

TARANAKI REGIONAL COUNCIL

Freshwater Abstractions Permitted Activity Review

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Dr Mike Patrick

MERMAN Ltd

Phone 03 528 8187

Mobile 021 277 0240

Prepared for	Taranaki Regional Council
Report prepared by	Dr Mike Patrick
Reviewed by	TRC
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Contents

- 1 Introduction 5**
- 2 Accounting for Minor Abstractions 7**
 - 2.1 Domestic requirements 7
 - 2.2 Stock-related and other requirements 7
- 3 Management Elsewhere in New Zealand 8**
- 4 Issues 9**
 - 4.1 Section 14(3)(b) takes – unfettered or not?..... 9
 - 4.2 Does Taranaki have a problem?10
 - 4.3 Avoiding adverse environmental effects10
 - 4.4 An “individual” and an “individual’s animals”?11
 - 4.5 What are “reasonable needs”?12
 - 4.6 Temporary vs permanent12
 - 4.7 Areal measurement12
 - 4.7.1 Site or property?.....12
 - 4.7.2 Per unit area?13
- 5 Discussion of Options 13**
 - 5.1 Section 14(3)(b) takes13
 - 5.2 Other minor abstractions.....14
- 6 Recommendations 14**
 - 6.1 Draft Rules14
 - 6.2 Impact of Recommended Draft Rules15
- Appendix One – Current Permitted Plan Rules..... 16**
- Appendix Two - Domestic and Stock Water: Taking and Use Information Guide – March 2015, Environment Canterbury Regional Council 18**
- Appendix Three – Proposed Draft Rules 22**
 - Taking and use of surface water23
 - Taking and use of groundwater24

1 Introduction

Currently, the minor taking and use of surface and groundwater in the Taranaki region is a Permitted Activity within the Taranaki Regional Council's Regional Freshwater Plan ["Plan"], subject to various conditions relating in the main to abstraction flow rates and daily volumes (refer Appendix One). Part of the basis for those flow rate and volume limitations is Council's desire to provide for certain needs for freshwater which are exempted further controls within the Resource Management Act ["RMA"] via its section 14(3)(b), which states:

(3) A person is not prohibited by subsection (2) [a prohibition on the taking of water] from taking, using, -

(a) the taking, using, is expressly allowed by a national environmental standard, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent; or

(b) in the case of freshwater, the water is required to be taken or used for -

(i) an individual's reasonable domestic needs; or

*(ii) the reasonable needs of an individual's animals for drinking water, -
and the taking or use does not, or is not likely to, have an adverse effect
on the environment.*

Past case law has confirmed that the setting of numeric limits to implement the statutory permissions set out in s14(3)(b) is a legitimate practice [see p35, MfE 2014, "Freshwater Accounting: Draft Guidance for Regional Authorities"]. However, such rules are difficult to enforce as s14(3)(b) is unfettered except to the extent that the take must be reasonable, by an individual, and must create no adverse environmental effects. This is discussed further below.

Whilst s14(3)(b) of the RMA is specific to domestic (i.e. household) and stock drinking needs only, the current Permitted Activity classification within the Plan is not so limited – as a consequence, other minor takes, such as for dairy shed use and road works, are similarly approved on the grounds that their environmental effects are minor.

The current Freshwater Plan's stipulated limits for minor takes (refer Appendix One) are on a "per property" basis, a move away from the former "per site" basis, and a question arises as to whether or not this, coupled with the current abstraction rate and volume limits, is still appropriate, in particular given the recent amalgamation of smaller dairy farms and some dairy conversions. And given the known environmental effect of minor takes spread over the numerous Taranaki waterways, is generally minimal, indeed in many cases below hydrological detection limits for moderate to large waterways, are numeric limits also still relevant?

The challenges arise when there are small waterways where there may be competing minor water uses and minimal flow available.

The rationale for having such minor uses classified as a Permitted Activity is two-fold:

- such uses, if within current stipulated limits, have minimal environmental effect on waterways; and
- in the absence of such a status within the Plan, the Council would be required to issue resource consents for each and every minor take and use (except those for stock and domestic use permitted by s14(3)(b)).

Individual takes for stock and domestic water use from surface water are spread throughout the region and have minimal environmental effects. The total estimated take is 54,300 m³ per day which is 10% of the allocated take through resource consents.

Individual takes for stock and domestic water use from groundwater are also spread throughout the region and have minimal environmental effects. The total estimated take is 180 m³ per day which is less than 1 % of the allocated take through resource consents.

Rain water is also collected and stored for stock and domestic use.

There are 21 rural water supply schemes in the region that serve stock, domestic water and in some cases industrial use and mean farmers do not have their own intake systems. In this case the take is concentrated at one point rather than being spread through a catchment.

Figures 1 and 2 show rural water supply schemes in south Taranaki. The maps demonstrate that large parts of the region are covered by rural water supply schemes.

