

Report No:	REP12-08-05
File No:	C653
Date:	30 July 2012
<b>Information Only - no decision required</b>	

## REPORT SUMMARY

**Report to:** Environment & Planning Committee  
**Meeting Date:** Thursday, 9 August 2012  
**Report Author:** Daryl Page, Compliance and Investigations Officer  
**Subject:** **WATER METERING PROJECT REPORT 2012**

### EXECUTIVE SUMMARY

This report presents an overview of the water metering project administration and compliance for the 2011 / 2012 summer irrigation season. The report also covers aspects of the larger water permit monitoring portfolio.

### RECOMMENDATION/S

That the report be received.

### DRAFT RESOLUTION

That the Environment & Planning Committee receives the End of Season Water Metering Report, Report REP12-08-05

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## **1. Purpose of Report**

- 1.1 This report presents an overview of the water metering project administration and compliance for the 2011 / 2012 summer irrigation season. The report also covers aspects of the larger water take monitoring portfolio.

## **2. Acknowledgement**

- 2.2 Thank you to Council staff Vicky Thorn, Mandy Tomlinson, Neil Tyson, Joseph Thomas, Georgia Brownlee (summer student), Verity Simpson (Customer Services), and Kurt Mullis (Contractor) for their input.

## **3. Main Points**

- 3.1 The primary aim of water metering is the collection of accurate and timely water use data - an essential tool in managing the District's valuable and limited water resource.
- 3.2 River level trigger points for water rationing (and rostering) were not reached during this summer season.
- 3.3 The number of consents administered under the water metering project in the 2011 / 2012 season increased to 866 (852).<sup>1</sup>
- 3.4 80% (75%) of water meter readings are received electronically - either online or email. Council staff continue to encourage electronic means for readings.
- 3.5 The objectives set for reliable water use data are not consistently achieved. Notwithstanding this, and for the purpose of closure, the water use data for the season is considered complete.
- 3.6 Enforcement action was required in the 2011 / 2012 season.
- 3.8 89% (52%) of meters were audited during the 2011 / 2012 season.

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<sup>1</sup> 2010 / 2011 comparative figures in brackets.

## 4. The Legal Framework

4.1 At the time of writing, amendments to the TRMP are underway and replacement policy 30.2.3.13 requires water meters to:

- Meet the requirements of the Regulations;
- Ensure reliable water use data;
- Enable monitoring for compliance with resource consents;
- Manage the effects of water takes on the environment;
- Enable efficient water use.

4.2 Accurate and timely water meter data is an essential tool in managing the District's valuable and limited water resource. The information is used for:

- Management of the district's water resources and improving/enhancing future understanding of the system;
- Monitoring the effectiveness and suitability of the policy provisions within the TRMP and the exercise of resource consents;
- Bona fide review/renewal of existing consents; and
- Compliance with drought restrictions.

4.3 The first implementation stage of the Reporting of Water Takes Regulation 2010 is November 2012 when consented takes  $\geq$  20 l/s (approx 200) are required to install a complying water meter and subsequently have that meter verified. Council wrote to the affected consent holders in February 2012 and a reminder letter (Appendix A) was sent July 2012. Meetings with industry (accredited service providers) were held in December 2011 and June 2012 to assist their understanding of Council's application and implementation of the Regulations.

4.4 In addition to the  $\geq$  20 l/s consents, there are approx 60 consent holders in the Moutere surface water zone (various l/s rates) that have a November 2012 water meter requirement and this is an example of a consent requirement superseding the Regulations.

## 5. Weather Patterns

5.1 The 2011 / 2012 irrigation season began with plenty of rainfall, and this lasted right through to December when record breaking rainfall occurred in the Takaka and Waimea areas. The Waimea aquifers reached record highs and took several weeks to recede back to normal.

5.2 A drier period began around mid January which saw lower river flows by mid to late February, but these were not significant. Further rain followed before another dry spell in late April, which saw the Motueka, Anatoki and Wairoa Rivers drop to flows that can be expected every 2 years on average.

