CANTERBURY REGIONAL COUNCIL

IN THE MATTER OF	The Resource Management Act 1991
AND	
IN THE MATTER OF	Application for Resource Consent CRC174709 by Waterloo Park Limited

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REPORT AND DECISION BY INDEPENDENT HEARING COMMISSIONER

SARAH DAWSON

9 July 2021

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Canterbury Regional Council – Land Use Consent - CRC174709 - Conditions 1

APPEARANCES

Initial hearing – 26 November 2020

Applicant:

Mr Ashley McLachlan, Southpark Corporation

Ms Jo Appleyard, Chapman Tripp, Counsel for Waterloo Park Limited

Canterbury Regional Council:

Mr Nick Reuther, Senior Consents Planner

Reconvened Hearing – 28 June 2021

Applicant:

Mr Joel Webber, Southpark Corporation

Mr Ian Lloyd, Water Engineer, Davis Ogilvie

Ms Jo Appleyard, Chapman Tripp, Counsel for Waterloo Park Limited

Canterbury Regional Council:

Mr Nick Reuther, Senior Consents Planner

Mr Ian Jenkins, Operations Director, AECOM

INTRODUCTION

1. I have been appointed[1] as an independent Hearing Commissioner by the Canterbury Regional Council (**the Council**) pursuant to the Resource Management Act 1991 (**RMA** or '**the Act'**) to hear and decide upon Resource Consent CRC174709 (the **land use application**) by Waterloo Park Limited (**the applicant**). I was also appointed to determine any preliminary matters in relation to the hearing. I was not appointed to make decisions regarding notification of this or other associated applications; nor regarding requirements for further information relating to the applications. This report sets out my decision and the reasons for it.

2. The land use application relates to earthworks activities across 1.18ha within Lot 601 DP525918[2] of the Waterloo Business Park development at 400 Waterloo Road, Islington. This is a "retrospective" land use consent application as the earthworks have already been undertaken.

3. The Waterloo Business Park land was historically used by the Islington Freezing Works and is included on the Council's Listed Land Use Register. Consents have been obtained from both the Christchurch City Council (**CCC**) and the Council to enable the development and use of the land as a business park.

[1] 10 October 2019
[2] Known as the Central Reserve located at 5 Industry Avenue

4. The site of the land use application (the **application site**) has been developed as a recreational reserve area for the Waterloo Business Park and remains in the ownership of Waterloo Park Limited.

5. The Council limited notified the land use application to one party, Tegel Foods Company Ltd (**Tegel**). Tegel lodged a submission on the application.

BACKGROUND / HISTORY

6. This matter has had a lengthy and complex history, some of which has limited relevance to my decision on the land use application. I set out a summary here:

    a. The applicant lodged the land use application for deposition of fill material on the application site in February 2017[3].

    b. Throughout 2017 and 2018, there were various requests from the Council for further information and associated responses from the applicant. In addition, the Council identified that a further resource consent application was needed for a discharge permit for the discharge of contaminated leachate from the deposition site.

    c. In May 2018, the applicant lodged a discharge permit application[4] (CRC185677) for the passive discharge of potential contaminants emanating from contaminated materials deposited within the ground at the site of the land use application (the passive discharge application). Further requests for additional information followed from the Council, with associated responses from the applicant including a draft Long-Term Monitoring and Management Plan (**LTMMP**) for the deposition site, and proposed conditions of consent for both applications.

    d. On 19 November 2018, the Council provided the applicant with a draft Notification Recommendation Memorandum[5] recommending that the land use and passive discharge applications be limited notified to the owners of seven identified bores. The applicant responded with additional technical information and discussions, disagreeing with the Council's position and seeking that the bore owners not be considered affected parties. An updated LTMMP, and updated proposed conditions of consent for both applications, were also provided by the applicant.

    e. Following consideration of the additional information and discussions with the applicant's advisors, the Council updated its Notification Recommendation Memorandum[6],

[3] Application for Resource Consent / February 2017 / Earthworks – Lot 601 – Stage 5 / Prepared for Waterloo Park Limited, by Davis Ogilvie
[4] Application for Discharge Consent / May 2018 / Waterloo Business Park – Passive Discharge Consent / Waterloo Park Limited, prepared by Davis Ogilvie
[5] Memorandum from Henry Winchester (Consents Planner), Notification Recommendation for CRC174709 & CRC185677 – Waterloo Park Limited, dated 19 November 2018
[6] Memorandum from Nick Reuther (Senior Consents Planner), Notification Recommendation for CRC174709 & CRC185677 – Waterloo Park Limited, dated 5 August 2019 (Notification Recommendation Memorandum)

recommending that both applications be limited notified to the owner of one downgradient bore, Tegel. The applicant continued to disagree with the Council's position and with several aspects of the Notification Recommendation Memorandum. The notification recommendation was accepted by the Council's delegated officers, who issued a decision on notification to this effect on 19 August 2019[7].

f. On 23 August 2019, the applicant formally withdrew its passive discharge application[8], and sought that the Council continue to process the land use application on a non-notified basis.

g. On 26 August 2019, the Council[9] advised the applicant that it still considered Tegel to be directly affected by the land use activity and that the land use application needed to be limited to notified to Tegel. This email noted that the Council's discretion in relation to the land use application (for deposition of material over an aquifer)[10] includes consideration of adverse effects on groundwater quality. I am not aware of any updated Notification Recommendation Memorandum or Decision Memo, or whether they were prepared by the Council, for the land use application alone.

h. Limited notification of the land use application to Tegel occurred on 31 August. Tegel lodged a submission opposing the application on 26 September.

7. Notwithstanding the decision of the Council to notify the land use application alone, on 14 October 2019, as a preliminary matter I received a Memorandum[11] from the Council asking for my opinion on whether an application for a discharge permit should be considered alongside the land use application, and whether the hearing of the land use application should be deferred under s91 of the Act until the discharge permit application is made. I summarise my reasons and decision on this preliminary matter in the following section of this report.

8. Following my consideration of the preliminary s91 matter, counsel for the applicant suggested the hearing date for the land use application could usefully be deferred to enable discussions between the applicant and Tegel on the matters raised in Tegel's submission, followed by further meetings with the Council to discuss any resolution reached with Tegel. In my decision on the preliminary matter, I encouraged the parties to meet and undertake productive discussions to address outstanding groundwater quality issues.

9. During the balance of 2019 and throughout 2020, discussions were held between the applicant, Tegel and the Council's officers. This resulted in:

[7] Decision Memo from Yvette Rodrigo, Vanessa Scott and Matt Smith, Notification Decision on Waterloo Park Limited's Land Use (CRC174709) and Discharge (CRC185677) Consent Applications, dated 19 August 2019
[8] Letter to the Council from Chapman Tripp, CRC185677 – Waterloo Park Ltd Written Notice of Withdrawal of Application for Passive Discharge Consent, dated 23 August 2019 (Notice of Withdrawal)
[9] By email from Ms Deepani Seneviratna to the applicant's legal counsel, Chapman Tripp, 26 August 2019
[10] Rule 5.178 of the Canterbury Land and Water Regional Plan (**LWRP**)
[11] Memorandum from Nick Reuther (CRC Reporting Officer), CRC174709 – Waterloo Park Limited: Preliminary Matter, dated 10 October 2019 (the **Preliminary Matter Memorandum**)

a. A Joint Memorandum[12] from the applicant and Tegel agreeing to an attached set of consent conditions and LTMMP[13] which the applicant requested to be included as its amended land use application. On the basis of these conditions and the LTMMP, Tegel confirmed it no longer wished to be heard.

b. A Section 42A Officers Report prepared by Mr Nick Reuther, a Senior Consents Planner for the Council, dated 26 June 2020[14], with attached reports from Dr Lisa Scott, the Council's Senior Scientist: Groundwater, and Mr Rowan Freeman, Senior Environmental Scientist / Consultant[15]. The s42A Report contained recommended conditions for CRC174709. However, no hearing for the land use application was held at that time.

c. Ongoing communication and correspondence between the Council's environmental and scientific advisors (Mr Rowan Freeman and Dr Lisa Scott), the applicant's water engineering consultant (Mr Ian Lloyd); and Tegel's legal and groundwater advisors;

d. Further updated resource consent conditions and LTMMP (v4) from the applicant[16].

10. As full agreement on the consent conditions was not able to be reached between the applicant and the Council, a hearing date was set for 26 November 2020. For this hearing, the parties were provided with a s42A Addendum (also prepared by Mr Reuther) to the 26 June 2020 s42A Report, dated 19 November 2020, along with Addendum Reports from Dr Scott and Mr Freeman.

THE PRELIMINARY MATTER

11. I turn here briefly to the preliminary matter I was asked to consider regarding s91 of the Act. After giving the matter some initial consideration, I asked the Council to circulate the Preliminary Matter Memorandum to the parties involved (the applicant and Tegel), along with a Minute from me as Hearing Commissioner[17]. As this was a new matter raised for my consideration prior to hearing the land use application, I wished to provide the opportunity for the parties to comment on relevant legal aspects of the Council's memorandum prior to my decision on the s91 matter. Comments were received from both parties[18].

[12] Joint Memorandum of counsel for Waterloo Park Limited and Tegel Foods Limited, 10 June 2020
[13] Letter from Davis Ogilvie and Lowe Environmental Limited to Waterloo Park Limited and Tegel Foods Limited, 16 April 2020
[14] I note that this s42A Report is dated 26 June 2019 on its front page, but this is an error and it should have been dated 26 June 2020, as it was signed by Mr Reuther and Dr Burge (as reviewer) on 26 June 2020; and both the accompanying expert reports were dated after 26 June 2019.
[15] Golder Associates (New Zealand) Limited. Mr Freeman had previously been employed by the Council as a Principal Science Advisor – Contaminated Land
[16] Letter from Davis Ogilvie to Environment Canterbury, 16 November 2020
[17] Minute and Directions from Independent Hearing Commissioner, Sarah Dawson, on a preliminary matter pursuant to s91 regarding Resource Consent CRC174709 by Waterloo Park Limited, 23 October 2019
[18] Memorandum of counsel for Waterloo Park Limited in response to minute and directions from Independent Hearing Commissioner, Chapman Tripp, 30 October 2019
Memorandum of counsel of Tegel Foods Limited, 30 October2019

12. My reasons and decision on this matter are set out in my report and decision of 4 November 2019[19].

13. I did not determine, pursuant to s91(1), that the hearing of resource consent application CRC174709 by Waterloo Park Limited for the deposition of fill material, including contaminated material, should not proceed until resource consent applications are made for associated discharge permits.

