

**Impacts of Harvesting on Cattle
Grazing near Quesnel**

Complaint Investigation 050694



FPB/IRC/121

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Table of Contents

Executive Summary 1

 Board Commentary 1

 Recommendation 2

The Investigation 3

 Background 3

 Discussion 4

Recommendation 8

Appendix – Additional Background Information 9

Executive Summary

Bear Valley Ranch (the complainant) complained that West Fraser Mills Ltd.'s (the licensee) use of cut-to-length timber processing and disc trenching unreasonably interfered with its cattle grazing in cutblocks. Cut-to-length harvesting machines fall trees, remove branches, buck to length, sort at the stump, and forward logs to roadside. This system leaves branches, whole logs, and partial logs scattered on site.

The complainant is concerned that the accelerated harvesting and the resulting condition of the harvested sites have damaged his range area. Prior to the recent logging, his grazing areas included forage under mature pine forests. The complainant expected that, once harvested, the cutblocks and roads would provide new forage opportunities. However, with cut-to-length harvesting, site preparation using disc trenching, and no removal of slash, there is little grass in the blocks and the slash acts as a barrier to the complainant's cattle.

The Board accepts that the licensee's forest practices are having an adverse impact on the rancher's access to preferred forage. The precise extent of the impact is not known; the Board has not determined if the overall amount of forage, measured as animal unit months (AUM)¹ in the area have changed.

The Cariboo-Chilcotin Land Use Plan (CCLUP) contains objectives for range, and forest development must minimize or mitigate impacts to other values, including range. As well, the CCLUP requires that the current level of AUMs be maintained according to range unit. The licensee's operations can leave slash and debris on a harvested site, even if it conflicts with cattle grazing, as long as it is consistent with the CCLUP objectives for range.

Given that MOFR felt sufficiently concerned to prohibit cut-to-length harvesting in response to the range impacts from the licensee's operations, and that discussions of the issue are still preliminary, the Board cannot yet determine whether the licensee is meeting the CCLUP range objective. The Board cannot definitively say that the licensee has minimized or mitigated impacts to other values, including range. However, the Board does consider that the licensee should take the initiative to actively mitigate the impacts of its operations on range resources, at least in those areas that are most important to the complainant.

Board Commentary

This investigation identifies a potential gap in the *Forest and Range Practices Act* (FRPA). There are no range objectives or requirements for integration of range resource values in forest stewardship plans. The exception is if range objectives exist in a land use plan such as the CCLUP, or are created through the *Government Actions Regulation* or *Land Use Objectives Regulation* under the *Land Act*. But for most areas, there are currently no range objectives that

¹ Animal Unit Months of forage, or the amount of forage consumed by a cow and calf in one month.

apply to forest licensees, and forest licensees do not have to integrate their operations with range tenures.

Forest operations can have substantial influence on range development and use. FRPA contains regulations to protect range developments, but it does not protect the Crown's grazing resources. There is no consideration of the economic or ecological benefits that range can provide in balance with timber harvesting. Grazing rights granted under the *Range Act* are independent of, and potentially subservient to, the Crown's interest in timber as administered under FRPA.

Only with explicit objectives that place value on range resources will government be able to ensure a balance of forest and range resources, and ensure that all Crown-granted tenures and rights are considered.

Recommendation

In light of increased government and public reliance on resource users and their professionals to achieve sound stewardship of both forest and range resources, the Board concludes that, in this case, the licensee must improve its consultation with range users and, in a timely manner, modify practices (where that is feasible) to mitigate its impacts.

In accordance with section 131 of the *Forest and Range Practices Act*, the Board recommends that:

The licensee report to the complainant and the Board what actions and measures it has undertaken, or will undertake, to address the range issues.

Under section 132 of the *Forest and Range Practices Act*, the Board requests that the licensee report to the Board by October 2, 2006.

The Investigation

On December 1, 2005, Bear Valley Ranch (the complainant) complained that West Fraser Mills Ltd.'s (the licensee) use of cut-to-length timber processing and disc trenching unreasonably interfered with its cattle grazing in cutblocks. Cut-to-length harvesting machines fall trees, remove branches, buck to length, sort at the stump, and forward logs to roadside. This system leaves branches, whole logs, and partial logs scattered on site.

The complainant expected that, once harvested, the cutblocks and roads would provide new forage opportunities in his range area. However, there is little forage in the blocks and the slash acts as a barrier to livestock.

