
RESOURCE CONSENT CRC155937

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO: Selwyn District Council

A WATER PERMIT (S14): to divert, take and use water

COMMENCEMENT DATE: 28 Aug 2015

EXPIRY DATE: 05 Nov 2028

LOCATION: Springfield Township, SPRINGFIELD

SUBJECT TO THE FOLLOWING CONDITIONS:

- 1 The diversion of water from surface water bodies shall take place at the following map references:
 - a. Waimakariri Gorge intake of the Waimakariri River at or about map reference NZMS 260 L35:330-604;
 - b. Upper Kowai intake of the Kowai River at or about map reference NZMS 260 L35:167-628;
 - c. Lower Kowai intake of the Kowai River at or about map reference NZMS 260 L35:177-633;
 - d. Glentunnel intake of the Selwyn River at or about map reference NZMS 260 L35:243-463;
 - e. Bishop Creek booster of Bishop Gully Creek at or about map reference NZMS 260 L35:212-634;
 - f. Black Creek booster of Black Creek Spring at or about map reference NZMS 260 L35:315-462;
 - g. Springfield Creek booster number 1 of Springfield Creek at or about map reference NZMS 260 L35:249-627;
 - h. Springfield Creek booster number 2 of Springfield Creek at or about map reference NZMS 260 L35:242-626;
 - i. Skurrs Spring booster of Bishop Skurrs Spring at or about map reference NZMS 260 L35:338-580.

Stockwater

2 The maximum abstraction of water for stockwater purposes shall not exceed the rates specified below:

a. Waimakariri River take

Whenever the 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 is:

- i. greater than 63000 l/s, the rate at which water is taken from the Waimakariri River shall not exceed 800 l/s;
- ii. between 63000 l/s and 41000 l/s, the rate at which water is taken from the Waimakariri River shall not exceed 700 l/s;
- iii. less than 41000 l/s, the rate at which water is taken from the Waimakariri River shall not exceed 630 l/s.

b. Kowai River take

- i. the maximum rate of take at the upper Kowai intake shall not exceed 1,090 litres per second and the take at the lower Kowai intake shall not exceed 630 litres per second whenever the flow above the Selwyn District Council intake at or about map reference NZMS 260 L35:1687- 6299 is greater than 7,000 litres per second;
- ii. the maximum rate of take shall not exceed the corresponding rate on the vertical axis of the annexed Graph 1, supplemented by the corresponding part of Table One, whenever the flow above the Selwyn District Council intake at or about map reference NZMS 260 L35:1687- 6299 falls below the flows shown on the horizontal axis of the annexed Graph 1;
- iii. the take at the lower Kowai intake shall cease and the take at the upper Kowai intake may continue whenever the flow above the Selwyn District Council intake at or about map reference NZMS 260 L35:1687- 6299 is less than 425 litres per second.

c. Selwyn River take

Whenever the flows in the Selwyn River are:

- i. above 10,000 l/s the rate at which water is taken from the Selwyn shall not exceed 280 l/s;
- ii. between 9,999 l/s and 500 l/s, the rate at which water is taken from the Selwyn shall not exceed 250 l/s;
- iii. less than 500 l/s, the rate at which water is taken from the Selwyn shall not exceed 250 l/s.

d. other streams

The maximum rate of take for stockwater purposes from other streams shall not exceed the rates provided in the following table:

Intake location	Maximum rate of take
Bishop Gully Creek booster	500 litres per second
Black Creek Spring booster	500 litres per second
Springfield Creek booster No. 1	40 litres per second
Springfield Creek booster No. 2	20 litres per second
Skurrs Spring booster	60 litres per second

Irrigation

- 3 The abstraction of water for irrigation purposes:
- a. shall only be taken from the Kowai River at the locations described in conditions 1(b) and 1(c);
 - b. shall not exceed the rates specified below:
 - i. 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 are:
 - a. at or below 41000 l/s no water shall be taken for the next 24 hours;
 - b. between 63000 l/s and 41000 l/s, the maximum rate at which water is taken during the next 24 hours shall not exceed X m³/s where:

$$X=(u-41 \text{ m}^3/\text{s}) \times (a /22\text{m}^3/\text{s})$$

Where U =the unmodified flow and a = the maximum rate of take illustrated in the attached graph 2.
 - c. greater than 63000 l/s, the rate at which water is taken from the Kowai River shall not exceed the rate in condition (5).
- 4 The combined rate of take of water for irrigation and stockwater purposes from the Kowai River intakes in conditions (1)(b) and (1)(c) shall not exceed the rates specified in conditions (2)(b) with a maximum rate not exceeding 1720l/s.
- 5 The taking of water for irrigation under this consent shall only occur in conjunction with Resource Consent CRC061973 (to use water) or any variations or replacements of that consent.

