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Committee Rural Services and Wairarapa
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Status of Wairarapa Surface Water Takes

1. Purpose

To inform the Committee of the current status of surface water takes within the Wairarapa and related issues.

2. Background

2.1 Statutory Position

The management of water resources and the issue of water permits is a function of Regional Councils under the Resource Management Act 1991.

The Regional Policy Statement sets out the objectives, policies and methods for managing the freshwater resource, and the associated Regional Freshwater Plan establishes the specific policies and rules for the taking of surface water.

Takes of surface water are permitted, provided they are less than 20,000 litres per day and:

- Water is taken at a rate of no more than 2.5 litres per second
- There is no more than one extraction point for each certificate of title
- All fish are prevented from entering the reticulation system.

All other takes of surface water require resource consent and are discretionary activities - applications may be granted or declined. Applications for consent are processed in the order in which they are received.

Consent applications are considered as to whether they are sustainable and their effects on the environment are acceptable. To assist these considerations, Water Allocation Plans have been established for most of the important catchments. These plans set the minimum flows required to sustain aquatic life and other values, and fix core allocations. These provisions are then written into consent conditions that provide for takes to be reduced or stopped altogether as river and stream flows fall.

2.2 The Resource

Reliable surface water resources are confined to the Wairarapa valley and are sourced from the Tararua and Rimutaka Ranges or from springs on the plains. Lake Wairarapa, the North Islands second largest lake, is subject to the requirements of a National Water Conservation Order.

In contrast, the eastern hill country that makes up around one third of the Region is subject to regular summer drought and its water resources are either insufficient or too unreliable for irrigation use.

2.3 Previous Review

This paper follows on from a review of Wairarapa surface water resources undertaken in 2001. The review identified a number of catchments where water allocation plans were needed. As a result, moratoriums on new or increased takes have been applied in a number of catchments, and programmes of water resource investigations and development of water allocation plans have been implemented.

3. Current Position

3.1 Overview

Surface water resources are now largely allocated and opportunities for storing excess flows for summer irrigation are currently being pursued under the Go Wairarapa irrigation study.

At present 13 catchments or zones are considered to be either fully allocated (with the core allocation in the Regional Freshwater Plan fully used) or in the absence of a core allocation, have a moratorium in place. These are summarised in the attached Appendix 1.

3.2 Overall Use

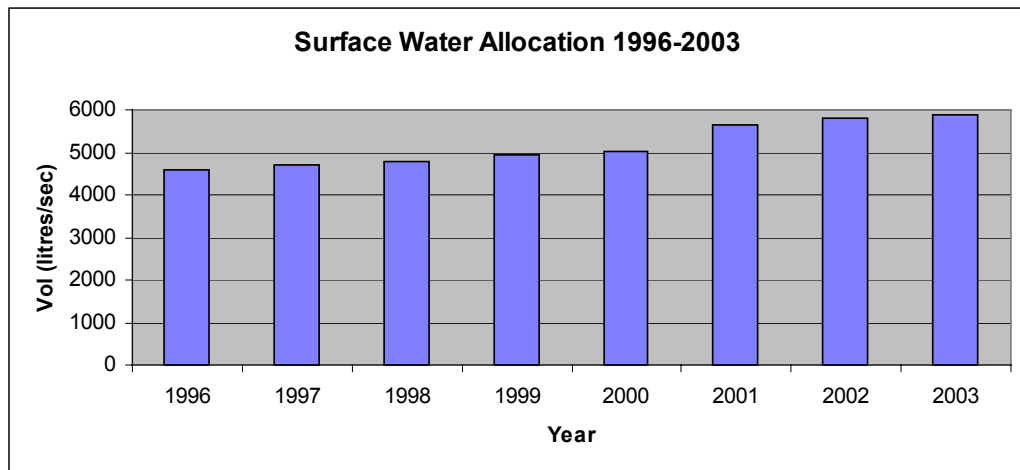
Because flows in rivers and streams fluctuate, and minimum flows have to be maintained for aquatic life, they are seen as less reliable sources than underground water. Policy 6.2.7 of the Freshwater Plan recognises this by encouraging the use of groundwater. This policy is reflected in the following table which shows there are twice the number of groundwater takes.

