

9.3 WATER METERING PROGRAMME ANNUAL REPORT 2013 / 2014

Information Only - No Decision Required

Report To:	Environment and Planning Committee
Meeting Date:	21 August 2014
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Report Number:	REP14-08-07
File Reference:	C653

1 Summary

- 1.1 This report presents a summary of the water metering programme for the 2013-2014 water year. The report covers the performance of the programme with respect to monitoring and enforcement, activities covered under the umbrella of the programme such as zone use, rationing and the implementation of the Reporting of Water Takes Regulation 2010.
- 1.2 Key findings from this season were:
- 1.2.1 Prevailing dry weather patterns occurring in the summer prompted the Dry Weather Taskforce to convene on four occasions to impose restrictions under Section 329 of the Resource Management Act 1991.
 - 1.2.2 The number of consents administered under the water metering project in the 2013-2014 season increased from 1018 to 1125.
 - 1.2.3 There are now 83% of water meter readings being received electronically. Of those filing electronically, 66% are now filing via the web page service provided by Council, 14% are filing via email and 0.3% are filing via telemetry.
 - 1.2.4 A total of 768 or 83% of meters received an audit during the season using summer student assistance to undertake this critical task.
- 1.3 Overall compliance this water year was very good but required significant contact between Council staff and consent holders. There were seven Infringement Notices issued for overtakes deemed less than minor, down from 14 last year. There were also six missing reading invoices issued and three infringements for missing readings issued, down from 14 last year.
- 1.4 Implementation of the Reporting of Water Takes Regulation 2010 continues. There are 368 consented takes 10 l/s or greater that were required to install a complying water meter

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and have that meter verified by November 2014. When implementation commenced for this group, 402 water takes in this district were subject to the Regulation, however a number have surrendered or varied the allocation limits.

2 Draft Resolution

That the Environment and Planning Committee receives the Water Metering Programme Annual Report 2013 / 2014 REP14-08-07.

3 Purpose of the Report

3.1 This report presents a summary of the water metering programme for the 2013-2014 water year. The report covers the performance of the programme with respect to monitoring and enforcement, activities covered under the umbrella of the programme such as zone use, rationing and the implementation of the Reporting of Water Takes Regulation 2010.

4 Regulatory Framework

- 4.1 The date for the first implementation stage of the Reporting of Water Takes Regulation 2010 occurred November 2012 when consented takes 20 l/s or greater were required to install a complying water meter and have that meter verified. As and when new consents 20 l/s or greater are granted, compliance has been making prompt contact regarding the metering requirements.
- 4.2 The current stage of implementation for the regulations is (the second stage implementation) the >10 litres/second but < 20 litres/second takes to comply with the meter requirements by November 2014 and verification by June 2015.
- 4.3 This water year 368 consented takes were identified as required to comply with this deadline. The consent holders were notified November 2013 of this requirement and reminded again in April 2014. Council set a deadline of 1 September 2014 for consent holders to have an existing (non electronic capable) meter verified as accurate. Consent holders without the required verification completed by 1 September 2014, are being reminded through August that new electronic output capable meters will then be required in order to comply with the regulations.
- 4.4 The TRMP also requires Moutere domestic (permitted activity) takes to install meters and provide water use returns April and November. There are 109 users that are currently bound by this requirement and are administered through this compliance programme.

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5 Water Rationing

5.1 Due to the prevailing dry weather patterns occurring in the district over the summer the Dry Weather Taskforce was required to convene on four occasions to consider and impose restrictions under Section 329 of the Resource Management Act 1991.

5.2 The following is a timeline of the meetings and rationing stages as they were imposed over this period.

DWTF Meeting: 18-02-2014	
Date Implemented	24 February 2014
Rationing Stage	1
Zone	Upper Catchments Reservoir Waimea West Golden Hills Delta Unconfined Aquifer Upper Confined Aquifer
DWTF Meeting: 25-02-14	
Date Implemented	3-March-14
Rationing Level	1
Zone	Lower Confined, Hope Aquifer
Rationing Level	2
Zone	Upper Catchments, Reservoir, Waimea West, Golden Hills, Delta, Unconfined Aquifer, Upper Confined Aquifer
DWTF Meeting: 08-03-2014	
Date Implemented	10-March-13
Rationing Stage	1 (Continued)
Zone	Lower Confined, Hope Aquifer
Rationing Stage	2 (continued)
Zone	Upper Catchments, Reservoir, Waimea West, Golden Hills, Delta, Unconfined Aquifer, Upper Confined Aquifer
Rationing Stage	Cease Take
Zone	Moutere Surface