Background

The complainant grazes 350 head of cattle on two range units southeast of the City of Quesnel, and range use is regulated by a plan that must be renewed by spring 2007. The complainant has not yet completed a new plan because he is waiting until the forest harvesting, road construction and site preparation are complete.

The range tenure overlaps the licensee's forest operations in a forest licence and a tree farm licence. As well, the licensee's 2001-2005 development plans have been frequently amended to accelerate the harvesting of mountain pine beetle infested stands.

Since 2001, licensees in the Quesnel Forest District have used harvesting machines to process timber at the stump. This system is known as 'cut-to-length,' 'enhanced bucking' or 'stump-side harvesting.'

The complainant is concerned that accelerated harvesting and the resulting condition of the harvested sites have damaged his range area. Prior to the recent logging, his grazing areas included forage under mature pine forests. The complainant expected that, once harvested, the cutblocks and roads would provide new forage opportunities. However, with cut-to-length harvesting, site preparation using disc trenching, and no removal of slash, there is little grass in the blocks and the slash acts as a barrier to the complainant's cattle.

A former licensee, the Ministry of Forests and Range (MOFR), and the complainant were all aware of the issues as early as 2001. The current licensee became aware of the issues in August 2005, but did not fully understand the concerns until a site visit with the complainant in October 2005.

The complainant and MOFR visited the site in August 2004. MOFR looked into compliance and enforcement options and discussed both the harvesting system and the range issues with the complainant. MOFR confirmed that the use of cut-to-length harvesting machines in potentially forage-rich sites was significantly decreasing forage production. MOFR discussed the concern

internally, but no immediate action was taken.

In June 2005, the complainant again raised the issue with MOFR. This time MOFR discussed the complainant's concern with the licensee. MOFR expected that the licensee would try to address the range concerns without MOFR having to take any direct action.

The MOFR district manager also discussed the issue of heavy slash and grazing with three other local forest licensees. Other range users had raised identical concerns with MOFR, and the district manager believed that the forest licensees were not sufficiently acknowledging the problem. The district manager decided that any new cutting permits in two range units in the area would exclude cut-to-length harvesting systems.

When the licensee and the complainant visited the site in early October 2005, the licensee realized that the issue was not simply about debris, but also about the use of disc trenching for site preparation. However, the licensee also learned that not all sites were of concern because the entire range unit is not used equally by the cattle.

On October 28, 2005, the licensee wrote to the district manager objecting to the harvesting system restrictions that had been placed on new cutting permits. The licensee explained that it had hired an agrologist to help resolve issues. The district manager agreed to rescind the cutting permit requirements if a solution was reached.

On December 2, 2005, the agrologist and the complainant met on site. As of August 2006, the report has not yet been completed. Meanwhile, the licensee has continued to use cut-to-length harvesting on sites that had previously approved cutting permits, but is prohibited from doing so on new cutting permits.

Discussion

1. Are the licensee's forest practices having an adverse impact on the rancher's access to preferred forage?

Yes. It was not disputed by the licensee, MOFR or the complainant that, on specific sites, the use of cut-to-length harvesting in conjunction with no slash reduction and the use of disc trenching does adversely impact the range values. Such sites do not provide suitable conditions for grass establishment and the heavy amount of slash acts as a barrier to cattle. What is not agreed upon is whether the level of impact is so high as to prevent or impair the range user's ability to graze cattle on that range. Other harvested sites without heavy slash provide new range opportunities which could balance or mitigate the impacts in areas affected adversely by slash residue. However, MOFR believed that the impact warranted prohibiting further use of cut-to-length harvesting in this range area. Also, Board staff went on site in late 2005 and confirmed that, in specific circumstances, the slash loading does have an adverse impact on forage.

The licensee had requested that MOFR provide it with a methodology to assess the amount of forage, measured as animal unit months (AUM) levels so the effects of its operations on the range could be evaluated. MOFR provided AUM information in June 2006. MOFR, the Board and the licensee all hoped the agrologist report would provide operational options to resolve the conflict.



Fall 2005 – Logging slash and debris from cut-to-length harvesting.

In summary, the Board accepts that the licensee’s forest practices are having an adverse impact on the rancher’s access to preferred forage. The precise extent of the impact is not known; the Board has not determined if the overall AUMs in the area have changed.

2. Is the licensee compelled by the *Forest and Range Practices Act (FRPA)* to address range issues?

Yes. The licensee is committed, and legally obligated by its approved forest development plans, to consider range use and to cooperate to minimize conflicts with range users. Under FRPA, development plans and licensee operations must be consistent with the forest development plan, as well as any higher level plan.

