

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

**UNDER** The Resource Management Act 1991

**AND**

**IN THE MATTER OF** Applications CRC210621 and CRC211795 by Drains and Developments Limited for a land use consent and a discharge permit to associated with gravel excavation from the Waimakariri River

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**DECISION OF HEARING COMMISSIONER**

**BIANCA SULLIVAN**

**Dated 8th December 2021**

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## **BACKGROUND AND PROCEDURAL MATTERS**

1. This is the decision of independent hearing commissioner Bianca Sullivan. I was appointed by the Canterbury Regional Council (CRC) to hear and decide these consent applications by Drains and Developments Limited (DDL or the applicant) pursuant to the Resource Management Act 1991 (RMA or 'the Act'). The applications seek to excavate material from the riverbed (CRC210621) and the associated discharge of dust to air (CRC211795) in the bed of the Waimakariri River at the end of Cooks Road.
2. The applications were lodged in August 2020, with land use consent application CRC210621 lodged initially, followed by air discharge application CRC211795. These are new applications although the applicant has previously extracted gravel from this area under the consent held by Burnside Contractors Limited.
3. The applications were limited notified on 24 March 2021 to six parties, as outlined in Ms Wilson's s42A report. Submissions were received from Southern Screenworks Limited and Burnside Contractors Limited, who both operate in areas that overlap with that proposed by DDL. Both opposed the application with only Burnside Contractors Limited wishing to be heard in support of their submission. The details of their submissions are discussed later in this decision.
4. The section 42A report was prepared by Ms Saskia Wilson and dated 9 September 2021. It was followed by statements of evidence dated 28 October 2021 from Mr Philip Sutherland, a Director of DDL, and Ms Keri Harrison, a Director of Tui Creek Consulting. Ms Harrison also prepared the application documents.
5. The s42A report and evidence were circulated to the parties in accordance with timeframes specified in the RMA, in preparation for a hearing scheduled for Monday 22 November 2021. A statement was then received on 10 November from John Scheele (Senior Consultant Planner at Resource Management Group) on behalf of John Taylor, Director for Burnside Contractors Limited, and Brett Swain, Managing Director for Southern Screenworks Limited. This statement outlined their remaining concerns for my consideration in lieu of them attending the hearing.
6. Following review of the submitters' statement, the applicant indicated that they did not seek to be heard. Following a review of the information, I determined that the hearing was not necessary. This decision is therefore prepared based on the papers only.
7. I have not visited the site but am familiar with both the area and the operation of these types of activities.

## **THE APPLICATION**

8. The application is described in detail in section 3 (page 5) of the AEE, in the evidence of Ms Harrison and is summarised in Ms Wilson's section 42A report at paragraphs 23 to 26. I consider this summary to be an accurate description of the application and adopt it for the purposes of this decision.

9. As a very brief summary, a land use consent (CRC210621) is sought to excavate up to 50,000 m<sup>3</sup> of gravel, sand and other natural material over a five-year period within the area specified in Figure 4 of Ms Harrison's evidence. Associated with the excavation is the stockpiling of gravel and the erection, use and removal of temporary culverts within the bed of the Waimakariri River.
10. A discharge permit is also sought (CRC211795) to discharge contaminants to air, primarily dust, from the proposed gravel excavation, handling and stockpiling of gravel.
11. The applicant seeks a 5-year duration for each consent, which includes a one-month period to remediate the site.

## **SUBMISSIONS**

12. As stated above, the applications were limited notified on 24 March 2021, with submissions received from Southern Screenworks Limited and Burnside Contractors Limited. Both submitters have consents to excavate gravel from areas which overlap with that sought by the applicant, and it is of note that the applicant has operated under Burnside Contractor's consent. Both submitters opposed the application.
13. I have read both submissions in full and consider that Ms Wilson's summary from paragraphs 15 to 17 is complete and accurate. I adopt it for the purposes of this report. I note Ms Wilson's Figure 2, which shows the overlapping abstraction areas of the applicant and submitters.
14. Mr Scheele's statement on behalf of the submitters was provided after Ms Wilson's s42A report and the evidence of the applicant. Mr Scheele acknowledged that there is sufficient gravel resource available within DDL's proposed excavation area, however he emphasised the key points made in the submissions:
  - a. operational safety concerns with multiple consent holders operating in an overlapping area,
  - b. access to the overlapping area with an additional consent holder in addition to the two existing consent holders
  - c. Inconsistency between consent conditions applying to each operator leading to potential difficulties for Environment Canterbury to monitor and enforce the parties' consent conditions.
15. These matters are discussed further below. I note that the submitters acknowledge that they are trade competitors for the purposes of section 308B of the RMA. I accept that the submissions are valid and do not relate to trade competition when considered against section 308B(2).

## **CONSIDERING THE APPLICATION**

16. I have considered all relevant documentation that applies to these applications for the purposes of my assessment in the following sections, and for my final decision. This includes the application, AEE, the submissions, the section 42A report, statement of evidence, and the submitters' statement.

## Status of the application

17. There was no dispute as to the applicable plans and status of the activities. The land use consent is considered to be a discretionary activity under rule 7.4 of the Waimakariri River Regional Plan (WRRP). Plan Change 2 to the WRRP does not affect this. The discharge permit is considered to be a discretionary activity under rule 7.63 of the Canterbury Air Regional Plan (CARP).

## Statutory considerations

18. Sections 104, 104B, and 105 of the RMA dictate the matters which I must consider in making this decision.
19. Section 104(1) lists the matters that I must have regard to in considering the application, stating that:

*When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to—*

  - (a) any actual and potential effects on the environment of allowing the activity; and*
  - (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
  - (b) any relevant provisions of—*
    - (i) a national environmental standard:*
    - (ii) other regulations:*
    - (iii) a national policy statement:*
    - (iv) a New Zealand coastal policy statement:*
    - (v) a regional policy statement or proposed regional policy statement:*
    - (vi) a plan or proposed plan; and*
  - (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.*
20. Section 104B of the RMA states that I can grant or refuse an application that is a discretionary activity and, if granted, may impose conditions under section 108.
21. Section 105 applies to discharge permit application CRC211795 and requires that, in addition to the matters in section 104(1), I must have regard to
  - (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
  - (b) The applicant's reason for the proposed choice; and*
  - (c) Any possible alternative methods of discharge, including discharge to any other receiving environment.*
22. These sections of the RMA are considered in turn below.

## SECTION 104(1)(a) – ACTUAL AND POTENTIAL EFFECTS ON THE ENVIRONMENT

## **The existing environment**

23. Before addressing the actual and potential effects of the proposed activity, I must consider the environment against which the effects are assessed. This includes lawful existing activities, consented activities and permitted activities.
24. The affected environment is described in section 17 of the AEE and additional information is provided in paragraphs 27 to 29 of the section 42A report. There was no disagreement over the existing environment to be considered for this application and I adopt the description in the s42A report for the purposes of my decision. Of note, the existing environment includes the resource consents already granted to the submitters.
25. No evidence was provided to suggest that the permitted baseline, as provided for by section 104(2), should apply in this case.

## **Considering the effects**

26. There was no dispute between the parties as to the scope of effects that should be considered. The following actual and potential effects were considered in the s42A report:
  - a) effects on bed and bank stability and flood carrying capacity of the Waimakariri River;
  - b) effects of an unreasonable allocation;
  - c) effects on water quality and ecosystems;
  - d) effects arising from the discharge of dust to air;
  - e) cumulative effects;
  - f) effects on water users;
  - g) effects on amenity values, people and communities;
  - h) effects on Tangata Whenua values; and
  - i) positive effects.
27. I have considered these effects in making a decision on these applications. In general, I accept the conclusions of the s42A report. Further discussion is provided below, with a focus on the key matters of contention.
28. In relation to a) above, the parties have deferred to advice from members of Environment Canterbury's Rivers team. They have advised that there is sufficient gravel within the proposed extraction area, with the mitigations proposed, to provide for the applicant, as well as the volumes authorised to be extracted by Southern Screenworks and Burnside Contractors, while ensuring that there would be not more than minor adverse effects on the bed and bank stability and the flood carrying capacity of the Waimakariri River. I note the importance of the applicant undertaking surveys prior to commencing excavation to determine the available gravel above the minimum bed levels. This is included as a consent condition and accepted in Ms Harrison's evidence. I also note the importance of a Memorandum of Agreement (MoA) for operators who have overlapping areas, although such an agreement would be outside of consent conditions.
29. In relation to b) above, Ms Wilson's s42A report at paragraph 80 states that Environment Canterbury takes a precautionary approach to allocation gravel through resource consents. The application demonstrates that DDL have a source for the volume of gravel that they seek to abstract, and I agree with Ms Wilson that this would not be an unreasonable allocation.