DWTF Meeting: 11-03-2014	
Date Implemented	17-March-13
Rationing Stage	1
Zone	Motupiko, Tapawera Plains, Wangapeka
Rationing Stage	2
Zone	Lower confined, Hope Aquifer
Rationing Stage	3
Zone	Upper Catchments, Reservoir, Waimea West, Golden Hills, Delta, Unconfined Aquifer, Upper Confined Aquifer
Rationing Stage	Cease Take (continued)
Zone	Moutere Surface

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DWTF Meeting: 17-03-13	
Date Implemented	Immediately
Rationing Stage	Lifted all zones

6 Administrative Functions

Water Meter Administration

6.1 The total number of meters on the database at the end of the 2013-2014 water year is 1125, an increase from 1018 last water year. This number of meters comprises the following:

- 1016 Consented meter takes
- 109 Moutere domestic (permitted activity) metered takes

6.2 Of the consented metered takes the following applies:

- 699 were deemed active and required to file weekly returns. These were the consent holders irrigating that season.
- 113 were deemed non active and not required to file weekly returns. These were consent holders not irrigating that season
- 204 are on future implementation

Return Method

6.3 There are 83% of all meter reading returns being received electronically including domestic takes. The remainder are those that still provide their information through weekly card returns.

6.4 Of the electronic methods this season, webpage returns make up 67% of all returns coming in. Email returns are relatively consistent at 15%. Telemetry data now makes up 1% of returns.

6.5 The remaining 17% of weekly returns are still manual, being received via fax or pre-paid card.

Other Administrative Requirements

6.6 In addition to the ongoing collection, monitoring and reporting of water use data during the water year, other administrative tasks include:

- Pre summer season set up. Staff time is dedicated to preparation for the upcoming summer. This is associated with reviewing and including new consents, database and data integrity audits and mail outs regarding commencing weekly water meter returns for those who abstract water over summer months, and contacting those not using water for confirmation that the water use situation remains.

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- End of water year reporting. This is an important feedback mechanism to water users and forms an integral part of the overall reporting process. While this occupies a considerable amount of staff time, it is considered invaluable and worth the effort. The reporting consists of a summary letter, graph of the individual and wider zone usage, commentary on consent condition performance together with any identified deficiencies. This water year the graphs were altered to enhance clarity.
- Electronic records. There are 23 consents now supplying readings via telemetry. The supply of electronic data in this format is likely to increase as a result of the Regulations. Council processes to manage this form of data continue to develop to meet this change. (Refer to telemetry comments below for further comment)
- NCS database changes. The rapid changes occurring in the management and reporting of water use has meant the demand for increased database functionality. The implementation of the Regulations and their reporting requirements has certainly compounded this. This is currently under strategic review with a view to long term solution and the Compliance team have completed requests for change to the current water metering database for the more urgent issues. Efficiency with reporting and mail out merging for multiple consent information to single holders is a priority to reduce staff time on certain aspects of the water metering programme.

7 Monitoring and Enforcement

- 7.1 At present 37 water management zones in this district have either a full or partial metering requirement on abstractive takes imposed through the TRMP. For the actively metered zones consent holders are required to furnish weekly usage readings over the water metering period (now 1 July to 30 June). This forms the basis of the compliance monitoring programme and has three primary objectives:
- Ensuring compliance with the obligations imposed in consent conditions and responding to non compliance accordingly. This is a statutory requirement and underpins all monitoring programmes.
 - Ensuring comprehensive usage data is available for the purpose of sound water resource management and policy setting.
 - Ensuring ability to provide accurate usage data to central government agencies in meeting national reporting objectives.
- 7.2 With the introduction of the Reporting of Water Takes Regulations 2010 the duties imposed through this have also been built into the programme as a dedicated project interlocking with the current framework. As the monitoring, enforcement and ability to report are integral to the success of implementation in this district and it has equal status to the normal consent monitoring.

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7.3 The 2013-2014 water year performance is reported as follows:
Missing Readings

- 7.4 Overall performance in respect to returns for active meters was high. Where circumstances warranted it, staff continued to contact consent holders directly without site visits (no direct recovery) which generally improved those individuals future compliance. Unfortunately six invoices were issued following persistent failure to submit readings despite Council efforts and three infringement fines were issued for continued non compliance. Two consents with aggravating circumstances and continued non compliance are now the subject of more significant enforcement action.
- 7.5 The table below indicates consent holders are still adjusting to supply weekly water meter readings for the full year as required. Council staff are active in following up missing readings over the winter months when it is discovered water is used or the consent holder does not advise that water will not be used over this period. Council staff engage with consent holders with a view to educate and assist them to achieve compliance. Council staff also continue to offer to complete weekly nil returns on behalf of consent holders who advise water use has ceased for the winter months.