## 6. Water Rationing

6.1 The Dry Weather Taskforce did not meet this summer season and rationing was not implemented.

## 7. Administration

### 7.1 Staffing

Daryl Page was the Compliance Officer responsible for the 2011 / 2012 water metering project with Vicky Thorn (Compliance Administrator) providing day to day support and data entry. Georgia Brownlee was employed as a summer student to complete water meter audits and undertake data entry. Verity Simpson (Customer Services) also provided data entry assistance and Kurt Mullis (Contractor) completed some audit work.

### 7.2 Water Metering Project

The number of meters on the water metering database at the end of the 2011 / 2012 season is 866 (852) and includes 91 Moutere domestic (permitted activity) records.

While all consents on the database require monitoring at some point during the season, 643 (622) were "active" or in other words, required week by week monitoring during the season. 89 (92) were noted as "not irrigating" with the balance a combination of annual returns and future implementation.

Water metering involves the collection and monitoring of water use data during the summer season and the demands within this timeframe have continued to increase and extend over the full year. Implementation of the Regulations has added significantly to existing demands and overtime this will continue to increase as deadlines approach (and pass) i.e. compliance and enforcement action on a potentially larger scale than the periodic granting of a consent.

### 7.3 Return Method

80% (75%) of returns are received electronically. There was movement from email return to the (preferred) webpage return. Webpage returns are at 63% (54%) and email returns are at 17% (21%).

### 7.4 Other

In addition to the collection and monitoring of water use data during the summer season, other tasks include:

- Extensive pre-season and end of season requirements, for example, initiating all records for the upcoming season and an end of season report to consent holders

- Electronic records. A small number of surface take consents are required to also send their water use data electronically (data logger). Council processes to facilitate the receipt and analysis of this data have been improved this year. While currently an annual requirement, we have seen and can further expect the supply of electronic data to increase (both in number and frequency) as a result of the Regulations.
- A number of ongoing system improvements when resources allow.

## 7.5 Budget

Appendix B provides a summary of the Compliance Monitoring Water income/costs for the 12 month period to 30 June 2012.

## 7.6 End of Season Summary to Consent Holders

Appendix C is a copy of an end of season summary sent to consent holders together with graphical representation of their individual water use record and that of the water management zone they belong to.

This “generic” reporting system was used for the majority of consent holders with a handwritten comment and/or a monitoring note printout regarding minor non compliance where appropriate.

# 8. Compliance Monitoring

8.1 A more formal end of season reporting process deals with moderate and/or persistent non compliance where specific action is required in the future. While still in process at the time of writing this report, approximately four (5) consents will be subject to this more formal reporting this year. Designed to educate and act as a deterrent, a successful compliance monitoring environment is evident.

## 8.2 Meter Reading Return Rates

There are two differing objectives in respect to the water meter returns.

- The first relates to the end use of the data and the aim is to have a minimum return rate of 95% so the data analysis has integrity.
- The second is compliance with the consent conditions and the aim must be a return rate of 100%.

We do not consistently achieve the return rate objectives and the end of season representation of return rates reflects that a return was made rather than made on a timely basis. Notwithstanding this, regular monitoring has resulted in improvement and less missing reading audits took place this summer season.

### 8.3 Missing Readings Monitoring/Enforcement

Six (17) consent holders, covering 14 consents, were subject to formal enforcement action regarding missing returns and were invoiced the set monitoring fee following a site visit to read the meter. These cases in reality were “end of season” compliance and not a true reflection of missing or late readings during the season. Staff continue to issue many “friendly” reminders (with no direct recovery) throughout the season. Notwithstanding some staffing disruption during the season, the consistent application of missing reading enforcement (missing reading site visits) needs addressing.

### 8.4 Excessive Water Use Monitoring/Enforcement

All excessive water use situations were investigated. A number of informal warnings were given and in general, future compliance was the result. Two (1) written warnings were issued. Two (7) Infringement Notices were issued.