30. In relation to c) above, I agree that the proposed mitigation, included in the conditions proposed in the s42A report and accepted in the evidence of Ms Harrison, will ensure that the effects on water quality and ecosystem values will be no more than minor. The Waimakariri River is an ecologically sensitive site and the proposed conditions are intended to avoid or minimise effects on water quality and disturbance to breeding birds.
31. In relation to d) and similar to c) above, I agree with Ms Wilson that the mitigation included in the proposed consent conditions (for CRC211795), and accepted in the evidence of Ms Harrison, will result in the discharge of dust to air being no more than minor. Again, as stated above for c), I assume that the applicant will comply with these consent conditions and that Environment Canterbury will take appropriate enforcement action if they do not.
32. In relation to e) above, I accept that the mitigation proposed through consent conditions will result in the cumulative effects being no more than minor. If I grant this consent application, I encourage the applicant and submitters to consider entering into a MoA. If this is not possible, the proposed conditions require DDL to inform the submitters of their intention to operate at least five working days prior to the works commencing. DDL would also be required to take photos of the extraction area before and after the works and provide these to Environment Canterbury. It is also essential that the proposed Extraction Management Plan (EMP) is adhered to.
33. I acknowledge the concerns of both submitters that the applicant did not comply with consent conditions when operating under consents held by other parties. I also acknowledge the submitters' concerns that it would be difficult for the Council to identify which party had breached consent conditions should a breach occur.
34. I must assume that the applicant will comply with the conditions of consent, should I grant these applications, and I have no proof in front of me to suggest a poor compliance history – for example, non-compliances recorded against the consents or abatement notices issued. However, if I decide to grant these applications I would encourage the submitters to inform Environment Canterbury should they be aware that DDL is not complying with its consent conditions.
35. I note that Mr Sutherland states at paragraph 24 of his evidence that *“DDL has demonstrated that they are regularly complying with the requirements of resource consents that it is exercising on behalf of clients”*. I would like to point out to Mr Sutherland that *“regularly complying”* is not good enough and that resource consents MUST be complied with at all times. As a Director of DDL it is his responsibility to ensure that this occurs, otherwise he could be prosecuted.
36. In relation to f) above, I note that there is a surface water abstraction point (L35/0929) located adjacent to the proposed excavation area, and that two other resource consents (CRC185187 and CRC185863) to abstract water have been granted in the area. While this abstraction point is currently not used, it is reasonable to require mitigation to ensure it is not adversely affected by the applicant's proposed activities. Ms Wilson states that a condition is proposed to ensure that works occur at least 50 m from this abstraction point. I assume that this is intended to be covered by proposed condition 9(b) which requires a setback of 50 m from *“stopbanks and any other structures”*. If I decide to grant this application, I consider that this should explicitly state separation from authorised water abstraction points.

37. In relation to g) above, Ms Wilson refers to the Rakaia River at paragraphs 120 and 122 however I assume that her statements apply to the Waimakariri River. The proposed hours of operation are restricted to 7 am to 7 pm Monday to Friday, excluding public holidays. This ensures that no work occurs on weekends and public holidays when recreational use is higher. It is consistent with the Council's River Extraction Code of Practice (CoP) and I agree that this will reduce the adverse effects on amenity values, people and communities.
38. In relation to h) above, the proposed excavation area is located within a Rūnanga Sensitive Site (Mahinga Kai and Ara Tawhito). The applicant's assessment against the Mahaanui Iwi Management Plan (IMP) concludes that the proposed mitigation is sufficient to avoid effects on the mauri and wairua of the awa. Ms Wilson sought comment from Mahaanui Kurataio Limited on behalf of Te Ngāi Tūāhuriri Rūnanga and Te Taumutu Rūnanga prior to the limited notification of the applications. In response, the rūnanga considered that the application should be declined, as the activity disturbs the natural flow of the river, affects water quality and indigenous species habitat, thus affecting the mauri. They consider that gravel excavation is poorly managed and policed. Notice was served on Te Ngāi Tūāhuriri Rūnanga and Te Taumutu Rūnanga however no submission was received. I acknowledge the Rūnanga concerns and return to this effect further below.
39. In relation to i) above, section 104(1)(ab) of the RMA requires me to have regard to positive effects. I accept that there would be positive effects from the proposed activity, and these are discussed in the s42A report (paragraphs 135-136) and application (pages 31-32). These positive effects include those associated with weed removal and improving the flood carrying capacity of a river. Gravel removal also provides material that is used in the community.
40. In conclusion, and returning to the concerns of Rūnanga, I have concluded above that the effects on the environment, other than effects on tangata whenua values, will be no more than minor resulting from the proposed activities. This is largely based on the proposed mitigation including: no works in or immediately adjacent to flowing water; survey requirements to ensure bed levels are managed; separation distances to flowing water, river banks and stops banks; measures to address adverse effects on bird breeding or nesting sites; and the requirement to prepare and adhere to an EMP.
41. Rūnanga ascertain that gravel extraction is poorly managed and policed however, as stated above, I have no evidence to support this and must assume that the conditions imposed on this consent, if granted, will be complied with. I also assume that Environment Canterbury will adequately monitor compliance with the conditions and enforce the consent requirements if they are not adhered to. Based on the evidence in front of me, I conclude that the overall effects on the environment from the proposed activities will be no more than minor.

#### **SECTION 104(1)(b) – RELEVANT PLANNING PROVISIONS**

42. Section 104(1)(b) requires me to have regard to any relevant provisions of statutory planning documents. Ms Wilson's section 42A report at paragraphs 139 to 188 contains what I consider to be a complete record of the relevant documents and provisions, assessing the application against the relevant provisions of the Resource Management (National Standards for Freshwater) Regulations 2020 (NESF), National Policy Statement for Freshwater Management 2020 (NPS-FM), Canterbury Regional Policy Statement (RPS), the WRRP and the CARP. The provisions of these documents are also discussed in section 4 of the application.

43. I have considered the relevant objectives and policies of these statutory documents in making my decision. I agree with Ms Wilson and the application that no consents are required under the NES-F. I consider the NPS-FM to be a key document for this application, in part because it was gazetted after the development of the RPS and WRRP. These planning documents therefore were prepared without consideration of the NPS-FM.
44. I have had regard to the NPS-FM objective and policies, in particular Te Mana o te Wai. This requires the resource to be managed in a way that prioritises the health and well-being of water bodies and ecosystems first, the health needs of people (drinking water) second, and the ability of people and communities to provide for their social, economic and cultural well-being third. I consider that the proposed mitigation will ensure that the health and well-being of the water body is prioritised.
45. In relation to the RPS, CARP and WRRP, I agree with Ms Wilson's assessment at paragraphs 169 to 182 of the s42A report and adopt this as part of my decision.

### **SECTION 104(1)(c) – OTHER MATTERS**

46. Ms Wilson lists the Mahaanui IMP and the Canterbury Regional River Gravel Management Strategy (GMS) as matters to be considered under section 104(1)(c) of the RMA. These are also assessed in the application. I have had regard to these documents in making my decision.
47. With regard to the GMS, I agree with Ms Wilson that the proposed activities are consistent with the framework specified in the GMS.
48. The Mahaanui IMP seeks to ensure that the rights and interests of Ngāi Tahu are provided for. It also requires ki uta ki tai and the recognition of water for its intrinsic values, as well as improvement of water quality so it can provide for an awa's mauri. The rūnanga response to the application is that the proposal is contrary to policies WM12.21, P11.6, P11.8 and P11.9 of the Mahaanui IMP. In considering this, I refer to my discussion on the effects on tangata whenua values at paragraph 38 and my conclusions about the overall effects of the activity at paragraphs 40 to 41. I acknowledge the cultural significance of the Waimakariri River and also the concerns of both rūnanga, however I do not have sufficient evidence before me to suggest that the proposed activities are contrary to the Mahaanui IMP.

