

Tabled at Hearing 08/05/2015

Evidence for the Submissions on the Proposed Land and Water Regional Plan

By Richard Kenneth Sinclair Murchison

My name is Richard Murchison. I manage a family farm (Kintail Downs Limited) consisting of two adjoining properties in the Weka Pass, namely Gowan Hill comprising 440 ha and Weka Pass which comprises 330 ha (see attached topographical map). I was raised on the Weka Pass farm and have been farming the property in conjunction with my father or brothers for 23 years and on my own for the last 3 ½ years. I hold a Bachelor of Commerce in Agriculture attained from Lincoln University in 1982.

Property Description

The properties are medium hill country, rising from 160m to 380m, with native tussock hills, hard rock hills with some matagauri and cultivatable downs. Both properties have tributaries of the Weka creek running through them which supports the Weka Creek irrigation dam below. The properties are stocked with a ½ Bred (fine wool) breeding ewe flock consisting of 3600 ewes and 1000 ewe hoggets (replacement young stock), 250 - 300 mixed sex yearling red deer and 50 - 90 beef cattle.

Limestone outcrops are a feature of the properties. Layered Oyster shells are also found and a 2m wall of these is a dominant feature in the bed of the Weka creek on the boundary of an adjoining farm. The majority of the land is naturally high in phosphate and low in sulphur. Nodules have been found in the Weka Pass that consist of approximately 36 percent of tricalcic phosphate (Source - Soils and Manures in New Zealand fourth edition L.J. Wild M.A. B.Sc. 1945).

My evidence to support my submission is in two parts. Firstly, I will describe my farming practice to show how variable a dry land sheep and beef farm can be and why the definitions of a change of land use do not work in the plan or officer's report. Secondly I will detail concerns I have with other rules which are impractical for my farming business.

1 Farming Practise

Stock

The wool is contracted to NZ merino with approximately 40% of lambs finished for export and the remaining 60% sold store to other farmers to bring up to a finished weight. Shearing occurs during December which is not typical for the area, however suits my farming practice. Some beef cattle are purchased annually and used to control rank grass and are finished for export. Deer are purchased on an annual basis and finished for export. Typically, deer are purchased in March and selling starts in October with the majority sold before Christmas. This allows for feed to be available for lambs which are weaned from the ewes in early December.

Pastures

Green feed crops grown are for finishing lambs or providing additional winter feed for ewes and replacement stock. Direct drilling of these crops is undertaken to prevent soil erosion, particularly from the gusty nor-west winds, to preserve soil structure and retain moisture. Green feed crops are sown with Cropmaster 20 at 120kgs/ha providing nitrogen and supplying maintenance fertiliser. This provides 23 units of nitrogen and 12 units of phosphate and 15 units of sulphur compared to 46 units of nitrogen from 100kgs/ha of urea. Fertiliser for pasture is applied by air and truck with proof of application equipment fitted to the contractor's machines. Regular soil tests are taken to target phosphate levels at an Olsen P reading of 20. Since phosphate levels are good an annual dressing of 150kgs of a Sulphur Super 20 (12 units of P, 31 units of S and 27 units of Ca) is used on the paddocks and 150kgs of Sulphur Super 30 (10.5 units of P, 45 units of S and 24 units of Ca) is used bi-annually on the tussock hills, as sulphur is the limiting element to grass growth on most of the soil types on the properties. Fertiliser is not spread near creeks or on the steep unimproved land as there is no point in throwing money away when it so hard to gain in a farming business where product prices can vary 20 -45% (In 2012 I sold ewes for \$172, this year the equivalent ewes sold for \$81).

Supplementary feed is made in the form of baleage. This allows for surplus spring grass or Lucerne to be transferred to winter feeding when grass growth slows or adverse events occur, such as a snow storm.

Limitations and Flexibility

The key to my farming operation is flexibility. This is dictated by two factors – product price and climatic conditions.

Timing of stock sales can greatly affect the profitability of the business. A week is a long time in the farming industry and product prices can alter markedly, so I must plan to have flexibility in my sales options to react to market changes. This can mean selling stock sooner rather than later even if stock are not at the optimum weight because by the time you get stock to this weight the market can fall and you are worse off financially.

By far the greatest influence to farming policy changes, however, is climate. North Canterbury is known for its generally dry summer with nor-west winds, but on many occasions this turns to drought. A drought can drastically alter production and stock carrying and then the flow on affect is the rebuilding to return to a status quo situation. A major drought will have implications for not only the current season, but at least the next one if not two seasons. Usually a drought occurs over the summer, but this is not always the case as three years ago we had an extremely dry autumn (see comparison of photos for the same period and roughly the same areas photographed). You can see the difference in landscape for the same period of time but in quite differing years. In the event of a summer drought, this can begin in November just before weaning and the selling of lambs. Grass growth slows and becomes virtually non-existent in many paddocks. As many lambs as possible are sold before Christmas with most being sold store. Replacement stock are given priority feed. All cattle are sold. Cull ewes are sold straight after shearing regardless of condition and may not be held for the Hawarden ewe fair, but sold to the meat processor as soon as possible. Many other farmers will be doing the same thing, so killing space becomes tight and prices often drop as a result. Supplementary feeding of ewes begins in January with barley and baleage to ensure the ewes are in as good a condition as possible to go to the ram. The idea is to minimise the lost production due to a reduced lambing as ewe condition is the largest influence on this. If the dry weather continues then replacement ewe hoggets are grazed off the property over late autumn and winter to ensure a build-up of feed occurs for the ewes to lamb on. Maintenance fertiliser application is put on hold until rain occurs and there is some grass growth. Additional paddocks may be drilled with specialist winter crops as soon as rain comes in order to boost winter feed supplies. Nitrogen fertiliser will be evaluated as to how best get the farm producing with the least environmental impact. There is no point in wasting money if the plants are not there to use it. The result of this drought can see a reduction in stock numbers carried during the winter being reduced from 5400 stock units to 4200 stock units (a stock unit being the equivalent of one 55kg ewe producing 1 lamb, a ewe hogget = 0.8 of a ewe equivalent, a cattle beast = 5 ewe equivalents and finishing weaner deer = 1.8 ewe equivalents). Pasture recovery takes time and several paddocks will not survive so will have to be renewed earlier than may have been planned. This will dictate what stock is replaced and when.

