greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

Compliance Monitoring of Water Takes

A guide to requirements for the measuring and reporting of water take consents in the Greater Wellington region

Version 2 - December 2011

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1. Introduction

This guides outlines requirements for the monitoring of water take consents in the Greater Wellington region. It specifically focuses on water metering and recording water abstraction data now that the Resource Management (Measurement and Reporting of Water Takes) Regulations are operative.

2. Background

On 10 November 2010 the Resource Management (Measurement and Reporting of Water Takes) Regulations (`the Regulations') came into force.

In summary, water measuring devices (mainly water meters) are required on all water takes greater than 5 litres/sec. For new consents granted after 10 November 2010 this applies immediately after the consent is granted. For existing consents, there is a phase in period depending on the size of take. The Regulations also require consent holders to keep daily records of water taken (or less frequently if approved by Greater Wellington). Finally all water meters are to be verified by a suitably qualified person initially, and then every five years.

More detailed background and a copy of the Regulations can be viewed http://www.mfe.govt.nz/rma/central/measuring-reporting-water-takes.html.

In total there are approximately 700 water takes consents in the Wellington region - 470 groundwater takes and 230 consented surface water takes. Of these consents, many already have water measuring devices installed. At present there is a variety of requirements in terms of recording and reporting water abstraction data ranging from no record keeping to full telemetry.

Section 3 of this guide outlines the minimum requirements that Greater Wellington has for installing water measuring devices for all water takes. Section 4 of this guide outlines what is required for consent holders to get their water measuring devices verified. Section 5 of this guide outlines the standards for recording and reporting water use data.

3. Measuring requirements - installation

3.1 Water take consents greater than 5 litres/sec

Of the 700 consents in the region, just under 80% of these takes are greater than 5 litres/sec and will therefore require water measuring devices under the Regulations.

The majority of takes greater than 5 litres/sec (approximately 440) either already have water measuring devices installed or are required to have devices installed as conditions on existing consents. Whilst conditions specifying the standard of devices are reasonably consistent, the recording and reporting requirements vary markedly. Also to meet minimum requirements under the Regulations, it is most likely that many of these existing water measuring devices will require some upgrading.

The remaining consents greater than 5 litres/sec (approximately 130) do not currently have a water measuring device. These consents are required to have water measuring

devices installed by either 2012, 2014, or 2016 depending on the size of take. Over half of these consents will expire prior to the mandatory date where compliance with the Regulations is required. Hence if those consent holders gain replacement consents, the standard consent conditions (which meet minimum requirements of the Regulations) will apply earlier than the mandatory dates.

3.2 Water take consents less than 5 litres/sec

Whilst the Regulations specify the minimum requirements for takes where water measuring devices are required, there are approximately 150 water takes where the Regulations do not apply. However due to demand pressures it is appropriate to require water measuring devices (via consent conditions) on some of these water takes. Table 1 identifies catchments and groundwater zones where demand and pressures are known to exist and where water measuring devices will be required of any future consents. (Note: Many of these consents may already require water measuring device.)

Table 1: Groundwater zones and catchments where water measuring devices are required for all takes less than 5 litres/sec

Groundwater management zones		Surface water catchments	
Lower Hutt	Moiki A	Booths	Parkvale
Waikanae	Onoke A & C	Dock	Pauatahanui inlet
Dry River B	Parkvale B & C	Huangarua	Rimutaka streams
Huangarua A, B	Tauherenikau A	Hutt	South Featherston drains
Lake B/C	Te Ore Ore A & B	Kopuaranga	Taueru
Lower Ruamahanga A	Upper Ruamahanga A	Lake Wairarapa	Tauherenikau
Mangatarere A,B, & C	Waingawa A	Mangatarere	Waikanae
Martinborough C	Waiohine A	Ruamahanga	Waingawa
Middle Ruamahanga A		Makahakaha	Wainuiomata
		Mangaone	Waiohine
		Orongorongo	Waipoua
		Otakura	Waitohu
		Papawai	

There will be instances where special circumstances apply where water measuring devices should be installed for takes in catchments and groundwater zones not listed in Table 1. Also there may be special circumstances where water measuring devices in catchments and groundwater zones listed in Table 1 is not required. Such circumstances will be assessed on a case by case basis when consents expire and are replaced.