Missing Readings Contact Made
01-07-2013 through 30-06-2014

Date Report Run	Number of consents missing readings	Number of consent holders contacted	Contact type	Invoice	Infringement	
24/07/2013	49	48	ph/email			
29/07/2013	68	44	ph/email			
5/08/2013	26	26	ph/email			
21/08/2013	13	4	ph/email			
18/09/2013	10	4	ph/email			
28/10/2013	26	19	ph/email			
19/11/2013	12	12	ph/email/site			
13/12/2013	7	5	ph/email/site			
10/01/2014	15	15	ph/email/site			
17/01/2014	9	7	ph/email/site			
24/01/2014	9	7	ph/email/site	2		
13/02/2014	42	34	ph/email/site	3		
12/03/2014	12	11	ph/email/site		2	
4/04/2014	35	28	ph/email/site		1	
29/04/2014	43	37	ph/email/site			
13/05/2014	59	46	ph/email			
27/05/2014	110	68	ph/email			
5/06/2014	75	43	ph/email			
9/06/2014	78	46	ph/email/site	1		
Income:				\$1,260	\$1,500	\$2,760

WATER METERING PROGRAMME ANNUAL REPORT 2013 / 2014**Excessive Water Use**

- 7.6 All excessive water use situations were investigated and responded to in accordance with Councils enforcement policies. For the very minor overtakes warnings were used as a means of addressing non compliance and gaining future compliance. Past warnings will be considered in determining enforcement options for any future non compliance. Seven Infringement Notices were issued over four consents for overtakes deemed less than minor. One water user received four infringements alone, however in conjunction with Council assistance the site problems which led to the non compliance were eventually rectified and water use is now well within allocated limits.
- 7.7 Telemetered water use data accounts for a number of over takes at the beginning of summer. Only one of the reported overtakes was proven to be genuine, however the data cannot be manipulated and therefore the water management zone graphs for Takaka do not reflect a true use at the commencement of this water year. Refer to telemetered data in this section below.

Water Meter Audit

- 7.8 A total of 768 or 83% of meters were audited during the season. This was undertaken with summer student assistance over the period of employment. Meter audits continue to include a reading of the meter dial, ensure integrity of the seal and obtain an updated (digital) photographic record of the meter. Where a reading discrepancy is found these are reported for follow up.

Fictitious Meter Readings

- 7.9 Some reading discrepancies were identified and all were followed up.
- 7.10 Environment Court based enforcement action to address a case of fraudulent water meter returns was concluded this water year with a conviction entered against the guilty party. Also as a result of that action the guilty party was required to install a telemetry system to ensure future water use was recorded accurately. No false readings were identified this water year. However one consent holder with numerous consents received an invoice for staff time for determining compliance as Councils audits showed a minor discrepancy. These consents are now fully complying.

Moutere Domestic Metering

- 7.11 As at 30 June 2014 a total of 109 domestic bores have been identified and registered on the database. While that is the total registered not all have installed the required meters and 17 bore owners remain unmetered, due to non use.
- 7.12 In respect to these domestic meters, where the water use data readings are required April and November each year, as at 30 June 2014 all readings had been received or taken under audit for those with meters.

Regulation Implementation

- 7.13 Refer to regulatory frame work points 4.2 and 4.3.

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7.14 As at 30 June 2014, of the 368 consents required to be verified as accurate, Council has received 54 verified as accurate. The deadline for meter installation is 1 November 2014. The deadline for verification accuracy is 30 June 2015.

Telemetered Data Implementation

- 7.15 This water year we have seen a shift to telemetry for 23 resource consents, via three providers. The process has not been smooth due to teething problems as these systems were bought on line. One of the issues presented with telemetry systems is the reliance on a third party to achieve compliance. A third party is required to install the system, set the operational parameters of the system, receive the telemetry information and pass that information to Council. Most if not all problems to date sat with third party providers. Dialogue with third party providers has been necessary to convey the importance of compliance with regulations and consent conditions. A certain period of grace was enjoyed as consent holder, third party providers and Council compliance and enforcement staff negotiated a way forward through the various issues that arose.
- 7.16 On one occasion an incorrect rationing trigger was entered into a consent holders telemetry system by a third party provider which resulted in a failure of that consent holder to comply with reduced water take limits during a period of water rationing. On that occasion the consent holder received an infringement fine penalty which it is understood was passed on to the third party provider. This instance highlights the difficulty in addressing accountability for non compliance when consent holders rely on the expertise of a third party to achieve compliance.
- 7.17 Telemetry systems now appear to be providing the data as they should, however the process to date has resulted in missing readings or the receipt of incorrect data at different times for these systems during the water year.
- 7.18 It is expected that the problems encountered this season have been addressed and should not be repeated however the development of this process is still considered to be in its early stages within the Tasman District. Brenda Clapp has recently joined Council staff and fills the role of Water Resources Officer which brings her extensive technical knowledge into a role where she will receive telemetry readings and liaise with various concerned parties. Enforcement remains with Council Compliance staff.

