

CRC061972 Take water from the Waimakariri River at a maximum rate of 24m³/s

This application has had the use portion of the application removed. The use of water has been combined with the use of water from the Rakaia River. To take and use water from the Waimakariri River at a maximum rate of 40 cubic metres per second via the Waimakariri water intake system, for the purposes of irrigation of up to about 60,000 hectares of land within the Scheme Area, for water storage, and for ancillary purposes associated with the operation of the Central Plains Water Enhancement Scheme. A consent with a duration of 35 years is sought.

Proposed conditions:

1. The intake shall be installed near the upstream edge of the designated band shown in Plan CRC061792.

2. The rate at which water is taken from the Waimakariri River shall not exceed 24 cubic metres per second.

3. 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: 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 may 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 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.

(v) ~~Water shall not be taken at any time if the effect will be, taking into account travel time, to cause the unmodified flows as measured at the Old Highway Bridge to be reduced below 76.1 cubic metres per second between 7am and 7pm on Saturdays and Sundays, each weekend between November and March inclusive, and on all public holidays, and on every day during the period commencing the Friday before Christmas each year through to the end of February, and between 3pm and 8pm on Mondays, Wednesdays and Fridays in November and March.~~

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4. No water shall be taken during the Coast to Coast event.

5. Water shall only be taken for irrigation including on-farm storage to be used under consent CRC061973. The total volume of water taken for storage from 1 May to 31 August each year under this consent and consent CRC021091 shall not exceed 45,000,000 cubic metres.

6. Fish screens

(a) The consent holder shall install, operate and maintain a fish screen in accordance with the NIWA publication Fish Screening: Good Practice Guidelines for Canterbury, October 2007 , NIWA Client Report CHC2007- 092 at the entrance to the irrigation canal. Water shall be diverted through the fish screen into the canal only when the fish screen is operated in accordance with the following provisions:

(i) the fish screen shall cross the full width of the irrigation canal to prevent fish bypassing the screen into the canal;

(ii) the screen material voids shall be no greater than 3 millimetres for a mesh screen or 2 millimetres wide for a slotted screen. For the purpose of this clause, the measurement for a mesh shall be the side of a square;

(iii) the screens shall have an approach velocity perpendicular to the face of the screen of no greater than 0.12 metres per second;

(iv) the sweep velocity across the screens shall exceed the approach velocity;

(v) 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;

(b) each fish screen shall be inspected at a frequency no greater than 48 hours, or 24 hours when the Waimakariri River flows exceed 200 cubic metres per second as estimated by Environment Canterbury from measurements taken at the Old Highway Bridge (at or about map reference NZMS 260 M35: 818- 547. Details of the inspections shall be recorded and made available to the Canterbury Regional Council upon their request

(c) in the event that a screen is damaged so as to be rendered less effective at excluding fish from the canal, the consent holder shall repair or replace the screen immediately, or shall shut down the screen such that water ceases to pass through it. In the event that a screen is shut down, it shall not be reopened until such time as it complies in full with the provisions of condition 5(a) of this consent;

(d) All incidence of screen shut down shall be recorded by the consent holder and reported to Fish and Game New Zealand within four hours. These records of screen failure shall be forwarded to the Canterbury Regional Council to the attention of the Compliance and Enforcement Manager, at the end of each irrigation season, or upon request.

(e) The design plans for the fish screen shall be certified by a suitably qualified and experienced chartered engineer with experience in the design and operation of fish screens and / or a fisheries biologist with recognised experience in fisheries research to confirm that the design, function and operation of the screen is in accordance with the guidelines detailed in condition 5(a).

(f) Prior to commencement of construction:

(i) the consent holder shall provide to the Canterbury Regional Council:

(a) the certified design plans showing the screen slot or mesh size, sweep velocity, approach velocity, and a by-pass which returns fish to an actively flowing braid of the Rakaia River;

(b) a report from the certifying engineer or fisheries biologist which certifies and explains how the certified design and operation of the screen demonstrates compliance with the guidelines detailed in condition 5(a).

(ii) the Canterbury Regional Council shall certify the design plans within 20 working days of receipt of those plans. The Certifier's report shall not be unreasonably withheld, and shall be forwarded to the consent holder and copied to the North Canterbury Fish and Game Council.

7. Safety at intakes

(a) Prior to the taking of water pursuant to 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 Waimakairiri River.

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(b) The safety features of the intake structure shall be designed in consultation with the Whitewater New Zealand and the New Zealand Jet Boat Association.

(c) The performance objective to be achieved by the safety features will be an overall International Grade 2 standard suitable for racing kayaks. These shall generally be in accordance, where relevant, with USA Grade 2 definition, i.e. "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 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 can 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 to the bottom of the river bed, except that this condition shall not apply when the river is in flood.

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(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

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(ii) A person with experience in water safety, particularly for recreational boating and kayaking on rivers.

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(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:

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(i) The certified design plans;

(ii) A report from the certifiers which certifies the design and operation of the safety features on the intake structures which demonstrates best practice in achievement of Condition 7 (a) to (d)

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(g) 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

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days of receipt of the plans and the certifiers report referred to in Condition 67 (f) (ii), and such approval shall not be unreasonably withheld.

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(f) 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 7 (g).

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(g) 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 6(d).

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(h) Prior to the first exercise of this consent, the consent holder shall erect and maintain two signs warning of the intake structure at two locations upstream from the intake. The signs shall be visible on the banks and by in-river users and the location, size and wording shall be developed in consultation with Whitewater New Zealand and to the approval of the Canterbury Regional Council.

(i) 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.

(j)The consent holder shall invite Whitewater NZ and the NZ Jet Boat Association to the initial commissioning of the intake.

(j) 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 and the New Zealand Jet Boat Association to observe and participate in those tests, and
- (ii) shall invite Whitewater NZ and the New Zealand Jet Boat Association to comment on potential modifications to design and operation, and
- (iii) shall report to the Canterbury Regional Council on the tests including recommended modifications to design and operation and including comments made by Whitewater NZ and the New Zealand Jet Boat Association.

(k) 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 7 (c) and (d) refer are achieved on a continual basis.

8. Prior to the first exercise of this consent, the consent holder shall erect and maintain two signs warning of the intake structure at two locations upstream from the intake. The signs shall be visible on the banks and by in-river users and shall be located in consultation with White Water New Zealand and to the approval of the Canterbury Regional Council.

9. All commercial users and recreational boat clubs shall, as far as is practicable, be informed in writing 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.

10. 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.

(i) 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.

(b) install a tamper-proof electronic recording device such as a data logger(s), which is telemetered, as specified in clause (c).

(c) 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.

(d) The water measuring and recording devices described in clauses (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 (c).

(e) All data from the recording device described in clause (b), and the corresponding relationship between the water measuring device (a(i)), shall be provided to the Canterbury Regional Council annually in the month of June.

11. Within six months of the installation of the water measuring or recording device(s), specified in condition (12), 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 manufacturers specifications; and

(b) data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (ii) and (iii) of condition 9(d) above.

12. This consent is subject to the conditions listed in Schedule 2: Administrative Conditions.