3.3 Service providers for water measuring device installation

Greater Wellington supports the Water Measurement Industry Accreditation Program (WMIAP) managed by Irrigation NZ. Unless special circumstances apply, all new installations shall be undertaken by those service providers accredited by the WMIAP. A list of accredited service providers for water measurement device installation is in Table 2 below:

Table 2: Accredited service providers for water measuring device installation

Accredited service providers for water measuring device installation – from Irrigation NZ website (December 2011)		
Service provider	*Contact*	*E-mail*
Agfirst Engineering (HB) Ltd *	Craig Bishop	craig.bishop@agfirst.co.nz
Campbells Water Centre *	Owen Higgins	owen@cwcl.co.nz
Cotter & Stevens	Kathryn	cotterandstevens@infogen.net.nz
ENVCO	Graham Andrew	graham@envco.co.nz
GV Electrical & Pumping	Gordon Mouldy	Gordon@gvelectrical.co.nz
Harris Pumps	Stephen Harris	StephenH@harrispumps.co.nz
Harvest Electronics	Peter Munn	peter.munn@harvest.com
Hydro Logic NZ Ltd	Matt Brown	hydro-logic@vodafone.co.nz
Irrigation Services (Wairarapa)	Gilly Greville	Gilly@irrigationservices.co.nz
Lifestyle & Dairy Pumps Ltd *	Chris Robertson	life.dairy@xtra.co.nz
Megason Irrigation Specialist Ltd	Matti Givon	megason@xtra.co.nz
Ordish & Stevens	Scott Forbes	scott@ordish-stevens.co.nz
Parkland Products Ltd	David Pearce	david.pearce@parkland.co.nz
Prosol	Mike Saunders	mike@prosol.co.nz
Total Irrigation Ltd	Ian Cooper	ian@totalirrigation.co.nz
Water Check	Jared Halstead	jhalstead@watercheck.co.nz
Water Supply Products	Barrie Swaine	bswaine@watersupply.co.nz
Waterforce	Andrew Ferguson	aferguson@waterforce.co.nz

* Accredited service providers that are not specifically identified to undertake works in the Wellington region on Irrigation NZ website, but have registered interest to install water meters in the region.

4. Measuring requirements - verification

The Regulations require all water measuring devices to be verified in the first year following the granting of consent, and every five years thereafter. Where practicable, Greater Wellington will notify water take consent holders of any impending requirements for verification. The onus is on the consent holder to seek and arrange verification of their water measuring device. If there is strong support for collective verification of water measuring devices, Greater Wellington will consider co-ordinating this process.

4.1 Service providers for water measuring device verification

Greater Wellington supports the Water Measurement Industry Accreditation Program (WMIAP) managed by Irrigation NZ. Unless special circumstances apply, all verification shall be undertaken by those service providers accredited by the WMIAP. A list of accredited service providers for water measurement device verification is in Table 3 below:

Table 3: Accredited service providers for water measuring device verification

Accredited service providers for water measuring device verification – from Irrigation NZ website (December 2011)		
Service provider	*Contact*	*E-mail*
Agfirst Engineering (HB) Ltd *	Craig Bishop	craig.bishop@agfirst.co.nz
Boraman Consultants	Dave Boraman	dave@boraman.co.nz
ENVCO	Graham Andrew	graham@envco.co.nz
Environmental Consultancy Services	Richard de Joux	ecstimaru@xtra.co.nz
GV Electrical & Pumping	Gordon Mouldy	Gordon@gvelectrical.co.nz
Hydro Data NZ Ltd	Matt Brown	hydro-logic@vodafone.co.nz
Irrigation Services (Wairarapa)	Gilly Greville	Gilly@irrigationservices.co.nz
Ordish & Stevens	Scott Forbes	scott@ordish-stevens.co.nz
Parkland Products Ltd	David Pearce	david.pearce@parkland.co.nz
Prosol	Mike Saunders	mike@prosol.co.nz
Scott Technical Instruments Ltd	Roger Hardy	rogerh@scotttech.net
Water Supply Products	Barrie Swaine	bswaine@watersupply.co.nz
Waterforce	Andrew Ferguson	aferguson@waterforce.co.nz

* Accredited service providers that are not specifically identified to undertake works in the Wellington region on Irrigation NZ website, but have registered interest to verify water meters in the region.