The Council is currently reviewing its Plan and wishes to continue to have certain minor takes and uses classified as Permitted Activities. As an important adjunct, the recently-promulgated National Policy Statement for Freshwater Management [“NPS”] requires that regional authorities establish freshwater accounting systems for both quantity and quality, and to establish limits. Hence, it is timely to review how minor takes are managed, including for ease of limit setting and complying with the requisite accounting and reporting.

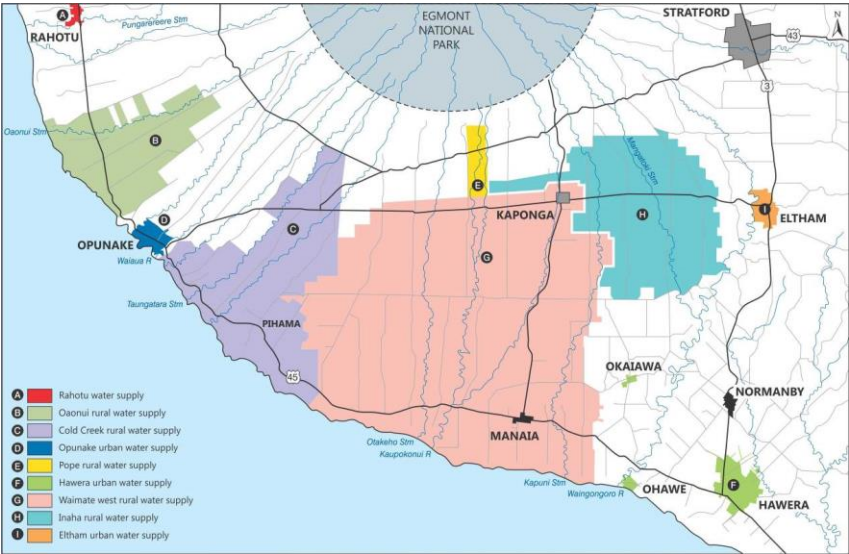


Figure 1: South Taranaki rural water supplies (north)



Figure 2: South Taranaki rural water supplies (south)

This report looks at the basis for the setting of the stipulated Permitted Activity limits, reviews how this same issue is managed in other like areas of New Zealand (in particular those with major dairy activity, especially recent, substantial conversions), and makes recommendations for Rules within the new Plan.

2 Accounting for Minor Abstractions

2.1 Domestic requirements

Over the years, a lot of monitoring work has been undertaken to determine levels of domestic (household) water use in rural properties. The most recent data would indicate that usage in the range of 250-300 litres/person/day would be sufficient to cater for internal household use, external use (watering gardens etc), as well as an allowance for minor system leakage. In general, usage for the house remains at a relatively constant level; it is the external usage that varies, with significant increases in summertime usage in drier regions.

Recent monitoring in South Taranaki by South Taranaki District Council noted that average water usage for a household was 150-200 litres/person/day.

For the purposes of this review, it is suggested that an appropriate domestic usage level of 300 litres/person/day is used, a rate calculated for two household water supply schemes in the Waikato region (Pokeno and Buckland). This would provide for minor leakage, and heightened external use (watering lawns, gardens) over drier periods compared with the average noted in the shorter-term South Taranaki monitoring.

2.2 Stock-related and other requirements

Some of the most recent data for stock water requirements are found in an Environment Waikato report entitled "*A Model for Assessing the Magnitude of Unconsented Surface Water Use in the Waikato Region – permitted activities under the Waikato Regional Plan and s14(3)(b) activities under the Resource Management Act*" [Technical Report 2007/47]. Environment Canterbury also has had estimates done by Lincoln University (2003) and the ranges of figures are tabulated below.

In summary:

- lactating dairy cows require 70-80 litres/cow/day for drinking (as a maximum), dry cows and beef cattle 20-50 litres/cow/day, and calves ~30 litres/animal/day;
- dairy shed use (milk cooling, wash down) also requires ~70 litres/cow/day, again as a maximum;
- sheep require ~3 litres/animal/day as an average, higher at times of lactating;
- deer require 20-30 litres/animal/day for drinking as a maximum, closer to 10 litres/animal/day as an average, hinds requiring about 50% more than stags;
- poultry (hens) require ~35 litres/100 animals/day after 42 days old;
- horses require between 40 and 60 litres/animal/day, the higher figures being for working animals; and
- pigs require ~ 12 litres/animal/day as a maximum.

Monitoring in Taranaki in the past (from the 1980-90s Ring Plain project) confirm that these figures are appropriate for the region, and in a 1998 a Council report derived a formula for estimating water use at any dairy farm in Taranaki as -

$$\text{Water use in litres/day} = (200 \times \text{number of people}) + (110 \times \text{number of cows})$$

More recent monitoring in 2007 in South Taranaki found that:

- lactating dairy cows require 50-80 litres/cow/day for drinking;
- dry cows require 30-50 litres/cow/day for drinking;
- calves require 20-30 litres/calf/day; and

- dairy sheds require 40-60 litres/cow/day at a flow rate of 2-15 m³/hour.