### **SECTION 105**

49. I have had regard to the matters listed in section 105(1) of the RMA which are additional requirements for discharge permits. They therefore only apply to CRC211795.

### **PART 2 OF THE RMA**

50. Section 104(1) of the RMA states that the matters to be considered must be done so subject to Part 2. The Court of Appeal's decision in *RJ Davidson v Marlborough District Council*<sup>1</sup> was referred to by Ms Wilson in her s42A report. This decision clarifies how to approach the directive by section 104(1) to consider provisions subject to Part 2.

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<sup>1</sup> [2018] NZCA 316

51. I have accepted that the proposal is consistent with the objectives and policies of the RPS, CARP and WRRP. I also conclude that the proposal is consistent with the NPS-FM and, in particular, Te Mana o Te Wai. These documents have been prepared to give effect to Part 2 and there is no conflict between the relevant objectives or policies that would benefit from consideration against Part 2. With reference to *Davidson*, I therefore find that there would be no benefit to my evaluation of the proposal from consideration of Part 2.

### CONSENT CONDITIONS

52. Ms Wilson proposed consent conditions in her s42A report, with conditions for CRC210621 in Appendix 1 and conditions for CRC211795 in Appendix 2. Ms Harrison's evidence supports these conditions and I am aware that they are standard conditions that are applied to gravel consents.
53. I adopt these conditions with one minor amendment to condition 9(b) to clarify that it should also apply to authorised water abstraction points.

### DURATION

54. I have considered the matters listed in paragraph 205 of the s42A report and agree with Ms Wilson that the 5-year duration sought by the applicant is appropriate for these applications.

### DECISION

55. Under the powers delegated to me by the Canterbury Regional Council, for the reasons given above, pursuant to sections 104, 104B and 105, and subject to Part 2 of the Resource Management Act 1991, I GRANT the following resource consents to Drains and Developments Limited:
- a. land use consent CRC210621 to extract gravel, sand and other natural materials, and
  - b. associated discharge permit CRC211795 to discharge contaminants to air from the handling and outdoor storage of bulk materials,
- subject to the conditions attached in Appendix 1 and Appendix 2.

Dated at Christchurch this 8th day of December 2021



**Bianca Sullivan**  
Independent Hearing Commissioner

## Appendix 1: Conditions for CRC210621

|   | LIMITS  |
|---|---|
| 1 | <p>Excavation and deposition shall only be carried out in the bed of the Waimakariri River within the area bound by the map references below, as shown on the attached Plan CRC210621 which forms part of this consent:</p> <ul style="list-style-type: none"> <li>a. Point A: NZTM 2000 1534081mE 5189484mN;</li> <li>b. Point B: NZTM 2000 1534382mE 5190167mN;</li> <li>c. Point C: NZTM 2000 1535944mE 5189737mN; and</li> <li>d. Point D: NZTM 2000 1535576mE 5189039mN.</li> </ul> <p><b>Advice Note:</b> <i>This consent does not authorise the clearance of vegetation.</i></p>   |
| 2 | <p>The quantity of gravel, boulders, sand and other natural material, excluding vegetation and overburden, excavated from the areas specified in condition (1) shall not exceed:</p> <ul style="list-style-type: none"> <li>a. 10,000 cubic metres in any period of 12 consecutive months; and</li> <li>b. 50,000 cubic metres over the duration of this consent.</li> </ul>  |
|   | PRIOR TO WORKS  |
| 3 | <p>The Canterbury Regional Council Attention: Regional Leader - Monitoring and Compliance, Southern Screenworks Limited and Burnside Contracting Limited shall be notified:</p> <ul style="list-style-type: none"> <li>a. At least five days prior to commencement of works authorised by this consent or,</li> <li>b. At least five days prior to the re-commencement of works, where works have been discontinued for more than eight days.</li> </ul> <p>Notification shall include:</p> <ul style="list-style-type: none"> <li>a. The proposed start and end dates of the period of work; and</li> <li>b. Where consent is to be exercised by a person other than the consent holder, the name, address and contact telephone number of the person(s) exercising the consent.</li> </ul> <p><b>Advice note:</b> <i>Notification may be via post, telephone or emailing <a href="mailto:ecinfo@ecan.govt.nz">ecinfo@ecan.govt.nz</a></i></p> |
| 4 | <p>Prior to commencing works, the consent holder shall provide:</p> <ul style="list-style-type: none"> <li>a. A copy of this resource consent;</li> <li>b. A copy of resource consent CRC211795; and</li> </ul>   |

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|---|---|
|   | <p>c. A copy of the Excavation Management Plan (EMP) as per Condition (5).</p> <p>To all persons undertaking activities authorised by this consent and explain to those persons how to comply with the consent conditions.</p>  |
| 5 | <p>The consent holder shall prepare and submit an Excavation Management Plan (EMP) to the Canterbury Regional Council, Attention: Senior River Engineer, at least ten working days before any works are undertaken under this consent for confirmation. The EMP shall include, but is not limited to:</p> <ul style="list-style-type: none"> <li>a. A plan outlining the exact area for extraction (if smaller than the consented area);</li> <li>b. The GPS co-ordinates of the area for extraction;</li> <li>c. Photos of the site prior to works and after works are completed;</li> <li>d. Protocols for dealing with complaints;</li> <li>e. Identification of a person available for environmental compliance;</li> <li>f. Reporting requirements in line with the consent conditions; and</li> <li>g. A method for rehabilitation of the site.</li> </ul> <p>All works shall be undertaken in accordance with the Excavation Management Plan.</p>  |
| 6 | <p>Prior to any mechanical works being carried out in the period 1 September to 1 February, if the proposed work area does not meet one of Environment Canterbury's exemption criteria as detailed in "Attachment CRC210621A", attached to and forming part of this consent, the consent holder shall ensure that:</p> <ul style="list-style-type: none"> <li>a. a suitably-qualified and independent person surveys the proposed area of works, no earlier than eight working days prior to any works being carried out, to locate any nests, colonies or chicks of any 'Nationally Threatened' or 'At Risk' bird species present. Surveys must be conducted according to the standard methodology detailed in "Attachment CRC210621B" attached to and forming part of this consent;</li> <li>b. the person carrying out the survey prepares a report that identifies all the located bird breeding or nesting sites and provides copies of that report to the consent holder and the Canterbury Regional Council, attention Regional Leader - Monitoring and Compliance at <a href="mailto:ecinfo@ecan.govt.nz">ecinfo@ecan.govt.nz</a> and Environment Canterbury River Engineers at <a href="mailto:gravel@ecan.govt.nz">gravel@ecan.govt.nz</a>. Reports must be prepared using the standard template detailed in "Attachment CRC210621C" attached to and forming part of this consent;</li> <li>c. the report clearly states what measures the consent applicant will take to avoid, minimise or mitigate adverse effects on any bird breeding or nesting sites identified in accordance with parts (a) and (b) of this condition. At a minimum, this shall include maintaining an exclusion zone of 100m between breeding or nesting sites and sources of continuous disturbance. Reduced minimum exclusion distances for intermittent, short-duration disturbance caused by work activities may be adopted where provided for by the bird survey report recommendations;</li> </ul> |

