

Report No:	REP12-02-07
File No:	W515
Date:	16 February 2012
<b>Decision Required</b>	

## REPORT SUMMARY

**Report to:** Environment & Planning Committee  
**Meeting Date:** Wednesday, 29 February 2012  
**Report Authors:** Mary-Anne Baker - Policy Planner

**Subject:** **WATER METERING - TRMP CHANGES 35, 36**

### EXECUTIVE SUMMARY

Regulations made by Central Government in 2010 for the Measurement and Reporting of Water Takes are required to be implemented and monitored by Council.

There are a number of water measuring and metering requirements already in the Tasman Resource Management Plan. The provisions of the regulations apply although the Council may have more stringent provisions in addition to the regulations.

The Committee considered a number of differences between the regulations and what is currently required by the TRMP in respect of water measuring and metering and identified preferred options which were released for public feedback during January.

There has been very little feedback on the draft proposals.

### RECOMMENDATION

It is recommended that the Committee:

**Approve** the Plan Changes for Measurement and reporting of water Takes shown as Attachment 1 in Report REP12-02-07 for public notification in March 2012.

### DRAFT RESOLUTION

**THAT the Environment & Planning Committee receives the Report REP12-02-07 Water Metering - TRMP Changes 35, 36 and adopts the recommendation.**

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## **1. PURPOSE**

- 1.1 Central Government has made the Resource Management (Measurement and Reporting of Water Takes) Regulation 2010 which came into effect on 10 November 2010. The Council is required to implement and monitor the regulation.
- 1.2 Previous reports on the implications of the water metering regulations have considered metering requirements for takes less than 5 litres per second, meter specifications, timing, installation, recording and reporting information (REP11-06-05) and water takes from dams and storage ponds and takes in seasonally dry areas (REP11-08-11) and a summary report (REP11-11-10).
- 1.3 Council released its preferred options for public feedback during January. Aside from a concern raised by HortNZ, there was very little feedback. A number of queries were made about the impact of the regulations on domestic supplies and hydro power takes. (Neither is affected by the regulations or the plan changes).

## **2. Issues Raised**

- 2.1 The Motueka Community Board advise that they supported the proposal on the basis that:
  - it was largely business as usual in relation to requiring water meters, and
  - the proposed changes do not affect Motueka residents taking domestic water from bores
  - surface takes are metered except where solely for domestic use
  - costs of compliance are borne by users
- 2.2 HortNZ advises that it is likely to oppose requirements by this council for water meters for takes less than 5 litres/second.
- 2.3 Staff note that despite the Council's intention not to require water meters for takes from dams, there is still a need to consider how residual flows from dams will be monitored. This will arise because without regulating how much is taken (and when) from the dam, there will be a greater emphasis on making sure sufficient water is released from the dam for downstream users and ecosystem health. The quantity and nature of dam outflows will be dependent on the circumstances and location of the dam and may be influenced by timing of construction too.

**3. EXCEPTIONS FOR TAKES <5l/Sec**

- 3.1 The requirement for meters was previously a discretionary matter for all takes but Schedule 31B clearly directed when meters would be required by water management zone. Meters were being progressively required as demand increased (e.g. allocation limits reached and rationing requirements imposed). All consented takes are subject to water meter requirements including those less than 5 l/sec. Exceptions were generally on the basis of location such as where an allocation limit was not yet reached.
- 3.2 The costs and benefits of metering are well understood by permit holders in Tasman, both in terms of enabling better management of the resource by the Council and by individual water users and in terms of financial costs to water users.
- 3.3 The Hort NZ concern arises primarily because of the costs associated with installing new or upgrading existing meters, verification of meters and possible associated costs of upgrading head works to achieve specified accuracies. These new requirements are likely to be significant for some users.
- 3.4 The regulation provides for Council rules that are more stringent to prevail over the regulations.
- 3.5 The history of water management in Tasman is such that all consented takes in a zone where water meters are required are all subject to the meter requirement regardless of size of take.
- 3.6 The cumulative effects of small takes in most of our water management zones are significant. This is because a significant proportion (one third) of consented takes is less than 5 l/sec (see Table 1). The pattern of land and water use in much of Tasman is such that smaller areas of high value crops are grown compared to the extensive irrigation by pastoral land uses in regions like Canterbury.
- 3.7 Much of this irrigable highly versatile land in Tasman is also in areas subject to a high demand for water. The Council has waiting lists for unmet demand in eleven of its water management zones.