All monitoring showed the obvious, that dairy shed usage is “peaky” at mornings and evenings associated with milking.

For the purposes of this review, the following drinking water usage rates are suggested as appropriate, including allowances for minor system leakage:

- for dairy farms, 80 litres/cow/day plus an allowance for calves of 30 litres/animal/day;
- for beef cattle and dry cows, 50 litres/animal/day;
- for sheep, 5 litres/animal/day;
- for deer, 20 litres/animal/day;
- for poultry, 35 litres/100 animals/day; and
- for pigs, 12 litres/animal/day.

For other minor, Permitted Activity uses (e.g. road works) currently set out within the Council’s Freshwater Plan, the current rates, daily volumes and related criteria appear to be appropriate.

3 Management Elsewhere in New Zealand

There is a variety of management approaches to minor abstractions in New Zealand. For the purposes of this review, the regimes in Waikato, Hawke’s Bay, Horizons, Tasman, Canterbury and Southland were considered.

The Waikato Regional Council in its Regional Plan (Chapter 3.3 Water Takes) has placed some stringent criteria on s14(3)(b) takes and on other permitted takes (<15 m³/day), based on the primary allocatable flow in each catchment, in order to ensure that rivers and streams do not become over-allocated. The Environment Court accepted that rationale. The Plan also stipulates that the takes must be within a single site, the screening of the intake, and stipulates other environmental criteria (for example, for the protection of natural state bodies).

Hawke’s Bay RC (2014 Plan) stipulate a daily volume per day per property (20 m³), with the abstraction not to be at a rate greater than 300 litres/second and not to exceed 10% of the instantaneous flow at the point of take. A footnote to their Rule (#54) however notes that “*The taking of water for an individual’s reasonable domestic needs and the reasonable needs of an individual’s animal’s drinking water is not restricted by this rule*”.

Horizons (2014 Plan) specifically addresses the s14(3)(b) takes by setting maximum daily rates and volumes for both animal and “*any other use*” purposes, specifies the requirement for intake screens, and require that the water must be used on the particular property involved. There is also a general environmental “catch-all” requirement (no effects on rare, threatened or at-risk habitats), and the location, maximum instantaneous rate of take, and intended use must be advised to the Council.

Tasman DC (2014 Plan) places no limits upon s14(3)(b) takes for stock drinking water. For domestic water supplies, there are restrictions in terms of m³/day/property on a catchment-by-catchment basis, with further requirements relating to periods of water shortage (“*no watering of lawns*”), not causing river flows to cease nor erosion of beds or banks, fish and eel screening of intakes, and that “*the taking or diversion of water does not prevent any other individual from taking water for their domestic or stock drinking water supply needs*”. Other stipulated minor uses are also Permitted Activities (resource

investigation drilling, pump testing, and hydroelectric power generation), with various daily maximum flow rates and volumes, and in some cases periods of time. Finally of interest is that the Council requires permitted domestic supplies to have water meters, which are monitored on a yearly basis and the annual use averaged out to check compliance with the limits.

Environment Canterbury (Proposed Plan) have restrictions and criteria for Permitted Activity takes in terms of rates and volumes based upon the Mean Annual Low Flow of the waterways concerned, but with a note that "*Nothing in this Plan affects an individual's right to take water in accordance with section 14(3)(b) of the RMA.*" (Most of the water used for 14(3)(b) takes in Canterbury is sourced from groundwater). However, a Guidance document associated with the Plan sets out specific details as to what the wording of s14(3)(b) means, and which must be complied with should the party involved wish to avail themselves of s14(3)(b) authorisation. The Guidance document notes:

- an individual is a natural person, and is not a company, body corporate, partnership, or trust; and
- sets out what the Council believes are reasonable needs for domestic and animal use; and
- various issues which the Council believes are "*adverse effects*" for the s14(3)(b)(iii) test.

Refer Appendix Two below for the Guidance document referred to above.

Finally, Southland RC stipulates more general Permitted Activity requirements for various minor uses (dairy shed washing, milk cooling, and piggeries) in terms of daily volumes and rates, no adverse effects on existing water users, surface water ecosystems or water quality, and tied to numbers of animals present at 25 June 2005. Beyond that date, or if animal numbers increase, the owner has to apply for resource consent but not for s14(3)(b) takes - there are no requirements or limits for these takes, as they are not seen to be an issue in terms of allocation management (although it is noted in explanation that the Council can require these to be metered).

4 Issues

There are several issues arising from the foregoing, as follow:

4.1 Section 14(3)(b) takes – unfettered or not?

The key with managing s14(3)(b) takes for stock and domestic water use is determining whether they are having an adverse effect. If they are not then the use could be unfettered and not require resource management and addressing in a regional plan. In Taranaki the impact of such takes in all but small waterways is considered minimal and therefore requires minimal regulation.