|                     |   |
|---------------------|---|
|                     | <p>d. any person carrying out works authorised by this consent are informed of any bird breeding or nesting sites;</p> <p>e. if works are disrupted by a major flood event, and do not resume within eight days of peak flood flows, the site will be re-surveyed for bird breeding and nesting sites in accordance with parts (a) to (e) of this condition; and</p> <p>f. where work ceases for more than eight days for any reason other than for a flood event, the site shall be re-surveyed for bird breeding and nesting sites in accordance with parts (a) to (d) of this condition.</p> <p>Advice Notes:</p> <p>a. A “suitably-qualified person” is defined as someone who has a minimum of 160 hours field experience locating and monitoring shorebird nests.</p> <p>b. ‘Nationally Threatened’ or ‘At Risk’ are as defined in the New Zealand Threat Classification System (NZTCS).</p> <p>c. Irrespective of whether the exemption criteria detailed in “Attachment CRC210621A” are met, the consent holder is still required to ensure they comply with their responsibilities under the Wildlife Act 1953 to not disturb, harm, kill etc any river nesting birds (or other protected wildlife).</p> |
| 7                   | <p>Prior to commencing excavation works, the consent holder shall undertake cross-section surveys of the proposed excavation area using LIDAR or an alternative topographic survey method, as approved by the Environment Canterbury Rivers team or their representative.</p> <p><b>Advice Note:</b> The information gathered in the above cross-section survey will be used to determine the amount of material available above the minimum bed levels as specified in Condition (10).</p>   |
| <b>DURING WORKS</b> |   |
| 8                   | <p>Access to the site shall only be:</p> <p>a. Via the existing access routes; and</p> <p>b. Whenever access to the riverbed is gained across a stopbank, the consent holder shall ensure that there is at least 200 millimetres of gravel on top of the crest of the stopbank, as indicated by plan CRC210621B, which forms part of this consent.</p> <p><b>Advice Note:</b> <i>This consent does not grant access to the extraction area. Site access and management of the tracks should be arranged with the landowner. This consent does not authorise any vegetation clearance for access tracks or stockpiling sites.</i></p>  |
| 9                   | <p>Gravel, sand and natural material shall not be excavated within:</p> <p>a. 50 metres of the banks of the river or flood protection works. For the purpose of this condition flood protection works are defined as, but not limited to: areas of vegetation maintained or planted in the beds of rivers; access tracks; rockwork; anchored trees; wire rope; and groynes constructed under the authority of the Canterbury Regional Council;</p>  |

|                    | <ul style="list-style-type: none"> <li>b. 50 metres of stopbanks and any other structures, including those authorised for surface water abstraction; and</li> <li>c. Five metres of flowing water.</li> </ul>  |                    |   |                  |                                  |       |         |      |         |       |         |      |         |
|--------------------|--|--------------------|---|------------------|----------------------------------|-------|---------|------|---------|-------|---------|------|---------|
| 10                 | Depth of excavation shall not exceed two metre(s) below the natural riverbed prior to excavation.  |                    |   |                  |                                  |       |         |      |         |       |         |      |         |
| 11                 | <p>Notwithstanding conditions (2) and (10):</p> <ul style="list-style-type: none"> <li>a. the excavation of gravel, sand and other natural material shall cease in the vicinity of a cross-section (i.e. to the midpoint between cross-sections) shown in attached Table A, which form part of this consent, and Plan CRC210621, whenever the mean bed level, as estimated by the results of a survey undertaken by the Canterbury Regional Council, is below the minimum mean bed level for that cross section specified in attached Table A; and</li> <li>b. If the mean bed level falls below the specified recommended minimum mean bed level specified in attached Table A, then there shall be no further excavation until a subsequent survey carried out by the Canterbury Regional Council or the Consent Holder, shows bed levels are 0.1m or more above the recommended minimum mean bed level specified in Table A.</li> <li>c. Any surveys undertaken by the consent holder shall be conducted in accordance with the cross-section survey standards that form part of this consent as Attachment D; and</li> <li>d. the consent holder shall provide the results of any surveys undertaken in accordance with condition (10)(b) and (10)(c) to Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager and Attention: Gravel Resources Officer, no later than one month after completion of the survey.</li> </ul> <table border="1" data-bbox="384 1317 1311 1680"> <thead> <tr> <th>Cross Section (km)</th> <th>Min. mean bed level (above mean sea level, m)</th> <th>Survey width (m)</th> <th>Latest surveyed level (m) (2019)</th> </tr> </thead> <tbody> <tr> <td>41.84</td> <td>168.272</td> <td>1347</td> <td>168.380</td> </tr> <tr> <td>43.45</td> <td>176.435</td> <td>1211</td> <td>176.503</td> </tr> </tbody> </table> | Cross Section (km) | Min. mean bed level (above mean sea level, m) | Survey width (m) | Latest surveyed level (m) (2019) | 41.84 | 168.272 | 1347 | 168.380 | 43.45 | 176.435 | 1211 | 176.503 |
| Cross Section (km) | Min. mean bed level (above mean sea level, m)  | Survey width (m)   | Latest surveyed level (m) (2019)              |                  |                                  |       |         |      |         |       |         |      |         |
| 41.84              | 168.272  | 1347               | 168.380                                       |                  |                                  |       |         |      |         |       |         |      |         |
| 43.45              | 176.435  | 1211               | 176.503                                       |                  |                                  |       |         |      |         |       |         |      |         |
| 12                 | <p>All stockpiling of gravel, sand and other natural material, including reject material, shall occur as follows:</p> <ul style="list-style-type: none"> <li>a. The quantity stockpiled of gravel and sand shall not exceed 2,000 cubic metres at any one time.</li> <li>b. The quantity stockpiled in individual piles shall not exceed 1,000 cubic metres.</li> <li>c. Stockpiles of gravel, sand, and other natural material, including reject material, shall be positioned and aligned so as to not deflect the flow of the</li> </ul>  |                    |   |                  |                                  |       |         |      |         |       |         |      |         |

|    |   |
|----|---|
|    | <p>river onto adjoining land, riverbanks, stopbanks, flood protection works or structures.</p> <p>d. Stockpiles shall be removed by one month after the date of deposition, or by one month prior to the expiry date of this resource consent, whichever date comes first.</p> <p>e. No vegetation clearance shall occur in the berm of the river to make way for stockpiles.</p>   |
| 13 | <p>Except where required to install temporary culverts or single span bridges, gravel, sand and natural material shall not be excavated within five metres of flowing water including aquatic habitats sensitive to the effects of gravel excavation including riffles, spring-feed braids, and seepage habitats.</p> <p>For the purpose of this consent:</p> <p><b>Riffles</b> are defined as areas of shallow rapids, where the water surface is broken into waves by totally or partially submerged obstructions;</p> <p><b>Spring fed Braids</b> are defined as side braids of the main channel with no visible surface flow into the braid (flow is likely intra gravel or spring fed), but having flow out of them into the main channel.</p> <p><b>Seepage habitats</b> are defined as areas of very shallow water ultimately flowing into another channel. They usually form on terraces at the margins of the stop banked bed.</p> |
| 14 | <p>The consent holder shall ensure that any temporary culverts installed are clearly labelled with this resource consent number (CRC210621).</p>  |
| 15 | <p>All practicable measures shall be undertaken to minimise:</p> <ol style="list-style-type: none"> <li>a. erosion of the bed and banks; and</li> <li>b. the discharge of sediment.</li> </ol> <p>as a result of the works.</p>   |
| 16 | <p>Vehicles and/or machinery shall not operate within 100 metres nests, colonies or chicks of any 'Nationally Threatened' or 'At Risk' bird species birds which are nesting or rearing their young in the bed of the river, except as identified by the inspection undertaken in accordance with condition (5) and detailed in the report.</p> <p><b>Advice Note:</b> 'Nationally Threatened' or 'At Risk' are as defined in the New Zealand Threat Classification System (NZTCS).</p>  |
| 17 | <p>To prevent the spread of pest species, including but not limited to Didymo, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures and that machinery shall be free of plants and plant seeds prior to use in the riverbed.</p>   |