14. As set out in my report on this preliminary matter, I did not consider on reasonable grounds that both limbs of s91(1) were satisfied. I was satisfied that other resource consents under the LWRP are, or are potentially, required in respect of the proposal to which the land use application (CRC174709) relates. These are discharge permits for the discharge of contaminants into land associated with the use of the land for the deposition of material[20]. However, I did not consider it was reasonable and appropriate for better understanding the nature of the overall proposal and its effects on the environment that additional consent applications for the discharge of contaminants be made before proceeding further with the land use consent application for the deposition of material.

15. I did not consider I had reasonable grounds to determine that wider information for better understanding the essential nature of the proposal and its effects on the environment would be achieved by waiting until associated discharge permit application(s) are made. I considered an appropriate level of understanding of the nature of the proposal could be obtained from hearing the land use application alone.

THE APPLICATION SITE AND THE PROPOSAL

16. Waterloo Business Park is located in Islington, in the west of Christchurch, between Pound Road and the main south railway line, with access through the site via Waterloo Road and Halswell Junction Road. The applicant, Waterloo Park Limited, is the developer and manager of the Waterloo Business Park. The Business Park is being progressively developed with numerous consents to develop and use the land being obtained from CCC and the Council.

17. The Business Park land was historically used by the Islington Freezing Works and is included on the Council's register of contaminated land. Waste materials (construction waste, natural material and industrial waste) previously deposited across the Business Park land have been removed and redeposited within the 1.18ha application site - Lot 601 DP525918[21] of the Waterloo Business Park development - located at 5 Industry Avenue, Islington.

18. The application site has since been capped and grassed as a recreational reserve area for the Waterloo Business Park and remains in the ownership of Waterloo Park Limited.

[19] Report and Decision of Independent Hearing Commissioner, Sarah Dawson, on preliminary matter pursuant to s91 regarding Resource Consent CRC174709 by Waterloo Park Limited, 4 November 2019
[20] In my report on the preliminary matter, I acknowledged uncertainties in relation to discharge permits already held by the applicant for the overall Waterloo Park development, and whether or not compliance with Rule 5.187 can be demonstrated.
[21] Known as the Central Reserve

19. The land use application relates to the deposition of material onto land across the 1.18ha Central Reserve application site. This is a "retrospective" land use consent application as the deposition of the material has already been undertaken.

20. The land use application[22] describes the land use aspect of the proposal as the deposition into the application site (the Central Reserve - Lot 601) of historic fill material excavated from other parts of the wider Waterloo Business Park site[23]. The historic fill material has been identified[24] as including contaminated material (such as asbestos-laden demolition materials, industrial and animal waste). Cleanfill material forms a compacted, low permeability capping layer. At the time of lodging, the land use application stated that the majority of the earthworks had been completed. At my site visit I could see that the earthworks are now fully completed.

21. My understanding from the information provided by the applicant's technical experts and from the Council's experts[25] is that there is/was potential for the discharge of contaminants into the site where they may enter groundwater (both during deposition of the fill material prior to completion of the cap and, at a lesser level, longer-term after cap completion). Whilst there remains disagreement about the level of adverse effect from those discharges, how those effects relate to the nature of the existing environment, and what discharge consents are necessary, there does not appear to be disagreement that there is/was potential for discharge of leachate to have occurred during deposition of the fill material (prior to completion of the cap) and possibly longer-term, albeit at a reducing level.

22. The land use application has been made under Rule 5.178 of the Canterbury Land and Water Regional Plan (**LWRP**)[26] as a restricted discretionary activity for the deposition of material[27] over an unconfined aquifer. The matters to which discretion is restricted are:

    1. The potential for adverse effects on the quality of water in aquifers, rivers, lakes, wetlands and mitigation measures; and

    2. The proportion of any material other than cleanfill and its potential to cause contamination; and

    3. The content and adequacy of the management plan prepared in accordance with Section 8.1 and Appendix B of "A Guide to the Management of Cleanfills", Ministry for the Environment, January 2002.

[22] Application for Resource Consent / February 2017 / Earthworks – Lot 601 – Stage 5 / Prepared for Waterloo Park Limited, by Davis Ogilvie, Section 3.0 Description of the Proposal
[23] I understand the total volume material deposited amounted to approximately 109,400 cubic metres – S42A Report at [57]
[24] From test pits conducted by Davis Ogilvie across the application site
[25] As recorded in the Notification Recommendation Memorandum
[26] As it was worded at the time of lodging the land use / deposition application
[27] Which does not comply with the conditions of Rule 5.177 (controlled activity)

THE HEARING PROCESS

Initial Hearing - 26 November 2020

23. For the 26 November 2020 hearing, in addition to the background information for the land use application, I was provided with:

    a. A Section 42A Officer's Report[28] prepared by Mr Nick Reuther, a Senior Consents Planner for the Council, with attached reports on groundwater quality effects from Dr Lisa Scott, the Council's Senior Scientist: Groundwater, and Mr Rowan Freeman, Senior Environmental Scientist / Consultant.

    b. A Section 42A Addendum[29] (also prepared by Mr Reuther) to the Section 42A Report, along with Addendum Reports from Dr Scott and Mr Freeman.

24. The s42A Report drew on the application documents (as updated from the time of lodging) and the attached technical reports from Dr Scott and Mr Freeman. It provided:

    a. The background to the land use application;

    b. Details of the notification of the land use application and submission received;

    c. A description of the proposed activity, site management, capping, groundwater monitoring and long-term management;

    d. An outline of the relevant legal and planning provisions;

    e. An assessment of actual and potential effects of the activity on the environment, in particular on groundwater quality and users;

    f. Details of the relevant national, regional and district policy relevant to the land use application and an assessment of the proposal in terms of those policies[30];

    g. Recommendations in relation to relevant matters in Part 2 of the RMA;

    h. Consideration of the land use application in terms of Sections 104 and 104C of the Act; and

    i. A recommendation that consent should be granted, along with recommendations regarding the measures required to avoid, remedy or mitigate any adverse effects; the monitoring that should be undertaken; and the duration for the consent.

25. The s42A Addendum addressed the following:

    a. Consideration of the land use application against the relevant provisions of the National Policy Statement Freshwater Management 2020 (NPS-FW 2020) and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-

[28] Section 42A Officer's Report, dated 26 June 2020 (**s42A Report**)
[29] Section 42A Addendum to Officer's Report, dated 19 November 2020 (**s42A Addendum**)
[30] Including relevant National Environmental Standards

F 2020) which took effect on 3 September 2020;

b. In conjunction with the Addendum Reports from Dr Scott and Mr Freeman, consideration of the applicant's latest resource consent conditions and LTMMP (v4)[31], which had been the subject of discussions between the parties; and

c. Revised recommendations regarding conditions of consent and long-term monitoring and management.

26. The s42A Addendum confirmed the Council was in agreement with the applicant's proposed conditions (including the LTMMP which would form part of the consent[32]), apart from the lack of proposed conditions requiring a bond. Mr Reuther's report stated that, overall, he now considered the proposed conditions provided for appropriate and ongoing management of the deposited material and the proposed monitoring regime will be adequate to detect any unforeseen actual and potential adverse effects, with trigger actions detailed in the LTMMP to remedy any effects, should they occur. However, Mr Reuther also recommended imposing bond conditions and attached recommended wording for such conditions which had not been agreed with the applicant.

27. For the applicant, the hearing was attended by Mr Ashley McLachlan from Southpark Corporation[33] and Ms Jo Appleyard, Chapman Tripp, Counsel for Waterloo Park Limited. Ms Appleyard presented legal submissions on behalf of the applicant[34]. She confirmed the applicant supported the Council's recommendations for the unlimited duration of the consent and the conditions of consent, other than the requirement for a bond which the applicant did not support.

28. Mr Nick Reuther, Senior Consents Planner attended for the Council. Dr Scott and Mr Freeman were available for the hearing, however, I had indicated in advance that I did not have any questions for them and they were not required to attend.

29. As the only outstanding matter between the Council and the applicant concerned the imposition of bond conditions, the majority of the hearing focused on this matter. I return to the submissions and evidence presented at this hearing later in my report.

30. By conclusion of the hearing proceedings, the parties and I had agreed that further information was required on the nature of the bond sought by the Council, along with appropriately redrafted bond conditions. I requested that Mr Reuther come back to me with the following information by the end of January 2021:

a. The Council's estimation of the quantum of the bond, taking into account the total cost of the maintenance, remedial works, monitoring, etc., that might need to be undertaken if the bond was required to be exercised, as well as the risk that this will be required. He was to liaise with the applicant over this, and let the applicant know the Council's estimated quantum. Based on this, the Council was to consider whether it considered it was

[31] Letter from Davis Ogilvie to Environment Canterbury, 16 November 2020
[32] Refer proposed Condition 12
[33] Of the Joint Venture partnership developing Waterloo Business Park
[34] Legal Submissions on behalf of Waterloo Park Limited. J M Appleyard, Chapman Tripp. 25 November 2020

worthwhile requiring the imposition of a bond or not, and the applicant was to consider if it would agree to the bond conditions or not.

b. If the Council wished to continue to recommend bond conditions be imposed, redrafted conditions of consent were to be provided - that met the normal RMA requirements for certainty, enforceability, etc. Mr Reuther was to liaise with the applicant over this wording.

Following the 26 November Hearing

31. On 9 December 2020, I received a memorandum[35] from Tegel confirming its agreement to the imposition of the applicant's latest resource consent conditions and LTMMP (v4)[36] in any grant of consent. On that basis, Tegel reconfirmed that it no longer wished to be heard on the application.

32. There were some delays in achieving the outcomes I sought at the end of the 26 November hearing. I agreed to extensions to the timeframe until the end of February 2021 and then to the end of April 2021, on the basis that discussions between the Council and the applicant and the Council review of the bond value and risk calculation were ongoing. On 5 May, I was advised by the Council that discussions between the Council and the applicant regarding the bond matter were not progressing sufficiently to fully respond to my requests. I was provided with an external review undertaken for the Council[37] of the applicant's initial calculation for the bond requirement; a reassessment of that bond calculation; and recommended bond conditions. However, the applicant had not responded to these documents.