The drought affects not only the grass production but also the creek flows. The creeks that normally average about 2m in width can stop flowing on the surface and pool between the limestone rocks. Periphyton that starts growing as the creeks flow rate slows in a normal summer period dries up and dies on the rocks and stones.

Conversely in a flood the creeks rage and their width averages 8m with shingle being brought down and dumped on the banks along with willow branches and other debris. This seems to occur 3 – 4 times within a 10 year period.

Summary

I hope you have gained an appreciation of the varied nature of my farming enterprise and also gained an insight into the complex nature of the business. The Red Zone classification of the Waipara catchment which encompasses the properties I manage is not a suitable classification to deal with changes in land use. These changes can occur relatively quickly within a season and to apply for a resource consent each time this occurs seems rather ridiculous and I'm sure is not what is intended. Stock numbers can change dramatically and the resulting changes in nitrogen loss will hence also change but I believe this to be minimal in a dry land sheep, beef and deer operation such as the one I operate.

Periphyton growth occurs each year within the creek and I believe is more related to the naturally high level of phosphate in the surrounding soils rather than fertiliser use which is relatively small on these two properties. To use periphyton as the indicator for water quality in this catchment is I believe incorrect. Farms are not static and require flexibility. Nitrogen use is limited to specialist crops and dictated by seasons. It is not just a matter of putting on nitrogen or phosphate because that is what we have always done. The farming practises I use to run this business alter according to new technologies and information that becomes available.

2 Other Concerns

- a) Rules relating to the discharge of fertiliser near waterways and stock exclusion from the same (Rules 5.52 – 5.54 and 5.133 – 5.137).

I have stated above that I do not fertilise the steeper hard hill country that is on the properties and this is mainly due to the uneconomic benefit of such expenditure. However, this has not always been the case and this country may well become economic to fertilise in the future. The waterways that traverse this country are not always flowing and requiring the pilot of the topdressing aeroplane to see areas of pooling water and to stop and start in such short distances is impractical. Stock access to water is also an issue with an intermittent creek often the only source of water. This can limit stock grazing to certain times of the year when sufficient water is available. There needs to be a better definition of a waterway. Wetlands also provide a similar issue and a better definition is required.

b) Rules relating to offal pits (Rule 5.125 clause 3).

Killing of stock for our own consumption and dog meat occurs on the farm. For this reason the offal pit is situated in close proximity to the killing facilities. An average annual death rate of ewes is between 3% and 5%. In my situation this amounts to between 110 and 180 ewes. It is impractical to cart all dead stock back to a single offal hole at the front of the farm when the farm extends 5.4 kms in a straight line from there to the boundary. Another hole is needed to cater for stock deaths that occur some distance from the killing facilities. In the case of an adverse event such as a snow storm it seems ridiculous to get resource consent for another offal hole to bury livestock when this could take quite a length of time and decomposing carcasses need to be disposed of more quickly. It is also unclear as to whether the farm is treated as a whole or if an offal hole is permitted for each property within the enterprise. I would like to see this clause removed from the rule.

c) Rules relating to gravel extraction (Rule 5.125 condition 4a).

The limiting of extraction to 5m³ per annum does not allow sufficient material to be used to repair my driveway let alone the farm tracks on the property. In our situation the only time that I extract gravel is after a flood occurs which is generally every 3 to 4 years. The amount of 5m³ is under a truck load for the contractor who I employ at the moment. There is a causeway which adjoins the creek. When a flood occurs the creek crosses this causeway and deposits a large amount of shingle. This can vary from 100m³ to 300m³. Removal of this shingle not only maintains the tracks for good access and safety, but also prevents the build-up in material which would affect the water storage of the Weka Creek dam. To allow 300m³ to be extracted per annum as I have asked for in my submission would allow the practical removal of most of this material in any given year. If the limit were to remain at 5m³ it would take a considerable length of time to remove the shingle, costs would not be warranted and damage from further flooding would occur before repairs could be made. Cartage of shingle from another source is very expensive and the environmental impact I believe is much greater with trucks travelling long distances on tar sealed roads. The current allowances for gravel extraction from rivers are greater in the NRRP.

d) Definition of stock holding area (Rule 5.35 to 5.36).

The current definition for a stock holding area captures sheep and cattle yards which I have on the farm. They are dirt based and there is no reason to collect any effluent. I would hold stock for more than 30 days in any given 12 month period as part of my farming business. This includes time for shearing all sheep, drenching, vaccinating, weighing and drafting for various reasons. I gather that the intent was for those stock yards where the base is impermeable and effluent runoff could cause an issue. I cannot see that there is any way that I could improve my farming practise to reduce the number of stock holding days or meet the requirements of the proposed LWRP rule. I would therefore like the definition of the stock holding area to exclude sheep and cattle yards which do not have an impervious floor and allow for stock holding for up to 90 days in any 12 month period.



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"WEKA PASS" (WP)

"GOWAN HILL" (GH)

DROUGHT - MAY 2010



NORMAL SEASON - MAY 2005