**Table 1: Total number of water permits**

	>20litres/ Second	10-20 litres/ second	5-10 litres/ second	Takes <5 litres per second (regulation does not apply)	Total
<b>Total with Meter</b>	117	239	169	215	740
<b>Total without Meter</b>	84	146	172	229	631
<b>Total</b>	201	385	341	444	1371

- 3.8 The costs will apply to all takes greater than 5 l/sec. The council has discretion in relation to those less than 5 l/sec, however, for reasons of equity, (including compliance measures), the need for accurate data to enable good water management, cumulative effects of small takes and level of unmet demand in many zones, it is recommended that council continue to require water meters for most takes less than 5 l/sec.

## 7. RECOMMENDATIONS

- 7.1 It is recommended that the Committee:

**Approve** the Plan Changes for Measurement and reporting of water Takes shown as Attachment 1 in Report REP12-02-07 for public notification in March 2012.

## 8. DRAFT RESOLUTION

**THAT the Environment & Planning Committee receives the Report REP12-02-07 Water Metering - TRMP Changes 35, 36 and adopts the recommendation.**



Mary-Anne Baker  
**Policy Planner**

### **Appendices:**

Appendix 1 Tasman Resource Management Proposed Plan Changes 35 and 36

## TASMAN DISTRICT COUNCIL

## PROPOSED TASMAN RESOURCE MANAGEMENT PLAN

## PROPOSED CHANGE NOS 35 AND 36

**Part I: Introductory &  
Part V: Water  
Water Metering**

Notified March 2012

**EXPLANATORY STATEMENT**

New Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 came into effect on 10<sup>th</sup> November 2010. The Council must implement these regulations.

The Council already has a range of policies and rules relating to water meters. It has progressively required water metering throughout the district to manage the allocation and taking of water. Water meter data is used to gather information about water use, and ensure compliance with water permits. Water meter data also provides information to describe the nature and extent of our water resources and help develop and enhance models (groundwater/surface water) that inform effective water management decision making.

The regulations impact on how Council manages water meters. Changes are required to the TRMP to align the Council's water management provisions with the regulations.

**ISSUES**

There are a number of differences between the regulations and what is currently required by the Council in respect of water measuring and metering. There are differences in respect of:

- a) Metering requirements for takes less than 5 litres per second.
- b) Metering requirements of takes from dam impoundments and storage reservoirs.
- c) Specification of rates of taking in litres per second.
- d) Timelines for compliance.
- e) Water meter specifications including verification requirements and electronic recording of data.
- f) Reporting information.

**CONSEQUENTIAL AMENDMENTS**

There are consequential amendments made to Part II in respect of meanings for three terms. These constitute **Change 35**

## EVALUATION OF ALTERNATIVES UNDER SECTION 32 OF THE RESOURCE MANAGEMENT ACT

The Council has considered the requirements of the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 in relation to existing Council policy and rules.

It has reviewed options for existing water meter requirements for those water takes that are both outside and within the scope of the regulations and has considered the impact of the regulations on them. It has considered the alternative options, benefits and costs, and effectiveness efficiency and appropriateness of these amendments. The key Section 32 reference documents for Variations and Change are:

REP11/06/05	Water Metering
REP11-08-08	Water Metering (Takes from Storage and Surface Water Takes in Seasonally Dry Areas); Policy Options Paper and Draft TRMP Amendments.
REP11-11-10	Water Metering (Draft TRMP amendments)
REP12-02-07	Water Metering (Notification of TRMP Changes)

### SCHEDULE OF AMENDMENTS

The Tasman Resource Management Plan is amended in accordance with the following schedule. Where amendments are to existing text, the changes are shown by strikethrough or underlining.

#### CHANGE 35 PART I INTRODUCTORY :

##### 1. Delete meaning for **Water Meter**

~~Water Meter – in relation to the provisions of Part V, means a device that meets the following specifications:~~

###### ~~(a) Meter Accuracy and Registration~~

- ~~(i) The meter must record water used to an accuracy of plus or minus 5 percent.~~
- ~~(ii) Meter operating flows must comply with those recommended by the manufacturer and shall be such that the above accuracy is maintained.~~
- ~~(iii) An easy to read and hermetically sealed register, with a six figure cubic metre reading, is desirable. As a minimum, it is sufficient to record the annual pumpage without “rolling over” through zero.~~
- ~~(iv) Registers and mechanisms must be able to be readily replaced with minimal delay or alternatively, in the event of malfunction, a spare meter or some other method acceptable to Council shall be provided, thereby permitting an uninterrupted record of water usage.~~
- ~~(v) Meters must be so designed that any reverse flows will be measured and be automatically deducted on the register.~~
- ~~(vi) The meter register must be able to be locked (sealed) to identify and discourage external access by unauthorised people.~~