33. In order to determine the most efficient way forward, I asked the Council to arrange a conference call between Ms Appleyard, Mr Reuther and myself. I did not wish to proceed with formulating my decision and report on this application on the basis of the bond-related documents provided to me by the Council, as I had not had the opportunity to discuss the new information with Mr Reuther and I had not heard the applicant's views on this material. I wished to seek agreement between the parties to the most efficient and timely way forward. On 24 May, Ms Appleyard, Mr Reuther and I agreed the following steps and timeframes to finalise the hearing process for the land use application:

    a. 11th June – Mr Reuther to circulate an update to the s42A Report to the Hearing Commissioner and applicant, including:
        - The material already exchanged with the applicant – the Council's bond calculation, recommended bond conditions, and review by AECOM;
        - An explanation of the various components of the bond calculations, including the risk percentages; and
        - Any information available from the Council's records regarding previous bonds imposed by a Commissioner (or the Court) for relevant activities, in particular those which were not proffered by the applicant or agreed by negotiation.

[35] Memorandum of counsel on behalf of Tegel Foods Limited, 9 December 2020
[36] Letter from Davis Ogilvie to Environment Canterbury, 16 November 2020
[37] Letter from Mr Ian Jenkins, Operations Director, AECOM, 15 March 2021

b. 14th June – Ms Appleyard to inform the Council on behalf of the applicant as to whether a reconvened hearing is required to respond to the update to the s42A Report or whether the applicant agrees to respond in writing.

c. 28th or 29th June – Ms Appleyard, Mr Reuther and the Hearing Commissioner were all available on these days for a reconvened hearing, if required.

34. Mr Reuther duly prepared a second Addendum to the s42A Report[38] which was circulated on 10 June. On 16 June I received advice that the applicant considered a reconvened hearing would be necessary. This was scheduled for 28 June.

Reconvened Hearing – 28 June 2021

35. For the reconvened hearing, Mr Reuther's 2021 s42A Addendum provided:

a. His reasons for recommending the bond conditions;

b. The Council's calculation of the recommended bond amounts, based on the initial calculations received from the applicant, with a review and recommendations from Mr Ian Jenkins, Operations Director, AECOM[39];

c. The Council's recommended bond conditions, including a condition enabling the consent holder to seek revision of the bond amounts based on the provision of additional information regarding the costs involved, prior to finalising the bond agreement; and

d. Information regarding resource consents where bond conditions have been imposed.

36. For the applicant, the reconvened hearing was attended by Mr Joel Webber, from Southpark Corporation, who is the Development Manager for Waterloo Business Park[40]; Mr Ian Lloyd, Senior Water Engineer, Davis Ogilvie[41]; and Ms Jo Appleyard, Chapman Tripp, Counsel for Waterloo Park Limited. Ms Appleyard presented an updated version of her legal submissions from 26 November 2020[42], focusing on the applicant's reasons for opposing the bond condition. Without prejudice to the applicant's opposition to a bond being imposed, Ms Appleyard commented on the bond conditions recommended by Mr Reuther. Mr Lloyd and Mr Webber were available to answer my questions and also addressed the recommended bond conditions.

37. For the Council, Mr Reuther attended the reconvened hearing and Mr Jenkins was available throughout the hearing by video conference. Mr Reuther addressed his 2021 s42A Addendum and they both answered my questions.

38. I have set out the relevant submissions and evidence presented at this reconvened hearing, in

[38] Section 42A Addendum to Officer's Report, dated 8 June 2021 (**2021 s42A Addendum**)
[39] Letter from Ian Jenkins, Operations Director, AECOM, to Nick Reuther, ECan, dated 5 March 2021
[40] Mr Webber stated he had taken over the role from Mr Ashley McLachlan who had attended the 26 November hearing.
[41] Mr Lloyd confirmed he had been involved with this application for the last 4 years, was the key author of the LTMMP and had assisted with developing the applicant's accepted consent conditions.
[42] Legal Submissions on behalf of Waterloo Park Limited. J M Appleyard, Chapman Tripp. 28 June 2021

combination with that presented at the initial hearing, in the following section of my report.

39. At the end of the 28 June hearing, I formally closed the hearing itself. I indicated I would undertake a site visit, which I considered I could do unassisted as the site was accessible during business hours from a public road. Following my site visit, I considered I would be in a position to finalise my decision on this application.

SITE VISIT

40. I visited to the application site at 3.45pm on 30 June 2021. I could not walk across the site as the gates were closed, but I was able to walk along the street boundaries and achieve reasonable views across the site. The site is fenced, with security gates. The filled area is elevated above the surrounding land. It is contoured and more elevated in parts, although most of the site is relatively flat. It is fully grassed with a well-maintained, grass cover. There is landscape planting around the perimeter of the site, including on the battered slopes of the elevated areas. Some of the plants appear to be more recent replacement plantings. There are paths across the site, seating, and some limited recreational equipment.

KEY ISSUES IN CONTENTION – EVIDENCE AND SUBMISSIONS FOR THE APPLICANT AND THE COUNCIL

Matters other than the Bond Conditions

41. By the time of the hearings, the only outstanding matter between the Council and the applicant concerned the imposition of bond conditions. However, as my decision needs to address the overall application, at the initial hearing and prior to addressing the bond matter, I asked Mr Reuther questions regarding his overall evaluation of the land use application. In particular, I was concerned to understand whether the land use application was made and considered under the proper provisions of the LWRP.

42. In his s42A Report[43] Mr Reuther referred to the deposited material generally meeting the definition of "municipal solid waste" in the LWRP. He noted that Policy 9.4.1 of Sub-regional Section 9 of the LWRP (Christchurch-West Melton) seeks to "prevent" new landfills (other than cleanfill or inert fill) over the Christchurch Groundwater Protection Zone[44]. He also identified Rule 5.90 which classifies any discharge of municipal solid waste into or onto land in this Zone as a prohibited activity, for which no consent application can be made. I wanted to understand how the discharge of municipal solid waste could be prohibited under one rule in the LWRP, but the deposition of material over an unconfined aquifer was being considered as a restricted discretionary activity under a different rule.

43. Mr Reuther explained that if this application was to deposit the material at the application site prior to the work being undertaken he would have applied Rule 5.90, meaning an application to discharge

[43] At [62]
[44] The application site is shown on the LWRP Planning Maps as being located in the Christchurch Groundwater Protection Zone

municipal solid waste could not be made or considered. However, as this is a retrospective consent, the work having already been undertaken, he had taken a pragmatic approach and applied the available land use consent provisions of the LWRP (Rule 5.178) rather than the discharge requirements of Rule 5.90. In his s42A Report[45], Mr Reuther had considered the significance of the effects that would likely result from uncovering and removing the contaminated material (i.e. re-exposing the material to air and potentially rainfall that could result in a new contamination pulse being released). In these circumstances, he considered it more appropriate to recommend consent under Rule 5.178, in order that suitable conditions can be implemented for the ongoing management and monitoring of the capped waste material and its effects. In response to my question, Mr Reuther confirmed that if this was a discharge permit application before me now he would recommend the same conditions to address the potential for adverse effects as he has recommended for the land use application.

44. I questioned Mr Reuther as to what effects from the land use activity he had considered when making his recommendations on conditions, given that a separate consent application has not been made for the long-term passive discharge of potential contaminants from the materials deposited within the ground. I asked Mr Reuther if he had considered the potential for long-term effects on groundwater quality from ongoing passive leaching of contaminants from the deposited material as a potential effect of the land use activity. He confirmed that he had considered this as a potential effect.

45. Concerning the same matter, I asked Mr Reuther if the potential for long-term effects on groundwater quality from ongoing passive leaching of contaminants depends on the adequate maintenance of the cap over the long-term. He agreed this is an important factor[46]. I asked if a minimum of 30 years is considered adequate for the long-term maintenance of the cap. Mr Reuther noted that a minimum of 30 years is in accordance with national guidelines[47] and had been agreed by both the Council's and the applicant's technical experts. Mr Reuther also confirmed that agreement had been reached between the technical experts on all aspects of the monitoring conditions, including their frequency and duration.

46. I also asked Mr Reuther if the review condition contained in the applicant's final version of the consent conditions had addressed his earlier concerns regarding comprehensiveness[48]. He responded that it had done so.

Applicability of Bond Conditions to this Application

47. Turning to the general matter of applicability of bond conditions to this application, Ms Appleyard presented legal submissions at both the hearings[49]. I will return later to the more specific matter of

[45] At [337]
[46] Refer to [182] of the s42A Report
[47] WasteMINZ (2018). *Technical Guidelines for Disposal to Land*. Water Management Institute New Zealand Incorporated. Auckland, New Zealand.
[48] Refer to [277] of the s42A Report
[49] Legal Submissions on behalf of Waterloo Park Limited. J M Appleyard, Chapman Tripp. 25 November 2020; and Legal Submissions on behalf of Waterloo Park Limited. J M Appleyard, Chapman Tripp. 28 June 2021

the calculation of the quantum of the bond and the wording of the recommended bond conditions.

48. Ms Appleyard accepted that a bond is allowable and able to be imposed as a condition of consent under s108(2)(b) and s108A of the Act[5051]. In answer to my question, she agreed that the deposition of contaminated material over an unconfined aquifer is the type of activity for which a bond is commonly considered appropriate. However, Ms Appleyard distinguished the proposed activity from those for which a bond is more generally appropriate. She considered this to be a different factual scenario in that the work has all been undertaken, including the capping and several years of monitoring, and this is not an uncertain long-term deposition scenario which has yet to be undertaken and monitored.

49. Ms Appleyard highlighted the relevant aspects of the *Newbury* principles which must be satisfied for conditions of consent generally, specifically that the bond conditions are for a resource management purpose, not an ulterior one; fairly and reasonably relate to the application; and are not unreasonable[52].

50. It was Ms Appleyard's submission[53] that bond conditions are not reasonable or proportionate to the risk they are responding to because financial bonds are generally considered appropriate when there is significant risk, uncertainty and long-term implications of the activity, whereas in this case[54]:

    a. The fill material has been placed well above the highest expected groundwater level, the low-permeability cap is already constructed and maintained, and the potential risk of adverse effects is very low;

    b. The only potential effect of concern is the potential for the organic material within the fill to decompose and generate leachable nitrogen. This risk and its implications are well understood and there is no uncertainty about future restoration required to remedy adverse effects;

    c. The level of potential nitrogen leaching is very low and is already decreasing over time. This is a well understood and managed issue for Christchurch groundwater;

    d. The risks from nitrogen leaching are already well reduced since the time of initial deposition and current monitoring indicates that very limited leaching is now occurring;

    e. Risks are to be robustly managed through the consent conditions and LTMMP; and

    f. There are no outstanding technical issues to be attended to that would warrant a financial bond.

