

Assessment of Containment of Livestock

Grazing Licence – 63919 - GRA

for

**Lou Sanson
The Director General
Department of Conservation**

**Prepared by
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1. Brief

To prepare a written report that advises the decision maker of potential options and methodologies for containing the stock within the licence; informed by observations and on-site discussions with the concessionaire and DOC representatives. As requested the report focuses on containment options for the true right of the concession.

2. Background

Grazing Concession Details

Grazing Licence	Ref No 63919
Land	Area "B" Haast River Valley, totaling 736 hectares Between the Roaring Billy and confluence of the Landsborough River The concession is within the Cook River to Haast River Conservation Area
Term	10 February 2020 – 31 October 2023
Concessionaire	John B Cowan, Concessionaires representative - George Ivey
Relevant Conditions	Graze up to 60 beef cows per annum and 50 calves for 6 months That stock are contained within the concession area
Fencing Conditions	Fence the true left boundary of the land to ensure stock are not able to enter the adjoining National Park and appropriate fencing of the true right of the river. Fence stands of Ribbonwood and Coprosma wallii.

Fencing to contain livestock

The concessionaire has agreed to the fencing of the true left boundary of the property. However, they have objected to the requirement to fence the true right of the Haast River, on the grounds of practicality and animal welfare concerns.

This is just one of many grazing concessions on the West Coast and elsewhere. It is understood that many of the grazing concessions on the West Coast are faced with similar issues.

Freshwater Legislation

The Essential Fresh Water legislation came into effect on 3rd September 2020. From 1 July 2025 Cattle and Deer will need to be excluded from waterways over 1 m in width if the land is under 10 degree in slope (as defined and mapped by MFE). This grazing concession falls within the current criteria requiring stock to be excluded from 1 July 2025. The rules are currently under review and there may be an exclusion for low intensity grazing, as was previously proposed in some regions.

3. Observations from the Inspection

An inspection of the property was undertaken on the 18th November 2020. The author was accompanied by Wayne Costello and Rachel Norton (DOC) and George Ivey (Concessionaires Representative). The inspection was by helicopter and included ground inspection at several locations.

The grazing concession is at the southern end of the Cook River to Haast River Conservation area, and boundaries the Mt Aspiring National Park to the south. The area is bounded by the Landsborough River in the east and the Roaring Billy creek in the west. The concession is essentially a relatively thin strip of floodplain of the Haast River and grazing relies on pockets of open grassland areas at the margins and on islands within the braided floodplain. See Appendix 1. Plan A to D for concession maps. The concession is approximately 13 km long and 1 km wide at its widest point.

It was noted that the concession maps show the concession is split into two distinct areas (Canoe Flat – Appendix 1 Plan D), however they are managed as one and stock move freely between blocks. Both the concessionaire and DOC staff thought this was a historic anomaly. The conditions in the concession document make no specific mention of fencing the two areas separately despite the area separating the two blocks effectively being outside the concession area.

It should be noted that the Concession Plan indicates that the boundary is not consistently along the dripline of the bush. There are numerous areas where the Concession Plans (A – D) show the boundary of the concession within the bush area, and other areas where the plan line is at a short distance from the bush. This provides room for uncertainty as to the actual boundary location.

The nature of the Haast River means most of the grazing concession is inundated with floodwater on a regular basis, as evidenced by recent and historic flood debris over the grazable areas. When the river is in flood the bush margin is the only place of refuge for cattle in much of the concession area.

The channels of the river can change with each flood and can erode both pasture areas and undercut the native bush. To the western end the concession narrows up and the river is contained to a single deep channel with no effective grazing or stock access on the true right of the river (Appendix 2 – photo 1).

The slopes to the north of the grazing concession are densely clad in bush and rise steeply from the floodplain (Appendix 2 – Photo 3). The combination of factors means that area is impenetrable to cattle except at the bush margin and to the extent the steep tributaries allow.

During the inspection cows and calves were sighted in four or five locations throughout the grazing concession. The few cows that were viewed at close range were in good condition and had access to abundant feed, as would be expected at this time of year.

4. Current Containment of Stock

A three wire electric fence has been erected along the state highway, reportedly to keep stock from occasionally straying onto the road. This fence does not run the entire length of the road as in places the flow of the river or steep banks mean they are not required. This is the only boundary fencing and is often outside the concession boundary. The concessionaire has agreed to fencing the true left of the concession, though this could be challenging in places.

To the east, the Landsborough River appears to form an effective barrier to the cattle. Neither the DOC staff nor the concessionaire were aware of cattle ever straying upstream. The concessionaire did stress that any new cattle introduced to the concession were mixed with the resident cattle and that this contributed to the lack of wandering.

To the west of the concession, the gorge area and dense bush immediately upstream of the Roaring Billy creek forms an effective barrier to stock on the true right of the concession.

