



To: Freshwater Advisory Group

From: Kurt Ridling

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SUBJECT: Water Quantity Policies, Methods and Rules

Introduction

This paper outlines the approach to managing water quantity. Two tables are attached in Appendix 1; the proposed policy approaches, methods and rules (Table 1) and the Waipaoa Catchment Water Quantity Limits (Table 2). These are working documents and under constant refinement as we liaise with FWAG members and other stakeholders.

The background and some key management areas are summarised below.

Background

Water quantity allocation is a key issue for the region and especially the Waipaoa Catchment. It is predicted that demand will increase in the future and challenge the supply of water resources. This is already happening in the Waipaoa for both surface water and groundwater. National food production targets and experiences from other regions re-iterate the likelihood of increased demand. The Waipaoa catchment accounts for about 90% of current regional demand.

Waipaoa Catchment

Looking at the current levels of allocation and the potential minimum flows/allocation limits, there is unlikely to be much "new water" available during times of peak demand. "New water" refers to water that is available through new permit applications. Surface water from the Waipaoa River is the most likely source of "new water", however, this will have to be checked against any permits that have been issued recently. As mentioned in previous reports there is a large amount of paper allocation that is not being used. See Figure 1.

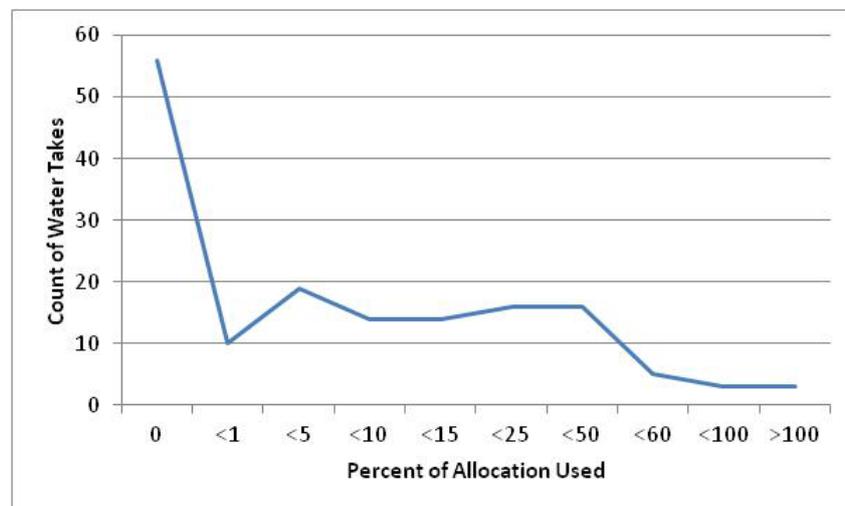


Figure 1: Tally of the number of water consent holders who take a given percent of their allocation. 2012 - 2013.

Reducing the amount of paper-allocation and aligning it with the actual use and needs of water permit holders is critical to having an efficient and fair allocation system.

Reducing paper-allocation

The proposed water quantity framework places a strong emphasis on reducing paper allocation. This is particularly important for full or over-allocated waterbodies. Key management proposals include:

- Stronger emphasis on justifying water permit volumes
- Consents to lapse if not given effect to
- Limited consent durations if use and efficiency thresholds are not met
- Incentives for those who use their allocated water efficiently.

It will take 5-10 years for this situation to be improved. This allows for two 5-year water permit cycles to be completed for each water quantity zone.

Managing Allocation

The policies, methods and rules in Appendix 1 provide a water quantity framework. They need to be read as a whole as there are many inter-related parts. Below are some of the key elements of managing allocation:

Permitted takes – small takes and community supplies are proposed as permitted activities within limits. Section 14 of the RMA also allows for an individual's reasonable domestic needs and animal drinking water to be taken without a permit. This is confirmed in the policies but with thresholds linked to intensive farming.

Permit renewals – it is proposed that existing permits have priority over new applications where there is no water available. However, existing permit holders will have their allocation volumes reduced towards their actual needs or they will lose their permit if they do not give effect to it.

New applications – new permits will be accepted where water is available. Where water is not available, a waiting list system is proposed.

Gisborne Municipal Supply – two broad options are being considered for the city's municipal supply; to consider the takes as part of the baseline environment or to deal with those takes when the permits are due for renewal. These can be discussed in more detail at the FWAG meeting.

