Report No:	REP11-11-10
File No:	W515
Date:	16 November 2011
Decision Required	

REPORT SUMMARY

Report to: Environment & Planning Committee
Meeting Date: 23 November 2011
Report Authors Mary-Anne Baker - Policy Planner
Joseph Thomas - Resource Scientist Water/Special Projects
Rob Smith - Manager Environment Information

Subject: **Measurement and Reporting of Water Takes Regulation 2010 (TRMP Amendments)**

EXECUTIVE SUMMARY

Regulations were made by Central Government in 2010 for the Measurement and Reporting of Water Takes. The Council is required to implement and monitor these regulations.

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 has already considered a number of differences between the regulations and what is currently required by the TRMP in respect of water measuring and metering and has identified preferred options.

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)

This report provides a summary of the preferred options arising from discussion on these reports and includes a draft plan amendment to release for public consultation.

Draft Resolution

THAT the Environment & Planning Committee receives the Report MEASUREMENT AND REPORTING OF WATER TAKES REGULATION 2010 (TRMP Amendments) REP11-11-10 and adopts the recommendations.

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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 Report REP11-06-05 provided information about the implications of the new regulations for Council and water users in Tasman and assessed options for management. The main points of difference were:

- metering requirements for takes less than 5 litres per second
- specification of rates of taking in litres per second
- timelines for compliance with regulations
- water meter specifications including verification requirements
- reporting information.

The Committee considered options, including changes to the Tasman Resource Management Plan (TRMP), to deal with the issues arising.

1.3 Report REP11-08-11 provided information about management of takes from dams and storage and about the impact of the regulations on water takes in areas where water takes are likely to have failed at the onset of rationing. This is common in the Moutere Surface Water Zone and water meters have not generally been required in those situations.

2. Summary

2.1 Water meter regulations:

Any consented takes water takes of 5 litres per second and above require meters as per regulations. The regulations specify the following compliance dates:

a) 20 litres per second or more: need to comply by 10 Nov 2012
b) 10 to 20 litres per second: need to comply by 10 Nov 2014
c) 5 to 10 litres per second: need to comply by 10 Nov 2016

Water meter requirements (verification/accuracy/capable of pulse output) are specified in the regulations as are reporting requirements.

2.2 Matters Considered

The Council has some discretion in relation to requirements for water meters. The discretion is limited to:

(i) consent status for takes (especially in relation to takes from dams and storage and in seasonally dry areas)
(ii) date by which the meter is required to be installed (provided the rules are not less stringent then the regulations
(iii) takes less than 5 l/sec

The Council has implemented a water metering regime since the early 1980s in starting in the Waimea water management zones where water was subject to high levels of abstractive demand. Previous plans, and the current TRMP reflect some basic principles of water of water management which support its requirements for water meters:

> All water is a public resource which is subject to increasing abstraction demand at varying levels throughout the district and with varying levels of adverse effects both on its own and cumulatively with other takes.
>
> Consents and water meters enable all water users to be treated equitably, ensure compliance monitoring is possible and provide information for robust and defensible water management provisions.

The Council has further considered exceptions that may need to be provided for in relation to (i) (ii) and (iii) above.

This report considers exceptions and provisions not already covered in the previous two reports. Surface and groundwater takes are discussed first then the management of takes from storage/dams is reviewed.

3. Consent Status - Surface and Groundwater Takes

TRMP rules currently permit small amounts of water to be taken for a range of small scale end uses.

The amount permitted depends on the zone (they range from 5 - 20 cubic metres per property per day).

Takes that are more than the permitted level but less than 5 l/sec currently require consent under plan rules. The cumulative adverse effects of water takes can be significant.

The council's policy position is that water permits for takes < 5 l/sec would continue to be required as a general principle. It would not change the current permitted quantities of water.

Discretion would be retained so that takes less than 5 l/sec may not be required to meet all the regulation specifications, such as a pulse output requirement and that meters be required by 2018 if they were not already installed or required by the TRMP in most water management zones (See report REP11-06-05).