As noted above, MfE's "*Freshwater Accounting: Draft Guidance for Regional Authorities*" notes that resource management case law has confirmed that the setting of numeric limits to implement the statutory permissions set out in s14(3)(b) is legitimate, in particular with the aim of ensuring that these takes do not cause adverse environmental effects (including the ability of downstream users, also able to avail themselves of s14(3)(b), to take water for their reasonable needs). This has been a resource management matter of concern for small streams in this region.

The requirements of the NPS for Council to be able to account for, and report, the levels of water abstraction, including for permitted takes, is a challenge. Either each take in the region would require monitoring or an accurate estimation of those abstractions. This would therefore require limits to be set, and, as Council undertakes now, regular or semi-regular auditing of a random selection of these abstractions for compliance, thereby allowing an accurate calculation of the magnitude of takes for each catchment.

District Councils, when making rural subdivision consent application decisions, wish to have certainty that water is available and those new landowners can avail themselves of their legal s14(3)(b) rights so some certainty and management is required for land use planning purposes.

The current Plan does set limits and restrictions on minor takes including those permitted as of right by s14(3)(b), including one for surface water that the abstraction shall not be more than 25% of the flow of the stream or river. This is similar to the Hawkes Bay residual flow requirement. However, this is difficult to monitor by both Council and the person taking the water. It is recognised that this requirement has been set to ensure that streams and rivers are not drawn down to a level that would create an adverse environmental effect (refer s14(3)(b)), including impacts upon other landowners downstream wishing to avail themselves of a s14(3)(b) take. But the question remains, is there not a better way of stipulating some sort of limit which would be more readily monitored for compliance by the water user (in the main) and Council? This is discussed further below.

4.2 Does Taranaki have a problem?

The main resource management reason for having water abstractions as Permitted Activities within a Regional Plan is because either those abstractions do not cause adverse environmental effects, or those that are still minor but which have a potential to cause adverse effects, either alone or in combination with other takes, can still be Permitted Activities but with stipulated limits, compliance with which avoids those adverse effects.

The question then must be, does Taranaki currently have, or is likely to have in future, adverse effects caused by those minor takes, including those permitted by s14(3)(b), which create a problem requiring the setting of limits and restrictions?

Advice received would indicate that, apart from the occasional situation, or in certain limited circumstances as noted above, there are no problems in Taranaki created by the minor abstractions currently permitted within the Plan. Therefore the main question would appear to be around the likelihood of future problems arising, for example from farm amalgamation, intensification of land use and associated activities within smaller catchments for which a landowner would be able to avail themselves of s14(3)(b). With greater use of supplementary feeds like palm kernel extract in feed pads, dairy cows can drink more water and this increases during dry periods.

If, on occasions, there is a water shortage in any catchment or even regionally, Council has recourse to issuing water shortage notices, and enforcing a variety of restrictions and limits upon water abstractions accordingly [s329 of the RMA].

4.3 Avoiding adverse environmental effects

Following on from the above is how to set limits and restrictions which have the effect of avoiding the creation of adverse effects, yet still providing the landowner or water user the realistic opportunity and ability to be able to monitor their take for compliance.

The current Plan, Rule 15 (surface water) stipulate limits for flow rates, maximum daily volumes, and an "adverse environmental effect" parameter - no more than 25% of the instantaneous flow of the river or stream at the point of abstraction. This could be identified visually or could require the landowner or other minor user to monitor the rate and daily volume of take as well as the flow of the river or stream upstream of his abstraction point, to enable them to calculate the proportion of the stream flow being taken. For s14(3)(b) and more permanent minor takes such as dairy shed use, this would be an expensive requirement. For groundwater, Rule 48 stipulates limits for flow rate and maximum daily volumes, although the adverse effects requirements are more readily complied with, in the main being specifics for the location of the bore away from the sea, surface water bodies, and other groundwater users.

As noted above, some councils don't stipulate a Permitted Activity limit, they just rely on s14(3)(b) as allowing essentially unrestricted use. This approach has its limitations as pressure on water resources increases and the limit setting and water accounting requirements of the NPS prevail. This historic riparian owners right to take reasonable stock and domestic water are therefore limited.

The Council released a notice to consent holders in November 2011 after the 2010 Resource Management (Measurement and Reporting of Water Takes) Regulations were promulgated. The following excerpt from that notice is of interest:

"The Council sees this as a significant opportunity to improve the efficiency of measuring and monitoring water use and understand the region-wide importance of continued access to good quality water resources. It will also provide much improved information on costs of this use. The introduction of the regulations also provides an opportunity to move to real time monitoring with the introduction of telemetry based network accessible by both consent holder and the Council."