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|    | <p><b>Advice Note:</b> You can access the most current version of these procedures from the Biosecurity New Zealand website <a href="http://www.biosecurity.govt.nz">http://www.biosecurity.govt.nz</a></p>   |
| 18 | <p>All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery including but not limited to:</p> <ul style="list-style-type: none"> <li>a. There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of the bed of a river.</li> <li>b. Fuel shall be stored securely or removed from site overnight</li> </ul> <p><b>Advice Note:</b> In addition to this consent, the consent holder will also need to ensure that the activity complies with LWRP Rule 5.145 (Refuelling in Lake and Riverbeds). If the activity does not comply with Rule 5.145 of the LWRP, an additional consent will be required pursuant to section 15 of the Resource Management Act 1991.</p>   |
| 19 | <p>All practicable measures shall be taken to avoid spills of fuel or any other hazardous substances within the site. These measures shall include:</p> <ul style="list-style-type: none"> <li>a. Refuelling of machinery and vehicles shall not occur within 20 metres of <ul style="list-style-type: none"> <li>i. Open excavations;</li> <li>ii. Exposed groundwater; and</li> <li>iii. Surface water bodies;</li> </ul> </li> <li>b. A spill kit shall be kept on site that is capable of absorbing the quantity of oil and petroleum products that may be spilt on site at any one time, remains on site at all times.</li> <li>c. In the event of a spill of fuel or any other hazardous substance, the spill shall be cleaned up as soon as practicable, the stormwater system shall be inspected and cleaned, and measures taken to prevent a recurrence;</li> <li>d. The Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance, shall be informed within 24 hours of a spill event exceeding five litres and the following information provided: <ul style="list-style-type: none"> <li>i. The date, time, location and estimated volume of the spill;</li> <li>ii. The cause of the spill;</li> <li>iii. The type of hazardous substance(s) spilled;</li> <li>iv. Clean up procedures undertaken;</li> <li>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</li> <li>vi. An assessment of any potential effects of the spill; and</li> <li>vii. Measures to be undertaken to prevent a recurrence</li> </ul> </li> </ul> |
| 20 | <p>If further excavation at the site in the active riverbed is not to occur within eight days following the last working at the site, then the following shall occur:</p> <ul style="list-style-type: none"> <li>a. All deposits of gravel, sand and other natural material shall be levelled to the natural bed level except for stockpiles as authorised under Condition (12);</li> <li>b. The excavation area shall be reshaped and formed to a state consistent with the surrounding natural riverbed; and</li> <li>c. Reject material, including all excavated vegetative material, shall be removed from the riverbed.</li> </ul>   |
| 21 | <p>Works shall:</p> <ul style="list-style-type: none"> <li>a. not be carried out on weekends or public holidays.</li> </ul>   |

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|    | <p>b. only occur between the hours of 7am and 7pm inclusive</p> <p><b>Advice Note:</b> <i>The consent holder should also check compliance with District Council regulations.</i></p>  |
|    | <b>AFTER WORKS</b>  |
| 22 | Excavation shall cease at least one month prior to the expiry date of this resource consent and the site shall then be restored to a state consistent with the natural character of the site prior to any works occurring as specified in Condition (20).   |
|    | <b>TANGATA WHENUA</b>   |
| 23 | <p>In the event of any discovery of archaeological material:</p> <ul style="list-style-type: none"> <li>a. the consent holder shall immediately: <ul style="list-style-type: none"> <li>i. Cease earthmoving operations in the affected area and mark off the affected area; and</li> <li>ii. Advise the Canterbury Regional Council of the disturbance; and</li> <li>iii. Advise Heritage New Zealand Pouhere Taonga of the disturbance.</li> </ul> </li> <li>b. If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the office of the appropriate rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery.</li> <li>c. If the archaeological material is determined to be Koiwi Tangata (human bones) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the New Zealand Police of the disturbance.</li> <li>d. Work may recommence if Heritage New Zealand Pouhere Taonga Trust (following consultation with rūnanga if the site is of Maori origin) provides a statement in writing to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance that appropriate action has been undertaken in relation to the archaeological material discovered. The Canterbury Regional Council shall advise the consent holder on written receipt from Heritage New Zealand Pouhere Taonga that work can recommence.</li> </ul> <p><b>Advice Note:</b><br/><i>This may be in addition to any agreements that are in place between the consent holder and the Papatipu Rūnanga. (Cultural Site Accidental Discovery Protocol).</i></p> <p><b>Advice Note:</b><br/><i>Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc. may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</i></p> <p><i>It is unlawful for any person to destroy, damage, or modify the whole or any part of</i></p> |

|    |  |
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|    | <i>an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction.</i>  |
|    | <b>ADMINISTRATION</b>  |
| 24 | All vehicles and machinery operating in the bed of the river shall be clearly identified with the name or Logo of the operator of the vehicle, to ensure that the name is able to be read at a distance of five metres.  |
| 25 | <p>The volume of gravel removed from the riverbed shall be measured by calibrated loader scales (Loadrite) and recorded in a computer spreadsheet. The spreadsheet shall detail the weights of all loads of aggregate, the type of aggregate (i.e AP65, AP40, TNZ M4-40), the weight to volume ratio of the aggregate, the name of the loader operator, the date and time of each truck load, the client and identification details of trucks used to remove the aggregate from the riverbed. A copy of the spreadsheet shall be made available to the Environment Canterbury Regional Council on request.</p> <p>A “Gravel Excavation Return” form, for completion quarterly shall be submitted to Environment Canterbury, attention Regional Leader - Monitoring and Compliance (Gravel&gt;Returns@ecan.govt.nz) no later than the 20<sup>th</sup> day of the following month.</p> |
| 26 | <p>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 this consent for the purposes of:</p> <ol style="list-style-type: none"> <li>a. Dealing with any adverse effect on the environment which may arise from the exercise of the consent; or</li> <li>b. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.</li> </ol>  |
| 27 | <p><b>Advisory Note: Landowner Authorisation.</b></p> <p><i>In addition to this consent, the consent holder is required to obtain permission from the landowner(s) in order to secure access to and/or undertake works in the river bed unless the land is owned by the consent holder. If the land belongs to the Crown, or the identity of the land owner is unknown, please contact Land Information New Zealand Limited (LINZ).</i></p> <p><i>LINZ can be contacted on phone number (04) 460 0110 or on Freephone 0800 665 463.</i></p>  |

## **ATTACHMENT CRC210621A: EXEMPTION CRITERIA**

No-pre-works bird survey is required where:

- The riverbed at the site is heavily infested with woody weeds (50% woody weed vegetation cover); OR
- A bank-to-bank flood has occurred at the site, with the peak of the flood occurring no more than 8 days prior to the date that riverbed work activities are scheduled to begin; OR
- The riverbed at the site is completely dry (i.e. no standing or flowing water or damp seepages present) at least 500m upstream and downstream of the site.

## ATTACHMENT CRC2106213B: Standard Survey Methodology

The field survey methodology and report are to include the following elements:

- That the surveyor walks slowly and systematically through any open gravel habitats within the proposed gravel extraction area, and an additional 100 m buffer zone surrounding the proposed extraction area, surveying for nests, nesting colonies or chicks of any bird species listed as 'Nationally Threatened' or 'At Risk' under the New Zealand Threat Classification System (Robertson et al, 2017). The surveyor should aim to grid search suitable habitat on a 50 x 50 m grid, or zig-zag pattern, to ensure any incubating bird present are likely to be flushed from their nests and therefore detected.
- If adults are flushed from nests or are showing other signs of breeding activity (e.g. defensive or alarmed behaviour, broken wing displays etc), then the surveyor should back away until the bird resumes normal behaviour, then observe the bird as it returns to its nest, or to check for the presence of chicks.
- For any nesting or breeding birds detected, the location of any nests or chicks found should be recorded to an accuracy of 5-10 m using a handheld GPS device, and any nests marked with a small stone cairn labelled with the words "[*species*] nest". Note, nests should **not** be permanently marked with dazzle or road cones or other conspicuous markers, as these have the potential to attract predators or casual inspection by curious people. Record GPS references as NZGD2000 New Zealand Transverse Mercator projection.
- The surveyor should clearly delimit the area of habitat surveyed, either by marking the area clearly on an aerial photo, or by delimiting the area using a handheld GPS, by recording either a sequence of waypoints or a track describing the boundary of the survey area. The surveyor should record the start and finish times of their survey, so that the total amount of time spent surveying the proposed site and surrounding buffer can be calculated.
- During the survey, the surveyor should compile a complete checklist of all of the bird species seen or heard during the course of the survey, together with counts or estimates of the total number of individuals of each species seen or heard. This complete checklist, together with location, date, time and search effort data, should be submitted as either a stationary or travelling count (whichever is most appropriate) to the New Zealand eBird database (<https://ebird.org/newzealand/home>). Once submitted, the checklist should be shared with the Environment Canterbury, NZ eBird account.
- Share survey counts from your existing eBird account with eBird account user Environment Canterbury, NZ. Do this by entering this username and where prompted the email address: [ecanbirddata@ecan.govt.nz](mailto:ecanbirddata@ecan.govt.nz). Do not directly email survey counts to this email address. Send the pre-words survey report to Council Monitoring and Compliance.