Wairarapa Consented Water Takes			
Take	No.	Volume (m³/day)	Average daily take (m³/day)
Surface Water	169	469,636	2,779
Groundwater	317	319,171	1,007
Total	486	788,807	1,623

Although there are greater numbers of groundwater takes, on an annual basis, more water in total is allocated to surface water. Nine District Council takes for municipal water supply and water races comprise close to 50% of the total annual surface water take. The remainder of takes are for seasonal irrigation.

3.3 Trends

Since 1996, there has been a 29% increase in the allocation of surface water as shown in the following graph.



There was a big increase in consented surface water takes in 2001, coinciding with high dairy farm incomes, following a dry summer.

Large increases in surface water use have occurred in the South Wairarapa District, particularly from the sources shown in the following table :

Source	Instantaneous Take (litres per second)		
	1996	2004	% Increase
Lake Wairarapa	98	364.5	271
Dock Creek	61	224	267
Lower Ruamahanga	601	921	53

3.4 Water Allocation Plans

Core allocations and minimum flows are established through development of Water Allocation Plans for individual rivers and streams. Not all rivers and streams currently have such plans and a systematic programme is being followed whereby these are being progressively developed. This is a consultative statutory process with the proposed Mangaterere Stream Water Allocation Plan an example that is currently publicly notified. Once formally adopted, they become enforceable under Policy 6.2.1 of the Regional Freshwater Plan.

Development of Water Allocation Plans can take several years requiring accurate measurement of low flows, and assessment of biological needs using models such as IFIM. The very wet February conditions this year imposed a significant set back to the collection of this data. Currently a lot of required background data is being collected for the following resources:

- Taueru River
- Parkvale Stream
- Booths Creek
- Otakura Stream
- Dock Creek
- Lower Ruamahanga River

With the recent pressure on the Lake Wairarapa resource, work is to be undertaken so that a water allocation plan can be developed in keeping with the requirements of the Lake Wairarapa National Water Conservation order.

Where there is no water allocation plan and a moratorium is in place, consents due to expire have had their applications for renewal put on hold pending development of a Water Allocation Plan. There are currently 25 renewal applications on hold and their takes are continuing under their previous consent conditions.

3.5 Register of Interest

Since December 2003, a formal register has operated, recording clients interest in taking surface water in localities where the resource is fully allocated, or a moratorium is in place. Whilst it is not possible to issue consent under these circumstances, allocation may become available in the future under the following scenarios:

- A review of the resource results in additional allocation being available
- An existing consent lapses, is surrendered, cancelled., or varied to take less water.

Clients are being asked to formally register their interest in the resource, with their letter being “queued” on file. In the event of resource becoming available, the client with the longest standing interest will be given a set time to lodge a full consent application to use the resource. If this is not received, the next person will be given the opportunity.

4. Issues

4.1 Partial Takes

Under the RMA, consent holders can choose to use only part of their consented take, or none at all. In doing so, the resource becomes effectively “tied up” and

not available for other users. The recent RMA amendments extended the period in which a consent can be “unused” from two to five years.

For surface water resources, such partial or non takes, act to the benefit of other downstream users, extending water availability by buffering dry weather flows and delaying irrigation restrictions.

In these circumstances, where successive annual records showing a significant percentage of the core allocation is not being used by consent holders, consideration could be given to granting additional takes. This would however create the risk that the unused core allocation may be suddenly used and then the resource becomes over allocated. As a result water restrictions would come on earlier to the detriment of all consent holders.

Staff do not consider this to be an appropriate or responsible approach. In water allocation plans, the provision for supplementary takes at higher flows largely covers this.