[50] All paragraph references are to Ms Appleyard's Legal Submissions of 28 June 2021 which incorporated and added to those of 25 November 2020.
[51] At [20]
[52] At [22]-[23]
[53] At [5]-[13] & [24]
[54] Ms Appleyard and Mr Lloyd referred me to the Further Information provided to the Council for the technical support for these statements

51. In her submission[55], in this context where the effects on the environment are not unknown and the environmental risk is very low and adequately managed by the conditions of consent, a requirement for a bond would be significantly out of proportion with the environmental risk involved.

52. It was Ms Appleyard's submission[56] that the Council does not have any reasonable resource management basis for seeking inclusion of bond conditions. She submitted the Council's desire for a bond appears to arise from its concern that the applicant may look to transfer the site to another entity in the future, or that the applicant might go into liquidation or 'run away' from the consent and not comply with its conditions to monitor and maintain the cap and undertake remedial works. She did not consider any of these situations were valid concerns. In terms of future ownership, she pointed out that the consent and its obligations would transfer to any new owner. She stated there is no immediate risk of insolvency for the applicant and the risk of liquidation is a possibility for all resource consents with ongoing obligations. She did not consider this to be an appropriate justification for a bond condition. The applicant cannot surrender its consents without approval from the Council. Ms Appleyard concluded there is no valid concern that the applicant will 'run away' from its consent obligations.

53. Ms Appleyard also expressed[57] the applicant's concerns that no other consents held for the development of the Waterloo Business Park require a bond. She explained that a large number of consents are held across the 114ha site to enable the development and use of the former freezing works site as the Business Park, with none including the imposition of a bond to secure performance with the conditions. Construction waste, natural materials and industrial waste have been removed from various historical capped and uncapped landfills across the overall Business Park site, under different consents from the Council. A previous consent was obtained to deposit contaminated materials into a different location within the Business Park site, although I understand this consent was not used for this purpose. The material has now been deposited in the Central Reserve site of this application. Ms Appleyard stated that it is difficult for the applicant to understand why the Council is now seeking a bond for this current application.

54. Following Ms Appleyard's earlier suggestion, Mr Reuther provided information in his 2021 s42A Addendum regarding other consents where a bond condition has been imposed. Ms Appleyard noted that, in all examples, the bond was proffered or accepted by the applicant. She considered the examples were not analogous to the current situation and she had not been able to identify any other consents to discharge nitrogen where a relevant bond has been imposed[58].

55. In summary, Ms Appleyard's legal submissions concluded[59] that the Council's proposed bond conditions in this particular circumstance involving a retrospective consent, known effects only of nitrogen leaching and a low probability of occurrence, are not fair and reasonable, and certainly not

[55] At [25]
[56] At [27]-[30] & [33]
[57] At [2]-[4] & [26]
[58] At [34]-[37]
[59] At [41

at the quantum proposed.

56. In response to the applicant's legal submissions at the 26 November hearing and the associated discussion between myself and Ms Appleyard, Mr Reuther accepted that the legal submissions raised some valid points. He accepted that a change of ownership of the application site would not result in an increased risk as the conditions of consent would also be transferred. He agreed the environmental risks involved with this "retrospective" consent are less than if the works had not already been undertaken. He agreed the risk is not high that the applicant would "walk away" from the consent and the implementation of the long-term conditions, however, he still considered this is a possibility.

57. Mr Reuther continued to consider a bond condition is necessary. It was his opinion that the maintenance of a well-functioning cap is essential over a long period of time to protect against adverse effects for groundwater quality and users. He considered there remain unknown environmental risks to groundwater quality from natural events (such as an earthquake crack, scouring from a flooding event, or differential settlement) that could damage the cap, or from a lack of proper cap maintenance. These situations would require remedial works to be undertaken to protect groundwater quality. The monitoring requirements also need to be undertaken over a long period of time. If the applicant is not there to undertake this work, or does not do it, there would be a cost to the Council to ensure that the work is done and groundwater quality adequately protected. It was Mr Reuther's opinion that this constituted sufficient residual risk to recommend a bond condition, which was in-line with similar conditions imposed on managed cleanfill landfills that may contain asbestos contaminants (for example).

58. Mr Reuther continued to express these views in his 2021 s42A Addendum[60]. He noted the scale and nature of the activity that has occurred and the sensitivity of the underlying aquifer. With the site now being capped, he accepted that the waste material deposited on the site is likely to stabilise over time. His focus was on achieving a robust management approach that provides certainty the low permeability cap is maintained and any effects identified through monitoring are addressed effectively and in a timely manner. He noted this management approach, as detailed in the LTMMP, needs to be sustained over the long term to ensure groundwater monitoring can continue and the inspection and ongoing maintenance of the cap (as required) carry on into the future. Mr Reuther stressed that the costs of doing this should not be borne by the community, in the event that the consent holder defaults or walks away from the site, and that the imposition of a bond is necessary to ensure this.

59. With regard to bonds required on other resource consents[61], Mr Reuther identified four recent Canterbury examples. In each case, the bond conditions were either agreed or proffered by the applicant. In answer to my question, Mr Reuther agreed that the other resource consents held for development of the Waterloo Business Park site did not include bond conditions. He also inquired

[60] At [5]-[7], [18]-20], [23] & [31]
[61] 2021 s42A Addendum at [26]-[31]

of other regional councils around the country with typical responses being that agreement to bond conditions is not required and bonds can be imposed at the discretion of the consent authority if it believes a bond is necessary to secure performance of consent conditions. Mr Reuther also gave his opinion that the RMA does not require consent authorities to seek or reach agreement with the applicant prior to imposing a bond condition. He also noted that decisions on resource consent applications do not set a precedent with each application being decided on its merits under the circumstances of the application.

The Quantum of the Bond and Wording of Bond Conditions

60. At the 26 November hearing, Ms Appleyard addressed the wording of the conditions recommended in the s42A Addendum. She noted the lack of an identified quantum for the bond, no formula used to calculate the bond, no risk-based input to the conditions, no mechanism to reduce the quantum of the bond over time, and the uncertainty of the wording of the bond conditions. Mr Reuther agreed the wording of the proposed bond conditions was not clear and not sufficiently certain.

61. Following my discussion on this matter with Mr Reuther, Mr McLachlan assisted us with examples of the costs of regular cap maintenance, of fixing the cap after a natural event or if it was not maintained properly, to provide Tegel with a bigger water supply pipe (from the CCC supply) if there was an increased risk of groundwater contamination for Tegel, and for the ongoing groundwater monitoring requirements. This was helpful. However, further details were still required before clear and certain bond conditions could be drafted.

62. By conclusion of the 26 November hearing, the parties and I agreed that further information was required on the nature of the bond sought by the Council, along with appropriately redrafted bond conditions. I requested that Mr Reuther come back to me with further information, having liaised with the applicant.

63. As Mr Reuther set out in his 2021 s42A Addendum[62], the Council and the applicant agreed the applicant would provide an initial estimate of the costs involved in maintenance, remedial work and monitoring of the application site over the 30 years aftercare period, and the Council would engage an expert to review this work. This duly happened with Mr McLachlan providing a spreadsheet and notes containing his calculation of an estimated bond quantum. This was provided to Mr Jenkins, along with the s42A Report and the LTMMP, so that he could review the applicant's estimate. Mr Jenkins provided his response, with an amended bond calculation, on 5 March 2021.

64. These documents, along with the Council's amended recommended bond conditions, were provided to the applicant on 16 March 2021. Following my directions on 24 May, the documents were attached to Mr Reuther's 2021 s42A Addendum (including the review by Mr Jenkins) and became a focus of the reconvened hearing.

65. I note here that Ms Appleyard has been clear that her comments on the quantum of the bond and the Council's recommended bond conditions were without prejudice to the applicant's general

[62] At [9]

opposition to the imposition of any bond requirement. I acknowledge the applicant's position on this.

66. The following areas of disagreement between the applicant and the Council (Mr Reuther and Mr Jenkins) were discussed (and the subject of my questions) at the 28 June hearing:

Why the Risk of the Consent Holder not implementing the Consent Conditions is not included in the Calculation of the Quantum of the Bond?

67. Ms Appleyard's legal submissions emphasised there is no suggestion of any risk of insolvency for Waterloo Park Limited and that the company is tied to the Business Park and its consent obligations for the foreseeable future[63]. She submitted[64] that, in assessing the quantum of the bond, the chances of the applicant going into liquidation should be assessed. Otherwise, in her submission, every consent issued by the Council will need to include a bond to deal with this possibility, with significant ramifications for consent applicants generally.

68. In his estimate of the bond quantum, Mr McLachlan[65] set the chance of Southpark Corporation walking away from the consent as 1% and, accordingly, adjusted the estimated annual costs for "Aftercare"[66] of the site by a factor of 0.01.

69. Mr Jenkins stated in his review that it is not typical practice in determining a bond to apply a probability of occurrence to the "Aftercare" component of a bond. He stated that this part of the bond is to ensure the performance of any monitoring obligations, as well as any site aftercare obligations such as the care of the cap. It is normally calculated as the Nett Present Value of all aftercare costs over the 30 year consent period, with scheduled reviews as the remaining consent term reduced.

70. I asked Mr Jenkins why the probability of the consent holder not undertaking the aftercare requirements is not typically included in bond calculations, whereas the probability of specific risk scenarios is included in calculating the "Compliance"[67] components of a bond. He advised that all aspects of a bond are to cover the "what if" events, if the consent holder is not there to address them itself. The "Aftercare" requirements are costs that occur with time, they don't have a % risk of occurrence as they will occur every year. If the consent holder is not there, the "Aftercare" costs will always need to be covered and the bond quantum needs to be calculated to fully cover this situation, should it occur. Mr Jenkins stated that all landfill bonds, that he is aware of, are set up this way.

