

I am Wendy Thomas, Having grown up in Auckland, schooled in technical drawing and engineering, then a drawing certificate at Carrington Tech, I worked as a cartographer for several years in the gold exploration industry in Townsville. I know how the gold industry defined ore bodies before calculating for the viability of a mine, and believe that similar methodology could ^{help} define the water of the aquifer.

I am tabling legal advice I sought from Mr Stuart Ryan in regard to my concern that this application causes nullification of the previous MWWUG consent form the same aquifer.

There are major differences in the figures, a large discrepancy in the boundary of the aquifer and the various calculation of rainfall area and recharge.

The "degree of doubt" which is referred to in many places in all reports cannot substantively give the answer "of effects less than minor." The environment court ruled that a baseline needed to be established and this consisted of staged implementation and close water level and salinity monitoring, *there has not been time for this to occur.*

The Aquifer has a base which is well below sea level, several of the major applicants are within a kilometre of the coast, and despite the "degree of doubt" it seems only logical that salt will be drawn.

The bulk of the information is based upon data from about fifteen bores and none of those have yet taken amounts similar to the large volumes of the mega orchards, there is no evidence that the overlaps of the takes will not cause effects that are far greater than minor.

I understand the financial implication that is related to refusal or even delay, however in reality the first ground should not have been turned until the primary ingredients of production were properly secured in accordance with any realistic business plan. Any jobs created by an inappropriately managed aquifer will be well overshoot by the hardship of failure.

Staged Implementation

The environment court ruling for the consent of the MWWUG required a Staged Implementation of the water allocation, and loads of monitoring and further research. I was astounded to hear yesterday that NRC is already considering a move to level 2 prior to the end of the first period, this is not due to happen until January 2021, and how on earth will they be able to monitor the water taken if consent holders have borrowed water allowance from other consent holders to water through their bores. Why did they keep planting?

Recharge

Page 25 of the Lincoln report has the calculations for the annual aquifer recharge. This information has been carried to subsequent reports, although I note that some of these figures were changed in the most recent addendum of John Williamson's, astonishingly he reduced the size of the aquifer but increased the recharge value? All well after the applications were presented and our submissions received.

Average calculation states rainfall varies from 580 to 1670mm with an average 1280mm

The land area of the aquifer from the Lincoln report is stated at 75,322ha, the forest totals approximately 27,451ha, this is around 40% of total area. Recharge guessed at 38% of rainfall calculated at 374million cubic metres has not deducted area of rainfall used by forest.

One of the studies I found carried out by CSIRO Australia found that water used by 5 year Pinus Radiata was 346mm per quarter giving 1384mm per annum. Higher than the average annual rainfall for our entire area. The area of Summits forest behind Waiharara and Motutangi has been harvested and is about 6 years old. The area behind Houhora has just been harvested and is replanted. These trees will be taking as much water as they can get.

I note that Page 10 of the hydro geo report also agrees with this in a statement that "pine trees may use all the rainfall."

There is also mention that very little information about the aquifer is known in the north, there is some information which clearly shows there may be no aquifer to the north of about Ngataki, bores have been drilled and found only rock, if the northern boundary of the aquifer was there, the *recharge area would be cut by another large percentage.*

The calculated area does not deduct the area of housing, concrete, roads, industry or commercial catchment that makes up the Kaitaia, Awanui, Ahipara or Pukenui townships and any of that stormwater infrastructure. While it may seem puny this is just another error on the lopsided, biased and overstated recharge. And with global warming shorter periods of higher rain will mean more runoff.

Together it means that recharge figures are probably out by more than 50%, is this degree of doubt acceptable?

Co-ordinates and modelling

Co-ordinates for consented bores were significantly changed after the consent process for the MWWUG which means modelling of drawdown effects for these subsequent applicants is likely to be incorrect.

It was also a recommendation of the Hydro Geo report that council *"conduct a regional bore survey to provide accurate co-ordinates, and ground and collar elevations. This will increase the accuracy of interpolated piezometric surface and base of geometry."* This has not been done.

Modelling is based on very few actual bores and none of these have water takes which are similar to the mega orchards, can the modelling be representative?