###### ~~(b) Meter Installation and Maintenance~~

~~(i) The meter must be installed in accordance with the manufacturer's specifications and must be operated and maintained so that Council's requirements are met~~

**2. Insert** new meaning for water meter:

**Water meter** in relation to the provisions of Part V, means a device or system that;

1. takes continuous measurements
2. keeps records
  - a. in cubic metres
  - b. specifying "zero" when no water is taken
  - c. in an auditable format
  - d. that must be able to be combined to cover each water year of the permit,
3. measures the volume of water taken
  - a. to within +/- 5% of the actual volume taken for water taken from a full pipe, or
  - b. to within +/- 10% of the actual volume taken for water taken by another method (including an open channel or partially full pipe)
4. for takes greater than 5l/sec is able to provide data in a form suitable for electronic storage,
5. is suited to the qualities of the water it is measuring (such as temperature, algae content and sediment content)
6. is sealed and is as tamper-proof as practicable.
7. is installed
  - a. at the location from which the water is taken; or
  - b. at the location specified by any approval granted in writing by the council
  - c. by a person who is appropriately accredited to install water meters.
8. has been verified as accurate by a person who is appropriately accredited<sup>1</sup> to verify the accuracy of water meters. Verification is required in the first year of the water permit and thereafter at any time in the five year period ending when that water year ends.
9. Appropriately Accredited in relation to installation and verification of water meters is accreditation under the Water Measurement & Reporting Industry Accreditation Programme (Irrigation NZ; February 2011)

**3. Delete** meaning for "storage"

~~**Storage** in relation to **water** means water that is taken at times of high flow and stored by an impoundment~~

**CHANGE 36      PART V**

**Chapter 30**

**1. Delete** Policy 30.2.3.13

~~30.2.3.13~~ [30.2.11 Proposed]

~~To require water meters to be used by water permit holders:~~

- ~~(a) to ensure compliance with permit allocations or allocation limits; or~~
- ~~(b) when there is full allocation of water in a zone; or~~

- ~~(c) when there is a need for water use data to assess effects of abstraction on a water resource  
or in relation to an allocation limit; or  
(d) in any zone where there is a rationing trigger; or  
(e) to require efficient use of water.~~

**2. Insert new policy:**

**30.2.3.13** *To require water meters to be used and water take and use data to be reported to Council by water permit holders in accordance with national regulations and in order to:*

- (i) ensure reliable data is available for making good resource management decisions including through the use of computer models;*
  - (ii) enable monitoring for compliance with resource consents;*
  - (iii) manage effects of takes on the environment, including cumulative effects and where there is a rationing trigger or minimum flow requirement;*
  - (iv) enable efficient use of water  
in respect of any water take:*
    - (a) that is authorised by a consent or*
    - (b) that is permitted and where there is a need for water use data to assess cumulative effects of abstraction on a water resource or in relation to an allocation limit, including for permitted takes from the Moutere Groundwater Zones*
- and to develop electronic data management systems that allow for electronic recording and reporting by water users.*

**3. Insert a new Policy:**

**30.3.3.X** *To regulate the damming, taking and use of water from dams, ponds and reservoirs in such a way as to provide flexibility for water users to make decisions about:*

- (i) security of supply for consumptive water takes, and*
  - (ii) efficient water use and*
  - (iii) bona fide use*
- While managing the adverse effects, including cumulative effects, of damming and any potential water takes from the dam on*
- (i) the river uses and values including aquatic ecosystems*
  - (ii) connected water bodies,*
  - (iii) downstream water users, including security of supply for existing water users*
- by managing residual flows from the dam.*

~~**30.3.3.X** *To regulate the damming, taking and use of water from dams, ponds and reservoirs in such a way as to*~~

- ~~*(i) allow dam, pond and reservoir owners to make decisions about security of supply for consumptive water takes, and*~~
- ~~*(ii) efficient water use and*~~
- ~~*(iii) bona fide use*~~



~~While managing the adverse effects, including cumulative effects, of damming on~~