5. Recording and reporting requirements

The Regulations require all consents to record daily measurements (in m^3) of water taken. Records for each year (between 1 July and 30 June inclusive) are required to be submitted in writing or electronically if requested. Where approval is provided by Greater Wellington, weekly measurements can be completed by consent holders.

Greater Wellington has a water use data management system that provides flexibility for web-based manual data entry, text entry, and downloading of automatic data in either real time or on an annual basis based on downloading logged data.

For any future consents the level of recording and reporting will depend on geographical location of each water take and the demand of the water resource in each location. The minimum standards are identified in Tables 4 and 5.

Until the minimum standards are adopted as consent conditions, water take consent holders are encouraged voluntarily to upgrade their recording and reporting to the minimum standards.

Table 4: Minimum recording and reporting standards in surface water management zones

Minimum standard	Surface water management zone	
Real time telemetry and data loggers	• Booths Creek (2015) • Huangarua River • Hutt River • Kopuaranga River (2013) • Lower Ruamahanga (2016) • Mangaone Stream • Orongorongo River • Otakura Stream (2019) • Papawai (2012)	• Parkvale (2015) • Taueru River (2016) • Tauherenikau River • Upper Ruamahanga River (2013) • Waikanae River • Waingawa River • Wainuiomata River • Waiohine River (2017) • Waipoua River (2017)
Data loggers with annual submission of data	• Lake Wairarapa (2014) • Makahakaha Stream (2020)	• Rimutaka Streams • South Featherston Drains
Web based or text entry of *daily or weekly* water use	• Kapiti Streams • Kuripuni Stream • Makoura Stream (2016) • Martinborough Streams • Otaki River • Pahaoa River • Pauatahanui inlet	• Turanganui River • Wainuioru River • Waiotohu Stream • Wellington Streams • Whangaehu River • Whareama River

Note: The common expiry dates for the majority of consents in these catchments are included in brackets. Where there are minimal consents or no set common expiry date, no dates are specified.

Table 5: Minimum recording and reporting standards in ground water management zones

Minimum standard	Ground water management zone	
Real time telemetry and data loggers	• Lower Hutt • Huangarua A (2020) • Lower Ruamahanga A (2012) • Mangatarere A, B, & C (2014) • Middle Ruamahanga A (2018) • Moiki A (2019)	• Onoke A (2014) • Tauherenikau A (2013) • Te Ore Ore A (2020) • Upper Ruamahanga A (2012) • Waingawa A (2017) • Waiohine A (2017)
Data loggers with annual submission of data	• Dry River B (2013) • Huangarua B (2020) • Lake B (2014) • Parkvale B (2015) • Taratahi B (2015)	• Tauherenikau B (2013) • Te Ore Ore B (2020) • Upper Ruamahanga B (2016) • Waingawa B (2017)

Minimum standard	Ground water management zone	
Web based or text entry of *weekly* water use	• Akatarawa • Coastal • Hautere • Otaki • Pakuratahi • Upper Hutt • Waikanae • Wainuiomata • Waitohu	• Fernhill Tiffen C (2015) • Lake C (2014) • Onoke C (2014) • Martinborough C (2013) • Parkvale C (2015) • Taratahi C (2015) • Upper Ruamahanga C (2016) • Waingawa C (2017)

Note: The common expiry dates for the majority of consents in these groundwater zones are included in brackets. Where there are minimal consents or no set common expiry date, no dates are specified.

There will be instances where special circumstances apply where the standards are appropriate to be varied and be either less stringent or more stringent (e.g. large takes in small catchments and/or non-complying consents could require a higher standard of monitoring). Such circumstances will be assessed on a case by case basis when consents expire and are replaced.

6. Summary

This guide provides direction for the management and monitoring of water takes in the Greater Wellington region. The requirements and standards for measuring and reporting water use data are likely to be reviewed annually to keep pace with technological changes and needs for gaining appropriate data for the sustainable management of water resources in the region.