Activity status

The following table outlines the activity statuses for water quantity:

Permitted	Restricted discretionary	Discretionary	Non-Complying
<ul style="list-style-type: none">• Small takes and community supplies• Reasonable domestic needs• Animal drinking water	<ul style="list-style-type: none">• Permit renewals• New applications where water is available• Transfers where use and efficiency thresholds are met	<ul style="list-style-type: none">• Renewal, new applications and transfers where no limits have been set• Renewal, new applications and transfers from scheduled water bodies	<ul style="list-style-type: none">• Renewals and new applications that exceed catchment limits• Transfers that don't meet use and efficiency thresholds• All other activities

Appendix 1: Water Quantity Allocation Tables

Table 1: Policy, Rules and Methods

Policy approach	Methods	Rules
Water Quantity Zones		
1. For each water management unit, establish water quantity zones (process) 2. Establish a water permit schedule that aligns the permits from each water quantity zone to be assessed as a group (process)	Proposed Waipaoa water quantity zones: <ul style="list-style-type: none"> • Hill country • City • Te Arai • Waipaoa • Deep aquifers • Shallow aquifers 	None
Setting Limits		
3. Set minimum flows (surface water), minimum static water levels (groundwater) and allocation caps (surface water and groundwater) for each water quantity zone (process)	Allocation limits and environmental flows set through catchment planning process. Flows to be based on values.	Catchment Plan Limits – see Table 2: Waipaoa Catchment Water Quantity Limits
Reliability		
4. Set limits that aim for 95% reliability based on historical flow/water level data. Consider annual, seasonal and monthly reliability scenarios. (process)	Reliability to be applied annually, seasonally, monthly? Review and report on reliability of allocation limits as permits are due for renewal in each water quantity zone After 10 years from date of notification, review allocation limits in terms of reliability	None
Assessing Permits		
5. Permit assessment criteria: <ul style="list-style-type: none"> • Reasonable needs test • Historical use data • Daily, weekly, monthly and annual limits • Efficiency of end use • Irrigation management plans • Impacts on other takes • Water meter requirements • Storage capabilities • Existing infrastructure investment • Consent duration • Consent lapse date 	Develop guidance to assist with permit assessment including: <ul style="list-style-type: none"> • Require irrigation system to be designed to meet the Irrigation NZ Code of Practice. • Require an irrigation management plan from permit holders which identifies how they will achieve an 80% irrigation efficiency ratio. • Implementation of water meter regulations. • Undertake water audits of largest 20% of water takes. • Council to develop a Water Demand Management Plan for the city supply. To be developed before plan notification.	Restricted Discretionary Activity for permit renewals and new applications where water is available and limits have been set. Discretionary Activity for permit renewals and new applications where no limits have been established. Non-complying for permits that don't meet the criteria for restricted discretionary and discretionary activities.
Where no limits have been set		
6. Where no limits have been set through a catchment management plan: <ul style="list-style-type: none"> • water permits shall be assessed on a case by case basis using the permit assessment criteria. • consent durations shall be limited to five years unless there is an established history 		Discretionary Activity – see above

of meeting use and efficiency thresholds.		
Exceeding Limits		
7. To not grant permits that exceed limits unless: <ul style="list-style-type: none"> • There is new or improved data available about the freshwater resource; and • An applicant can demonstrate that there will be no adverse effects on the environment, existing users and the values for that water management area 		Non-complying Activity – see above
Allocation Blocks		
8. At least one allocation block to be established for each surface water quantity zone (process)	A Block – October to March B Block – April to September or A Block – low flow B Block – high flow	Waipaoa surface water allocation blocks: Hill country (B Block only) City (B Block only or permitted activities only) Te Arai (A Block, B Block) Waipaoa (A Block, B Block)
Permitted Takes		
9. Small takes and community supplies to be provided for as permitted activities 10. This does not affect an individual's right to take freshwater for reasonable domestic needs and animal drinking water under section 14 of the RMA 11. Allow permitted takes to continue beyond minimum environmental flows until a water shortage direction is given under section 329 of the RMA	Section 14(3) of the RMA Section 329 of the RMA Drinking water supplies also need to comply with relevant National Environmental Standard and Ministry for Health requirements.	Permitted criteria: Rate of take – 5L/s Daily Limit – 10m ³ Annual Limit – 1000m ³ Retain % of in-stream flow Note: The permitted criteria relate to the quantity of water only. Cross reference to bore permit requirements, work within the beds of lakes and rivers and intensive farming thresholds.
Permit Renewals		
12. Renewals of existing permits shall have priority over new applications where there is no water available for allocation. This shall be subject to the permit assessment criteria and the policies for full or over-allocated water bodies 13. Permit renewals shall be restricted to the existing rate of take and volumes		Restricted Discretionary Activity status for renewals – Non-notified
New applications		
14. Priority in time where water is available 15. Establish a waiting list where there is no water available for allocation		Restricted Discretionary Activity status for new applications where water is available – Non-notified Non-complying Activity in full or over-allocated waterbodies
Gisborne Municipal Supply		
16. City water supply to undertake a demand management approach eg aim for 5% reduction in peak water use – see methods 17. Gisborne City municipal supply to be included as part of baseline environmental flow. This allows municipal take to continue when minimum flows are reached (option to be considered)	Demand management plan Network infrastructure eg leak control Work with top 20% of city water users to put in place water efficiency practices Community education programmes Domestic water meters	
Full or Over-allocated Waterbodies		