[63] Legal Submissions at [27.3], [27.4], [33] & [35]
[64] At [40.5]
[65] Mr McLachlan did not appear before us to explain his assessment of 1% probability, as he has since left the company. However, his calculation represents a low level of probability.
[66] The "Aftercare" components are the monitoring requirements of the LTMMP and the regular ongoing maintenance of the cap
[67] The "Compliance" components are the actions that would be required to ensure compliance with all conditions of a consent and to avoid, remedy or mitigate any adverse effects arising from foreseeable risk scenarios

Inclusion of Costs for Providing Alternative Water Supply to Tegel

71. The Council's recommended calculation for the bond requirement[68] included a cost of $90,000[69] to provide an alternative water supply to Tegel for each of the possible risk events in the "Compliance" component of the bond. Mr Jenkins' review[70] identified that the provision of alternative supply that meets drinking water standards in the event groundwater is contaminated is a consequence of the risk events occurring. He stated it is likely that this would be required even if only for a period of time, if groundwater was impacted. He considered this should be incorporated in the consequence cost for each risk event. The 2012 s42A Addendum[71] allowed for this cost in the recommended bond conditions (Condition 24)[72] and also included Condition 27 to allow for a more detailed assessment of the costs for an alternative water supply. It was Mr Reuther's recommendation[73] that provision of an alternative water supply should form part of the bond as this is an offset agreed by the applicant and the submitter (Tegel) in the form of Condition 23.

72. Ms Appleyard addressed this matter in her legal submissions[74]. In her submission, the fact that the conditions comprise a complete agreement between the applicant and Tegel is the very reason why it is inappropriate for the Council to re-negotiate that agreement by introducing new conditions Tegel did not seek itself. Tegel was satisfied with the conditions put forward by the applicant, such that they did not want to be heard, and Tegel has not sought a bond to secure performance of the condition relating to an alternative water supply. Ms Appleyard advised there is a process agreed with Tegel, in the unlikely event of any leaching, to determine if an alternative supply is needed. Even if the cap was damaged and some nitrogen leached out of the site, it is not certain that an alternative water supply would be needed. She noted that the calculation of costs by the Council is at odds with the mechanisms agreed between the applicant and Tegel. In her submission, it would be highly irregular for the Council to enter into a matter determined between other parties by imposing further conditions to address the concerns of a submitter who has reached agreement itself (with the input from an expert and a legal advisor).

73. Mr Lloyd also responded to this matter. He highlighted the provisions of the LTMMP which establish a process to work through should the nitrate-nitrogen triggers in the proposed consent conditions be exceeded. He outlined the various steps that are required before any action is necessary to address a predicted exceedance of drinking water standards at the Tegel bores. At that point, agreement is to be reached as to what option is acceptable to Tegel, including the consent holder providing an alternative water supply for the Tegel site. I note these steps are required by Conditions 20 and 23 of the proposed consent conditions and are set out in more detail in Section 4.0 of the LTMMP. Although not detailed in the LTMMP, Mr Lloyd explained the alternative water

[68] Attached to the 2021 s42A Addendum
[69] Mr Jenkins estimated a cost for providing water at 5000l/day at 10cents/litre for 180 days
[70] Letter from Ian Jenkins, Operations Director, AECOM, to Nick Reuther, ECan, dated 5 March 2021. At [4.0]
[71] At {14} & [15]
[72] In Attachment 3 to the 2021 S42A Addendum
[73] 2021 s42A Addendum at [21.d]
[74] At [39.1]-[39.5]

supply options that have been discussed with Tegel. These include providing additional capacity for Tegel to take more water from their existing CCC connections, or deepening Tegel's existing bores so that water can be taken from a lower aquifer.

74. Having heard the submissions from Ms Appleyard and Mr Lloyd's explanation, Mr Jenkins accepted the need to provide an alternative water supply to the Tegel site would have a different risk profile than he had included in his bond calculations for each risk event, due to the range of steps set out in the LTMMP. He had not undertaken a more detailed risk evaluation and had included a conservative estimate of the cost involved. He agreed the appropriate cost to include in the bond calculation was not clear at this stage. Mr Reuther explained that his recommended Condition 27 is intended to enable further refinement of this cost prior to finalising the bond agreement.

Additional Risk Scenario – Differential Settlement in the Low Permeability Cap

75. Mr Jenkins' review[75] identified a risk scenario that had not been considered in the bond assessment being "*Differential settlement leading to ponding and increased infiltration*", which could result in groundwater quality impact. He considered that the bond calculation should be expanded to include this scenario, with the cost of recontouring earthworks to prevent ponding if settlement of the cap occurs. Mr Jenkins included estimated costs for this work, with an annual probability of 0.01 that this risk event would occur. Mr Reuther accepted Mr Jenkins' assessment and included the estimated cost in his recommended bond conditions to address maintenance and reinstatement of the integrity of the low permeability cap.

76. Ms Appleyard's legal submissions[76] expressed the applicant's concern that the risk of differential settlement had been significantly overstated by Mr Jenkins.

77. Mr Lloyd addressed this matter at the reconvened hearing. Having spoken to geotechnical engineers within his company, Mr Lloyd agreed with Mr Jenkins that this risk scenario is the most likely of the 3 risks now identified. However, he considered the appropriate annual probability to apply to this risk event is half that recommended by Mr Jenkins (i.e. 0.005), due to the stability of much of the deposited material and the low risk of nitrogen leaching even if settlement and ponding resulted in the material becoming wet.

78. In answer to my questions, Mr Jenkins agreed that differential settlement, resulting in ponding and potential for increased nitrogen leaching, is the single biggest issue for the maintenance of cap integrity. In his experience, consent holders for landfills often have to come back to do something to remedy this type of event. He stated that it would be preferable if a more detailed calculation of risk probability had been undertaken for this site, but in the absence of that, he had undertaken his assessment based on practice and understanding of other sites. He noted that it is a known effect at some landfill sites, but not necessary at this site, and he has never seen a landfill site with a significant proportion of deposited organic material that is volumetrically stable. In his opinion, his

[75] At [3.0]
[76] At [39.7]-[39.8]

conservative estimate of 0.01 is an appropriate annual probability to apply for this risk event.

79. Mr Lloyd responded to Mr Jenkins. He agreed that if this was a new landfill with new material being deposited, then it would be volumetrically unstable and there would be a higher probability of differential settlement. However, for this application, Mr Lloyd stated that of the 109,400m^3 of material deposited, 19% contains some organic material of which the majority is soil or fatty byproduct material from the previous freezing works. It was his evidence that very little of the deposited material was general rubbish or vegetation that would be volumetrically unstable. He considered the fatty byproduct material, which had been buried for a long time previously across the wider Business Park site, would be well degraded and had been compacted when redeposited at the application site. For these reasons, Mr Lloyd considered the risk of differential settlement was less than for a new landfill site and less than Mr Jenkins' evaluation of the risk.

80. Both Mr Jenkins and Mr Reuther referred to the review process (provided for in Condition 27) enabling more information to be provided by the applicant to refine the costs and risks associated with differential settlement at this site.

Probability of an Earthquake damaging the Low Permeability Cap

81. Ms Appleyard[77] pointed out that the Council had used a different annual chance of an earthquake occurring of 0.007 (0.7%) compared with the applicant which had used 0.0007 (0.07%). Mr Jenkins confirmed that he had not adjusted the probability used in the applicant's initial spreadsheet of calculations for the bond requirement. I noted the applicant had used a different value in its spreadsheet than set out in the notes accompanying it. Mr Lloyd agreed and advised that, although he was not a seismic expert, the annual probability should be 0.07% based on the parameters set out in the applicant's spreadsheet notes.

82. Mr Jenkins noted that he also was not a seismologist and that, in the absence of an expert evaluation from the applicant, he had applied a "sense check" to the information in the applicant's initial spreadsheet. He had thought 0.7% seemed high but had just used that number as it was included in the applicant's spreadsheet.

Probability of Flooding causing scouring to the Low Permeability Cap

83. The applicant's initial spreadsheet of calculations for the bond requirements had identified a possible risk event being a flooding (or storm) event causing scouring of the landfill cap. Based on the raised level of the cap above surrounding ground, the lack of a catchment, and protection to the cap provided by topsoil and vegetation, the applicant had determined the chance of such an event scouring the landfill cap as nil.

84. Using an empirical assessment approach, Mr Jenkins' review[78] identified that flooding events leading to scouring of a landfill cap are certainly known to occur nationally and locally in conditions that do not differ significantly from the conditions at the application site. On this basis he considered

[77] Legal Submissions at [39.6]
[78] At [6.0]

the probably of such an event to be in the order of 1 in 1000 years or an annual probability of 0.001. In answer to my questions, Mr Jenkins confirmed that such an event was not inconceivable (i.e. not a probability of 1 in 10,000 years), but could conceivably occur in some instances which put the probability in the realm of 1 in 1000 years. However, he noted that this would have little bearing on the total bond quantum.

85. In response to Mr Jenkins, Mr Lloyd stated that he agreed with an annual probability of 0.001 being applied.

Aftercare Costs for Mowing and Gardening

86. Ms Appleyard noted the Council's calculation of bond requirements included a cost for "*mowing*" and "*gardening*" to "*maintain the cap and fire hazard*"[79]. It was her submission that "mowing" and "gardening" are not requirements of the proposed consent conditions or the LTMMP and, therefore, cannot be included in a bond calculation designed to secure performance of the conditions.

87. Mr Reuther responded to this at the reconvened hearing. He noted that the requirements for the low permeability capping layer in proposed Condition 6 include it being vegetated in shallow rooting grass and plant species, and proposed Condition 8 requires the low permeability capping layer to remain permanently in place and be maintained for a minimum of 30 years. It was his opinion that these conditions required the maintenance of the vegetation (grass or plant species) as part of maintenance of the capping layer. He agreed this may not require mowing or gardening, however he considered some cost should be provided for in the bond to cover the ongoing maintenance of an intact vegetation cover and its reinstatement if it should die. He referred to Condition 27 as being the mechanism to review and refine the costs associated with this ongoing aftercare requirement.

5 Yearly Review of the Bond Quantum

88. The bond conditions recommended by Mr Reuther[80] included a requirement for the bond quantum to be reviewed every 5 years (Condition 28). However, this was restricted to the quantum for post-closure monitoring and after-care obligations under recommended Condition 24(b) which Mr Jenkins' review had recommended be reviewed 5 yearly[81]. However, in answer to my questions at the reconvened hearing, Mr Jenkins noted that more information about the nature and probability of identified risk events may become available during the term of the consent, which may lead to a review of the bond quantum for addressing those events. In his opinion, the 5 yearly review condition should apply to both parts of the bond quantum in Condition 24 and that this would be a normal requirement of similar bond conditions. Mr Reuther agreed with this amendment to his recommended Condition 28. The applicant did not express a view on this matter.