- Once the survey has been completed, the surveyor should prepare a pre-works survey report using the template supplied. This pre-works survey report should focus on documenting the name and qualifications of the surveyor, the location of the site surveyed, the number and locations of any nests, nesting colonies or chicks found, and a summary of any mitigation measures recommended. Note, the report should not contain any presence/absence or count data for adult birds. Instead, this should be submitted to the New Zealand eBird data according to the instructions above. Each pre-works survey report should be a maximum of 3 pages in length.
- Submit the pre-works survey report to:  
Regional Leader - Monitoring and Compliance [CRC210621] at [ecinfo@ecan.govt.nz](mailto:ecinfo@ecan.govt.nz);  
[and](#)  
Environment Canterbury River Engineers [CRC210621] at [gravel@ecan.govt.nz](mailto:gravel@ecan.govt.nz)

**White-winged black tern (*Chlidonias leucopterus*)**

**National conservation status:** Non-resident native, migrant (Robertson et al. 2017)

Small tern 23cm, 65g. Breeding plumage is black head, neck, back and underparts, white rump. Upper wing pale grey and darker at tips. (Heather & Robertson, 2015).



Image Courtesy of Will Parsons/NZ Birds Online

**Black stilt (*Himantopus novaezelandiae*)**

**National conservation status:** Threatened, nationally critical (Robertson et al. 2017)

40cm, 220g. Pure adults are entirely black. Long pinkish-red legs, and long fine black bill. Red eye. Juvenile has white on head, breast and chest. (Heather & Robertson, 2015)



Image courtesy of Dick Veitch/NZ Birds Online

**Pied stilt (*Himantopus himantopus*)**

**National conservation status:** Not threatened (Robertson et al. 2017)

40cm, 220g. Long pinkish-red legs. Long fine black bill. Face throat and underparts white. Black crown, nape, hindneck, collar on lower neck and wings. (Heather & Robertson, 2015).



Image Courtesy of Thomas Musson/NZ Birds Online

**South Island pied oystercatcher (*Haematopus finschi*)**

**National conservation status:** At risk, declining (Robertson et al. 2017)

46cm, 550g. Black and white, sharp border between black upperparts and white underparts. White tab upwards in front of folded wing. Long red bill and short red legs (Heather & Robertson, 2015)



Image courtesy of Gordon Watson/NZ Birds Online

**Black-billed gull (*Larus bulleri*)**

**National conservation status:** Threatened, nationally critical (Robertson et al. 2017)

37cm, 250-300g. Pale gull. Long thin black bill and pale wingtips. Legs and feet black or reddish black. (Heather & Robertson, 2015).



Image courtesy of Oscar Thomas/NZ Birds Online

Heather, B.; Robertson H. 2015. *The Field Guide to the Birds of New Zealand*. Penguin Random House, New Zealand

Robertson, H.A.; Baird, K.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Miskelly, C.M.; McArthur, N.; O'Donnell, C.J.F.; Sagar, P.M.; Scofield, R.P. and Taylor, G.A. 2017. *Conservation status of New Zealand birds, 2016*. New Zealand Threat Classification Series 19, Department of Conservation, Wellington

## Attachment CRC210621C: Pre-works Survey Report Template

|   |                                   |                 |                 |
|---|-----------------------------------|-----------------|-----------------|
| Pre-works Bird Survey   | River name:                       |                 |                 |
|   | Date:<br>Time survey start & end: |                 |                 |
| A report for: <i>Name, Company, resource consent code</i>   |                                   |                 |                 |
| <b>1 Surveyor's Qualifications and Experience<sup>2</sup>:</b><br><br>The survey was undertaken by:<br><i>Name, relevant qualifications</i><br><br><i>Brief description of relevant experience, including:</i><br><i>-a summary of previous experience locating and monitoring shorebird nests</i><br><i>-a summary of previous experience carrying our shorebird census counts on rivers</i>   |                                   |                 |                 |
| <b>2 Search Effort</b><br>A survey was carried out in the proposed works site (including 100m buffer zones) using the standard survey methodology provided by Environment Canterbury<br><br>The area surveyed was within the grid references:<br><br><i>E.g. (Use NZTM Format) E1557634.151 N5189884.308</i><br><i>The survey area length was 650m and was 17ha in area.</i><br><br><i>[Attach map of surveyed habitat in relation to consented area.]</i>  |                                   |                 |                 |
| <b>3 Results</b>  |                                   |                 |                 |
| <b>Bird species</b><br>Any 'Nationally Threatened' or 'At Risk'   | <b>Nest, chick(s) or colony</b>   | <b>(NZTM) E</b> | <b>(NZTM) N</b> |
| <i>E.g. Banded dotterel</i>   | <i>Nest (3 eggs)</i>              | <i>E1557844</i> | <i>N5190014</i> |
|   |                                   |                 |                 |
| <i>Please enter a locality map clearly delimiting the survey area and showing locations of nests or chicks or colonies, recommended exclusion zones and alternative accessways.</i><br><br>A complete checklist of all of the bird species identified during this survey, including species counts, location, date and search effort data has been submitted to the New Zealand eBird database and shared with the Environment Canterbury, NZ eBird account <sup>3</sup> . <i>[Enter eBird checklist number here]</i> . |                                   |                 |                 |

<sup>2</sup> a "suitably-qualified surveyor" is defined as someone who has a minimum of 160 hours field experience locating and monitoring shorebird nests. This definition is based on the observation that it takes up to four weeks to train field surveyors to become proficient at locating the nests of a range of riverbed-nesting shorebird species, including learning to interpret shorebird behaviour to differentiate nesting, from non-nesting adults (Nikki McArthur, personal observation).

<sup>3</sup> Please share survey counts from your eBird account with eBird account user Environment Canterbury, NZ. Do this by entering this username and where prompted the email address: [ecanbirddata@ecan.govt.nz](mailto:ecanbirddata@ecan.govt.nz). Do not directly email reports to this email address.

#### **4 Discussion and Recommendations**

*Specify any exclusion zones from nests, chicks or colonies.* Exclusion distances may differentiate between “continuous” disturbance (disturbance that occurs continuously over a period of hours or more) and “episodic” disturbance (disturbance that occurs for a matter of minutes, e.g. trucks driving past a nest situated near an accessway). The recommended exclusion zone for activities resulting in “continuous” disturbance is 75m for nests and broods of chicks; whereas for activities resulting in “episodic” disturbance, or where nests or chicks are not in line of sight to the source of disturbance (e.g. an island of screening vegetation is situated between the nest or chicks and the source of disturbance), the distance may be reduced to a minimum of 25m where provided for by the bird survey report recommendations.

*E.g. A banded dotterel nest and an adult with a chick were detected within the proposed extraction area. I recommend that a 75m exclusion zone be maintained around the nest and where the chick was sighted. The location of the banded dotterel chick prevents operating along the regular access track. Therefore, access will now be gained from another track, 250m east of the regular access track. The situation was discussed with the staff on site.*

*E.g. Recommendation: Works [can/should not] proceed in the proposed extraction area outside the two exclusion zones. Avoidance / Mitigation measures:*