Stock are contained to the north (true right) by the bush, however this is not always within the current concession boundaries. The inspection indicated that in places cattle push into the bush (Appendix 2 - Photos 4 and 5), particularly beside the tributaries, and scree fans where bush is regenerating (Appendix 2 – Photo 6), but also to an isolated grassland area not far from the bush margin. The concessionaire commented that as the regenerating bush matured the cattle wandered less. The concessionaire commented that cattle may push 200 – 300 m up a tributary margin, but in

other areas stock wandered 0 – 50 m from the bush margin. When asked, the concessionaire reported it was easy to get clean musters, which indicates that access by cattle was contained to relatively small areas of bush and that it is not a widespread occurrence.

It was reported that a recent DOC monitoring inspection report did not indicate significant signs of damage to the native flora beyond the bush margin (report not sighted).

5. Practicality of Containing Stock within the Concession area.

At this time, there are only a limited number of methods for containing stock. They include natural barriers such as dense bush, bluffs or banks, or significant waterways; or artificial barriers such as fencing. Virtual fencing is a concept still in development and may provide a solution in the future; however, cannot be considered as a practical alternative at this time.

The only available option for replacing the natural barriers currently relied on, is the erection of fencing. While the erection of a fence is possible, in my opinion it would not be any more effective than the existing natural barriers.

There are a number of reasons why fencing is not considered practical:

- a. Variability of the terrain along the 14.5 km true right concession boundary. Fencing in places would be relatively easy, following the dripline of the bush. In areas of scree fan, the fencing would be more difficult with a requirement for floodgates over an ever-shifting water course. Fencing where the bush overhangs banks would be difficult, particularly when the next flood event could erode more of the bank or redirect the river channel.
- b. The continually changing river channels would require the true right boundary to be entirely fenced; perhaps with the exception of the gorge area at the downstream end of the concession. Any change in channels could mean that areas previously inaccessible to stock become accessible; as stock enter these areas they could easily get behind the fence-line and would effectively then be fenced out of the concession rather than fenced into it.
- c. Flood damage to fencing. The fences could be expected to be lost on the scree fans and other low lying areas every time flood events occur. The high intensity of rainfall, combined with steep or large catchments, generate powerful flood events, sometimes meters in depth. Even brief events could destroy fence-lines and wash debris downstream.
- d. Lack of safe refuge from cattle from flooding. Cattle would no longer have the opportunity to easily retreat from rising floodwaters. This could result in the significant loss of stock. Mustering prior to flood events is not considered practical or safe due to the scale of the area and potential for rapidly rising floodwaters which are often not well predicted in advance.
- e. Maintaining power to the fence. Keeping vegetation off the boundary fence would be an ongoing issue, with flood debris and windfall of branches, particularly in low lying areas or where the Concession boundary is located within the bush.

In summary, it is considered that the fencing of the entire boundary is impractical, and the partial fencing of the boundary to be ineffective.

6. Other considerations:

Local staff indicated one of their main concerns was to ensure they could undertake effective pest poisoning programmes in the area. The concessionaire indicated that with sufficient notice stock could be moved away from affected areas and that they would need to take more responsibility for this than perhaps has been the case in the past. Fencing a larger area at Sunny Flat may be a more practical solution.

Any fencing would likely be 2 – 3 wire electric fences and solar power units. These would provide a potential physical barrier to any recreational users of the area and may detract from a user's perception of the natural landscape.

The 3 year term of the concession provides little security for the concessionaire to be undertaking significant fencing works. The lack of certainty over any renewals of the concession mean the concessionaire could be faced with insufficient time to make a return on their investment into fencing and could be faced with a significant cash deficit.

This concessionaire's family has been grazing cattle on this land from the time the area was originally settled, reports indicate grazing as far back as the 1880's. Within the regional context any access to the bush is extremely minor.

Nationally there are growing concerns over fire risk from ungrazed grassland areas, including on crown land. Although the risk of fire is lower than drier east coast areas, there remains some risks should the concession not be renewed, and grazing is ceased in this area. Seed heads and dead material are likely to build up over time; should they dry out a fire could be carried in the right conditions.

7. Conclusions

Stock are currently effectively contained within the area if not always within the concession boundaries.

The current extensive grazing regime reduces the impact of stock within the bush. Impacts on the bush would be less than minor when considered in a regional context.

Fencing of the true right of the concession is theoretically possible but is not considered as practical. On balance, fencing would likely be no more effective than the existing natural constraints and practices.

Appendix 1: Concession Plans and Inspection Photographs



Plan A. Roaring Billy to Douglas Bluff



Plan B. Douglass Bluff to Sunny Flats



Plan C. Sunny Flat



Plan D. Canoe Flat

Appendix 2: Inspection Photographs:



Photo 1. View from western end of concession looking up the valley



Photo 2, View from the eastern end of the concession looking along the true right of the concession and showing some of the more significant grazing areas.



Photo 3. Illustrates the steep densely clad slopes on the true right of the grazing concession.



Photo 4. Bush Margin



Photo 5. Bush Margin, signs of cattle.



Photo 6. Tributary and Farm Area – illustrating areas of worst stock penetration into bush, but also difficulty of fencing.