

BEFORE THE CANTERBURY REGIONAL COUNCIL

In the matter of The Resource Management Act 1991

Between

CANTERBURY REGIONAL COUNCIL

Consent Authority

And

IRRICON RESOURCE SOLUTIONS LIMITED

**PYE PARTNERHIP, SOUTH STREAM, GRANTLEA &
CLOVERDENE DAIRIES, AND HIGHFIELD FARM HOLDINGS**

ME MULLIGAN

I KERSE

TURLEY FARMS LIMITED

Submitters

**BRIEF OF EVIDENCE OF GLEN THOMAS SMITH
FOR HEARING TWO (FARMING RULES)**

INTRODUCTION

1. My name is Glen Thomas Smith. I hold a B.Com (accounting) from the University of Otago. I have 20 years practical farming experience in Canterbury & Southland, ranging from drystock, dairy and dairy support, irrigated and dryland.
2. I am currently the Business Manager for Wilfarm Enterprises providing farm management services to several dairy and dairy support businesses in Canterbury and Central Otago, including Mowata Limited Partnership (Mowata).

ABOUT MOWATA

3. Mowata is situated within the command area of the Rangitata South Irrigation scheme (to the point of having the main supply race transecting the property) and is fully shared in the scheme to take water for the irrigation of 450 hectares.
4. The property had been operated as a dairy winter grazing block for six years up to and including the winter of 2012. The property was contracted for purchase in December 2012.
5. The commencement of the construction of the Rangitata South Irrigation scheme (an \$82 million dollar construction project) in February 2011 was the catalyst for the property being purchased for the express purpose of converting to an irrigated dairy platform.
6. At the time of purchase the ability to convert the property from dryland wintering to irrigated dairy was not in question as the Rangitata South consents contained no land use constraints and nutrient management, having been considered in the consenting process, acknowledging the realities of the resulting increase in irrigated land in the area but settling upon the need to simply monitor the situation as the positive effects of the scheme far outweighed any other effects.

MOWATA'S CONSENTING PROCESS

7. As part of the development plan put in place prior to purchase of the property, part of an existing groundwater consent within the same groundwater zone (being Rangitata-Orton) was to be transferred to Mowata. This was for three reasons:
 - 7.1 To provide domestic, stock and dairy shed water to the property; and
 - 7.2 Dependent upon the yield of the well, a small amount of irrigation water (given that the Rangitata South scheme is based upon 0.45 l/sec/ha and who's reliability of supply has yet to be seen given it is primary source of water is a high flow river take).
 - 7.3 It also was intended to enable the commencement of the dairy operation on a limited scale should, as has transpired, the irrigation scheme experience delays in completion.
8. The consent application for the water transfer to Mowata was lodged 10 August 2012, prior to the notification of the LWRP. It was determined post lodging that

written approvals from neighbouring consent holders were required, and these were obtained in November 2012.

9. During the time taken to obtain the written approvals, the Regional Councils stance on what was considered to be a “change” in land use had undergone much iteration. For example, the 10% threshold was not originally being enforced as the baseline period specified does not end until June 2013, and therefore, it was considered that this could not in fact be determined until this date was reached. This advice then changed to the threshold being enforced using forecast modelling to determine the baseline.
10. In response to requests by the Regional Council, we modelled, in conjunction with our fertiliser company, three scenarios:
 - 10.1 Irrigated Dairy;
 - 10.2 Dryland winter grazing; and
 - 10.3 Irrigated winter grazing.
11. The irrigated winter grazing model was done as it was considered that under the Rangitata South consents, the property was already consented to be a fully irrigated farm without constraint upon land use, and therefore this was in fact the baseline that should be compared against the intended irrigated land use.
13. The other clause under the definition of “change” was an increase in volume of water applied to the property. To address this, we proposed voluntarily setting an annual volume for the whole property incorporating both ground water and scheme water resources to ensure the no increase in volume beyond that already consented for the property.
14. The Regional Council’s response to this ignored the existence of the scheme consents by focusing upon the fact that, although the scheme is nearing completion, no water had yet been applied, deeming that the commencement of the operation of the scheme would trigger a “change” for each and every property applying scheme water to newly irrigated or sub-optimally irrigated land under Clause One of the definition of “change”.
15. This interpretation effectively put a whole area of farmers, including Mowata in the category of requiring a land use consent.
16. Further consents were required for the conversion of Mowata, being consent to discharge effluent to land and a consent to store dairy effluent. These consents were applied for after the notification of the pLWRP and were subsequently granted on the 18th of December 2012 without issue.
17. In an effort to avoid further time delays, with a multi-million dollar investment sitting idle for want of water and uncertainty as to the timeframe for a further consent application, we relented and proposed also including an N-limit on the requested water consent for Mowata in order for the change in land use to be permitted under Rule 5.42 of the LWRP.