The area of interest is subject to the Cariboo-Chilcotin Land Use Plan (CCLUP) which was designated as a higher level plan. The CCLUP contains objectives for range, and requires that, in each management zone, forest development must minimize or mitigate impacts to other values,

including range. As well, the CCLUP requires that the current level of AUMs be maintained by range unit. In response, the licensee's forest development plans contains commitments to work with government agencies on identified concerns about range/forestry issues. The licensee stated that, if any concerns arose, it would work with the range user, MOFR and the Ministry of Environment to ensure environmentally sound land stewardship. In the current tree farm licence forest development plan, the licensee similarly commits to cooperating with MOFR, range associations and range users to minimize conflicts.

FRPA stipulates that licensees must mitigate damage caused by a forest practice that directly or indirectly removes or renders ineffective a natural range barrier.² Forest practices must also limit the spread of noxious weeds.³ However, there is no regulation against a licensee leaving slash and debris on a harvested site unless it:

- conflicts with provisions or measures for identified wildlife;
- poses an unacceptable wildfire risk;
- contravenes a higher level plan; or
- is inconsistent with an approved forest development plan.

There are no specific FRPA restrictions on leaving slash and debris on a harvested site to ensure the slash does not impact cattle grazing.

In conclusion, the licensee's operations can leave slash and debris on a harvested site, even if it conflicts with cattle grazing, as long as it is consistent with the CCLUP objectives for range.

3. Is the licensee addressing range issues?

Undetermined. FRPA does not seem to encourage coordination of overlapping uses of forest and range resources. However, the CCLUP objectives for range do create a clear expectation that forest practitioners will take reasonable steps to try to mitigate the impacts of their operations on range resource users.

In fall 2005, the licensee became aware of the issue through both the complainant and MOFR. MOFR was concerned with the forest practices effects on range in the area. MOFR discussed the issue with the licensee, was not satisfied with its response and, after considering options, prohibited further use of cut-to-length harvesting in this range area. The licensee hired an agrologist to clarify the issues and work towards a solution. The agrologist was on site in October and promised a report in December.

The Board began its investigation in December 2005 but deferred it until February to allow the participants to review the promised agrologist's report, and have discussions on resolving the issues. The complainant was concerned that the licensee's operations would continue as they

² Code Act section 69, Natural Range Barriers.

³ Code Act, section 52, Noxious Weeds.

talked about the issue. By the end of January, it was apparent that the parties were not moving forward with discussions and the promised report was not complete. The Board investigated, and attempted to help the parties open up dialogue to resolve the complaint. The licensee, however, decided to defer discussions with the complainant until it had received and considered its agrologist's report.

In June 2006, a meeting was held with MOFR, the complainant and the licensee, with the agrologist acting as a facilitator. The meeting resulted in commitments for some follow-up tasks to be carried out by all the parties. At that time, the agrologist's report was expected within a week but, as of August 2006, it was still not complete.

The apparent intent of the CCLUP objective is to ensure that forest practitioners take reasonable steps to mitigate impacts of their operations on range resource users. The licensee has committed to working with the range user to resolve issues, and to that end the hiring of an agrologist was a proactive measure. However, communication between the licensee and complainant stopped from December until the meeting in June 2006. Time is a concern to both the complainant and the Board, because issues must be discussed before operational decisions are impossible or too expensive to alter. The delay in the agrologist's report is a complicating factor in this case.

Given that MOFR felt sufficiently concerned to prohibit cut-to-length harvesting in response to the range impacts from the licensee's operations, and that discussions of the issue are still preliminary, the Board cannot yet determine whether the licensee is meeting the CCLUP range objective. The Board cannot definitively say that the licensee has minimized or mitigated impacts to other values, including range. However, the Board does consider that the licensee should take the initiative to actively mitigate the impacts of its operations on range resources, at least in those areas that are most important to the complainant.

Recommendation

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Appendix A: Additional Background Information

What are the potential benefits of cut-to-length harvesting systems?

Cut-to-length harvesting can benefit both the environment and the forest licensee. Using cut-to-length can result in significant amounts of coarse woody debris and slash being distributed throughout the cutblocks. Slash and debris contribute to the maintenance of biodiversity. Leaving coarse woody debris and slash on site can:

- provide moister micro sites for tree seedlings which can increase survival and regeneration success;
- leave nutrients on site;
- limit access to all-terrain vehicles and livestock where needed, both of which can spread noxious weeds;
- limit establishment of grasses which compete with seedlings and attract cattle;
- physically block access to cattle;
- enhance habitat for a variety of smaller wildlife species; and
- provide protection from wildlife grazing on seedlings.

