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# RESOURCE CONSENT CRC175118

*Pursuant to Section 104 of the Resource Management Act 1991*

## The Canterbury Regional Council (known as Environment Canterbury)

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GRANTS TO:	Central Plains Water Trust
A WATER PERMIT (S14):	To take water from the Waimakariri River.
COMMENCEMENT DATE:	15 Jun 2017
EXPIRY DATE:	25 Jul 2047
LOCATION:	Waimakariri River (lower and/or upper intake), KOWAI BUSH AND SHEFFIELD

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### ***SUBJECT TO THE FOLLOWING CONDITIONS:***

- 1 The water take shall only be from:
  - a. An intake installed as close as practicable to and within the upstream edge of the designated band as shown in Plan CRC061972 being between the intake described as site 1: Original Proposal on the Plan and the upstream edge of the designated band; and/or
  - b. An intake installed at the diversion channel consented under CRC170593 or any replacement of that consent.
  
- 2 The rate at which water may be taken from the Waimakariri River:
  - a. From the location in condition (1)(a) shall not exceed whatever rate is required in conjunction with the take from the Rakaia River and any other sources of water to the scheme to:
    - i. Supply the irrigation demand from users of the scheme to use the water in accordance with the conditions of resource consent CRC165680; and to:
    - ii. Replenish on farm storage;

and shall not exceed 24 cubic metres per second.

  - a. from the location in condition (1)(b) shall not exceed two cubic metres per second to:
    - i. Supply the irrigation demand from users of the scheme to use the water in accordance with the conditions of resource consent CRC165680; and to:
    - ii. Replenish on farm storage.

- b. with a combined rate not exceeding 24 cubic metres per second.

- 3 For the periods excluding the days listed in Appendix 1, (referenced after Condition 19), water shall only be taken subject to the following:
  - a. Whenever the unmodified mean flow in the Waimakariri River, as estimated by the Canterbury Regional Council from measurements at the Old Highway Bridge, at or about map reference NZMS 260 M35:818-547, for any 24 hour period ending at noon is:
    - i. Greater than 66.1 cubic metres per second the maximum rate of take during the next 24 hours shall not exceed half the difference between the unmodified mean daily flow and 66.1 cubic metres per second;
    - ii. At or below 66.1 cubic metres per second no water shall be taken during the next 24 hours, unless water can be taken under clause (a)(iii);
    - iii. Greater than 41.0 cubic metres per second and less than 63.0 cubic metres per second, the consent holder may take unused but allocated A permit water in agreement with water permit holders who are subject to A permit minimum flow restrictions and are adhering to a water sharing regime that restricts the total rate of abstraction from the Waimakariri River whenever the flow is at or above 41.0 cubic metres per second. The consent holder shall provide the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, written agreement with the water permit holders giving permission for the consent holder to take its unused but allocated water.  
NOTE: For the purpose of this consent, written agreement must be in the form of an email, fax or signed written document.
    - iv. At or below 41.0 cubic metres per second for a continuous period of 21 days, the consent holder shall not take water in accordance with conditions 3(a)(i) until the flow rate is greater than 41 cubic metres per second for a period of two days or until the flow is greater than 130 cubic metres per second, whichever is the sooner. This clause shall not apply if water is being taken under clause 3(a)(iii).
- 4 Unless otherwise agreed between the consent holder and Whitewater NZ Incorporated ("Whitewater NZ Inc"), or its nominee, and such agreement advised to the Canterbury Regional Council in writing, then for the periods excluding the days listed in Appendix 1 (referenced after Condition 19) below, the following restrictions shall apply:
  - a. Whenever the unmodified mean flow in the Waimakariri River, as estimated by the Canterbury Regional Council from measurements at the Old Highway Bridge, at or about map reference NZMS 260 M35:818-547, for any 24 hour period ending at noon is greater than 80 cubic metres per second and less than 95 cubic metres per second, then the take shall not exceed the difference between the unmodified flow and 80 cubic metres per second, or 5 cubic metres per second, whichever is the lesser. This restriction shall apply between the hours of 3pm and 3am, or a similar 12 hour period so that the unmodified flow at Crossbank (located between map references NZMS 260 M35:701511 and M35:701517) between 7am and 7pm is between 55 and 65 cubic metres per second (measured flow).