Although these Regulations apply to takes of 5 L/s or greater, which is well above the currently-stipulated rate of abstraction for more permanent minor water takes (1.5 L/s) or at the upper limit for temporary takes, this would appear to signal that some monitoring, maybe with telemetry, of minor water takes could occur in the future. However, a cost benefit analysis would have to be undertaken.

Currently the Council undertakes random audits of these minor takes on a semi-regular basis. If Council can be satisfied that this auditing provides it with sufficient confidence that its management of such takes is working appropriately, and that it can, based on auditing results, comply with the requirements of the NPS for reporting water useage, albeit for s14(3)(b) takes via an accurate estimate [p41, MfE 2014, "Freshwater Accounting: Draft Guidance for Regional Authorities"], then it should forego the requirement for these minor takes to be metered.

Are there other ways of setting out requirements for minor takes which thereby avoid adverse environmental effects, which can be cost-effectively monitored for compliance? Experience at other Councils would at this stage suggest not (refer section 3 above).

4.4 An "individual" and an "individual's animals"?

Section 14(3)(b) is explicit in terms of its use of the word "individual" - this has been "translated" by ECan into a strict definition of the word, to the exclusion of bodies corporate, trusts, partnerships or companies (refer Appendix Two). This is provided in a guidance note to the plan, so has no legal standing, but is at variance to other approaches.

In Taranaki (as with other regions), the issue arises in the context of both who can avail themselves of the s14(3)(b) rights, who cannot, and whether there would be any environmental difference, in terms of adverse effects, given that the Council currently has limits on what can be taken for minor takes including those s14(3)(b) abstractions.

This is a point that the Council may wish to explore further and potentially seek legal advice on before promulgating its minor takes (s14(3)(b)) Rule(s) in its forthcoming Plan. Although it is suggested that if a Council stipulates limits for minor takes, including those permitted as of right under s14(3)(b), then whether or not the user is an individual becomes irrelevant, because s14(3)(b) takes are *de facto* then a subset of all minor takes subject of those limits.

4.5 What are “reasonable needs”?

The setting of limits and restrictions around s14(3)(b) takes is a commonly-used mechanism to ensure that no adverse effects are caused by such abstractions – the associated issue is the reasonableness of abstractions taken under this provision.

As set out in Appendix Two, ECan provide specific guidance as to what they see as reasonable, and sections 2.1 and 2.2 above suggest similar guidance for Taranaki.

If the Council retains the use of limits and restrictions on all minor abstractions, including s14(3)(b) takes, then a guidance “measure” of reasonableness is *de facto* covered off – that is, there would be no need to provide a Council view as to what is reasonable or not for domestic supplies or the drinking water needs of animals. However, this issue does arise should the Council wish to abandon limits on s14(3)(b) takes and move to another means of management (having no s14(3)(b) Rule at all, or having no limits on these takes).

4.6 Temporary vs permanent

In the current Plan, the use of the word “*temporary*” occurs for abstractions of surface water, with a greater rate of abstraction permitted than for more permanent takes. It is therefore important that the Council provide a clear definition of “*temporary*” with the next iteration of the Plan so that these permitted higher rates of abstraction are not misused. The current Plan provides a very general definition which requires expansion and clarification. This could be complemented by an associated definition of “*permanent*”.

4.7 Areal measurement

Another issue is that of the assigning minor permanent takes to a site or property.

4.7.1 Site or property?

Land ownership cannot be accurately captured with the word “*site*”, which in essence simply means a place, a location, in the context of this report a place where something happens. This is somewhat of a nebulous term when considering the needs relating to the management of freshwater takes in the region, namely that the abstractor as well as the Council must have a very clear understanding of what the Rules are, and what they relate to in terms of a land unit which would be encompassed within the s14(3)(b) exemption (in particular).

This would *de facto* lead one to consider using a restriction based on “*property*” even though there is a multitude of nuances associated with this word, especially in terms of farm ownership in Taranaki. A “*property*” can however, in the context of this report, be defined as a parcel of land enclosed within a legal boundary and subject of a title, and this might be the appropriate way to proceed. The current Plan Rule 15 for surface water in fact uses the term “*a particular certificate of title*”.

The potential issue of whether or not Council has a concern with a landowner having several of such properties adjoining each other (i.e. with common boundaries) in terms of the volumes of water taken and used is of no environmental consequence. Whether the adjoining properties were owned by one or several owners, the landowner(s) would be able to avail themselves of the s14(3)(b) exemption, and the environmental effects of either the situation with different landowners, or the one landowner with separate adjoining properties, taking the same volumes of water under s14(3)(b) would on the face of it be equivalent.

4.7.2 Per unit area?

There is some attraction in defining s14(3)(b) takes on a per hectare basis – this would enable both the property owner as well as the Council to have a clearer understanding of what amount of water can be taken whether or not it is a site or property. However there is, particularly in Taranaki with its significant poultry industry, a major concern, namely to ensure that the stipulated limits for in particular the s14(3)(b) takes for an individual's animals for drinking water purposes can cover all such animals, for example dairy cattle as well as broiler farm hens per hectare per day.

