

15 October 2021



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Kia ora Daniel

Request for Further Information

Response required by: 8 November 2021

Record Numbers: CRC221158, CRC221159, CRC221160, CRC221161, CRC221162, CRC221163, CRC221164

Applicant Name: Beach Road Estates Limited

Activity Description: Land use for earthworks, land disturbance and vegetation removal and planting in the riparian margins of McIntosh Drain; earthworks to create two wet basins; to reclaim part of current alignment and excavate, disturb, remove/plant vegetation in the bed and maintain the new alignment of McIntosh Drain; to divert surface water, permanently take groundwater and to take dewatering water during the construction of a new alignment of McIntosh Drain; to take groundwater during construction for dewatering purposes and the permanent take of groundwater into two wet basins; to discharge construction-phase stormwater, to discharge surface water into the current and new alignment of McIntosh Drain, and discharge water into land; to discharge construction-phase stormwater to land, and groundwater and operational-phase stormwater to land and water

As you are aware, I have been processing the above resource consent application.

The information listed in Attachment 1 to this letter is hereby requested under Section 92 of the Resource Management Act 1991 (the RMA). As this information is required in order to fully understand the potential effects of the proposal, we are unable to further process the application until it has been supplied.

The options available to you under Section 92A(1) of the RMA are summarised below. A response is required by 8 November 2021. You must choose one of these options.

A. Supply the requested information by 8 November 2021

If the information can be easily collated and supplied by this date, please provide it in writing (via email is fine) to Helen Caley.

B. Agree in a written notice by 8 November 2021 to supply the information requested

Sometimes technical information will take some time to collate or key contacts may not be immediately available. If you need more time to supply the information requested, please advise me in writing when you can provide the information. You can do this via email or letter.

C. Refuse in a written notice by 8 November 2021 to supply the requested information

If you choose not to provide the requested information by the above date, or any date subsequently agreed to by the Canterbury Regional Council, then your application must be publicly notified and may be declined.

Public notification enables any member of the public, including potentially affected parties, to submit on your proposal. If submission/s are received on your application, then you can expect a hearing to be held. Information on [the notification process](#) and on the [likely costs](#) for notification and a hearing can be found on our website.

Other matters not part of a request under s92

The scientist assessing the surface water quality / ecology aspects of the proposal has advised that the assessment used for assessing the values of McIntosh Drain are classical stream assessment systems. However, because these are drained wetland elements with low gradient they would be expected to primarily support species which would inhabit pooled or seldom flowing environments. This includes important mahinga kai elements such as tuna, lamprey and watercress. As a result, the assessment undertaken is likely to have undervalued the elements of the existing channel of McIntosh Drain. This is a matter of disagreement with your assessment, rather than a question or request for clarification. However, you may want to address this in addition to your response to the matters listed in Attachment 1.

Please contact me via email (helen.caley@aurecongroup.com) or phone (03 371 2102) if you have any questions.

Ngā mihi



Natalia Ford
Consents Planning Team Leader

cc: Shane Farmaid
Via email: shenef@momentumprojects.co.nz

ATTACHMENT 1

Information Requested under Section 92 of the Resource Management Act 1991

Application Numbers CRC221158, CRC221159, CRC221160, CRC221161, CRC221162, CRC221163, CRC221164

Date: 30 September 2021

1. Artesian pressure

The groundwater scientist reviewing the application has advised that there is a risk of collapse of the bottom of the excavation if the piezometric head in the underlying aquifers is higher than the bottom of the excavation. This can create uncontrolled flows of artesian water via the excavation.

- a. Please provide an assessment of the risk of collapse of the excavation due to artesian pressure. If your assessment confirms that there is a risk of excavation collapse and uncontrolled flow of artesian water, please provide details of how this would be mitigated, and an assessment of the effects.

2. Effects on groundwater quality

The groundwater scientist reviewing the application has requested a more detailed assessment of the effects of the discharge of stormwater on groundwater quality. The groundwater scientist has noted that the expected concentration for *E.coli* in the wet basins is 1140 cfu/100mL. This indicates that a log removal rate of at least 3 should be achieved between the wet basins and the nearest domestic bore to protect drinking water quality.

- b. Please provide a more detailed assessment of the effects of the discharge of pathogens on groundwater quality to demonstrate whether there are potential effects on down-gradient groundwater users.