Boundaries of sub zones recommended in the Lincoln Report have been moved and completely ignored in recommendations and by the wrong co-ordinates and have been manipulated to enable greater takes for the mega orchards.

Annual volumes of water

The annual and daily watering volumes on the consent application are not consistent with the average number of days of which was set at 149 days. Further there is no consistent number of watering days to calculate annual figure with any accuracy.

There is also differing figures for annual and daily amounts for some of the users and different numbers in the LWP report.

Out of time documents

Errors and corrections to major documents was not sent to submitters before the 15 days from the hearing. And people without email would be even later.

Groundwater levels

Hydro Geo solutions stated that *"Overall bore hydrographs indicate a general decline in groundwater levels since 1975, although annual rainfall (while varying from year to year), is only slightly below average for the period overall."*

Also in a letter from Land information NZ, it stated *"The NZ 8m digital elevation model (2012) is only suitable for cartographic visualisation." It was created by the interpolation of Topo50 map 20m contours (which have an accuracy of +/- 10m) it is not suitable for terrain analysis or getting accurate heights."*

Tomos

A tomo is an area where water seems to flow directly into the ground. There is a significant one just up the road from my property and I have been told there are several around the Hukatere road area.

Are the Tomo's really where any recharge is from? Is it only the surface water in these spots where rainwater actually gets down through the iron pan layers? Why is there not mention of these geological features in any of the reports?

Summary

Degree of doubt.....can this be measured?

Yet the effects are stated to be no more than minor?

memo

To: Wendy Thomas
From: Stuart Ryan/Marina Chevalier
Date: 27 August 2020
Subject: Motutangi-Waiharara water take application – adequacy of information

Burgoyne / Te Taumatua o Ngati Kuri Research Unit v Northland Regional Council

1. A key feature in the Environment Court decision of *Burgoyne / Te Taumatua o Ngati Kuri Research Unit v Northland Regional Council* was that further scientific data was needed to establish the precise effects of the water take application on the environment.
2. The Court made a number of statements to suggest that it did not have sufficient scientific information before it:

[26] It is clear from the evidence of the Applicant that there was no certain scientific information that could satisfy us that there would be no adverse effects on the NZCP Policy 11(a) Values and attributes from the abstraction of water...

[42] One of the particular concerns this Court has is that for the first twelve months there is in fact no wetland water level trigger(s) levels because the monitoring results thus far have not enabled this to be properly modelled. We have concluded that to allow a lacuna of this sort would be directly contrary to the requirements of the NZCPS, the Supreme Court decision, and case Law generally as to adaptive management.

[43] We conclude that a water level in the Reserve Area needs to be set for monitoring purposes for the first abstraction period. We agree that this could be used as a proxy for effects generally on the wetland, and clearly if there is any level of change in the Reserve Area (the most protected area) then there may be further effects, perhaps even of significance, in other areas of the wetland outside the coastal environment. that the standing waters of the Reserve Area have critical values and attributes, meeting all of the criteria of 11 (a) of the NZCPS. As such, any change to that water level which is not a natural variation would be of concern. Such impacts are potentially not only hydrological but may include wide-ranging adverse effects on the freshwater wetland ecology of the area. What those effects might be in detail is currently unknown, but the Court favourably notes the GCMP Section 2.3 requirement that monitoring include input from a suitably qualified ecologist as well as a hydrologist.

[44] We have concluded that an interim water level needs to be set that will trigger further investigation by wetland ecologists and hydrologists to ascertain whether the change in the water level is a natural fluctuation or is related to the further extraction. We keep in mind that the situation is complicated by the drawdowns that are already occurring, both those that have been authorised by other consents and those that have been authorised recently by the Regional Council as temporary consents in relation to activities the subject of this application.

3. The Court ordered interim period conditions of consent until there is sufficient data to populate the adaptive management plan. The Court stated under the heading “Overall conclusion”:

[79] To utilise an adaptive regime, adequate baseline information needs to be obtained and there needs to be a strict cautious regime in place as part of that plan taking effect. We have made directions that we consider would lead to the conditions of consent avoiding such adverse effects even in the interim period before trigger levels are met, and achieve the general enabling provisions of the Act.

