

CRC061940 Divert water from the Rakaia River for irrigation, sediment sluicing and fish passage

To divert water within the Rakaia River towards the Rakaia water intake system to enable the taking of water from the Rakaia River for irrigation and ancillary purposes, and for sediment sluicing and fish pass purposes within the Rakaia water intake system and through the headrace and distribution network as described in Schedules A1 and A2, which includes water being diverted within the headrace and distribution network both above and below ground level. A consent with a duration of 35 years is sought.

Proposed conditions:

1. The diversion of water shall only be located in the Rakaia River between map references NZMS 260 K36: 078-387 labelled "diversion" on attached Plan CRC061940.
2. Water may be diverted at a rate not exceeding 80 cubic metres per second.
3. The diversion shall not prevent the passage of fish, or cause the stranding of fish in pools or channels
4. The diversion shall not obstruct or alter the passage of water in a manner that causes:
 - a. Any increase in the risk or potential for flooding of surrounding lands;
 - b. Any destabilising of lawfully established structures within the beds of rivers;
 - c. Any increase in erosion of river beds or banks;
5. The diversion of water shall be undertaken in accordance with the conditions in Schedule 2: Administrative Conditions attached to this consent.
6. The consent holder shall ensure that the freeboard of the headrace is a minimum of 0.75 metres.
7. A copy of this resource consent shall be given to every person involved in the construction, operation and maintenance of the headrace prior to their involvement.
8. The consent holder shall engage a Chartered Professional Engineer with experience in water retaining structures to certify that the design of the headrace and its construction are in accordance with good engineering practice including being consistent with the NZSOLD Dam Safety Guidelines and the requirements of the Building Act 2004. This certificate shall be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager prior to the first filling of the headrace.
9. Prior to first filling of the headrace, a headrace safety assurance plan (safety assurance plan) shall be produced by a recognised engineer, as defined by the Building Act 2004 (recognised engineer), outlining a program of inspections and quality assurance for the headrace. The safety assurance plan shall be developed consistent with the New Zealand Society on Large Dams, New Zealand Dam Safety Guidelines (NZSOLD) dam safety guidelines and shall be certified as appropriate by a recognised engineer. The safety assurance plan shall be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager prior to the first filling of the headrace. The safety assurance plan shall as a minimum:

- a. be consistent with the principles of the NZSOLD dam safety guidelines and the requirements of the Building Act 2004;
 - b. address the distinctive requirements of both the headrace filling stage and the scheme operational stage;
 - c. include a monitoring system (which may include piezometers and visual inspections) capable of detecting warning signs reliably and accurately;
 - d. specify an efficient organisational approach that records, processes, evaluates and reports the observations;
 - e. include trigger levels for observational results that are considered to require action;
 - f. include a strategy of actions to be taken in the event of unacceptable observational results such as leakage or slope movements.
10. Certification documents and any reports required under the safety assurance plan shall be submitted to the Canterbury Regional Council, Attention RMA Compliance and Enforcement Manager annually or as required by the safety assurance plan.
11. The consent holder shall adhere to the safety assurance plan at all times.

CRC061943 Divert water from the Waimakariri River for irrigation, sediment sluicing and fish passage

To divert water in the Waimakariri River towards the Waimakariri water intake system to enable the taking of water for irrigation and ancillary purposes, and for sediment sluicing and fish passes within the Waimakariri water intake system and through the headrace and distribution network as described in Schedules A1 and A2, which includes water being diverted within the headrace and distribution network both above and below ground level. A consent with a duration of 35 years is sought.

Proposed conditions:

1. The diversion of water shall only be located in the Waimakariri River at about map reference NZMS 260 L35: 328-603, labelled "diversion" on attached Plan CRC061943.
2. Water may be diverted at a rate not exceeding 40 cubic metres per second.
3. The diversion shall not prevent the passage of fish, or cause the stranding of fish in pools or channels
4. The diversion shall not obstruct or alter the passage of water in a manner that causes:
 - (a) Any increase in the risk or potential for flooding of surrounding lands;
 - (b) Any destabilising of lawfully established structures within the beds of rivers;
 - (c) Any increase in erosion of river beds or banks.
5. The diversion of water shall be undertaken in accordance with the conditions in Schedule 2: Administrative Conditions attached to this consent
6. The consent holder shall ensure that the freeboard of the headrace is a minimum of 0.75 metres.

7. A copy of this resource consent shall be given to every person involved in the construction, operation and maintenance of the headrace prior to their involvement.
8. The consent holder shall engage a Chartered Professional Engineer with experience in water retaining structures to certify that the design of the headrace and its construction are in accordance with good engineering practice including being consistent with the NZSOLD Dam Safety Guidelines and the requirements of the Building Act 2004. This certificate shall be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager prior to the first filling of the headrace.
9. Prior to first filling of the headrace, a headrace safety assurance plan (safety assurance plan) shall be produced by a recognised engineer, as defined by the Building Act 2004 (recognised engineer), outlining a program of inspections and quality assurance for the headrace. The safety assurance plan shall be developed consistent with the New Zealand Society on Large Dams, New Zealand Dam Safety Guidelines (NZSOLD) dam safety guidelines and shall be certified as appropriate by a recognised engineer. The safety assurance plan shall be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager prior to the first filling of the headrace. The safety assurance plan shall as a minimum:
 - a) be consistent with the principles of the NZSOLD dam safety guidelines and the requirements of the Building Act 2004;
 - b) address the distinctive requirements of both the headrace filling stage and the scheme operational stage;
 - c) include a monitoring system (which may include piezometers and visual inspections) capable of detecting warning signs reliably and accurately;
 - d) specify an efficient organisational approach that records, processes, evaluates and reports the observations;
 - e) include trigger levels for observational results that are considered to require action;
 - f) include a strategy of actions to be taken in the event of unacceptable observational results such as leakage or slope movements.
10. Certification documents and any reports required under the safety assurance plan shall be submitted to the Canterbury Regional Council, Attention RMA Compliance and Enforcement Manager annually or as required by the safety assurance plan.
11. The consent holder shall adhere to the safety assurance plan at all times.