- 5 No water shall be taken during the annual Coast to Coast multi-sport event.
- 6 Unless otherwise agreed between the consent holder and North Canterbury Fish and Game Council and such agreement advised to the Canterbury Regional Council in writing, then during the period 1 January – 15 April immediately following a period when the unmodified flow in the Waimakariri River, as estimated by the Canterbury Regional Council from the measurements at the Old Highway Bridge, at or about map reference NZMS 260 M35:818-547, exceeds 95 cubic metres per second, the take shall cease from the time when the unmodified flow falls below 75 cubic metres per second until such time as the unmodified flow falls below 55 cubic metres per second, or rises above 75 cubic metres per second, or after three days, whichever is the sooner. This restriction shall apply between the hours of 11pm and 11am.
- 7 The consent holder shall only take water under condition (2)(a) when all available water that can be taken under Resource Consent CRC167218 (or any variation or subsequent replacement) is being taken.
- 8 The abstraction of water at “unmodified” river flows of greater than 66.1 cubic metres per second shall only occur at times when A permit holders are authorised to exercise their full allocation.
- 9 Fish barrier
  - a. The consent holder shall install and maintain a fish barrier (“Fish Barrier”) on each of the intake works that have been installed.
  - b. The Fish Barrier shall be installed prior to the abstraction of water authorised by this consent.
- 10 The Fish Barrier shall be designed to ensure the adverse effects on all fishery components are no more than minor using design principles of fish exclusion as approved by Canterbury Regional Council. In particular, the Fish Barrier design shall achieve the following performance objectives:
  - a. exclude all adult fish; and
  - b. exclude at least 95% of juveniles salmonids that have entered the Fish Barrier area; and
  - c. as far as reasonably practicable all excluded fish shall be returned safely to the main stem of the Waimakariri River downstream from the intake.
- 11 Fish Barrier approval process
  - a. Prior to the taking of water pursuant:
    - i. Condition 2(a) of this consent, the consent holder shall install the Fish Barrier across the intake designed in accordance with the certified plans approved by a person duly authorised by the Canterbury Regional Council.
    - ii. Condition 2(b) of this consent, the consent holder shall install the fish barrier across the intake design in accordance with condition 10 of this consent and conditions of CRC136234 (or any variations or replacement of that consent)
  - b. The Fish Barrier shall achieve the performance objectives of Condition 10 and for the purposes of this condition this shall be achieved by installing, operating and maintaining the Fish Barrier in accordance with the certified design plans referred to in Condition 11(d).

- c. The design plans for the Fish Barrier shall be certified by:
- i. A suitably qualified engineer with experience in the design and operation of fish barriers; and
  - ii. A fisheries biologist with knowledge of salmonid and native fisheries; ("the Fish Barrier Certifiers").
- d. Prior to the commencement of construction of the Fish Barrier, the consent holder shall provide to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance:
- i. The certified design plans including the proposed location of the Fish Barrier, proposed Fish Barrier material and size, design sweep velocity, design approach velocity, and an effective by-pass structure and flow which returns fish to an actively flowing braid of the river; and
  - ii. A report from the Fish Barrier Certifiers which certifies the design and operation of the Fish Barrier:
    - a. Demonstrates best practice in achievement of Condition 11(b); and
    - b. Takes into consideration regional or national guidelines in relation to fish barrier design and/or any international guidelines that the Fish Barrier Certifiers consider relevant.
  - iii. The report required in condition 11d(ii) shall also specify any monitoring requirements for the Fish Barrier. The consent holder shall consult with North Canterbury Fish and Game Council and Department of Conservation in preparation of this monitoring programme.
- e.
- i. The Fish Barrier shall consist of an infiltration gallery that generally conforms with concept sketches 10836-20, 10836-21, 10836-22 and 10836-03, provided by Riley Consultants, February 2011, or equivalent as agreed by Canterbury Regional Council;
  - ii. The Fish Barrier shall be designed to prevent fish bypassing the Fish Barrier into the canal;
  - iii. The Fish Barrier shall be a bed of cobbles of minimum depth of 1.5 metre over the top of an intake pipe, and stone size in the top 0.3 m in the range of 50 mm to 100 mm diameter, and in the lower 1.2 m in the range 100 to 200 mm diameter;
  - iv. The velocity over the galleries (the 'sweep velocity') at any time shall be a minimum of 0.5 m/s;
  - v. The velocity into the galleries (the 'approach velocity' ) shall be a maximum of 0.10m/s;
  - vi. The ratio of sweep velocity to approach velocity at any time shall be a minimum of 5.0;