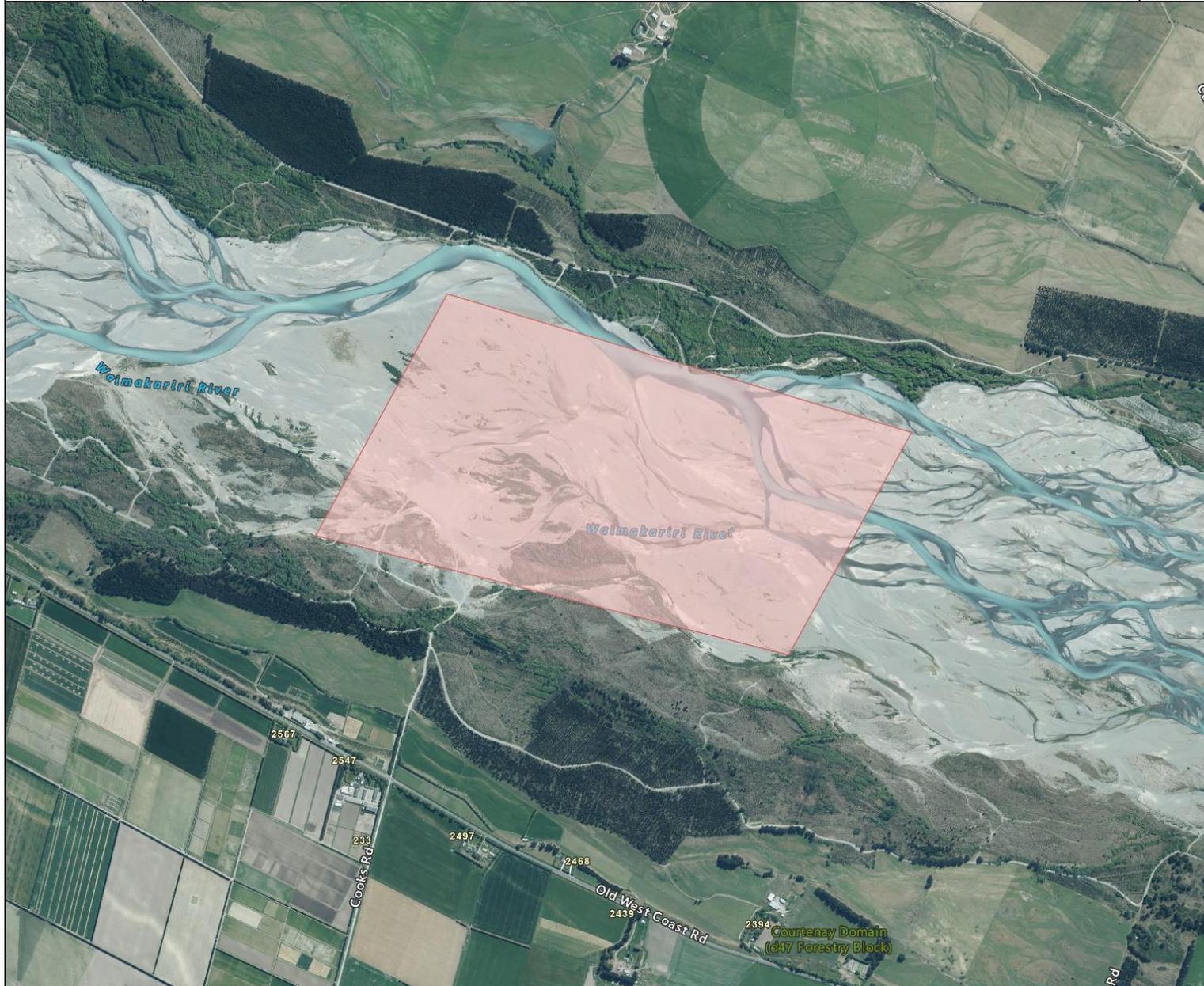
#### **Attachments:**

## **Appendix CRC210621D – Canterbury Regional Council Cross-Section Survey Standard Survey:**

- Observe all changes of grade along the true line between the designated benchmarks. No actual ground point along the line should be more than 0.05m above or below the grade between any two observed points.
- Maximum distance between any 2 observations:
  - Turbid water - using a boat - 5% of the waterway width up to a maximum of 5m plus check between significant changes in depth.
  - Maximum distance on dry land - 10 m.
- The height of any single face recorded observation will be  $\pm 30\text{mm}$ , to 2 standard deviations, relative to the control mark.
- Observations will be within  $\pm 0.5\text{m}$  of true line, to 1 standard deviation. Take extra care to stay on line when deviation will be significant.
- Each cross section line shall extend from at least 5m left of the defined left channel limit or 5m into the left hand side “vegetated berm” across the whole active bed (fairway) to 5m right of the defined right channel limit or 5m into the right hand side “vegetated berm”.
- Record all back-sights and check observations to existing control marks.
- This data is to be included with the supplied data.
- Maximum observation length should not be greater than 350m. (Observed distances may be longer in good conditions or if other restraints preclude staying under 350m. Observation lengths should always be reduced to minimise refraction when shimmer is significant).
- Preferred codes (descriptions) for observations are as follows:
  - WE Waters Edge of all channels and pools.
  - I Invert – all points that are under-water.
  - BT Bank Top is helpful but not essential.
  - BB Bank Bottom is helpful.
- Identify stockpiles if they are on the defined line.
- Surveyors using GPS equipment will need to demonstrate that vertical plane is calibrated.

### **Results:**

- Cross section plots are not required by Environment Canterbury although they may be useful to the surveyor as a quick visual check.
- A comma separated variable (csv) file of all observed and edited data is all that is required. Other survey formats may also be possible.



 Excavation Area

Legend note: if you have a large number of layers on the map, they may not all be visible in the legend.

**Disclaimer:**  
 Information has been derived from various organisations, including Environment Canterbury and the Canterbury Maps partners. Boundary information is derived under licence from LINZ Digital Cadastral Database (Crown Copyright Reserved). Environment Canterbury and the Canterbury Maps partners do not give and expressly disclaim any warranty as to the accuracy or completeness of the information or its fitness for any purpose.

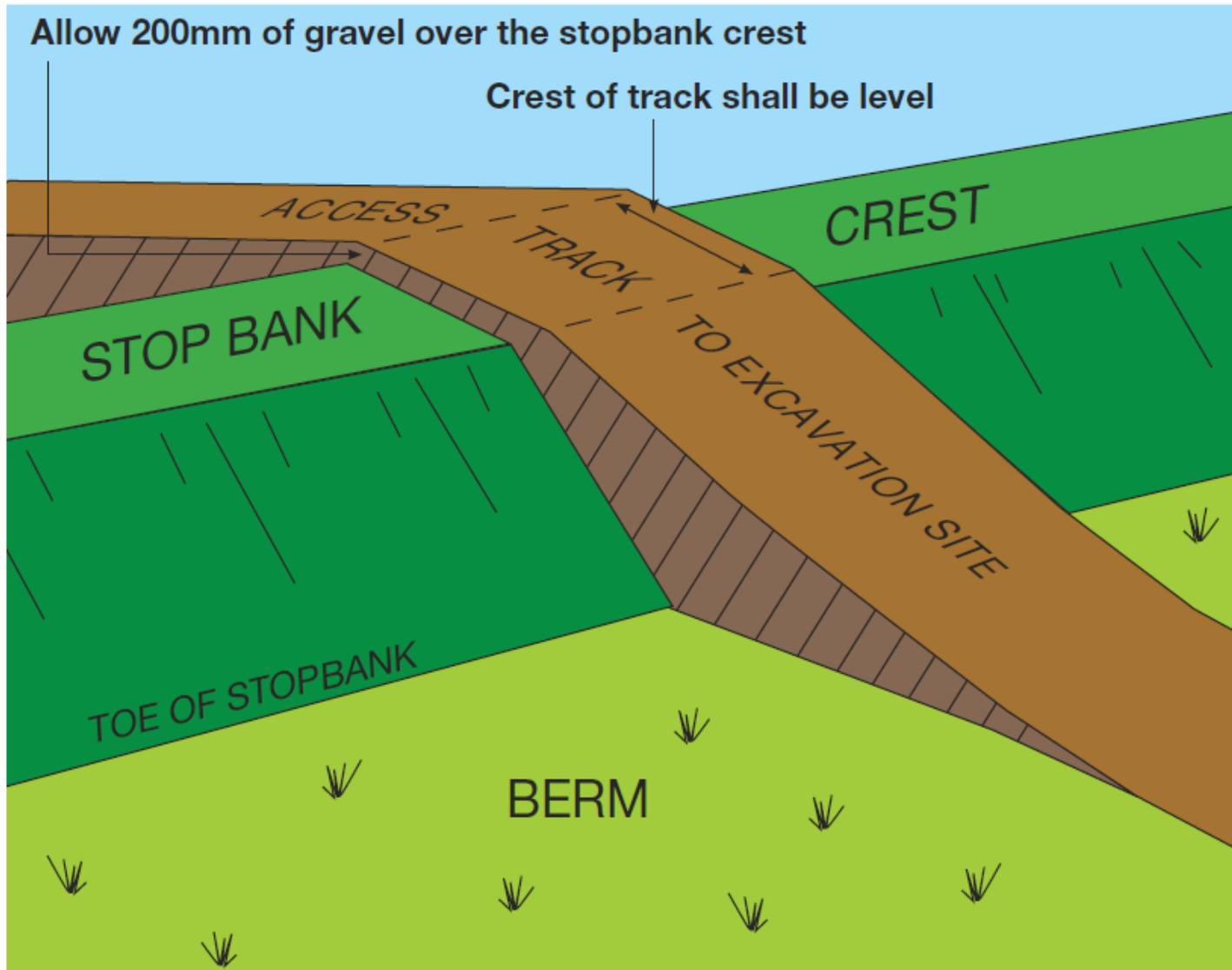
Information from this map may not be used for the purposes of any legal disputes. The user should independently verify the accuracy of any information before taking any action in reliance upon it.