As noted in section 2.2 above, dairy cattle require approximately 80 litres/animal/day for drinking water – with a normal stocking rate in Taranaki of approximately 3 cows per hectare, water supply needs would therefore be 240 litres/ha/day. Such a level would also provide for the drinking water needs of all other animals which it could be claimed fall within the exemption of s14(3)(b), apart from broiler farm hens.

For broiler farm hens, with a drinking water requirement of 35 litres/100 hens/day, and a stocking rate of say 10,000 hens per hectare, this equates to 3.5 m³/ha/day.

Where to set a Permitted Activity limit in the event that Council wishes to have just one Rule to cover all animals' drinking water needs? If Council used 240 litres/ha/day, based on dairying, this would not cover the needs of broiler farm hens – on the other hand, if Council were to use 3.5 m³/ha/day, this would potentially result in massive permitted abstractions of water on every property which was not used for raising hens, unless of course there was a separate Permitted Activity Rule for broiler farm hens of everything else.

5 Discussion of Options

5.1 Section 14(3)(b) takes

There appears to be several options available to Council with regard to the s14(3)(b) takes for an individual's reasonable stock and domestic use, ranging from numeric Rules in a Plan, to a policy, through to guidance as to what such takes should reasonably be outside of a Plan, and including the option of no Rule at all.

The Council has the option of having no Rule for s14(3)(b) takes in its Plan, and instead simply provide some form of guidance as to what such takes should be to be reasonable could be the appropriate way to go – indeed this is in essence what ECan does (refer above and Appendix Two).

As noted in Section 1 above however, this opinion would appear to be a moot point, as, according to the MfE, case law to date (particularly in the Waikato) has clearly indicated that a Council does have the right to stipulate limits for s14(3)(b) takes, based upon its evaluation of what otherwise would, in an unfettered world, create unacceptable adverse environmental effects.

Without wishing to traverse the merits or not of these opposing legal arguments, it is suggested that this latter route is the appropriate way to proceed, and that relevant

Rules within the Plan are promulgated. This would ensure that the current situation, namely that these abstractions are causing minor environmental effects, will continue and as well Taranaki will fit in with the situation at the majority of other Council Plans reviewed. Therefore the Plan should note the existence of the statutory exemption and provide a reason why Council has decided to set limits and restrictions on such takes, namely that in its opinion such limits and restrictions will ensure that the s14(3)(b) abstractions will in future continue to have minor environmental effects only.

5.2 Other minor abstractions

With regard to the other minor uses currently included within the Plan, these appear appropriate, and could be retained with modification. One matter that would require further clarification is the definition of “*temporary*” (for permitted temporary takes), to ensure that, for example, this category could not be used to cover a take which occurs for 23 hours/day every day (as an extreme example). The definition needs to refer to the fact that such takes are intermittent, and are not permanent or on-going. An associated definition of “*permanent*” would also be appropriate.

With regard to the taking of water for minor, dairy-related uses such as milk cooling and shed washdown, there is merit in having a separate Rule for these where surface waters are the source.

6 Recommendations

Based upon the forgoing, the following recommendations are made:

- the Plan includes relevant Rules setting out limits for s14(3)(b) surface water takes in terms of flow rates, and daily maximum; and
- it is also recommended that the intakes for these systems have a suitable screening mechanism to prevent the entrainment of fish;
- similarly for groundwater, but with additional conditions relating to not lowering water levels in regionally significant wetlands, set-back distances from certain other water bodies and uses, and that a backflow device is fitted where there is a risk of contaminants flowing back down into the source aquifer (indeed this could be made a general condition for all bores);
- the section of the Plan containing these Rules clearly notes that the Act provides for exemptions for the s14(3)(b) takes, but that it is Council’s view that the stipulated limits are required to ensure that no adverse effects occur; and
- for minor non-s14(3)(b) dairy-related uses of surface water (cowshed use), a daily maximum volume be used.

6.1 Draft Rules

Based on the foregoing, the following are the s14(3)(b) draft Rules recommended for inclusion within the new Plan. These are set out in Appendix Three.

With regard to the need for more clarity over what is a temporary versus a permanent take, the following definitions are proffered for consideration:

Temporary takes refer to the occasional and temporary taking and use of water at a specific location and over a limited period of time. It does not include the taking and use of water that is of an ongoing and permanent nature but includes takes

which occur intermittently or which occur over a 5-day duration in any 12 month period. A temporary take excludes water taken for pasture irrigation purposes.

Permanent takes refer to the ongoing and permanent taking and use of water at a specific location over a period of time.

6.2 Impact of Recommended Draft Rules

If the recommendations for Plan Rules are accepted, what will be the impact on users?