Advice note: This consent does not authorise use of water for irrigation, this is authorised under Resource Consent CRC061973.

6 The rate at which water may be taken under this consent from the Kowai River for irrigation shall not exceed the rate required in conjunction with the water taken from the Waimakariri River under Resource Consent CRC061972 and the Rakaia River under Resource Consent CRC144919, or any variations of these consents and any other sources of water to the Central Plains Irrigation Scheme to:

- a. supply the irrigation demand from users of the Central Plains Irrigation Scheme to use the water in accordance with the conditions of resource consent CRC061973.

7 Water taken under this permit for irrigation is a secondary use to stockwater. In the event that the consent holder ceases to provide water to the Central Plains Irrigation Scheme, water shall no longer be taken for irrigation.

General Conditions

8 Prior to the first exercise of this consent, the consent holder shall surrender resource consent CRC012003 and any variations, or replacements of that consent.

9 The consent holder shall, before the first exercise of this consent, design, construct and commission fish exclusion structures to be applied near, at or within the Waimakariri, Kowai and Selwyn River intakes, subject to:

- a. The design of any fish screen shall be completed by a chartered professional engineer with experience in the design and operation of fish screens;
- b. Any fish screen shall as far as practical prevent the entrainment of fish in the race system;
- c. The design shall be approved by a fisheries biologist with post graduate qualifications in fisheries or a fisheries biologist with internationally recognised experience in fisheries research; and
- d. In carrying out the obligations under (a) and (b), the applicant shall consult with Fish and Game on the design parameters to be adopted;
- e. Prior to the installation of any fish screen(s), a report containing the approved design plans and illustrating how the fish screen(s) will meet the obligations in (b), (c) and (d) above, and an operation and maintenance plan for the fish screen(s) shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager; and
- f. A certificate shall be provided to the Canterbury Regional Council by the designer or supplier of the fish screen(s) to certify that the fish screen has been installed in accordance with the details provided to the Canterbury Regional Council in accordance with (e) of this condition;
- g. Any fish exclusion works shall be maintained in good working order. Records shall be kept of all inspections and maintenance, and those records shall be provided to the Canterbury Regional Council upon request.

- 10 The consent holder shall prior to the first exercise of this consent:
- a. Install a water level measuring device in a location that will enable the determination of the continuous rate of flow and volume of water being taken to within an accuracy of 10 percent.
 - b. The 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. The flow at the measuring site shall be gauged at least every twelve months whilst this consent is being exercised, and at any other time when required (for example, after flood events) as determined by a site inspection. Site inspections are to be carried out by the race operator at least once every month.
 - d. Gauging and site inspections shall be carried out in accordance with the following manuals: Hydrologists Field Manual (NIWA 1991) and Procedure for Rating a Flow Station (NIWA 1993) or any equivalent publication.
 - e. The level of water in the race, and times of abstraction, shall be recorded by tamper-proof electronic recording system such that the flow through the site is measured at least once every 15 minutes, and a record made either on site or at a remote location via telemetry of the total flow volume passing through the site in time increments not exceeding 60 minutes. The recorded data shall not be changed or deleted by any person, unless twelve months have passed since the date of recording.
- 11 The recording system shall:
- a. be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); or
 - b. store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then download and store in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or
 - c. be part of the consent holder's SCADA system which stores and forwards data on a quasi-continuous basis to the consent holder's base station where it is stored in an industry-standard database, and can be provided in a commonly accepted format to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or
 - d. 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. No data in the recording device(s) shall be deliberately changed or deleted.
- 12 Prior to water been taken for irrigation under this consent 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.