[79] Costs for "mowing" and "gardening" were included in the applicant's initial spreadsheet of Aftercare costs for the bond requirement.
[80] Attachment 3 to the 2021 s42A Addendum
[81] At [7.0]

ASSESSMENT

Granting the Application

89. As outlined earlier, there is no disagreement between the Council and the applicant that the application should be granted consent. The only submitter, Tegel, reached agreement with the applicant regarding a set of conditions and did not wish to be heard further on the overall application. The only outstanding matter concerned the imposition of bond conditions, which I address below.

90. In terms of the relevant planning framework for determining this application, I received evidence only from Mr Reuther on behalf of the Council.

91. I accept the evidence of Mr Reuther that this land use activity application is appropriately considered as a restricted discretionary activity in terms of LWRP Rule 5.178 (the rule under which the application was lodged). The rule applies, in this case, to the deposition of material over an unconfined aquifer. I also accept his evidence that Rule 5.178 enables consideration of the potential for long-term effects on groundwater quality from ongoing leaching of contaminants from the deposited material, as a potential effect of this land use activity.

92. Mr Reuther provided evidence assessing the actual and potential effects on the environment of allowing the application. His evidence was supported by specialist expert evidence on groundwater quality effects from Dr Scott and Mr Freeman. I accept their agreed evidence[82] at the time of the initial hearing that, overall, the applicant's proposed conditions (other than the absence of bond conditions) provide for appropriate and ongoing management of the deposited material and the proposed monitoring regime will be adequate to detect any unforeseen actual and potential adverse effects, along with trigger actions detailed in the LTMMP.

93. I note Mr Reuther had turned his mind to the alternative[83] - that he recommend consent be refused with the deposited material being required to be removed. However, given the retrospective nature of this application; that the material is now capped and likely to stabilise over time reducing the potential for leaching to groundwater; and that removing the material has the potential to result in a contamination pulse with significant adverse effects; Mr Reuther recommended granting consent to the application with robust management conditions that provide certainty the low permeability cap is maintained and any adverse effects identified through monitoring are addressed effectively and in a timely manner. I agree with and accept Mr Reuther's evidence on this approach.

94. Mr Reuther's evidence[84] addressed the relevant objectives and policies of the LWRP and the provisions of the higher-order and other relevant planning documents as follows:

    a. The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS);

    b. The National Environmental Standards for Sources of Human Drinking Water (NES-DW);

[82] s42A Addendum at [37]-[38]
[83] s42A Report at [345] & [385]
[84] s42A Report at [278]-341] and s42A Addendum at [4]-[36]

c. The National Policy Statement Freshwater Management 2020 (NPS-FM 2020) and the National Environmental Standards for Freshwater 2020 (NS-F 2020);

d. The Canterbury Regional Policy Statement (CRPS);

e. The Canterbury Water Management Strategy; and

f. The Christchurch District Plan (CDP).

95. Mr Reuther did not find any inconsistencies with the relevant National Environmental Standards. Subject to appropriate management and monitoring (as he recommended), he found the land use activity would be generally consistent with the relevant policies of the NPS-FW. Similarly in relation to the CRPS, Mr Reuther found that, with the Council's recommended conditions and the proposed LTMMP, the activity would not be contrary to (or not inconsistent with) the relevant objectives and policies relating to effects on groundwater quality and effects from contaminated land. In terms of the relevant objectives and policies of the LWRP, Mr Reuther concluded that the land use activity is inconsistent with several objectives and policies of the LWRP. However, given the land use activity has already occurred and the significance of effects that would likely result from uncovering and removing the contaminated material, he concluded that, subject to his recommended conditions and LTMMP, the activity is in principle not contrary to the objectives and policies of the LWRP as a whole. Similarly, Mr Reuther concluded the land use activity is not contrary to the overall policy framework provided in the CDP.

96. Mr Reuther also provided his evaluation of the application in terms of the matters in Part 2 of the Act. He concluded that, subject to his recommendations on conditions, the land use activity will achieve the purpose of the Act.

97. I was not provided with any other evidence on the relevant objective and policy considerations or on Part 2 of the Act. Accordingly, I accept Mr Reuther's conclusions on these matters.

98. In terms of my consideration of the application under s104(1) and 104C of the Act, I agree with Mr Reuther and the applicant that consent should be granted to this land use activity, subject to the conditions proposed by the applicant and agreed by the Council, including the LTMMP. However, the outstanding matter for my consideration is the application the bond conditions recommended by the Council.

The Imposition of Bond Conditions

99. There is very little case law relevant to the circumstances of this case regarding the imposition of bond conditions. Ms Appleyard did not point me to any relevant case law, other than the *Newbury* principles that I refer to below. However, there was no disagreement from the applicant that a bond is allowable and able to be imposed as a condition of consent on this application under s108(2)(b) and s108A of the Act, as a means of securing the ongoing performance of conditions relating to long-term effects of a consented activity. On behalf of the applicant, Ms Appleyard also agreed with my proposition that the deposition of contaminated material over an unconfined aquifer is the type of activity for which a bond is commonly considered appropriate. Bonds are commonly used

via consent conditions to ensure ongoing maintenance and/or restoration of rehabilitation and protection measures, as well as for ongoing monitoring requirements and undertaking any remedial actions required as a result of future monitoring results.

100. As set out by Ms Appleyard, the matter for me to determine is whether, in the factual circumstances of this activity, a bond condition will satisfy the *Newbury* principles[85] which, generally speaking, any condition must satisfy. In particular, Ms Appleyard referred to whether a bond condition is for a resource management purpose; fairly and reasonably relates to this proposed activity; and is reasonable and proportionate in the circumstances.

101. I have considered the arguments from Ms Appleyard regarding the risk that the applicant will 'run away' from the consent and not comply with the requirements of its conditions. I accept this is not the intention of the applicant. The LTMMP states[86] that Waterloo Park Limited is currently the owner of the Central Reserve and plans to retain its ownership. I acknowledge the information provided on behalf of the applicant as to the long-term nature of Waterloo Park Limited's business and interests in this site. However, the aftercare period required by the proposed conditions is 30 years. The low permeability capping layer needs to be maintained throughout that 30 year period, monitoring carried out and potential remedial actions undertaken. Throughout that period there will be some risk of adverse events that may compromise the cap's integrity. 30 years is a long time in the life of any land ownership arrangement, or in the life of any particular company or development entity. There is no implication that Waterloo Park Limited, the initial consent holder, is currently an inherently risky proposition. However, it is not possible to provide evidence that Waterloo Park Limited will retain ownership of the site over the 30 year period, nor that no future consent holder will ever abandon its responsibilities in relation to aftercare, monitoring and consent compliance for this site. In my opinion, there remains a risk of this happening, albeit small. It is not an inconceivable scenario and should not be discounted completely. It is the type of situation for which a bond under s108A is specifically provided - to secure the ongoing performance of conditions relating to long-term effects.

102. In this regard, I am satisfied that a bond condition in the circumstances of this activity would be for a resource management purpose and would be clearly related to the potential for adverse effects from the activity for which discretion is able to be exercised under Rule 5.178 - i.e. to secure the ongoing performance of conditions designed to ensure long-term protection of groundwater quality from potential adverse effects of nitrogen leaching as a result of this land use activity.

103. The next question is whether the imposition of a bond is reasonable and proportionate in the circumstances of this activity and its potential for adverse groundwater effects.

104. All parties accept that the site is located over an unconfined aquifer within the Christchurch Groundwater Protection Zone on the LWRP Planning Maps. The evidence from Dr Scott[87] is that

[85] *Newbury District Council v Secretary of State for the Environment* [1980] 1 All ER 731 (HL), [1981] AC 578 at 599-600
[86] LTMMP, v4, October 2020, Section 5.0
[87] s42A Report, Appendix 1, at [27]

this zone covers the area which supplies public water for Christchurch and is most intrinsically vulnerable to infiltration of contaminants into the groundwater. She also refers[88] to the location as being in the recharge zone of the aquifer that supplies drinking-water for Christchurch. It is my assessment the location is potentially very sensitive to adverse effects from activities that could leach contaminants into the groundwater aquifers. I received no evidence to the contrary.

105. The material deposited into the application site has the potential to leach contaminants (particularly nitrogen) into the underlying groundwater. The LTMMP states[89] that approximately 20% of the deposited material consists of fats, animal by-products and organic matter and there is concern that this material could generate a nitrogen containing leachate which could contaminate the underlying groundwater system. There does not appear, therefore, to be disagreement between the applicant's and the Council's technical experts that the material deposited into the application site presents a risk of contamination of this sensitive groundwater aquifer and that mitigation of that risk is required.

106. There is no dispute that the application site was not lined with an impermeable lining layer prior to the material being deposited. This is despite the site being in a very sensitive location and that such a lining would be standard procedure for any modern landfill accepting contaminated material. As stated in the LTMMP[90], the key method for reducing the risk of nitrogen containing leachate from the deposited material contaminating the underlying groundwater system is the 1 metre thick low permeability cap. This is not disputed by the Council officers. Dr Scott states[91] that capping the deposited material with low permeability silts will reduce the rate at which stormwater can infiltrate and slow down leaching (but is unlikely to stop it entirely). Mr Reuther accepts[92] the now capped deposited waste material and residual leachate is unlikely to result in a significant direct and cumulative adverse effects on the groundwater environment downgradient of the site. However, he also states that this is provided the cap is maintained in the long term, and the trigger actions in the LTMMP are adhered to.

107. Ms Appleyard's legal submissions[93] were intended to persuade me that the risk of nitrogen containing leachate contaminating the underlying groundwater system is low and it is, therefore, unreasonable and disproportionate to the risk to secure performance of the conditions by way of a bond. She did not provide me with technical or planning evidence to support this position. Mr Lloyd, the applicant's water engineering expert at the reconvened hearing, is the lead author of the LTMMP which itself emphasizes the key importance of maintaining the integrity of the cap in order to reduce the potential for infiltration through the deposited material. Ms Appleyard's assertion[94] that the application site will not leach any quantities of nitrogen that would be of concern relies on the

[88] s42A Report, Appendix 1, at [37]
[89] LTMMP, v4, October 2020, Section 1.0
[90] LTMMP, v4, October 2020, Section 2.0
[91] s42A Report, Appendix 1, at [99]
[92] s42A Report at [195]
[93] Legal Submissions at [5]-[13]
[94] Legal Submissions at [12]

ongoing role of the cap in limiting infiltration of rainfall that could leach nitrogen from the deposited material.