For the major water use other than poultry, dairy farming, a 50 m³/day for domestic and stock watering use limit (the s14(3)(b) uses) would cater for a dairy herd of approximately 620 cattle and a family of four on the property. Similarly for dairy shed uses, 50 m³/day would cater for a herd of approximately 715 cattle. Advice is that most dairy farms in the region are smaller than these herd sizes – and for those that are larger, there is potential for use of groundwater or a rural water supply scheme to make up the difference.

Dr Mike Patrick

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Appendix One – Current Permitted Plan Rules

Taking and use of surface water

Activity	Rule	Classification	Conditions/standards/terms	Control/discretion/notification	Policy reference
Taking and use of surface water	15	Permitted	<p>The rate of abstraction for any one property described in a particular certificate of title shall not exceed 1.5l/s; or 5l/s for not more than 30 mins/day for temporary taking and use of surface water¹⁸;</p> <p>The volume of abstraction for any one property described in a particular certificate of title shall not exceed 50m³ in any one day;</p> <p>No more than 25% of the instantaneous flow, measured at the point of abstraction shall be taken.</p>		

¹⁸ The temporary taking and use of surface water means the occasional and temporary taking and use of surface water, but does not include taking and use of surface water that is of an ongoing and permanent nature but which occurs intermittently.

Taking and use of groundwater

Activity	Rule	Classification	Conditions/standards/terms	Control/discretion/notification	Policy reference
Taking and use of water from a well or bore	48	Permitted	<p>The daily volume of abstraction shall not exceed 50m³;</p> <p>The rate of abstraction shall not exceed 1.5l/s;</p> <p>The bore shall be located not less than 500m from the sea or adjacent bores;</p> <p>The well shall be located not less than 25m from the sea or adjacent wells or surface water bodies;</p> <p>The well or bore shall be located not less than 50m from any effluent treatment pond, septic tank, silage stack or pit.</p>		

Appendix Two – Domestic and Stock Water: Taking and Use Information Guide – March 2015, Environment Canterbury Regional Council

Domestic and Stock Water: Taking and Use

The taking and using of water for domestic purposes or for stock drinking purposes is allowed under section 14(3)(b) of the Resource Management Act 1991 (RMA) without the need for a resource consent, provided:

- The water is taken and used by an **individual**;
- The amount and rate of water taken is **reasonable**; and
- The taking and using does not, or is not likely to, have an **adverse effect** on the environment.

What is meant by “an individual”?

An individual is a natural person only, and does not include any company, body corporate, partnership or trust. Any water that is to be taken by a company, body corporate, partnership or trust for domestic or stockwater purposes must comply with the rules in the relevant regional plan (including the limits on the volume taken, and the rate at which the water is abstracted), or be authorised by a resource consent.

What about water taken for other uses (dairy shed washdown, irrigation, horticulture etc)?

Water taken and used for all other purposes must comply with the relevant permitted activity rules or be authorised by a resource consent.

What is “reasonable”?

Guidance from the Ministry of Health and the Lincoln University Farm Technical Manual (2003) has been used to determine “reasonable” volumes of water for domestic and stockwater purposes. A summary of the volumes for domestic and stockwater use is provided below.

Domestic

Domestic use includes drinking water, household washing water, irrigation of the household garden area. “Reasonable” volumes:

- 3m³ per household per day (24-hour period) for those not in groundwater exclusion zones
- 6m³ per household per day (24-hour period) for those in the groundwater exclusion zones of West Melton/Yaldhurst, Woolston/Heathcote, or the Waipara groundwater exclusion zone.

Stock

Derived from the Lincoln University Farm Technical Manual (2003) and adjusted to account for losses through the delivery system. “Reasonable” volumes:

Stock type		Litres/head/day
Dairy cattle	- in lactation	77
	- dry	50
Beef cattle		50
Calves		28
Horses	- working	61
	- grazing	39
Breeding ewes		3
Sows		28
Pigs		12
Poultry	per 100 birds	33
Turkey	per 100 birds	61
Deer	- hinds	30
	- stags	20

If your situation falls outside the above, please contact Environment Canterbury to arrange for an assessment based on your needs to determine whether the take and use of water for domestic use or stock drinking water is allowed.

Adverse effects

Under section 14(3)(b) of the Resource Management Act, water may only be taken and used for domestic and stockwater purposes if the take or use is not likely to result in an “adverse effect”. When assessing whether the water take will cause an adverse effect, Environment Canterbury will consider the following factors:

- If the water is abstracted from a surface water body:
 - Is the river subject to low or minimum flow restrictions?
 - Will the take affect other surface water users?
- What will the effect be on downstream users?
- If the water is abstracted from groundwater:
 - Is the abstraction from a lawfully established bore?
 - Will the abstraction affect other groundwater users?
 - Is groundwater hydraulically connected to surface water, and will the take result in adverse effects on surface water flows?
- Is the take new or existing?
- What is the rate of take? (Groundwater or surface water that is abstracted at a rate of more than 5 litres per second may result in adverse effects on the environment or other users.)