8 Water Use and Trend Data**Metered Take Data**

- 8.1 One of the main objectives of the water metering programme is to provide Council, resource users and the community data on the consumptive use of water in the individual management zones. This data provides information on the volumes, pattern of use, return rates and the stages and effects of rationing in the individual zone. Graphical representation of each water management zone is also provided on the Council's website www.tasman.govt.nz for public viewing.

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8.2 End of water year summaries were sent to all consent holders together with graphical representation of their individual water use record and the relevant water management zone. This reporting method was used for the majority of consent holders and is well received despite the time and cost involved. If a matter of non compliance was associated with the particular consent a monitoring note or formal letter outlining the matter was also included for reference.

The water management zone data for the 2013-2014 water year is attached in Attachment A.

8.3 Moutere Domestic Data

Data on consumption is not managed or reported through this programme but the information gathered on usage from these meters is forwarded to the Resource Scientist - Water.

9 Budget

9.1 A summary of the Compliance Monitoring Water income/costs for the 12 month period ending 30 June 2014 is follows.

9.2 Budgeted expenditure for the 2013/14 year was \$182,055. Total expenditure for the period was \$206,761 with total income for the period of \$202,081. This gave a reported net cost of \$4,680. The increased cost and income expenditure was affected by legal costs which added \$20,123 to the full year's operating costs as the result of a single prosecution. Most of this cost was recovered by way of the imposed penalty.

9.3 The programme was 75% water user funded this year. The target for this activity is 100% user funded. Council is progressing toward this target as more of the water management zones become fully metered.

10 Discussion

10.1 Water user compliance requires a significant Council administrative effort. Much interaction between Consent holders and Council staff is required to achieve compliance. Overall there is an understanding and acceptance by consent holders of Council requirements and a desire to comply. Council assistance is often required as consent holders become aware of their requirement to comply with the Reporting of Water Takes Regulation 2010 requirements.

10.2 Non compliance as it has occurred has been discussed with consent holders and recorded. Council compliance staff assess each case of non compliance on a case by case basis with an emphasis on education and encouragement to achieve compliance. All recorded non compliance will be taken into account in determining a suitable Council enforcement response on the detection of further non compliance.

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- 10.3 There are a number of cases where consent holders consistently mix the numbers they read yet diligently supply weekly water meter readings as required. Council staff exercise discretion in these cases and work with the consent holder. In some cases the supply of electronic photographs of the water meter dial sent via mobile phone was a suitable solution rather than having the consent holder attempt to read the dial. This also provided a type of visual audit of the reading and meter.
- 10.4 There have been a number of requests from consent holders to have the ability to utilise their mobile phone to record and supply water meter readings. The development of a suitable mobile phone application is in progress.
- 10.5 Maintaining this momentum for future seasons as ongoing success relies on sufficient staff resources. The new Water Metering & Resources Environmental Monitoring Officer position is alleviating some technical data management pressures with the Regulations, however this position cannot realistically give much relief to the compliance administration and enforcement demands and we will have to navigate through this. Certainly as the roll out of the Reporting of Water Takes Regulation 2010 requirements gathers pace demand will inevitably increase the pressure on staff resources. It is for that reason that consideration to reviewing the targeted fees and levies or the existing levels of service provided to the consent holder will be required in the near future.
- 10.6 The expanding water programme and regulations is having a significant impact on Council database requirements. The current NCS add-on (WCM database) was originally designed to capture basic consumption monitoring and this functionality remains. Unfortunately the demand to capture meter verification data, year round monitoring, and greater reporting requirements means the NCS add-on is reaching the end of its abilities to support the programme. Compliance staff have completed a review of the WCM and requested some minor and major changes to assist with the expanded reporting types and requirements, and increasing numbers of consents to manage.
- 10.7 There are a number of consent holders who for various reasons lack the ability to utilise electronic technology to achieve compliance with regulations. As a result the services of the postal service is still a requirement and presents certain hurdles in achieving compliance.
- 10.8 However there is also a requirement to move forward with technology as a result of requests from consent holders (i.e. receiving telemetered meter readings and a mobile phone application for water users). Compliance and I.T. staff continue to work closely to find solutions to the increasing consumption of staff time to complete mail outs, especially for multiple consent holders. Outside of anything generic, at present the ability to send the majority of water metering information via email to consent holders is limited.

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1. Water Management Zone Graphs 2013-2014