- vii. A fence between the Fish Barrier and the irrigation supply channel to prevent native fish moving overland from the Fish Barrier to the irrigation supply channel;
  - viii. An effective bypass system shall be maintained at all times that water is diverted into the scheme, to ensure unrestricted passage is maintained to and from an active braid of the river;
  - ix. The bypass channel shall be formed in consultation with North Canterbury Fish and Game Council and Department of Conservation to ensure effective return of fish to an active braid of the river as soon as is reasonably practicable; and
  - x. There shall be an effective operation, inspection and maintenance schedule.
- f. A person duly authorised by the Canterbury Regional Council shall give written notice to the consent holder stating whether or not it approves of the certified design plans within 20 working days of receipt of the plans and the Fish Barrier Certifiers' report referred to in Condition 11(d)(ii) and such approval shall not be unreasonably withheld.
- g. The consent holder shall, prior to commissioning, provide a certificate from a suitably qualified person confirming that construction of the Fish Barrier has occurred in accordance with the certified design plans approved in accordance with Condition 11(f).
- 12 Any monitoring program required in condition 11(d)(iii) shall be subject to the approval of a person duly authorised by the Canterbury Regional Council and shall be conducted for the first five years of operation of the Fish Barrier using appropriate practices, to establish the effectiveness of the Fish Barrier in achieving the performance objectives specified in condition 10 and the effect on juvenile native fish.
- 13 In the event that the Fish Barrier is shown to be not fully effective in achieving the performance objectives in condition 10 the consent holder shall immediately commission a report.
- a. This report shall be prepared by a fisheries biologist/s with knowledge of salmonid and native fisheries and shall address the consequences of non-compliance with condition 10 and, if appropriate, shall recommend mitigations. Such recommendations may include improvements to fish exclusion and/or enhancements to fish populations such as fishery habitat improvements or other actions considered appropriate by the author/s.
  - b. The report shall be prepared in consultation with North Canterbury Fish and Game Council and Department of Conservation and shall be delivered by the consent holder as soon as reasonably practicable but in any event no later than 6 months of confirmation of non-compliance to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager.
  - c. Within 20 working days of receipt of the report a person duly authorised by the Canterbury Regional Council shall give written notice to the consent holder stating what action it requires, if any, in response to the report and recommendations.

- 14 The incidence of Fish Barrier shutdowns shall be recorded and reported to the North Canterbury Fish and Game Council and Department of Conservation as soon as practicable. Records of Fish Barrier failure shall be forwarded to Canterbury Regional Council by 31 May each year, or as requested.
- 15 Safety at intake
- a. Prior to the taking of water pursuant to condition 1a. or 1.b. of this consent, the consent holder shall design an intake structure that shall, as far as practicable, prevent water users becoming pinned against or washed into the intake on the Waimakariri River.
  - b. The safety features of the intake structure shall be designed in consultation with the Whitewater NZ Inc and the New Zealand Jet Boat Association.
  - c. The intention of the safety features will be to achieve, if reasonably practicable, an overall International Grade 2 standard suitable for racing kayaks.  
Advice Note: For the purpose of this clause, the International Grade 2 standard shall be consistent with the USA Grade 2 definition: "Straightforward rapids with wide, clear channels which are evident without scouting. Occasional manoeuvring may be required, but rocks and medium-sized waves are easily missed by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed."
  - d. The intake design shall incorporate the following:
    - i. The intake shall be recessed into the face of the rock cliff so that all gates, together with their supports, and at least the upper part of the trash rack are built behind the general natural line of the cliff face;
    - ii. An inclined trash rack shall be constructed and maintained on the upstream face of the intake gate, leading to a safety ledge and exit point, with exit paths leading both back to the river, where a kayaker may re-enter his/her racing kayak, and away from the river, at the choice of the user. The exit paths shall be such that a person carrying a racing kayak can traverse the path safely. The dimensions of the trash rack shall be such that velocities approaching it do not exceed 1 metre per second. The trash rack shall extend as far into the gravel bottom as practicable, and shall extend to the bottom of the river bed, except that this latter condition shall not apply when the river is in flood;
    - iii. The surfaces presented to the water shall be free from sharp protrusions which could injure a person or snag clothing.
  - e. The design plans for the intake shall be certified by:
    - i. A suitably qualified person with experience in the design and operation of intake structures; and
    - ii. A person with experience in water safety, particularly for recreational boating and kayaking on rivers; ("the Intake Certifiers").