For noting

Limitations

Water **may** be taken for domestic and stockwater purposes under section 14(3)(b) of the RMA in addition to:

- Any volume permitted by the relevant regional rule(s), provided the conditions of the rule(s) are met; **or**
- Any volume authorised by a resource consent.
- Six cubic metres per day is deemed reasonable in groundwater exclusion zones because there is no access to other water permitted by a regional rule.

Associated activities

For activities associated with carrying out your water take (for example, damming of a surface waterbody, installation of a water intake structure, works in the bed of a lake, river or wetland, or the installation of a bore), you will still need to comply with the relevant regional rules for that activity, or obtain a resource consent. For guidance on the rules and restrictions that apply to these activities, review the regional plans on this website or call Customer Services on 0800 324 636.

Appendix Three – Proposed Draft Rules

Taking and use of surface water

Activity	Rule	Freshwater management unit	Classification	Conditions/standards/terms	Control/discretion/notification	Policy reference
<p>Minor surface water takes for reasonable domestic and stock watering needs</p> <p>Take and use of <i>surface water</i> for reasonable domestic and <i>stock</i> watering needs¹</p> <p>pursuant to sections 14(2) and 14(3) of the RMA.</p>	43.	A, B, C, D	Permitted	<p>(a) The rate of <i>water take</i> does not exceed:</p> <p>(i) 1.5 litres per second, up to a maximum of 50 m³ per day/ per property, for any <i>permanent take</i>; OR</p> <p>(ii) 5 litres per second for any <i>temporary takes</i>; AND</p> <p>(iii) no more than 25% of the instantaneous flow measured at the point of take.</p>		
<p>Other minor surface water takes</p> <p>Take and use of <i>surface water</i> for the purpose of farm dairy wash down and milk cooling, road works and other minor takes</p> <p>pursuant to section 14(2) of the RMA.</p> <p><i>Note:</i></p> <p><i>Water taken through this Rule is in addition to that which may be taken for an individual's domestic and stock watering needs as allowed by section 14(3)(b) of the RMA (Rule 43).</i></p>	44.	A, B, C, D	Permitted	<p>(a) The rate of <i>water take</i> does not exceed:</p> <p>(i) 1.5 litres per second, up to a maximum of 50 m³ per day/ per property, for any <i>permanent take</i>; OR</p> <p>(ii) 5 litres per second for any <i>temporary takes</i>; AND</p> <p>(iii) no more than 25% of the instantaneous flow measured at the point of take.</p> <p>(b) The total volume of water taken and used per <i>property</i> does not exceed:</p> <p>(i) 500 litres per hectare per day for farm dairy wash down and milk cooling and other rural-property related uses; OR</p> <p>(ii) 50 m³ per day for other minor takes.</p> <p>(c) The <i>water take</i> does not lower the water level in a <i>regionally significant wetland</i>.</p>		

Taking and use of groundwater

Activity	Rule	Freshwater management unit	Classification	Conditions/standards/terms	Control/discretion/notification	Policy reference
<p>Minor groundwater takes for domestic, stock watering, and cowshed needs</p> <p>Take and use of <i>groundwater</i> for reasonable domestic, stock watering and washdown and cooling water needs¹ pursuant to section 14(2) and 14(3) of the RMA.</p> <p><i>Note:</i></p> <p>Rule 52 permits the use of land to drill a hole or bore to access groundwater.</p>	56.	A, B, C, D	Permitted	<p>(a) Each take does not exceed 1.5 litres per second up to a maximum of 100 m³ per day per <i>property</i> (other than for aquifer testing or dewatering for which the rate and volume of take is not restricted).</p> <p>(b) The take does not lower the water level in a <i>regionally significant wetland</i> (refer Rule 92-94).</p> <p>(c) The take complies with the following separation distances:</p> <p>(i) 25 metres from any <i>surface water</i> and the coastal marine area;</p> <p>(ii) 50 metres from any <i>effluent</i> treatment system, holding pond or septic tank; AND</p> <p>(iii) 200 metres from any existing <i>bore</i> or spring used for water supply purposes.</p> <p>(d) A backflow prevention device is installed where there is a risk of contaminants flowing down a <i>bore</i> into a <i>groundwater</i> aquifer.</p>		
<p>Taking produced water</p> <p>Take and use of <i>groundwater</i> incidental to the drilling for and extraction of hydrocarbons pursuant to section 14(2) of the RMA.</p>	57.	A, B, C, D	Permitted			
<p>Other groundwater takes</p> <p>Take and use of <i>groundwater</i> not provided for in Rules 56 or 57 pursuant to section 14(2) of the RMA.</p>	58.	A, B, C, D	Discretionary			1.1 to 4.1, 8.1, 8.2, 8.3.

¹ Taking and use of water for reasonable domestic and stock watering needs is allowed under section 14(3)(b) of the RMA provided that there is no adverse effect on the environment. The conditions of this rule are designed to provide for these needs.