### 8.5 Water Meter Audit

A total of 666 or 89% (386 or 52%) meter audits were undertaken during the 2011 / 2012 season. This higher achievement was the result of an earlier start date for the summer student and the ability to focus solely on audits. Latter assistance from a contractor was also a factor.

The 2011 / 2012 season was the final year of a three year audit cycle where the objective was to complete a 100% audit over that time. This has been achieved. For the record, audits in the first year were 274 or 38%. Many meters were audited more than once during the three years. The three year cycle will now begin again.

Meter audits continue to include a reading of the meter, that the meter is sealed, and obtain an updated (digital) photographic record of the meter. Where a reading discrepancy is found, these meters are revisited.

### 8.6 Fictitious Meter Readings

Some reading discrepancies continue to be identified and where necessary are discussed with the consent holder. No formal enforcement action was taken during the 2011 / 2012 season, however these situations remain a concern and any repeat will mean enforcement is considered.

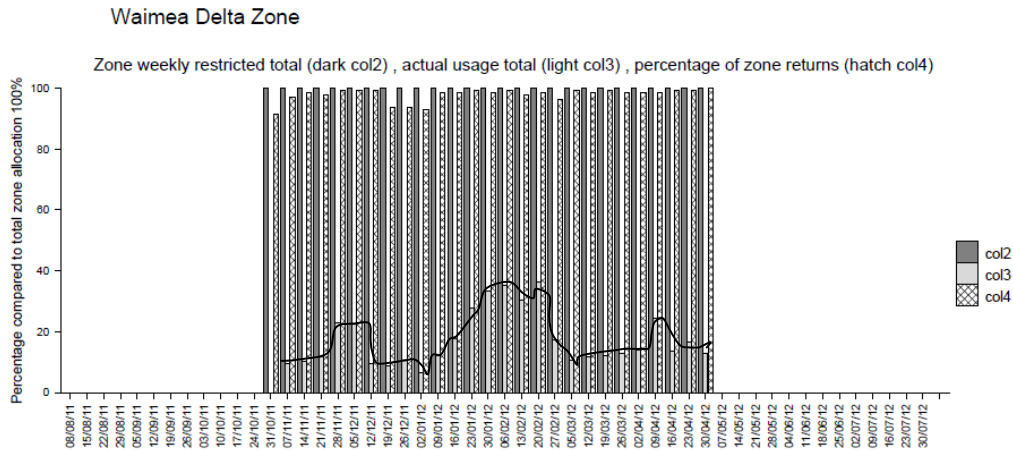
### 8.7 Water Consumption Data

Two zones (5) being Tapawera and Wangapeka registered a water use greater than 60% of the zone allocation at some point.

Eight zones (8) being Aorere/West Coast, Takaka Aquifer, Hau and King Edward (Motueka), Motupiko, Tadmor, Middle Motueka, and Lower Confined Aquifer (Waimea), (plus the two zones above) registered a water use greater than 40% of the zone allocation at some point.

Graphical representation of each water management zone is viewable on Council website [www.tasman.govt.nz](http://www.tasman.govt.nz).

For the purposes of this report, an example of these graphs is included to illustrate water use, times of water rationing, and return rates. Unfortunately the water use detail is hard to distinguish and has been marked for clarity.



### 8.8 Moutere Domestic

After the introduction of water metering for Moutere Domestic (permitted activity) bores in 2009, 10 (15) owners have not yet installed water meters. It is now two years after the original “install by” date. Unfortunately resources and priorities have meant no further follow up has been achieved. It is also possible that additional Moutere Domestic bores exist that are not on the water metering database.

In respect to Moutere Domestic water use data, comparative readings have been received albeit for five records. Approx 80% of readings were received from the property owner (some prompted) with Council staff visiting the balance.