- ~~(i) — the river uses and values including aquatic ecosystems~~
- ~~(ii) — connected water bodies,~~
- ~~(iii) — downstream water users.~~

#### 4. Amend Regulatory method 30.2.20.1(e):

(e) To require water meters in accordance with national regulations and Policy 30.2.3.13 that ~~comply with National Environment Standards, including as far as practicable, draft standards,~~ and to progressively upgrade existing water meters in a manner consistent with the transitional provisions of the regulations and including for consented takes less than 5l/sec. ~~where necessary in a timeframe that is, as far as possible, consistent with renewals of existing water permits.~~

#### 5. Amend Principal Reasons and Explanation 30.2.30

Water meters enable Council to monitor compliance with resource consents and also provide information to assess Plan compliance. Water meter data also improves knowledge about the District's water resources and water use patterns and can be used to help in achieving efficient water use and development of robust water allocation provisions. National regulations also require water metering for consented takes greater than 5 litres per second. The installation and verification of water meters will be required to be carried out by appropriately accredited people.

Water meters will continue to be required, ~~including where there is full or close to full allocation of water, and in accordance the National Environment Standard for the measurement of water takes for all consented takes including takes less than 5l/sec and also including permitted takes in sensitive water management zones such as the Moutere Groundwater zones where there is a need to monitor total abstraction. Non-consumptive takes may also be required to meter water usage, particularly where there are likely to be significant adverse effects and to enable compliance with consent conditions to be monitored. An exception is provided for **surface** takes less than 5 litres per second during winter months where the water is being taken and stored for use during summer low flow periods. This use of water takes advantage of higher flows and augments water supplies during times when water is seasonally limited.~~

The Council also wishes to continue to encourage augmentation of water supplies, especially in seasonally water short areas and to recognise investment by landowners into structures that augment water supplies including reservoirs or ponds which are filled by pumping from surface or groundwater sources.

The Council is continuing to develop secure electronic data management and reporting systems as more water users see the benefits of electronic recording and reporting. While manual recording of meter data is currently most common and will continue to be provided for, especially for takes less than 5 litres per second, the Council expects to move towards more automated and electronic systems over time. The regulations provide a good starting point for raising

awareness and standards of recording and reporting. Over time, new larger takes and those in sensitive areas could be required to install electronic recording and reporting systems.

The Council will also continue to require reporting of water meter data on a weekly basis. This is because consent compliance and water management, including during drought conditions is based on weekly totals and this approach has proved effective. Exceptions to this regime include where rostering is required at low flow and for situations where compliance with flow sharing provisions is required such as for the Buller Water Conservation Order.

### Chapter 31

6. **Delete** from matter (10 ) in Rule 31.1.7.2 reference to Figure 31.1D and **replace** with reference to Schedule 31B (*this is a correction of an error*)
7. **Delete** from Rules 31.1.2.2, 31.1.2.3 and 31.1.2.5 matters 12, 13, and 10 respectively  
Installation of water meters as provided for in Schedule 31B or in Policy 30.2.3.13.
8. **Insert** into rules 31.1.2.2, 31.1.2.3 and 31.1.2.5 the following new condition:  
(x) A water meter is installed as specified in Schedule 31B
9. **Delete** Schedule 31B: Water Meter Requirements
10. **Insert** new Schedule 31B: **Water Meter Requirements** (*note that the provisions in the shaded boxes are not subject to submissions as they are the requirements of the National Regulations*)

<b>Schedule 31B: Water Meter Requirements</b>	
<i>Refer to Rules, 31.1.2.2, 31.1.2.3, and 31.1.2.5</i>	
The Council will impose conditions for water meters <sup>1</sup> on water permits to take and use water as follows:	
<b>Rate of take for consumptive use in litres per second. (All Zones)</b>	<b>Dates by which Water Meters are Required for Consumptive Takes<sup>2,3</sup></b>
>20	10 <sup>th</sup> November 2012
10 - 20	10 <sup>th</sup> November 2014
5 - 10	10 <sup>th</sup> November 2016
<5	10 November 2018 <sup>1</sup> <b><u>Exceptions:</u></b> <i>1. Water meters may not be required where the take is during times of high flow during winter months to augment water supplies in seasonally water short areas.</i> <i>2. Any take from a dam impoundment, pond or reservoir authorised by a water take permit</i>