- 13 The recording device(s) referred to in condition (10) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval, including access to data recorded in accordance with condition (10)(b), subject to providing adequate protection against vandalism which may require the consent holder's assistance, on site, to gain access.
- 14 The measurement and recording system(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
- 15 All practicable measures shall be taken to ensure that the flow measurement and recording systems(s) are fully functional at all times.
- 16 Within one month of the installation of the measuring or recording device(s), or any subsequent replacement of the measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
- a. the measuring and recording system(s) have been installed in accordance with the manufacturer's specifications; and
 - b. data from the recording device(s) can be readily accessed and/or retrieved; and
 - c. the current accuracy of the measuring and recording devices, and supporting information containing details of the calibration test.
- 17 The consent holder shall maintain the 'Stockwater Race Management Plan' (Management Plan) dated 30 July 2013, provided to the Canterbury Regional Council in accordance with Resource Consent CRC012003 that sets out the practices and procedures for the operation and maintenance of the network, that are to be adopted to ensure that compliance with the conditions under resource consent can be achieved.
- 18 The Management Plan shall include, but not be limited to, the provision of practices and procedures that ensure the following:
- a. All systems, procedures and processes enable the effective and efficient management of the network;
 - b. Appropriate monitoring and reporting is undertaken in accordance with the resource consent conditions;
 - c. Water users are informed of their obligations in respect of taking water from the network;
 - d. Systems, procedures and processes to recognise and minimise adverse effects of management practices on the environment.
- 19 In particular the Management Plan shall address the following:
- a. A description of the intakes and their locations;
 - b. Methods for recording and reporting on water use and a description of water measuring devices including calibration or meters or gauging assessment required;
 - c. Methods of improving the efficiency of the use and transport of water distributed via the scheme;

- d. Operational procedures, including during floods and droughts;
- e. Methods and procedures for undertaking in-stream works;
- f. Maintenance procedures for the raceways including race cleaning;
- g. A description of known sites with high natural or ecological values;
- h. Methods and procedures for ensuring that management activities, particularly those carried out under (d), (e) and (f), avoid, remedy or mitigate adverse effects on sections of the race system known to have high natural or ecological values.
- i. Methods and procedures for monitoring water quality in the races and the discharges;
- j. Stakeholder consultation and reporting;
- k. Ecological investigations required. A major study of the full length of every race is not required. A focused sampling programme is required to identify important places, habitats and species. Once identified, new places or sections of races of ecological value will be included in an appendix to the management plan, and provided race operation for stockwater use is not compromised, the management plan will be amended to provide for their protection.

- 20 Subject to any other conditions of these consents, all activities shall be undertaken in accordance with the latest version of the Management Plan.
- 21 The consent holder may amend the Management Plan as required, and at least once every two years shall provide to the Canterbury Regional Council a report indicating amendments that have been made to improve the operational efficiency of the Scheme and/or to reduce adverse environmental effects. Any such amendments to the Plan shall be undertaken in consultation with race users, maintenance contractors, and stakeholders including Fish and Game Council (F&G), Department of Conservation (DoC) and the Canterbury Regional Council, and with reference to the "Malvern Stockwater Scheme Efficiency Study Sept 2007" the efficiency audit required under the conditions of Resource Consent CRC012003.
- 22 The consent holder shall provide a copy of the amended Management Plan to the Canterbury Regional Council prior to its implementation specifying the objectives and the minimum requirements intended to meet those objectives.
- 23 The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of resource consents CRC012002, CRC147355, CRC012004 for the purposes of:
- a. Dealing with any adverse effect on the environment which may arise from the exercise of this resource consent, including:
 - i. effects on a waterway arising from taking of water,
 - ii. effects of works in the riverbeds,
 - iii. effects on a waterway arising from discharges, and

- iv. effects on ecological or natural values present in the races;
- v. altering the rate of taking to correspond with the actual rate of water usage;
- vi. requiring the implementation of measures, including any identified in the review (Malvern Stockwater Scheme Review) undertaken in accordance with condition (20) of CRC012003, to monitor and/or reduce loss of water and to improve efficiency of water use;
- vii. reviewing the Stockwater Race Management Plan; and
- viii. requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

24 The lapsing date for the purposes of section 125 shall be 30 September 2018.

Issued at Christchurch on 21 June 2017

Canterbury Regional Council

CRC155937 Condition (2)(b)

Graph 1:

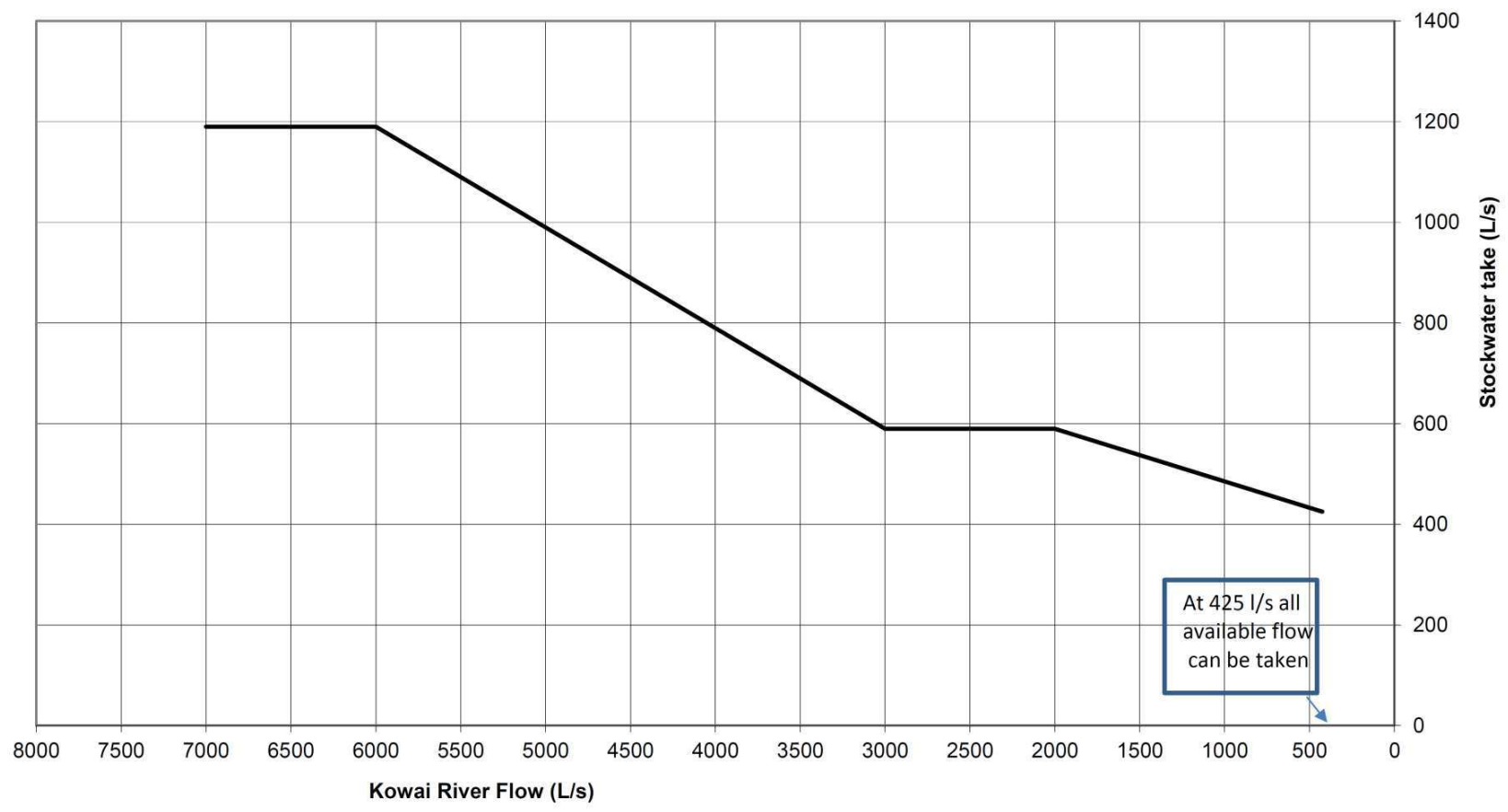
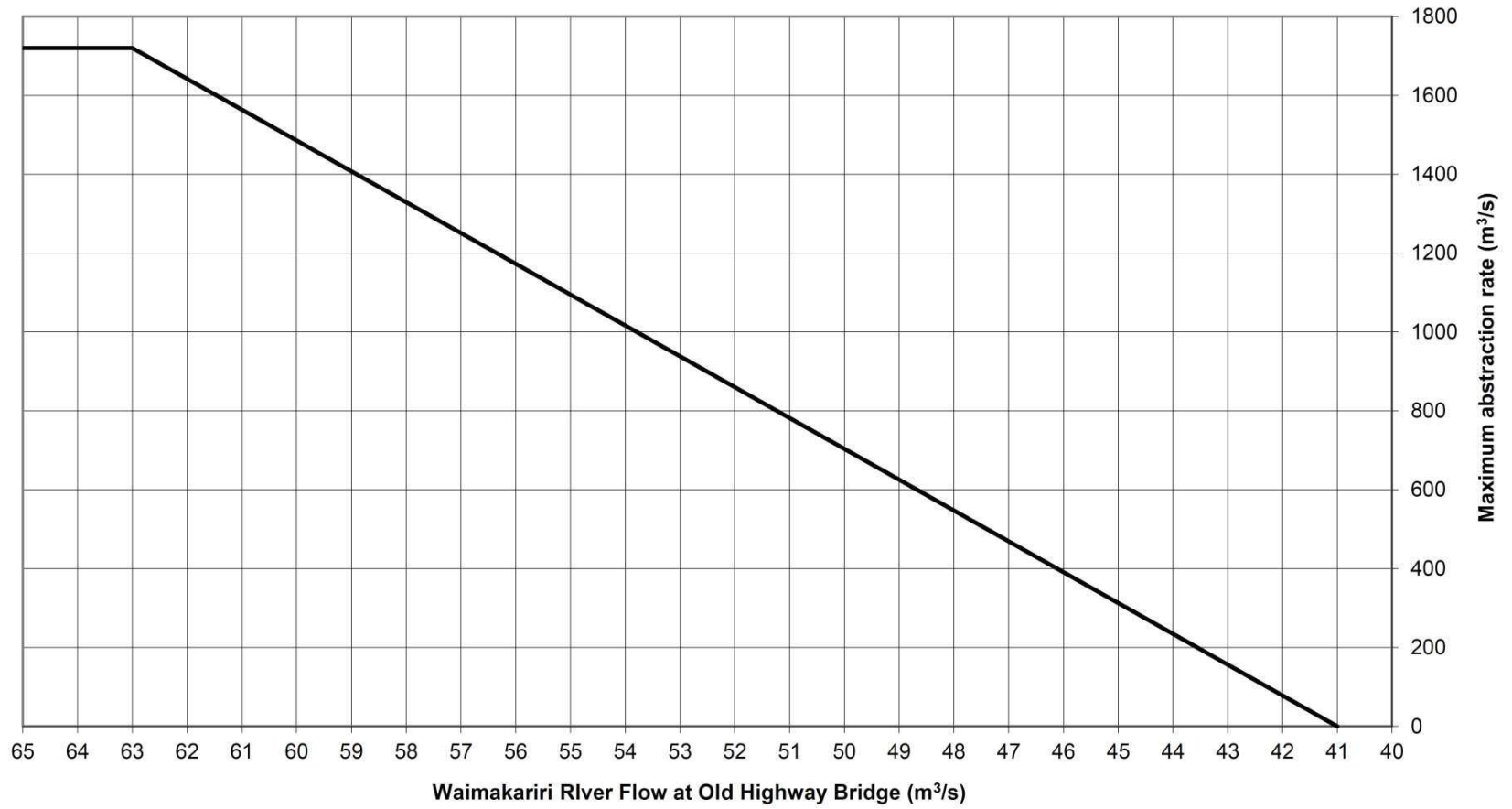


Table one:

Flow in Kowai River (L/s)	Maximum Volume that can be taken for Stockwater (L/s)
Greater than 7,000	full rate can be taken
6,000-7,000	1,190
3,000-6,000	Relationship as shown in Graph 1
3,000 – 2,000	590
2,000 –425	Relationship as shown in Graph 1
Less than 425	All available water at Upper Intake can be taken and no take from Lower Intake

CRC155973 Condition 3(b) Graph 2:



Exercising of resource consent CRC155937

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

GRANTED TO: Selwyn District Council
A WATER PERMIT (S14): to divert, take and use water
LOCATION: Springfield Township, SPRINGFIELD

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 CRC155937 is not used before 30 Sep 2018 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).

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: CRC155937