## 9. RECOMMENDATION/S

**That the report be received.**

## 10. DRAFT RESOLUTION

**THAT the Environment & Planning Committee receives the End of Season Water Metering Report REP12-08-05.**



**Daryl Page  
Compliance Officer**

- Appendix A: Regulations Reminder letter
- Appendix B: Budget Summary
- Appendix C: End of Season Summary to Consent Holders

17 July 2012

Dear Sir/Madam

**Measuring and Reporting of Water Takes Regulations 2010. Consent <>**

You are receiving this reminder letter because you are the holder of a resource consent to take water that is now subject to the Measurement and Reporting of Water Takes Regulations 2010. Council letter dated 13 March 2012 refers. To read more about the regulations, visit Council's web page <http://www.tasman.govt.nz/link/national-regulation>.

Council records show your consent is authorised to take water at a rate equal to or greater than 20 litres per second. As such, a complying water meter is to be installed by you by 10 November 2012.

**Water Meters:**

A complying water meter must be capable of electronic storage (i.e. a pulse output). However for existing meters (without electronic storage) that can be verified as accurate by 30 September 2012, Council has made provision for these not to be replaced at this time. Read more under 'Existing Meters and Headworks' below.

If an existing meter cannot be verified or if you are installing a new or replacement water meter, the meter must be capable of electronic storage.

**Verification:**

The meter must be accurate to +/-5% and confirmation of this sent to Council by 30 June 2013. However, Council suggests it may be prudent to have the meter verified earlier and concurrent with other requirements that need to be in place by 10 November 2012.

**Accredited Service Providers:**

Council has adopted Irrigation New Zealand's Blue Tick accredited meter installers and verifiers, and will only accept installation and verification certificates from these accredited service providers. A list of these accredited service providers (as at July 2012) is attached and further updates are available on Irrigation New Zealand's website:

<http://www.irrigationnz.co.nz/irrigation-industry/water-measurement>.

**Existing Meters and Headworks:**

As stated earlier; an existing meter that does not meet the Regulations for electronic storage, may not need replacement **if** the meter can be verified as accurate by 30 September 2012.

Existing meters that are already capable of electronic storage just need to be signed off as complying i.e. written confirmation from an accredited service provider.

Existing headworks which do not fully meet the industry best practice guidelines may be okay i.e. the meter is installed to manufacturer's specifications and/or the verification process can be completed. Check with your accredited service provider.

**What next?**

With just over three months until 10 November 2012 and if you haven't already done so, you



will need to contact an accredited service provider who will be able to advise you on the above requirements.

**In summary:**

- If you have an existing meter, you will need to establish whether it is already capable of electronic storage i.e. complying and arrange for confirmation to be sent to Council.
- If you have an existing meter that is not capable of electronic storage, can it be verified by 30 September 2012 and therefore not replaced at this time?
- If no meter currently exists or if an existing meter cannot be confirmed as complying or verified, you need to have a complying meter installed.
- It is important that installation and verification certificates are completed by accredited service providers and sent to Council by the required dates.

Council have held two industry meetings with accredited service providers. In response to an industry request, Council intends to release consent holders names to accredited service providers who would use the list to firstly contact existing clients, and secondly offer services to prospective clients.

Unless Council hears otherwise by 27 July 2012, the list will be released as is. If you want your name removed from the list, you need to request this by contacting one of the staff listed below.

While the responsibility to comply with the Regulations is yours, Council stresses that with only three months to go and approx 300 consents to deal with, assistance from industry is welcome.

**The Future**

Council reinforces Irrigation New Zealand advice that those who leave the requirements around water meters to the last minute or beyond 10 November 2012, will face compliance and enforcement action. Some tolerance may be shown if an accredited service provider has been engaged and there are acceptable circumstances around why requirements have not been met.

As stated above; unless you do so earlier, verification of a meter is required by 30 June 2013.