Preferred option; No changes made to the consent status of surface or groundwater water takes.

4. Compliance Dates

Council's preferred option is to require water meters for (consented) takes less than 5 l/sec by 2018. This issue was generally considered in report REP11-06-05. For all other takes the regulation dates nearly always apply. Verification requirements will also apply as per the regulations.

Exceptions apply:

- if water meters are already installed or
- water meters are required through resource consent conditions or
- on renewal of consents to take water in the Moutere Surface Water Zone.

5. Exceptions for Takes <5l/Sec

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).

Meters have not always been required;

- where there is still plenty of water available for allocation (e.g. West Coast rivers, Buller catchments),
- in some catchments that are seasonally dry (Moutere surface water takes),
- for takes during high (winter time) flows and
- for takes from storage (takes from storage are discussed further in section 6 below).

The costs and benefits of metering are well understood, 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.

Council's preferred option is to require water meters for all consented water takes, except:

- where the take is at times of high flow during May - September to storage
- meter specifications for takes less than 5l/sec would be a discretionary matter and they would not be required to have pulse output capacity.

6. Exceptions for Takes from Storage and Dam Impoundments

Dams are promoted as providing benefits to the environment and enabling landowners to increase their own security of supply.

The current consent regime allows the Council to enable and encourage water augmentation, especially in the water short areas of the Moutere water management zones. It also allows the cumulative impacts of water harvesting to be managed and ensures adverse effects of both the dam and subsequent takes from a dam are managed appropriately. The regulatory requirements currently applying to dams were summarised in report REP11-08011.

The construction of small dams and the damming of water behind the structure are both currently permitted activities to recognise the benefits. However, except for the small permitted takes, the subsequent taking of water from storage currently needs consent. This makes them subject to the regulations.

The consent requirement enables management of the cumulative effects of water taking within a catchment as well as adverse effects of the take from a dam on downstream water users.

Council had no intentions to impose metering on these takes prior to the regulations and does not consider that metering is necessary for these takes.

Any change to the consent regime to that enables the Council to ensure that both consenting and water meter requirements for dams are not excessive will need to account for effects of dams and damming water as well as subsequent takes from new as well as existing dams.

Dams can be:
(a) out of stream and pumped full from a ground/surface resource (e.g. turkey nest dams) A water meter for takes filling dams from surface or ground water is already required (section 3.0 above). A take from this type of dam (at more than 5l/sec) would also need a water meter unless the Council amends plan provisions.
(b) in-stream
(c) a combination of both in-stream or out-of stream and pumped full
(d) dams include weirs (structures built in stream generally to improve access to water during low flows, or in some rivers, built to retain bed material). .

6.1 In-Stream Dams

The filling of such a dam is not generally metered - or able to be metered, as it relies on natural flow into the dam via a stream or overland flow. Once full such a dam has no effect on downstream flows - but the subsequent taking of water from the dam may alter the natural or residual flows and have adverse effects on downstream users or habitat, especially in summer, or in relation to the total amount of water available to be harvested.

New takes from new dams established upstream of existing dams may also have an adverse effect on security of supply for existing water users.

The effects of taking water from an in-stream dam can be significant, both in terms of the cumulative effect on the catchment and on downstream water users and stream ecology. The Council has managed these adverse effects through the controlled activity consent to take water.

Any takes from impounded water behind weirs have traditionally been considered as surface water takes as the water is not water stored at times of high flow and the effects of such takes on in-stream values and other users is nearly immediate. (For example, the Waimea East Irrigation Scheme takes water from behind a weir)

6.2 Options

Given the Council's intention not to impose unnecessary metering costs on dam owners, Council has four options.

6.2.1 Distinguish between takes from in-stream dams and storage ponds and reservoirs.

Permit all takes from storage ponds and reservoirs that are filled by a take from ground or surface water.