3. Extent of modified natural waterbodies vs artificial watercourses

The scientist assessing the surface water quality / ecology aspects of the proposal has advised that they consider drains 1, 2, and 3 as described in the application are likely to be modified natural waterbodies rather than artificial watercourses. This is due to the fact that the area was historically a low-lying wetland area which was historically drained via a herring bone arrangement of drains, and these drains replaced the natural channels within that wetland area. In addition, these channels appear to connect to more natural drainages in the north. There is some concern that the survey was undertaken in April 2021 which followed a very dry period, and therefore the lack of wetting is not necessarily indicative of their common or natural condition.

Beach Road Drain was formed by the construction of Beach Road, however it carries flows from modified watercourses (McIntosh Drain and drains 1-3) and therefore must also be considered a modified natural waterbody. Please either:

- a. Provide further information to support the assessment that these drains are not natural waterbodies; or
- b. Provide a revised application which assesses the activities relating to these waterbodies against the relevant rules of the regional plans and regulations of the national environmental standards, and considers the effects of the proposal on the waterbodies.

4. Realignment design

The scientist assessing the surface water quality / ecology aspects of the proposal has advised that they are concerned that the replacement channel proposed consists of a "hard sediment"

environment to replace the existing deep “soft sediment” environment with relatively deep water. The area originated from a soft bottomed wetland environment, and currently supports viable aquatic communities and resources. There is also concern that an unshaded hard substrate reach could be subject to high water temperatures, algal blooms or nuisance growths.

- a. Please provide further information to demonstrate that the proposed channel realignment will maintain or improve the ecological and mahinga kai values of the existing channel, taking into account the environment that is currently, and / or would historically have been present.

5. Assessment of functional need for stream realignment

Unfortunately, we do not agree with the assessment in section 7 of the application that there is no loss of extent or values of McIntosh Drain. The fact that the new channel may mitigate that loss (either in whole or in part), does not eliminate the fact that there is a loss of the existing extent of the river.

- a. Please provide a more detailed assessment of policy 2A.4 of the Land and Water Regional Plan, and Policy 7 of the National Policy Statement for Freshwater Management, including consideration of whether there is a functional need for the proposed reclamation of McIntosh Drain, and other waterbodies which will be lost as a result of the project (unless further information is provided under question 3 above to demonstrate that drains 1-3 and Beach Road Drain are not modified natural waterbodies).

6. Stormwater system design

The design of the stormwater system has been reviewed by a stormwater engineer, who has requested the following information:

- a. Based on the sketches and details provided it appears that the proposed stormwater devices are somewhere between the accepted design approach for wet ponds and constructed wetlands, i.e. wetlands with larger volume forebays and smaller wetland footprints. Please confirm what design approach and design standard have been used for designing the proposed stormwater wet basins.
- b. Please provide more detail about the proposed design of the wet basins, to confirm that the water quantity outcomes in the application will be met:
 - i. Please confirm the form and function of the inlet/diversion structure which will divert the first flush to the wet pond and larger events direct to McIntosh Drain. This should include details of what flows go in each direction, and what happens at specific inflow rates or levels.
 - ii. Please provide the key levels for both wet basins (one set of levels has been provided), and how the levels in each wet pond relate to the levels in the catchment and in McIntosh Drain at that location.
 - iii. Please confirm the key design parameters adopted in the water quantity design, in particular the forebay sizing (usually percentage of volume); mix of shallow marsh, deep marsh, and deep pool (usually percentage area); and reduction in volume for plants.
 - iv. Please confirm the form and function of how the outlet structure will be designed to maintain a permanent water level but allow discharge of treated stormwater, and minimise blockage. This should include key flow rates and levels, and details

of the emergency spillway (if one will be installed to provide for overflows in the event of an outlet blockage).

- c. Please confirm what measures will be in place to avoid or mitigate the potential for erosion in McIntosh Drain as a result of additional flows from the subdivision.
- d. You have stated in the application that the requirement to provide attenuation of events up to and including the 2% Annual Exceedance Probability (AEP) rainfall event is no longer necessary, as this will be managed by drainage upgrades being provided by WDC. Please provide further evidence to demonstrate that attenuation for the 2% AEP event is no longer necessary. This could be, for example, correspondence with Waimakariri District Council confirming this is no longer required.

7. Channel re-alignment design

Please confirm that the re-aligned channel has been designed and constructed to avoid erosion and scour which could have effects on structures, particularly at the southern site boundary where the channel turns a corner to exit the site via the culvert under Beach Road.