- f. Prior to the commencement of construction of the intake structure, the consent holder shall provide to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager:
- i. The certified design plans;
  - ii. A joint report from the Intake Certifiers which certifies the design and operation of the safety features on the intake structures which demonstrates best practice in achievement of Condition 15(a) to 15(d);
- g. A person duly authorised by the Canterbury Regional Council shall give written notice to the consent holder stating whether or not he/she approves of the certified design plans and the Intake Certifiers' report referred to in Condition 15(f)(ii) within 20 working days of receipt of the plans and report. Such approval shall not be unreasonably withheld.
- h. The consent holder shall, prior to commissioning, provide a certificate from a suitably qualified person confirming that construction of the intake structure has occurred in accordance with the certified design plans approved in accordance with Condition 15(g).
- i. The consent holder shall install, operate and maintain an intake structure designed in accordance with the certified plans approved by a person duly authorised by the Canterbury Regional Council in accordance with Condition 15(g).
- j.
- i. Prior to the first exercise of this consent, the consent holder shall erect and maintain one sign at the Mt White Bridge carpark, one sign at Woodstock and one sign at the Gorge Bridge carpark; and
  - ii. The signs shall be at least one metre by two metres, UV ray and weather resistant, and visible on the banks and by in-river users; and
  - iii. The location and wording of the signs shall be developed in consultation with Whitewater NZ Inc and to the approval of the Canterbury Regional Council.
- k. The consent holder shall, as far as is practicable, inform all commercial users and recreational boat clubs of the position of the intake, within one month of the start of construction. A copy of the written notice and a list of those parties notified shall be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager at least 20 working days prior to the construction on the intake.
- l. Within six months of commencement of operation the consent holder shall conduct live tests of the intake under a range of river flow conditions and intake flows and:
- i. Shall invite Whitewater NZ Inc and the New Zealand Jet Boat Association to observe and participate in those tests; and
  - ii. Shall invite Whitewater NZ Inc and the New Zealand Jet Boat Association to comment on potential modifications to design and operation.

- m. Within 20 working days of after completion of the live trials the consent holder shall report to Canterbury Regional Council on the tests required in condition 15(l), including the modifications to design and operation of the intake. In particular, the report shall include:
- i. Comments made by Whitewater NZ Inc and the New Zealand Jet Boat Association; and
  - ii. A report from the Intake Certifiers (as set out in condition 15 (e)).
- n. Within 40 working days or such other timeframe as may be agreed by the Canterbury Regional Council, the consent holder shall adopt the modifications to the intake design as identified in the report required in condition 15 (m).
- 16 The intake screen and trash rack shall be cleaned and maintained on a regular basis such that the performance objective and design requirements to which conditions 10 and 14(d) refer are achieved on a continual basis.
- 17 Measurement of water take.  
The consent holder shall, prior to the commencement of this consent:
- a. Install a water measuring device in a location that will enable the determination of the continuous rate of flow and volume of water being diverted to within an accuracy of 10 percent.
  - b. The water measuring device shall, as far as is practicable, be installed at a site likely to retain a stable relationship between flow and water level. The measuring device shall be installed in accordance with the manufacturer's instructions.
  - c. Install a tamper-proof electronic recording device such as a data logger(s), which is telemetered, as specified in clause 17(d).
  - d. The recording device(s) shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder.
  - e. The water measuring and recording devices described in clauses 17 (a) and (b) shall be available for inspection at all times by the Canterbury Regional Council, including access to the data recorded in accordance with clause 17(d).
  - f. All data from the recording device described in clause (b), and the corresponding relationship between the water measuring device and the flow as described in clause 17(b) shall be provided to the Canterbury Regional Council annually in the month of June.
- 18 Within six months of the installation of the water measuring or recording device(s), specified in condition 17, or any subsequent replacement water measuring or recording device(s), or at any time when requested by the Canterbury Regional Council, the consent holder shall provide an installation and commissioning form demonstrating by means of a clear diagram, that:
- a. The water measuring and recording device(s) is installed in accordance with the manufacturer's specifications; and



- b. Data from the recording device(s) can be readily accessed and/or retrieved in accordance with condition 15(d) above.