Takes (to fill ponds and reservoirs) from ground or surface water require a water permit. They are also already subject to the general water meter requirements (except where it the take less than 5l/sec and taken during high winter flows (see 5.0 above))

6.2.2 Implement the regulations for takes from dams greater than 5 l/sec.

Takes less than 5 l/sec would continue not to require a meter.

Many of the existing consented takes have rates specified in cubic meters per hour or day. Calculation in litres per second might not reflect an accurate rate of take and some permit holders may seek to review their consents to more accurate litres per second. The number actually requiring meters may be substantially less than 90. Some consent holders may also surrender their consents to take.

(i) Takes from existing in-stream dam impoundments still require consent as controlled activities.
(ii) If the rate of take is less than 5 l/sec, a water meter will not be required.
(iii) If the take is 5 l/sec or more, a water meter will be required.
(iv) New takes from any impoundment are restricted discretionary.

Takes less than 5l/sec will not normally need a water meter.

6.2.3 Amend rules to permit takes from dams (i.e. change the status of takes from storage from controlled to permitted) and limit new permitted dams to one per 20 hectares.

The current rule regime permits the construction of small dams and the damming of water in small catchments. The cumulative impacts of takes from these dams, including residual flow requirements, would then have been controlled through the consent allowing water to be taken from the dam.

In order to avoid future conflicts, additional controls would be needed to ensure that takes from new small dams could not impact on existing users/dam owners, while at the same time continuing to enable construction of small dams in water short areas.

This could be addressed by ensuring that small dams continue to be permitted, provided that there is only one dam constructed as a permitted activity in any 20ha catchment. Any other dams are restricted discretionary activities and impacts of the new damming activity can be managed through conditions. This can include conditions relating to maintenance of flows during both summer and winter.

One significant disadvantage of this option is that by only changing the status of the “take from storage” activity means that the effects on residual flows of any existing take that are currently managed by a current “take from storage” consent are no longer being addressed.

A second consideration requiring consequential amendment is in relation to the scope of the permission. Currently the plan provides for takes from storage (which is water taken at times of high flow and stored) as a controlled activity.

This option also removes control over the taking and use of the water in terms of efficiency of use and ensuring the use of water does not cause adverse effects. Conditions on a damming permit that managed the take and use of water from the dam would be ultra vires.

This option assumes that the current pattern of takes from all dams is not having an adverse effect. The take is currently subject to a ‘take from storage’ consent that will not be replaced by any other rule. The limit of one per 20ha only deals with construction and taking from new dams and future issues not managing effects from the current pattern of water use.

Water storage impoundments include water stored behind a weir, as well as behind more substantial dams. The ‘take from storage’ permission will be limited to where the dam has been constructed to collect and store winter flows and runoff. It does not apply to in-stream weirs constructed to improve access to river flows.

6.2.4 Amend the status of takes from dams (i.e. change the status of takes from storage to permitted) but also change the rule for damming water so that the damming is only permitted if the take is at the permitted level for that zone (i.e 5 - 20 cubic meters per day).

Damming activities would then need to be subject to a consideration of managing (residual) flows at all times of the year, including during times when water is being taken from the impoundment. This option ensures the council continues to manage the cumulative effects of taking water by ensuring the residual flow management is appropriate in the circumstances.

In effect, a "take from storage" permit could be relinquished in favour of a new or amended damming permit. This includes existing damming activities that are currently permitted. Transitional provisions could be provided that allowed for existing "take from storage" permits to be retained until the regulation dates for a water meter apply.

Existing dams greater than 20ha already have damming permits. Conditions may need to be retrospectively imposed to manage flows from the dam, including during times when water is being taken from the dam that were otherwise managed through the "take from storage" permit.

Finally, this option also removes control over the taking and use of the water in terms of efficiency of use and ensuring the use of water does not cause adverse effects. Conditions on a damming permit that managed the take and use of water from the dam would be ultra vires.