108. In summary, I consider the circumstances of this land use activity consist of:

a. a location which is potentially very sensitive to adverse effects from activities that could leach contaminants into the groundwater aquifers which supply public water for Christchurch;

b. material deposited into the application site that presents a risk of contamination of this sensitive groundwater aquifer and that ongoing mitigation of that risk is required;

c. an application site that was not lined with an impermeable lining layer prior to the material being deposited;

d. the key method for reducing the risk of nitrogen containing leachate contaminating the groundwater system being the maintenance of the integrity of the low permeability capping layer; and

e. the ongoing performance of the consent conditions, monitoring requirements and LTMMP being very important for ensuring adequate management of any residual leaching effects or potential risks to the cap's integrity.

109. On the basis of those factors, I consider the imposition of a bond to secure ongoing performance of the key conditions to protect groundwater quality is reasonable and proportionate in the circumstances of this particular activity and its potential for adverse groundwater effects. Although the risk may be low that a future consent holder will abandon its responsibilities in relation to aftercare, monitoring and consent compliance for this site, this risk is not inconceivable. I consider the potential consequences of this for contamination of sensitive groundwater aquifers need to be guarded against. Although the costs involved are not very high, the imposition of a bond requirement will secure the ongoing ability to undertake the essential cap maintenance, monitoring and any remedial actions in a timely manner without imposing the cost of this on the wider community.

110. I have also considered Ms Appleyard's submissions questioning why this particular consent is being targeted for a bond condition when no other consents held for the wider Waterloo Business Park require a bond, and when many other consents to discharge nitrogen do not require bonds to secure relevant conditions. These other consents are not before me and I am not, and cannot be, familiar with the particular circumstances of those consent applications. I agree with Mr Reuther that the decision on this resource consent does not set a precedent for other applications and that the appropriate condition requirements for each application need to be determined in terms of the circumstances of each application. It is my opinion that there are particular circumstances associated with this activity and its potential for adverse groundwater effects that warrant the imposition of a bond condition to secure compliance with key conditions.

Quantum of the Bond and Wording of Bond Conditions

111. I now turn to the areas of disagreement between the applicant and the Council regarding the quantum of the bond requirements and the wording of the bond conditions. I will address the key points that I identified earlier in this report.

Inclusion of the Risk of the Consent Holder not implementing the Consent Conditions in the Calculation of the Quantum of the Bond

112. I have already provided my evaluation that there remains a risk of the consent holder not implementing the condition of this consent. Albeit small, this risk is not an inconceivable scenario and I consider it is the type of situation where a bond under s108A is specifically provided for - to secure the ongoing performance of conditions relating to long-term effects if this situation should arise. In terms of reducing the required quantum of a bond based on the numerical likelihood of a consent holder not implementing the consent conditions, I accept the evidence of Mr Jenkins, based on his experience with the management of waste disposal to land, that bonds are intended to fully cover the situation when the consent holder is not there to implement the conditions. The amount of the required bond should not be reduced based on the risk of this situation occurring. This would mean there would be insufficient bond funds available to secure performance of the conditions if the consent holder is not there to do so. Either the conditions would not be achieved or the additional costs would fall on the community. This would negate the rationale for the bond. I accept Mr Jenkins' advice that all landfill bonds, that he is aware of, are set up to cover the full cost of securing performance of the relevant conditions. I do not consider it appropriate or reasonable to consider this risk when calculating the quantum of the bond for this consent.

Inclusion of Costs for Providing Alternative Water Supply to Tegel

113. I acknowledge Ms Appleyard's submission that it would be highly irregular for conditions to be imposed that cut across an agreement reached between the applicant and a submitter. However, I do not consider this to be the intention of the recommended bond conditions.

114. Tegel[95] has informed me it has agreed to a set of conditions and LTMMP to be included in the grant of consent. The agreed set of conditions and LTMMP (v4) are those attached to a letter from Davis Ogilvie[96] and appended to the s42A Addendum from Mr Reuther. Tegel's memorandum of 9 December refers to the proposed conditions relating to the content and amendment process for the LTMMP (including the consultation requirements with Tegel as owners of bores BX23/0152 and M35/3662); the requirements for groundwater monitoring and responses; and Condition 23 which requires options acceptable to Tegel (including an alternative water supply) to be provided where exceedance of drinking water standards in Tegel's bores is predicted. Mr Reuther's recommendation is that all these conditions are accepted. His recommendation of additional conditions requiring a bond is for the specific purpose of securing performance of these conditions

[95] Joint Memorandum of counsel for Waterloo Park Limited and Tegel Foods Limited, 10 June 2020; and Memorandum of counsel on behalf of Tegel Foods Limited, 9 December 2020
[96] Letter from Davis Ogilvie to Environment Canterbury, 16 November 2020

should a future consent holder abandon its responsibilities in relation to aftercare, monitoring and consent compliance.

115. I am not aware of any separate agreement between the applicant and Tegel (if there should be one) that would ensure Tegel's requirement for a water supply that meets drinking water standards is met, irrespective of the applicant's future as consent holder or owner of the application site. I cannot take this into account. However, Condition 23 and the process set out in the LTMMP would be conditions of this consent for which the ongoing performance needs to be secure. I do not see Condition 23 as being different from the other proposed conditions in terms of the reasonableness of a bond requirement to secure its ongoing performance in the circumstances of this particular activity and its potential for adverse groundwater effects, as I have determined above.

116. However, I accept the points made by Ms Appleyard and Mr Lloyd that the quantum recommended by Mr Jenkins for this aspect of the bond requirement does not reflect the mechanism agreed between the applicant and Tegel and included in the conditions and LTMMP. Mr Jenkins accepted this, acknowledging that the appropriate cost to include in the bond for providing an alternative water supply to Tegel would be less than his initial conservative estimate. As Mr Jenkins noted, this would require a more detailed risk evaluation, which has not been undertaken by the applicant.

117. I consider a cost for securing Condition 23 should be included in the "Compliance" components of the bond quantum for each of the identified risk events. The only relevant cost provided to me is Mr Jenkins' conservative estimate of $90,000. Condition 27 (recommended by Mr Reuther) would be the mechanism for the applicant to provide additional information to establish a reasonable, risk-based, cost to include in the bond requirement prior to finalising the bond agreement. The 5 yearly review condition (Condition 28 recommended by Mr Reuther) could also be used.

Risk of Differential Settlement in the Low Permeability Cap

118. Mr Lloyd agreed with Mr Jenkins that the risk of differential settlement in the low permeability cap is a reasonable risk event to take into account when calculating the quantum of the bond requirement. He also agreed with Mr Jenkins that this risk scenario is the most likely of the 3 risk events identified. Their disagreement, which I outlined earlier, related to the annual probability that should be applied to this risk event when calculating the quantum of the bond, in particular whether the risk of differential settlement is less for this application site than for a new landfill because the material deposited at the site is mostly volumetrically stable.

119. I did not receive detailed evidence on this matter and the applicant had not provided a detailed calculation of the risk probability specifically for this site. In the absence of this information, I prefer the advice of Mr Jenkins, based on his experience and understanding of other landfill sites, that the more conservative estimate of 0.01 is an appropriate annual probability to apply to this risk event at this application site. However, Condition 27 recommended by Mr Reuther would give the applicant the opportunity to provide additional information to refine the risk evaluation for differential settlement at this site and thereby adjust the quantum of the bond required to address the

consequences of this risk event. The 5 yearly review condition (Condition 28 recommended by Mr Reuther) could also be used.

Probability of an Earthquake damaging the Low Permeability Cap

120. Although both Mr Lloyd and Mr Jenkins stated they are not seismic experts, they each advised that an annual probability of 0.007 seemed high for the annual chance of an earthquake causing a crack in the landfill cap. Mr Lloyd calculated the annual probability as 0.0007 and Mr Jenkins did not dispute this. Although I did not receive strong evidence on this point, I accept the position of Mr Lloyd that the annual probability of this risk event should be set at 0.0007 when calculating the bond requirement.

Probability of Flooding causing Scouring to the Low Permeability Cap

121. Mr Lloyd and Mr Jenkins agreed that the annual probability of a flooding (or storm) event causing scouring of the landfill cap should be set at 0.001, rather than nil as proposed by the applicant. I accept their advice on this parameter for the bond calculation.

Aftercare Costs for Mowing and Gardening

122. I accept the submission of Ms Appleyard that "mowing" and "gardening" are not specifically requirements of the proposed consent conditions or the LTMPP. However, I agree with Mr Reuther that maintenance of the low permeability capping layer over the 30 year aftercare period includes maintenance of its topsoil and vegetative cover as required by proposed Conditions 6 and 8. Condition 8(b) specifically requires immediate reinstatement of the low permeability capping layer should routine inspections find it to be compromised. I agree there is potential for integrity of the capping layer to be compromised if it is not maintained adequately. I consider the cost of this maintenance is a reasonable "Aftercare" cost to include within the bond quantum. However, I was not provided with any information regarding the likely cost of this maintenance and any remediation work should it be required. Perhaps regular mowing and gardening, as initially suggested by the applicant, is an appropriate proxy for this cost to include in the bond quantum. I do not have the information to be clear about this, but they are the only relevant costs provided to me. In order to progress the granting of this application, with reasonable conditions, I consider this cost should be included in the "Aftercare" component of the bond quantum. Condition 27 (recommended by Mr Reuther) would then be the mechanism for the applicant to provide additional information regarding reasonable maintenance and remediation costs for the capping layer and thereby adjust the quantum of the bond required to address this aspect of the ongoing aftercare requirements. The 5 yearly review condition (Condition 28 recommended by Mr Reuther) could also be used.

5 Yearly Review of the Bond Quantum

123. Mr Jenkins and Mr Reuther advised that the 5 yearly review of the quantum of the bond (as recommended by Mr Reuther in Condition 28) should apply to both parts of the bond quantum set out in recommended Condition 24. Mr Jenkins advised that this would be a normal requirement of similar bond conditions. I accept their advice on the application of recommended Condition 28.

Overall Evaluation

124. Having considered the relevant matters identified in s104(1) of the RMA, and only those matters allowed by s104C for an application for a restricted discretionary activity under LWRP Rule 5.178, I conclude that the purpose and principles of the RMA would be best achieved by granting the resource consent sought, subject to conditions.