The licensee's plywood plant utilizes peeler logs. Use of the cut-to-length system is essential to the licensee's wood supply, as the system allows sorting for peeler logs at the stump. The high-value peeler logs are then shipped exclusively to the plywood plant. The cost of delivering the wood to roadside is of paramount importance to the licensee, and the cut-to-length system reduces those costs.

Cut-to-length harvesting also provides other benefits such as:

- increased worker safety;
- allowing logs to be sorted on-site;
- reducing machine impacts on wet sites; and
- reducing the transport of debris and waste to roadside.

What are the potential impacts of cut-to-length harvesting?

The use of cut-to-length harvesting brings many benefits and, with that, some risks. Cut-to-length harvesting systems can leave heavy and continuous slash accumulations across an entire block area. The depth of slash can be compounded by the use of disc trenching for site preparation. Similar to a farmer's plough, disc trenching consists of a hydraulic-controlled disc pulled behind wheeled or tracked machines. Disc-trenching makes continuous furrows for planting or seeding. The trench results in slash being flipped up or stacked even higher, acting as more of a barrier. This debris can create a fire hazard and may block wildlife, recreation and range use.

Wildlife & recreation use

The high levels of slash and debris can make it difficult for recreation users and wildlife such as deer, moose and bear to travel through the blocks.

Range Use

In terms of range impacts, heavy slash can limit or cover up growing sites for grass. It can also act as physical barrier to cattle grazing and movement. The amount of slash on site can be exacerbated when deciduous trees are knocked down and left on site and when off-grade logs are left. In the beetle zones, licensees have been given high tolerance for waste in order to maximize the amount of beetle-affected areas that are harvested. Regardless of utilization standards, licensees are permitted to knock down deciduous trees and leave off-grades on the block. Even if there is avoidable waste left on site, the licensees are billed for it but have no obligation to recover the waste or rehabilitate the site unless they chose to do so as part of site preparation.

Fire Hazard

Fire hazard can also be increased through the use of cut-to-length harvesting systems. Harvesting generally reduces fuel hazard as it removes fibre from the site, but it can also increase ground fuels and surface fuels left behind as logging debris. If the debris is left as is, it can contribute to fuel loading which increases fire hazard. After harvesting, site preparation can disturb the uniformity of distribution and, depending on the system used, can either exacerbate the issue or reduce the hazard. If a site is prescribe-burned, or the slash is piled and burned, the hazard can be reduced. If the site is disc trenched or left to regenerate naturally, the fuels remain uniformly distributed on site, potentially increasing fire hazard.

What are the complainant's concerns with forest harvesting and range use?

The complainant is concerned that the accelerated harvesting of the existing forest and the condition of the harvested site is damaging his range area. Specifically:

- loss of forage under treed canopy coupled with access restrictions to new forage areas;
- interception of established livestock trails;
- deactivation of roads and bridges; and
- logging and hauling disturbing cattle.

Loss of forage

The current grazing areas include forage found under mature pine where stocking levels are sparse. These stands are now being harvested. Typically, harvested areas generally increase forage until the site is considered free-growing. However, with the cut-to-length harvesting and no removal of slash, the use of the cutblock for grazing is eliminated. The complainant is also concerned that the licensee's tree stocking levels will preclude future mature stands providing forage.

Interception of livestock trails

Another concern is that, where a new cutblock intercepts an established livestock trail, the cattle may attempt to cross the block and get caught in the slash. Heavy slash loads interrupt and disturb cattle movement and distribution. Additionally, the complainant is concerned that disc trenching in the heavy slash encourages seedling trampling because it restricts where cattle can walk. Consequently, the complainant expects that he may be forced to keep cattle out of such areas.

Deactivation of Roads

Road deactivation is also hindering the complainant's access to his cattle. New roads created by harvesting open up additional areas for grazing. However, the subsequent removal of bridges and culverts prevents the licensee from driving to the cattle with a pickup truck and horse trailer. The harvesting has removed natural range barriers and thereby opened up additional range while simultaneously eliminating road access to the area.

Active Logging and Hauling

Lastly, the complainant has had his cattle grazing interrupted by active logging. The animals avoid harvesting areas and hauling trucks disrupt grazing and movement.