For guide outfitters this part of the interview was framed around different use areas being affected by the hypothetical TL, rather than the amount of authorized forage.

Contact with First Nations treaty representatives was made through introductions provided by the respective provincial negotiating teams. Follow up meetings were scheduled to coincide with tenure holder visits. Conversation with First Nations representatives was framed around a description of the project objectives and gaining some sense of the First Nation's perspectives on the range resource, the First Nation's interest in range opportunities and the future range use of potential TL. These meetings took place in both group and individual settings.

Meetings with FLNR Range staff involved discussion of the project objectives and detailed operational information related to range tenures including vacancies, non-use, and interactions with First Nations. Aspects of TL selection, the negotiation process and the *Tsilhqot'in Nation* decision were also discussed. Individual meetings were also held with each focus area negotiating team to get background and discuss area-specific issues. Joint update meetings on the project's progress were held with FLNR and ARR staff on a monthly basis over a six month period.

Notes recorded during interviews and meetings were transcribed into detailed text files. These documents were then coded by focus area, respondent and topic subject matter using the TAMS Analyzer software to allow further detailed searches and analysis.<sup>57</sup> The number of individuals engaged in interviews and meetings for each focus area is shown in Table 7.

*Table 7 Number of individual range tenure holders, First Nations treaty representatives and FLNR staff engaged in interviews and meetings for the Treaty Range Strategy by focus area*

Area	Tenure holders	First Nation rep(s)	FLNR staff
Kaska Dena	6 (6)	2	3
Nazko	5 (1)	1	1
NStQ	11 (1)	5	3
KKTC	6	3	2
<b>Total</b>	<b>27 (8)</b>	<b>11</b>	<b>9</b>

*Note: Tenure holders in brackets () indicates the number of the total that are guide outfitters*

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