6.3 The recommended options are 6.2.1 and 6.2.4

Takes from out of stream reservoirs are to be permitted. The filling of such reservoirs is subject to water permit requirements and associated water metering.

Takes from dam impoundments will be permitted. However, the cumulative effects of the taking will be managed through the damming rule. The damming rule will be amended to limit the permitted quantity able to be taken from the dam. Over time all "take from storage" permits will be replaced by damming permit provisions.

7. Recommendations

1. **That** Council release for public consultation the Policy Options Paper (this was attached as Appendix 1 to report REP11-08-11) with amendments to that paper to include:

    - the description of the issues and options arising from management of water takes from storage and water takes in the seasonally dry zones including the Moutere Surface Water Zone contained in this report and REP11-08-11, and

    - the preferred and recommended options identified above.

8. Draft Resolution

THAT the Environment & Planning Committee receives the Report Measurement and Reporting of Water Takes Regulation 2010 (TRMP Amendments) REP11-11-10 and adopts the recommendations.

Mary-Anne Baker
Policy Planner

Appendices:
Appendix 1 Tasman Resource Management Plan Draft Amendments

APPENDIX 1

TASMAN DISTRICT COUNCIL

PROPOSED TASMAN RESOURCE MANAGEMENT PLAN

(DRAFT)PROPOSED CHANGE NO.S 32 & 33

Part I: Introductory &
Part V: Water
Water Metering

Notified 2011

EXPLANATORY STATEMENT

New Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 came into effect on 10th 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 32**

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)

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 32 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[1] 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"

CHANGE 33 PART V

1. **Delete** Policy 30.2.3.13

~~30.2.3.13 [30.2.11Proposed]~~

~~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 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) when 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 allow dam, pond and reservoir owners to make decisions about security of supply for consumptive water takes, efficient water use and bona fide use while managing the adverse effects on the environment of damming on the river and connected water bodies, including cumulative effects, effects on aquatic ecosystems and adverse effects on 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 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.

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 and
~~Installation of water meters as provided for in Schedule 31B or in Policy 30.2.3.13.~~

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

8. **Delete** Schedule 31B: Water Meter Requirements

9. **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***)**

Schedule 31B: Water Meter Requirements	
Refer to Rules, 31.1.2.2, 31.1.2.3, and 31.1.2.5 The Council will impose conditions for water meters[1] on water permits to take and use water as follows:	
Rate of take for consumptive use in litres per second. (All Zones)	**Dates by which Water Meters are Required for Consumptive Takes[2,3]**
>20	*10th November 2012*
10 - 20	*10th November 2014*
5 - 10	*10th November 2016*
<5	*10 November 2018* ***Exceptions;*** *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.* *2. For any takes from dam impoundments, ponds or reservoirs authorised by a water take permit*
Other (non-consumptive) takes	*Upon application and with reference to Policy 30.2.3.13*
[1] Water meters on takes at a rate less than 5 l/sec may not be required to install pulse output capability. [2] Where water meters already exist, these dates specify the date by which verification must be completed. [3] 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 This is provides a transitional arrangement where a take from storage consent currently applies	

***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 (not including a weir), pond or reservoir,

(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 dam area to provide for eel survival

Delete Rule 31.1.2.4 as above

I**nsert** into Rule 31.1.4.1 (Damming Water (permitted activity) the following new condition;

"(c) Either;

(i) The taking of water from the dam impoundment (not including a weir) does not exceed the quantity specified in Figure 31.1A.

or

(ii) The taking of water is authorised by a water permit to take water.

12. **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.~~

13. **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. 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. 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.

If Option ***6.2.3 is preferred, Plan amendments could include:***

A. ***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,

(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 dam area to provide for eel survival

B. **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).~~

C. I**nsert** into Rule 31.1.4.1 (Damming Water (permitted activity) the following new condition;

(c) There is no more than one dam constructed after <date of notification> in any catchment that is less than 20 ha.