19 This consent is subject to the conditions listed in Schedule 2: Administrative Conditions as attached to resource consent CRC165680 or any replacements or subsequent variations thereof.

20 APPENDIX 1

The restrictions specified in condition (4) of CRC175118, shall occur starting the day prior to:

- a. All weekend days and public holidays between 1 December and 1 March; and
- b. All weekdays from 21 December to 15 February; and
- c. Easter weekend starting Good Friday and including Easter Monday.

21 When water is taken in accordance with conditions (1)(b) and (2)(b):

- a. Conditions (15)(d) to (15)(m) shall not apply provided that conditions (5), (9) and (12) of resource consent CRC170592 are complied with; and
- b. The consent holder shall ensure that at a minimum signs are erected and maintained at the intake location and 400 metres upstream of the intake in condition (1)(b) that are visible to in-river users. Wording of the sign shall ensure that a river users is aware of the potential danger.

22 When water is taken in accordance with conditions 1(b) and 2(b):

- a. Conditions 11(b) to 11 (g) and conditions 12 and 14 of this consent do not apply; and
- b. The consent holder shall:
  - i. Submit a report to the Canterbury Regional Council Attn: Regional Leader - Monitoring and Compliance by 1 February 2018, which specifies any monitoring requirements for the Fish Barrier.
  - ii. Consult with North Canterbury Fish and Game Council and Department of Conservation in preparation of this monitoring programme: and
  - iii. Ensure the monitoring programme is conducted for the first five years of operation of the Fish Barrier using appropriate practices, to establish the effectiveness of the Fish Barrier in achieving the performance objectives specified in condition 10 and the effect on juvenile native fish; ensure the monitoring is designed by a suitably qualified person.

*Advice note: For clarification conditions 9, 10, and 13 still apply to any water taken under this consent.*

**Issued at Christchurch on 15 June 2017**

# Flowmeter, Datalogger Installation and Commissioning

TO: Environment Canterbury  
C/o Water Metering Team  
200 Tuam Street  
PO Box 345  
Christchurch 8140

Ph: 03 353 9007  
Email: water.metering@ecan.govt.nz

Consent Holder: \_\_\_\_\_  
Consent number: CRC \_\_\_\_\_ Well/SWAP number(s): \_\_\_\_\_  
Installation date: \_\_\_\_\_

**Flowmeter details:**

Make: \_\_\_\_\_ Meter size: \_\_\_\_\_ (mm diameter)  
Model: \_\_\_\_\_ Pulse output: Yes/No  
Serial number: \_\_\_\_\_ Volume per Pulse \_\_\_\_\_ **m<sup>3</sup>/puls**  
(Start) Meter Reading Volume: \_\_\_\_\_ m<sup>3</sup> (state units if different)

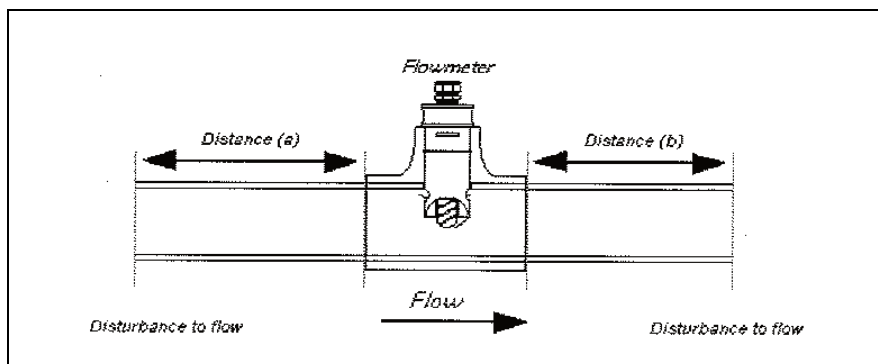
**Datalogger details:**

Installed Yes/No  
Make: \_\_\_\_\_  
Model: \_\_\_\_\_ Serial number: \_\_\_\_\_  
Telemetry installed for compliance: Yes/No Data hosted by: \_\_\_\_\_