Non-Derogation principle

4. There is a question as to whether the new application for resource consent may derogate from the staged implementation of the Motutangi-Waiharara water take permit.¹
5. *Aoraki Water Trust v Meridian Energy Ltd* concerned an application for a water take in South Canterbury. All the relevant water was fully allocated for the purpose of satisfying the consents, in that the consents entitled Meridian to draw off more water than was actually available.
6. The High Court held that where a resource was already fully allocated to a permit holder a consent authority could not lawfully grant another party a permit to use the same resource, unless specifically empowered to do so by statute. The High Court characterised its decision as a principle of non-derogation, meaning that a subsequent resource consent could not derogate from the rights of the original consent holder:

[36] The principle of non-derogation from grant is applicable to all legal relationships which confer a right in property. Common law principles apply to the express provisions of a statute unless Parliament has clearly indicated a contrary intention (*R v Secretary of State for the Home Department, ex p Pierson* [1998] AC 539 per Lord Browne-Wilkinson at pp 573 – 574). The maxim prevents one party from taking any steps, unless expressly authorised by the relevant instrument (whether statutory or contractual), to interfere with, diminish or derogate from the other’s entitlement. Traditionally the principle applies to sales of land or leases but it governs all relationships. As Blanchard J observed in *Tram Lease Ltd v Croad* [2003] 2 NZLR 461 (CA) at p 469:

“[24] . . . no one who has granted another a right of property, whether by sale, lease or otherwise, may thereafter do or permit something which is inconsistent with the grant and substantially interferes with the right of property which has been granted.”

7. A later decision from the Court of Appeal decision in *Hampton v Canterbury Regional Council* [2016] NZRMA 369 overruled some of the High Court’s reasoning in *Aoraki*. In particular, the Court of Appeal disagreed with the High Court’s reliance on the non-
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derogation principle and was of the view that the grant of a water permit does not confer a right in property, but instead confers a right to carry out the activity under the RMA. Even though the Court of Appeal departed from the High Court's reasoning, it did not consider that the wrong outcome had been reached in *Aoraki*.² Commentary on this decision states:³

The Court of Appeal's decision to support the outcome in *Aoraki* (but not the reasoning) could be read as representing an extension of the commonly understood position that **a council cannot impose conditions on a resource consent that would render nugatory that grant of consent**. Likewise, as a matter of resource management law (rather than property law), a Council should not take steps, such as issuing other resource consents, that would equally emasculate any resource consent previously granted.

8. In this case, it appears that the purpose of the Motutangi-Waiharara consent conditions, requiring a staged implementation of the water permits, is to take a precautionary approach and to allow for low levels of abstraction to establish a monitoring baseline. The Environment Court emphasised the importance of obtaining adequate baseline information. Based on the decision in *Hampton* it would be difficult to argue that the non-derogation principle applies.
9. I consider it is arguable, however, that any subsequent consent which renders the conditions of the Motutangi-Waiharara consent nugatory would run counter to the purpose of the RMA. This would apply in the present case where the purpose of the conditions was clearly to ensure the sustainable management of natural and physical resources.

New Freshwater Policy Regime

10. We note that the *Action for Healthy Waterways* regime has now come into effect, consisting of a National Policy Statement for Freshwater Management (NPS-FM), National Environmental Standards for Freshwater and Stock Exclusion Regulations.
11. Under the NPS-FM regional councils will be required to identify water take limits under cl 3.17 for each freshwater management unit (FMU) identified in the regional plan. The NPS-FM provides that every water body in the region must be located within at least one FMU.
12. Additionally, under cl 3.29, regional councils must operate and maintain freshwater quality and quantity accounting systems.
13. In respect of water takes this accounting system will be required to keep data on the quantity of water takes and the use for which the water is being taken for FMUs.
14. While the NPS-FM has not yet fully come into effect (regional councils are yet to modify their plans to provide for the NPS-FM), the decision-maker must take into account the

² Nolan *Environmental and Resource Management Online* (LexisNexis) at 8.25 Allocation of water.

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provisions of any national policy statement when considering a resource consent application: s104(1)(b)(iii) RMA.

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