<b>Other (non-consumptive) takes</b>	<u>Upon application and with reference to Policy 30.2.3.13</u>
<p><sup>1</sup> Water meters on takes at a rate less than 5 l/sec may not be required to install pulse output capability.</p> <p><sup>2</sup> Where water meters already exist, these dates specify the date by which verification must be completed.</p> <p><sup>3</sup> For takes from storage authorised by a water permit, the regulations will apply, however, the permit can be relinquished if there is compliance with rule 31.1.2.1</p> <p>This <del>is</del> provides a transitional arrangement where a take from storage consent currently applies</p>	

**10. Insert into rule 31.1.2.1 a new condition;**

*(n) The taking and use of water from a dam impoundment or a pond or reservoir is not limited, provided:*

- (i) the take, is from a constructed dam impoundment, pond or reservoir but not including a take from an impoundment created by a weir,*
- (ii) fish and eels are prevented from entering the reticulation system,*
- (iii) water to a depth of 1 metre is retained over 5% of the impoundment area to provide for eel survival*

**11. Delete Rule 31.1.2.4**

**31.1.2.4 Controlled Activities (Take from Storage) [31.1.5 Proposed]**

The taking of water from storage that does not comply with the conditions of Rule 31.1.2.1 is a controlled activity, if it complies with the following conditions:

~~(a) The take is from a constructed pond, reservoir, or dam.~~

**A resource consent is required**, and may include conditions on the following matters over which Council has reserved control:

- ~~(1) Effects of the take on aquatic and riparian ecosystems, including in the impoundment, and upstream and downstream of the take.~~
- ~~(2) Effects of the take on other uses and values, including those given in Schedule 30A of the water body and those of connected water bodies such as groundwater, springs or wetlands.~~
- ~~(3) Effects on other water users.~~
- ~~(4) Effects on fish and eels, including entrainment in pipes.~~
- ~~(5) Information to be supplied and monitoring, including water meters required.~~
- ~~(6) The quantity, rate and timing of the take.~~
- ~~(7) Efficient use of water, including application rates for irrigation appropriate to the soil type.~~
- ~~(8) The duration of the consent as provided for in Schedule 31A (Section 123 of the Act), timing of reviews, and the purposes of reviews (Section 128 of the Act).~~
- ~~(9) Financial contributions, bonds and covenants in respect of the performance of conditions and administration charges (Section 108 of the Act).~~

12. **Insert** into Rule 31.1.4.1 (Damming Water - permitted activity) the following new condition;
- “(c) Either the taking of water on its own or cumulatively with other takes from the dam impoundment (but not including a take from an impoundment created by a weir);*
- (i) does not exceed the quantity specified in Figure 31.1A.*
  - or*
  - (ii) is authorised by a water permit to take water.*

13. **Delete** from 31.1.20 (Principal Reasons for Rules) paragraph 6  
~~Water takes from constructed storage ponds, dams or reservoirs are also likely to have less significant adverse effects on the environment and these activities will be controlled activities provided for in Rule 31.1.2.4.~~

14. **Insert** after paragraph 8 in 31.1.20 (Principal Reasons for Rules) the following new sentence:

“Water meters are required by national regulations for all consented takes greater than 5 litres per second. The Council will continue to require water meters for consented takes less than 5litres per second as the effects of taking this amount of water can be significant on its own or in combination with other takes. Exceptions for this are where the water is taken at times of high flow during winter months and stored for use in seasonally areas and for takes from dam impoundments and reservoirs or ponds.

Water meters allow monitoring for compliance and for collection of water use data to assist in decision making and add to understanding about the water resources of the district and the cumulative impacts of water takes.

Water takes from dam impoundments will be permitted activities to reflect the policy direction to promote water augmentation and to allow dam owners to make decisions about security of supply. Permitting these takes also ensures the water measuring requirements of the national regulations will not apply to takes from an impoundment. This provision does not apply to weirs built to enhance access to water during low flow periods.

However in order that the council can continue to manage residual flows from dams and the cumulative impacts of dams, the permitted activity for damming water is subject to a condition related to the amount of water taken from the impoundment. Adverse effects of dams including cumulative effects and effects on downstream water users will be managed through conditions on consents to dam water. Transitional arrangements allow for water permits to take from storage to continue to apply without the need to apply for new or amended damming consents.

Taking water from reservoirs or ponds which are filled by pumping from surface or groundwater sources is also a permitted activity. This reflects that the takes to fill storage are already controlled by water permits to take water and subject to water meter requirements.