**Installation details:**

Pipe internal/external diameter: \_\_\_\_\_ mm Pipe Wall Thickness \_\_\_\_\_ mm  
Pipe material: Ductile Iron, Mild Steel, PVC, Polyethelene, Aluminium, other : \_\_\_\_\_  
Distance of straight, unobstructed pipe **upstream** of flowmeter (distance (a) in Figure 1): \_\_\_\_\_ mm  
Distance of straight, unobstructed pipe **downstream** of flowmeter (distance (b) in Figure 1): \_\_\_\_\_ mm  
Is there a straight unobstructed accessible pipe in the system of at least 15 diameters length to verify the flow with a clamp-on flow meter? Yes/No Location in system: \_\_\_\_\_

**Figure 1: Installation diagram** - Please mark any disturbances upstream of the flowmeter e.g. pipe size reduction, gate valves, pipe bends. Refer to Figure 2 for an example of a good installation.



**Insertion meters only:**

Insertion depth: \_\_\_\_\_ K-factor: \_\_\_\_\_

**Ultrasonic meters only:**

Transducer size: \_\_\_\_\_ Transducer spacing: \_\_\_\_\_

Transducer mounting: V or Z (Please circle, V = Reflect, Z = Direct)

**Accuracy details:**

Do you have a WET calibration certificate?  Yes/ No (If yes, then please submit the certificate.)

Has the meter been checked against a portable flowmeter?  Yes/ No (If yes please fill in water meter verification form)

**Certification:**

I/we certify that the above flowmeter and datalogger have been installed in accordance with Environment Canterbury's requirements.

That a wet calibration certificate from the manufacturer is attached to this form

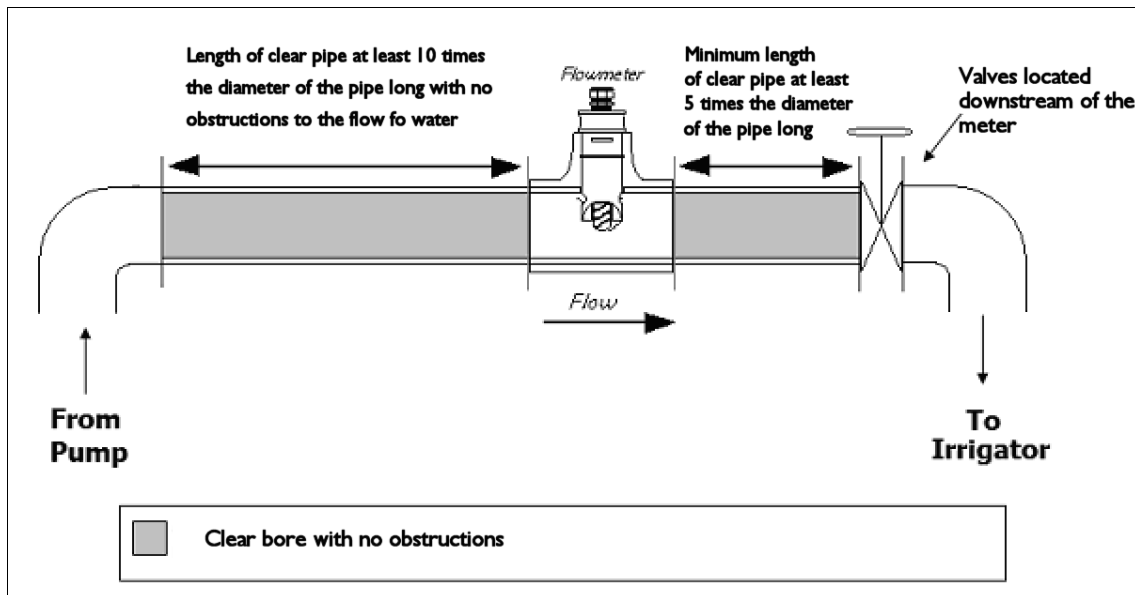
That a water meter verification form is attached to this form.

That a picture of the installation is attached to this form.