<p>18. Where an allocation limit for a water quantity zone has been reached or exceeded:</p> <ul style="list-style-type: none"> • Any further water takes are restricted to permitted activities • Permit renewals will have priority over new applications • Any additional allocation will need to be achieved through the process of permit renewals (allocative and use efficiency gains) • Consent durations shall be limited to five years and subject to a reduction of 20% from the previously allocated volumes unless use and efficiency thresholds are met • If use and efficiency thresholds are met, consents may be issued for a period not exceeding 20 years • A waiting list will be established for new applications to be considered as water becomes available through consent renewals • New applications (non-renewals) shall be considered at the same time existing consents are renewed in accordance with the Water Permit Schedule. 	<p>Allow 10 years to improve allocative and use efficiency. Review allocation limits after 10 years.</p> <p>Establish waiting list for when water becomes available through consent renewals.</p> <p>Encourage user-group consents to manage use and efficiency</p>	<p>Restricted Discretionary Activity status for permit - non-notified</p> <p>Restricted discretionary Activity for permit transfers where use and efficiency thresholds have been met – non-notified</p> <p>Non-complying activity status for new applications and transfers where use and efficiency thresholds are not met</p>
<p>Transfers</p>		
<p>19. Water permits, or parts of water permits, can be transferred if:</p> <ul style="list-style-type: none"> • use and efficiency thresholds have been established by the existing permit holder • the new permit holder has been assessed in accordance with the permit criteria • water permit transfers to be within the same allocation zone • allow temporary seasonal permits if there is water available 		<p>Restricted discretionary status where use and efficiency thresholds are met:</p> <ul style="list-style-type: none"> • 50% of allocated water is used • 80% irrigation efficiency ratio • Other efficiency measures? • Independent audit of efficiency? <p>Otherwise: Discretionary where no limits have been set Non-complying where water body is fully or over-allocated</p>
<p>Permit Duration and Permit Lapsing</p>		
<p>20. For full or over-allocated waterbodies:</p> <ul style="list-style-type: none"> • permits shall be issued for five years until use and efficiency thresholds are met • If use and efficiency thresholds are met, consents may be issued for up to 20 years <p>21. Where water is available, permits may be issued for up to 20 years</p> <p>22. Consent durations shall be applied in five year increments to align with the Water Permit Schedule</p> <p>23. A consent lapse date of 2 – 5 years shall be applied to permit renewals and new applications</p>	<p>Consent duration and lapse date is a matter for discretion:</p> <p>5 to 20 years – duration</p> <p>2 to 5 years – lapse date</p>	<p>None – policy guidance for deciding on consent duration and lapse dates</p>
<p>Managing Water Shortages</p>		
<p>24. Allow permitted takes to continue beyond minimum environmental flows until section 329 of the Act applies</p> <p>25. Set a management flow that triggers active management and increased communication between water users and Council (process)</p> <p>26. Set management flows that trigger reduction in water takes – pro rata reduction</p> <p>27. Option for user-groups to apply and manage allocation as a group</p> <p>28. Emergency flow regime – to be developed, see methods</p>	<p>Council to work with water users to more actively forecast seasonal and weekly water supply and demand.</p> <p>Group consents or user group option for managing during water shortages</p> <p>Develop an emergency flow regime that provides survival water for</p>	<p>Default rules for reducing takes where no other option exists: Pro-rata reduction at different flow levels</p>

29. When there is a water shortage declared (section 329), prioritise water as follows: (highest to lowest) <ul style="list-style-type: none"> • Health and safety • Avoiding significant damage to instream ecosystems, lake ecosystems and wetlands • Maintenance of animal health • Essential use for continued operation of a business or industry 	critical crops. Some assessment criteria for permits will be necessary Emergency Flow Management Plan in place by October 2015	
Water storage		
30. Encourage water storage in areas with seasonal water shortage 31. Policy on storage for full or over-allocated waterbodies to be developed 32. Water storage dams should be located outside the beds of permanently flowing streams and wetlands – cross reference to beds of rivers, lakes and wetlands	Do we need Managed Aquifer Recharge policies and rules to allow for the possibility?	
Scheduled water bodies		
33. To ensure water takes do not adversely affect the values for which the waterbody is scheduled		Discretionary Activity status for takes from regionally outstanding water bodies and regionally significant wetlands. Cross-reference to relevant schedules

Table 2: Waipaoa Catchment – Water Quantity Limits

Allocation Zone	Monitoring Location	Minimum Flow – A Block	Allocation Cap – A Block	Minimum Flow – B Block	Allocation Cap – B Block
Waipaoa	Kanakanaia Matawhero	1250 – 1350 L/s Flow data under review	2000 L/s - rate of take Daily limit – under consideration Monthly limit – under consideration	3000 - 4000 L/s? Flow data under review	2000 L/s – rate of take Daily limit - under consideration Monthly limit - under consideration
Te Arai	Pykes Weir	40 – 60 L/s	Current low flow cap = 115 L/s (excludes frost protection and higher flow takes)	200 L/s? Flow data under review	200 L/s
Deep Groundwater	N/A	N/A Minimum static water level under consideration	Cap at existing levels and reduce overtime. Reassess in 5 to 10 years?	N/A	N/A
Shallow Groundwater	N/A	N/A Minimum static water level under consideration	Cap at current levels?	N/A	N/A
Hill Country	Kanakanaia	Permitted Activities Only		3000 – 4000 L/s	Under consideration
Urban		Permitted Activities Only		Permitted Activities Only?	