While not a requirement of the Regulations, you may also like to consider the installation of a data logger and telemetry equipment to assist your management of water use and ultimately the (electronic) supply of water use data to Council rather than the current manual water meter reading returns.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Daryl Page'.

Daryl Page  
Compliance and Investigations Officer

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Vicky Thorn: [vicky.thorn@tasman.govt.nz](mailto:vicky.thorn@tasman.govt.nz) - 03 543 8567 (Compliance Administrator)

**2011 / 2012 Compliance Monitoring - Water**

<b>Expenditure</b> (predominately staff time)	<b>2011/ 2012</b>	<b>2010 / 2011</b>
Compliance monitoring of missing returns and overtakes under Water Metering Project plus general monitoring of consent conditions ( <b>all potentially recoverable</b> ) and complaint response	\$13,850	\$22,238
<b>Recoveries</b>		
Water meter reading fee, infringement related recoveries, and consent monitoring	\$3,826	\$9,194

<b>Income from set charges</b>		
Water Meter Levy	\$61,165	\$57,240
Section 36 (Annual Charge) appropriation	\$40,000	\$45,000
<b>To cover staff time for</b>		
Preseason/End of Season, Database Administration, Meter Audits, Permitted Activities, Drought Management, and Miscellaneous	\$103,132	\$98,038

## APPENDIX C End of Season Summary to Consent Holders

### Water Metering Monitoring 2011 - 2012 Summer Season

Thank you to the consent holders who have consistently met their consent conditions. Your co-operation and contribution to the effective management of the district's water resources is invaluable and greatly appreciated.

As a way of reporting, on the reverse side of this letter is a water use graph. If this is all you receive, it is an indication of your general compliance during the season (thank you) although there may be a handwritten note or a copy of a monitoring note if there are any matters you should be aware of. For particular areas of non compliance or enforcement, an additional and formal monitoring report and possibly an invoice for monitoring costs (see below) will be attached. With an eye on the future, please read the content carefully.

#### **Summary of the 2011 - 2012 summer water metering season:**

**Water Consumption** is shown on your graphs as a % of the allowable take on a weekly basis. The first graph represents your individual water take; the second graph represents the aggregate water take for your water management zone.

**Excessive Takes** If any; they can be seen on your individual graph where the lighter (usage) line extends beyond the dark line.

**Water Meter Returns** No data (i.e. no dark line above the date) on your individual water take graph indicates a missing return unless you had told Council you were not using water during the season. Unfortunately the drop off of returns occurring in late March and April continues to be a disappointment and impacts on the success of the water management project. The solution is simple, if you have an early finish to the irrigation season; all you need to do is tell Council to avoid monitoring and additional costs. Please keep this in mind for next season and again read any monitoring comments carefully. As a general reminder you are required to supply accurate and timely weekly water meter reading for the required period.

**Monitoring Costs** A portion of annual charges on your consent is allocated to the water metering project and covers the basic administration costs of processing water use data and audit work. For any additional monitoring you will be invoiced for the costs. For example, where Council read your meter in response to missing readings during the season or season end, a fee of \$200.00 applied.

**Water Rationing** Not implemented this season.

**Water Meter Audit** The 'anytime, anywhere' water meter audit continued throughout the season.

**New reporting requirements** You will be aware that the Government has introduced the Measurement and Reporting of Water Takes Regulation 2010. For those of you affected by the first stage of implementation you would have already received a letter from Council. For the remainder, and depending on the litres per second allocation of your consent, you will receive more detailed information from Council prior to the various implementation phases as and when they are rolled out. Regardless of the staged implementation it is important that all consent holders note that the Regulations require a full year reporting period rather than the traditional summer season of the start of November to the start of May each year. Council intends to implement full year reporting from 28 October 2012 (next summer season). It is also important to note that if you finish irrigation at the end of the summer season you must notify Council in order to remove the requirement for returns until your irrigation commences again and avoid unnecessary enforcement action.

If you wish to discuss any matter about the water meter monitoring project, please contact us anytime.

Regards,  
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