Installed by: \_\_\_\_\_ Signed: (by installer) \_\_\_\_\_

Company: \_\_\_\_\_ Date: \_\_\_\_\_

**Figure 2: An example of an Ideal installation of a flowmeter, including obstructions in pipework.**



# Flowmeter/Water Measuring Device Verification Form

FOR OFFICE USE ONLY

TO: Environment Canterbury  
C/o Water Metering Team  
200 Tuam Street  
PO Box 345  
Christchurch 8140

Ph: 03 353 9007  
Email: water.metering@ecan.govt.nz

Consent Holder: \_\_\_\_\_

Consent number: \_\_\_\_\_

Flowmeter Installation date: \_\_\_\_\_

Well/SWAP number(s): \_\_\_\_\_

Verification date: \_\_\_\_\_

**Flowmeter/Water Measuring Device details:** *(if not already provided on installation and commissioning form)*

Make: \_\_\_\_\_ Meter size: \_\_\_\_\_ (mm diameter)

Model: \_\_\_\_\_ Pulse output:  Yes  No

Serial number: \_\_\_\_\_ Volume per Pulse \_\_\_\_\_ **m<sup>3</sup>/puls**

Meter Reading Volume: \_\_\_\_\_ m<sup>3</sup> *(state units if different)*

**Datalogger details:**

Installed  Yes/ No

Make: \_\_\_\_\_

Model: \_\_\_\_\_

Serial number: \_\_\_\_\_

Telemetry installed for compliance:  Yes/ No Data hosted by: \_\_\_\_\_

**Insertion meters only:**

Encountered K-factor in the flow meter : \_\_\_\_\_

Correct  Yes  No

**Ultrasonic meters only:**

Transducer size encountered: \_\_\_\_\_ Transducer spacing: \_\_\_\_\_

Transducer mounting: \_\_\_\_\_ V or Z (Please circle, V = Reflect, Z = Direct) Correct  Yes  No

**Verification details:**

Is a clamp-on water meter used for verification:  Yes  No *(if no describe the method used) e.g. reservoir/time calculation, volumetric etc)*

Verification flow meter brand and type: \_\_\_\_\_

Verification flow meter serial number: \_\_\_\_\_

Last calibration date of the flow meter used for verification: \_\_\_\_\_

*(Calibration certificates needs to be send in (once) after every (yearly) calibration to ECan)*

**Verification parameters:**

Used parameters for verification: Pipe diameter: \_\_\_\_\_mm Pipe Wall Thickness \_\_\_\_\_mm

Pipe material:  Ductile Iron,  Mild Steel,  PVC,  Polyethelene,  Aluminium,  other : \_\_\_\_\_

Location in system where the clamp-on was attached: \_\_\_\_\_

**Measured flows:**

Undertake three separate observations and record and average the results in the table below.

Verification flows should be taken at or around the consented flow rate and/or the flow rate the well is usually pumped at.

If flows don't verify within 5% a second clamp-on location can/should be attempted.

	Location 1 Observation 1	Location 1 Observation 2	Location 1 Observation 3	Location 2 Observation 1	Location 2 Observation 2	Location 2 Observation 3	Average
installed meter flow: L/s							
verification flow meter: L/s							
% Difference							

**Certification:**

I/we certify that the above flowmeter/water measuring device has been verified and the measured flow is within 5% of the verification meter.

**OR (circle one)**

I/we have found that the installed flowmeter/water measuring device deviates more than 5% **above/below** the verified flow.

Recommend remedial action:

\_\_\_\_\_

Verified by: \_\_\_\_\_

Signed (by verifier): \_\_\_\_\_

Verifiers Certificate No \*: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

\* Each verifier will be registered by the manufacturer/supplier on having attended a verifier course for their equipment. ECan will keep a list of the approved verifiers and certificate numbers.

## Exercising of resource consent CRC175118

**It is important that you notify Environment Canterbury when you first start using your consent.**

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**GRANTED TO:** Central Plains Water Trust.  
**A WATER PERMIT (S14):** To take water from the Waimakariri River.  
**LOCATION:** Waimakariri River (lower and/or upper intake), KOWAI BUSH AND  
**SHEFFIELD**

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Even if the consent is replacing a previous consent for the same activity, you need to complete and return this page.

Providing this information will:

- Validate your consent through to its expiry date
- Minimise compliance monitoring charges
- Help provide an accurate picture of the state of the environment.

If consent CRC175118 is not used before 25 Jul 2020 this consent will lapse and no longer be valid.

**Declaration:**

I have started using this resource consent.

**Action taken:** (e.g. pasture irrigated, discharge from septic tank/boiler/spray booth etc).

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**Approximate start date (Note: this may be different to the date the consent was granted):** \_\_\_\_\_

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Full name of person signing (please print):** \_\_\_\_\_

**Please return to:**

Environmental Protection - Administration  
Environment Canterbury  
PO Box 345  
Christchurch 8140

**File: CRC175118**