Scale: 1:12,000 @A3

Copyright Environment Canterbury, Waimakariri DC, LINZ  
 Environment Canterbury  
 Environment Canterbury/Statistics New Zealand/Land Information New Zealand

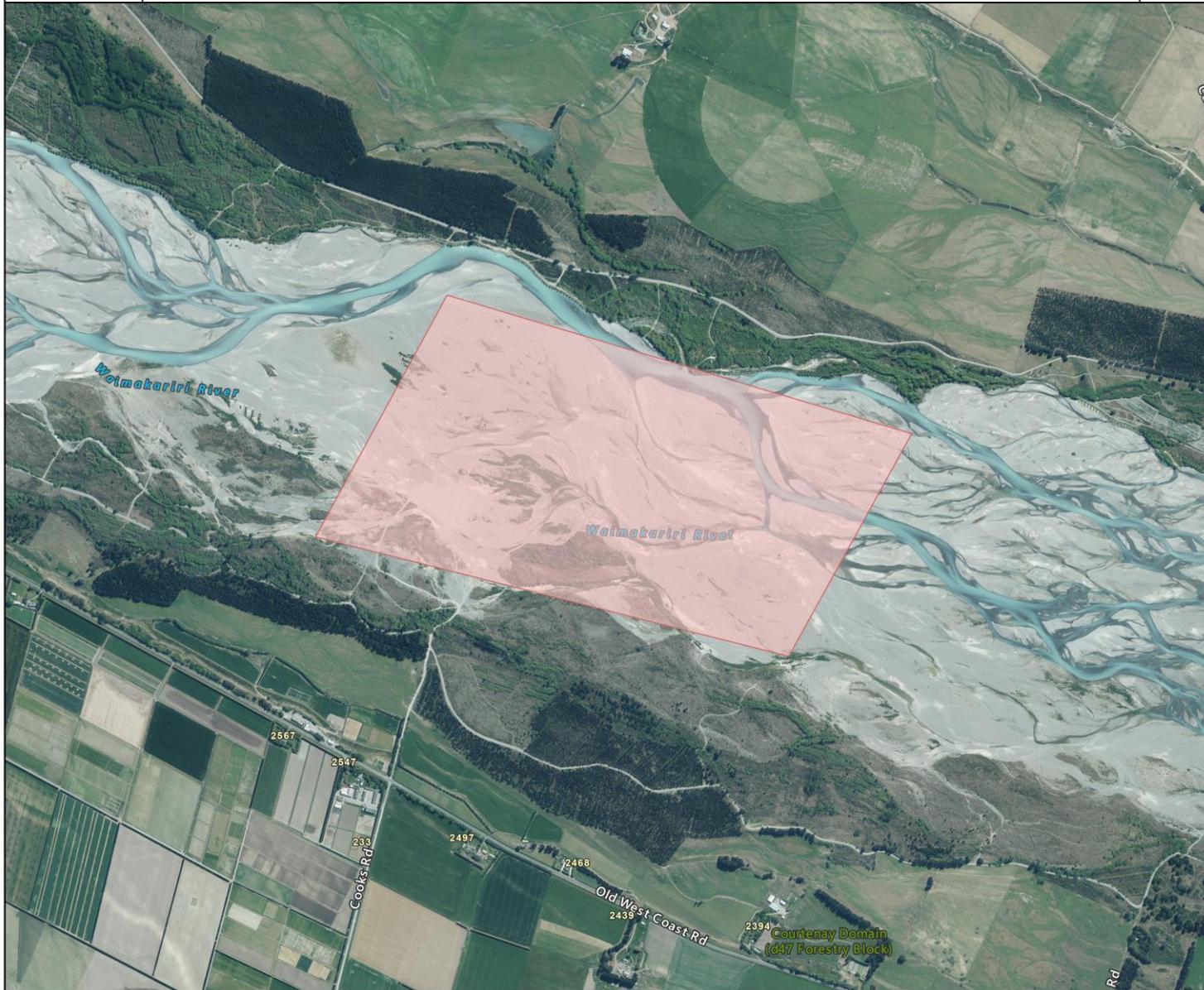
Map Created by Environment Canterbury on 30/08/2021 at 1:48 PM



## Appendix 2: Consent conditions for CRC211795

|   | LIMITS  |
|---|---|
| 1 | <p>The discharge shall only be of contaminants to air from the handling and outdoor storage of bulk solid materials at or about map references below, as shown on Plan CRC211795 which forms part of this consent:</p> <ul style="list-style-type: none"> <li>e. Point A: NZTM 2000 1534081mE 5189484mN;</li> <li>f. Point B: NZTM 2000 1534382mE 5190167mN;</li> <li>g. Point C: NZTM 2000 1535944mE 5189737mN; and</li> <li>h. Point D: NZTM 2000 1535576mE 5189039mN.</li> </ul> <p><b>Advice Note:</b> For the purposes of this consent, handling means extraction, quarrying, mining, processing, screening, conveying, blasting, or crushing of any material and bulk solid materials means materials consisting of, or including, fragments that could be discharged as dust or particulate. These materials include but are not limited to: gravel, quarried rock, fertiliser, coal, cement, flour, rock aggregate, grains, compost and woodchip.</p> |
| 2 | <p>The discharge of contaminants to air shall only be associated with gravel extracted undertaken in accordance with resource consent CRC210621 or any subsequent variation.</p>  |
|   | <b>PRIOR TO WORKS</b>   |
| 3 | <p>Prior to commencing works, the consent holder shall provide a copy of:</p> <ul style="list-style-type: none"> <li>a. This consent document;</li> <li>b. The Excavation Management Plan prepared under consent CRC210621;</li> <li>c. The Dust Management Plan prepared in accordance with condition (4); and</li> <li>d. Consent CRC210621 or any subsequent variation;</li> </ul> <p>to all persons undertaking activities authorised by this consent and explain to those persons how to comply with the consent conditions.</p>   |
| 4 | <p>Prior to commencing works, the consent holder shall prepare a Dust Management Plan (DMP) in accordance with Schedule 2 of the Canterbury Air Regional Plan. The DMP shall be submitted to the Canterbury Regional Council; Attention Regional Leader - Monitoring and Compliance for certification at least 10 days prior to works commencing. The activity consented by CRC210621, or any subsequent variations, shall be undertaken in accordance with the Dust Management Plan.</p>   |
|   | <b>GENERAL</b>  |
| 5 | <p>The discharge of dust shall not cause an offensive or objectionable effect beyond the property of origin, when in assessed in accordance with Schedule 2 of the Canterbury Air Regional Plan.</p>  |

|                       |  |
|-----------------------|--|
| 6                     | The handling of bulk solid materials shall not exceed 100 tonnes per hour.   |
| 7                     | <p>The consent holder shall:</p> <ul style="list-style-type: none"> <li>a. Apply water to unconsolidated surfaces and stockpiles as necessary to minimise dust emissions during dry and windy conditions;</li> <li>b. Impose vehicle speed restrictions; and</li> <li>c. Minimise drop heights when loading vehicles.</li> </ul>   |
| 8                     | <p>The consent holder shall locate stockpile and loading areas more than 500 metres from the nearest sensitive receptors.</p> <p>For the purpose of this condition, sensitive receptors include:</p> <ul style="list-style-type: none"> <li>a. the area within 20m of the facade of an occupied dwelling; or</li> <li>b. a residential area or zone as defined in a district plan; or</li> <li>c. a public amenity area, including those parts of any building and associated outdoor areas normally available for use by the general public, excluding any areas used for services or access areas; or</li> <li>d. a place, outside of the Coastal Marine Area, of public assembly for recreation, education, worship, culture or deliberation purposes.</li> </ul> |
| <b>ADMINISTRATION</b> |  |
| 9                     | <p>The Canterbury Regional Council may annually on the last five working days of May or November each year, serve notice of its intention to review the conditions of this resource consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; or</li> <li>b. Requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the consent.</li> </ul>   |



Excavation Area

Legend note: If you have a large number of layers on the map, they may not all be visible in the legend.

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Scale: 1:12,000 @A3

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