4.2 20,000 litre rule

The present permitted rule is detailed in 2.1. By implication it conveys a message that takes of this size are *de minimis* - too small to be of concern, with insignificant effects on the environment. It also infers that resources are infinite.

Whilst this may have been an appropriate approach at the time the Regional Freshwater Plan was developed, it is an area of increasing concern. Whilst it may be appropriate on a case by case basis, more recent experience has shown that the issue needs to be considered cumulatively

This has arisen for the following reasons:

- Intensified lifestyle subdivision has cumulatively increased the number of 20,000 litre takes from individual streams.
- This has reduced the water available for consented takes, in one case totally.
- It has also affected the availability of water for existing 20,000 litre users
- As core allocations and minimum flows do not apply, there is the potential for streams to become “dried up” by the cumulative effect of these takes.

Currently a staff task group is examining this issue and will be reporting to Committees by the end of this year. An approach being considered is to limit permitted takes in some areas to the reasonable needs of stock drinking water and domestic use in smaller catchments.

4.3 Efficiency of Use

Objective 6.1.3 of the Regional Freshwater Plan aims to ensure that water taken from rivers, streams, and lakes is used efficiently and water conservation is practised. However under Policy 6.2.6, a “broad brush” approach is taken requiring irrigation rates to be no more than 350 cubic metres/hectare/week

(equivalent to 35 mm of rainfall). All consent applications are required to achieve this requirement.

Efficiency questions are illustrated in the following alternative scenarios.

Consider two applications to irrigate from the same resource:

1. An application made to irrigate pasture at the maximum application rate of 350 cubic metres/hectare/week on the most porous unsheltered soils, using an inefficient border dyke system.
2. An application made to irrigate from the same stream applying only 100 cubic metres/hectare/week on well sheltered, moisture retentive soils growing a high gross margin crop, with water applied using an efficient dripper system.

Under the present approaches:

- If application 1 was made first and the core allocation were available, consent would be granted.
- If application 2 was received only a few minutes later than application 1, and the core allocation had been fully used, it would be declined.
- Efficiency could only be considered if both applications were received simultaneously.

These scenarios highlight the problems and controversy that our Region will increasingly face as individual water resources progressively become fully allocated. It is the basis of a growing national debate that became obvious in the Project Aqua applications.

Environment Canterbury are reportedly seeking amendment of the RMA to enable competing resource consent applications to be judged on their merits. They maintain that the community expects consents to be dealt with on their merit and are developing their own framework to hopefully implement this.

Central Government has established a working group that is looking at water allocation issues facing the country as part of their National Programme for Water. A public discussion document on future approaches is intended to be released in the next few months.

As the Region's individual water resources approach, or become allocated, there is likely to be an increasing call for consent applications and renewals to take account of the efficiency of water use and water conservation.

4.4 Needs Based Consents

There will be considerable advantages in taking a "needs" based approach to irrigation consents. That is, considering and granting applications on the basis of actual soil and crop needs. In this way the size and frequency of takes would be determined by:

- The soil types to be irrigated and their ability to retain water.
- The crops to be grown and their water needs.
- The frequency with which the soil water will need to be replenished.

Such an approach is quite achievable and has the potential to “free up” water for other users without reducing current production. To implement this approach, some further research and modelling will be required, followed by changes to the water efficiency policy in the Regional Freshwater Plan.

5. Conclusions

- The present surface water resources of the Wairarapa are becoming increasingly fully allocated. Off channel storage during high flows provides the opportunity to increase the water available for irrigation.
- Water Allocation Plans provide the tool for ensuring environmental values are properly addressed.
- Needs based consents provide the means to improve water use efficiency and assist allocation and should be further developed.
- The “first come, first served” basis for allocating water needs review. Council should approach this as part of the current national programme.

6. Communication

This report has been made available to news media. Publicity and consultation will be essential once any draft proposed changes to the Freshwater Plan are approved in principle by Committees.

7. Recommendation

That the Committee receive the report and note its contents.

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