18. This is still under consideration by the Regional Council, following a site visit, provision of Overseer modelling and the request for a Farm Environmental Plan (FEP) to be prepared.

OVERSEER AND FARM ENVIRONMENTAL PLANS

19. Through this process I gained a layman's appreciation of the challenges in the application of the new version of Overseer on historic actual information and even more daunting, the attempt to apply Overseer to modelling forecast scenarios of a biological system.
20. To date the Overseer model has been looked over by at least seven professionals, including the Regional Council, a testament to the intricacies of the new version of the model where every professional since the first iteration have found something to change or interpret differently. Through this process, the N losses have ranged from 32 to 42 kgN/ha, a 31% variation.
21. A prime example of the challenges, which well demonstrates the sensitivity of the model and the risks associated with hanging any form of compliance on the absolute results, was the simple ticking, or not, of a box describing a stony silt loam soil as stony. Obviously by definition it is stony but in terms of N losses, to tick the box, and no other changes being made to the model, the result increased the kgN/ha losses by 7 kg, a variance of 17% well outside the original proposed 10% "change" threshold.
22. By contrast, the preparation of the FEP for Mowata has been a simpler process, although it is now in its third amended state. The form of the template was readily available and is familiar to at least the majority if not all existing irrigation schemes in Canterbury including Rangitata South. However, further guidance under Schedule 7 would be helpful.

CONCLUSIONS

23. Currently (at time of writing) Mowata's water consent application, including overseer modelling and FEP, is under consideration by CRC. In total the process has to this point, increased the consenting process by at least four months, starting from obtaining written approvals in November, all down to two factors:
 - 23.1 The lack of due recognition of existing consents, being the Rangitata South Irrigation Scheme consents; and
 - 23.2 The time taken to grind through Overseer.
24. If only a FEP was required, and the FEP requirements were clearly laid out which I expect they will be as they become common place, this consenting process could have been dealt with before Christmas 2012.
25. Under the notified rules of the LWRP there is huge risk in hanging compliance thresholds upon numbers generated by an imperfect model attempting to quantify unverified (without detailed scientific monitoring) outcomes of a biological system.

26. Given the uncertainties and lack of confidence in the Overseer (whether real or perceived), to reliably reflect forecast environmental outcomes, the natural tendency is for users to over forecast inputs and parameters in an effort to ensure there is a buffer in the consented "number" to cover eventualities. The two possible outcomes of this are setting of limits which do not reflect what is achievable in terms of optimising balanced outcomes or limits applied for which are rejected causing unnecessary tension, conflict and on-going costs for all parties.
27. I support the recommendations in the S42 report for as they refocus on the creation and implementation of FEP's which contain within their framework the ability to customise to each individual property's unique characteristics and requirements to be able to incrementally minimise the environmental impact of farming operations without unduly constraining the ability to manage a biological system in an economically sustainable fashion.
28. Unlike the focus on a modelled number, FEP's are unlikely to lead to knee jerk decisions made purely to satisfy an absolute condition of consent regardless of the true impact and result in a broad based collaborative approach to reaching balanced environmental, social and economic outcomes with flexibility to adapt as knowledge and technology comes to hand to assist.

Glen Smith
Dated 2 April 2013