125. I agree that consent to this land use activity should be subject to the conditions proposed by the applicant and agreed by the Council and the submitter, Tegel, including the LTMMP. These are:

a. the Purpose and Conditions (0) – (23);

b. Conditions (24) – (26) to be renumbered as Conditions (32) – (34);

c. Plans CRC174709A and CRC174709B; and

d. the Long Term Monitoring Management Plan, October 2020 / Central Reserve Depositional Site / Waterloo Business Park / Waterloo Park Limited; all as attached to the Davis Ogilvie letter to Environment Canterbury of 16 November 2020 which forms Appendix 1 to the s42A Addendum.

I have made some minor punctuation amendments which do not change the intent of the conditions proposed by the applicant. I have altered the reference to "drinking water standard" in Condition 23(b) to refer more specifically to "Drinking Water Standards for New Zealand" consistent with that reference in Condition 13.

126. In addition, for the reasons I have given earlier in this decision, I consider the bond conditions recommended by Mr Reuther to secure ongoing performance of the key conditions to protect groundwater quality are reasonable and proportionate in the circumstances of this particular activity and its potential for adverse groundwater effects. Accordingly, I consider consent to this land use activity should be subject to Conditions (24) – (31) which form Attachment 3 to the 2021 s42A Addendum, amended as follows:

a. The bond quantum in Condition 24(a) reduced to NZ$ 52,750 as a consequence of reducing the annual probability to 0.007 for an earthquake damaging the low permeability capping layer;

b. Clarification of the wording in Condition 27 to:

- refer to Condition 6, as well as Condition 8, in 27(a), as Condition 6 establishes the requirements for the low permeability capping layer that are to be maintained in accordance with Condition 8;
- refer to Condition 23 in 27(c), as Condition 23 sets out the requirements in relation to the owners of bores BX23/0152 and M35/3662, which are prescribed in more detail in Section 4.0 of the LTMMP; and
- amend the wording of 27(c) to read *"including, as required*," where referring to

provision of an alternative water supply to the owners of bore BX23/0152 and/or bore M35/3662.

c. The bond components that may be reviewed every 5 years under Condition 28 extended to both parts of the bond quantum under Condition 24.

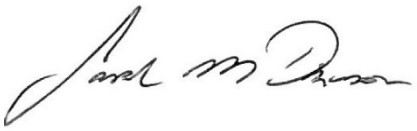
My reasons for these amendments have been given earlier in this decision.

127. I agree that an unlimited duration in accordance with s123(b) of the RMA, as requested by the applicant and agreed by the Council, is appropriate for this land use activity consent, subject to its conditions.

DECISION

128. For the reasons addressed above, it is my decision that land use consent CRC174709 is granted, pursuant to sections 104, 104C, 108 and 108A and subject to Part 2 of the Resource Management Act 1991, subject to the conditions attached to this decision in Annexure 1 (which include Plans CRC174709A and CRC174709B and the Long Term Monitoring Management Plan dated October 2020).

Dated this 9th day of July 2021



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Sarah Dawson

Independent Hearings Commissioner

Annexure 1

Canterbury Regional Council – Land Use Consent - CRC174709 - Conditions

Purpose: To undertake earthworks, to discharge contaminants onto or into land in circumstances where those contaminants may enter water, to use land for the deposition of material.

	Definitions
(0)	**ESCP** means Waterloo Business Park – Central Park (Lot 601) Erosion Sediment Control Plan, June 2016. Prepared by Davis Ogilvie & Partners Ltd, or any successor to that document. **SRMP** means Stage 5 Site Remediation and Management Plan, April 2016. Prepared by Davis Ogilvie & Partners Ltd, or any successor to that document. **LTMMP** means the document entitled Long Term Monitoring Management Plan – Central ReserveDepositional Site Waterloo Business Park V4 (LTMMP), dated October 2020, or any LTMMP subsequently amended in accordance with Conditions (15) and (16) of this resource consent. **Unsuitable Fill Material** means material sourced from the area shown as 'Waterloo Business Park Development' on the attached Plan CRC174709A, which forms part of this resource consent,and which consists of the following: (a) Construction waste – including concrete, building rubble, brick rubble, asbestos material, timber and metal etc. (b) Natural material – including vegetation, wood, roots, decomposed material, soil and gravel. (c) Industrial waste – including bone fragments, "BioBlend", fat, black ash, plastic and general rubbish.
	Limits
(1)	The activity authorised by this resource consent shall be limited to: (a) The deposition of Unsuitable Fill material; and (b) The deposition of low permeability cleanfill material to form a capping layer over theUnsuitable Fill Material deposited under (a); and (c) Associated rehabilitation of the site; Within the site located at 5 Industry Avenue, Islington, Christchurch, within the site legally described as Lot 601 DP 525918, at or about map reference NZTM2000 1559558, 5179028, and as shown as 'Central Reserve Depositional Site' on the attached Plan CRC174709A, which forms part of this resource consent. **Advice Note:** The excavation and stockpiling of material was a permitted activity under the Canterbury Land and Water Regional Plan at the time this resource consent was considered.
(2)	There shall be no further deposition of material described under Condition (1)(a) after 31 October 2018.
(3)	The activity described in Condition (1) shall be carried out in accordance with the SRMP andESCP, which form part of this resource consent. **Advice Note:** Where there are any discrepancies between either the SRAP or the ESCP and theconditions of this resource consent, the resource consent conditions shall prevail.
(4)	(a) The Unsuitable Fill material deposited under Condition (1)(a) of this resource consent shall be deposited to a depth of: (i) No deeper than a Reduced Level of 36.1 metres in terms of

	Christchurch Drainage Datum; and (ii) No shallower than 1.3 metres below the finished ground level. (b) Only material consisting of topsoil, clay, gravel bricks and concrete shall be deposited below a Reduced Level of 37.0 metres in terms of Christchurch Drainage Datum.
	Following Completion of the Deposition of Waste Material
(5)	Within six months of the commencement of this resource consent, the consent holder shall provide to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring: (a) Certified Fill Records documenting the type of material, the volume and where it is deposited within the site. The Fill Records shall be certified by a suitably qualified and experienced person who is familiar with the actual depositional works; (b) Certified double ring infiltration test results that confirm that the low permeably capping layer has a vertical permeability of less than 10^{-7} metres per second. The infiltration test results shall be certified by a suitably qualified and experienced person who is familiar with the infiltration testing that was undertaken. (c) A certificate that certifies that the works, particularly the construction of the low permeability capping layer, have been undertaken in accordance with the conditions of this consent. The certificate shall be signed by a Chartered Professional Engineer (CPEng) with geotechnical experience. This CPEng shall also sign a statement confirming that they are competent to certify the engineering work and are familiar with the construction of the low permeability capping layer; (d) A certificate that certifies that the maximum depth of waste material deposited does not exceed the RL specified in Condition (4)(a). The certificate shall be signed by a suitably qualified and experienced person with surveying experience and who is familiar with the depositional works that occurred at the Central Reserve Depositional Site; (e) An 'as built' plan showing the exact location (defined by GPS coordinates points), final geometry and the final depth and thickness of both the Unsuitable Fill and the Low Permeability Capping Layer within the Central Reserve Depositional Site; and (f) Photographs which show the demarcating of the perimeter of the depositional area and the low permeability cap.
	Low Permeability Capping Layer
(6)	Low permeability cleanfill material deposited under Condition (1)(b) of this resource consent shall: (a) Be deposited as a Low Permeability Capping Layer over all Unsuitable Fill Material; and (b) Have a compacted thickness of at least one metre; and (c) Consist only of material defined as being 'Acceptable Material' as set out in Section 4.2 of the Ministry for the Environment publication *A Guide to the Management of Cleanfills dated January 2002*, Publication date: January 2002, Publication reference number: ME 418; and (d) Have a vertical permeability of no greater than 10^{-7} metres per second as per the Ministryfor the Environment publication *A guide to the management of closing and closed landfills in New Zealand*, Publication date: May 2001, Publication reference number: ME 390; and (e) Be covered by a layer of at least 300 millimetres of topsoil and vegetated in shallow rooting grass and plant species. (f) The final contour and elevation of the Central Reserve Depositional Site (i.e. the Low Permeability Capping Layer with its covering layer of topsoil) shall be such that it avoids ponding above the capped area and ensures all surface runoff from the capped area drains to surrounding land. **Advice Note:** Shallow rooting grass and plant species are species which have a predominant rooting depth of up to 300 mm. The intent is that the roots of the grass and plant species used will predominantly remain within the 300 mm layer of covering topsoil

	and will not significantly penetrate the capping layer.
(7)	The surface area and vertical presence of the deposited Unsuitable Fill material shall be clearly demarcated by a continuous pervious material placed within the Low Permeability Capping Layerat 0.25 metres above the top of the Unsuitable Fill Material.
(8)	(a) The Low Permeability Capping Layer shall permanently remain in place and be maintained for a minimum duration of 30 years. (b) Should it be determined through the routine inspections required under Condition (9), that the Low Permeability Capping Layer has been compromised it shall be reinstated immediately, as far as practicable, to the requirements described under this resource consent.
(9)	The integrity of the Low Permeability Capping Layer required under Condition (6) of this resource consent shall be monitored for a minimum duration of 30 years. The monitoring shall consist of physical inspections to assess for subsidence and integrity by a suitable experienced geotechnical engineer, and shall be undertaken as follows: (a) Following any of the following events: (i) Any earthquake that causes local ground movement that results in visible ground cracking, subsidence or slumping on or around the Central Reserve Depositional Site; (ii) Any rainfall or flooding event that causes visible surface ponding of water within theCentral Reserve Depositional Site which lasts longer than 24 hours; and (iii) The appearances of voids, ground cracking, ground subsidence or ground slumpingon or around the Central Reserve Depositional Site; (b) At least annually for the first 3 years after: (i) The commencement of this resource consent; or (ii) Any inspection undertaken under (a); or (iii) Any inspections that indicate subsidence and integrity issues that require remedial action; and (c) At least 5 yearly, unless written approval is received from Canterbury Regional Council approving less frequent inspections. (d) Inspection records shall be completed for all inspections and be submitted to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring within one month of the completion on the inspection.
	Restrictions on Future Site Use
(10)	Within the area shown as 'Central Reserve Depositional Site' on Plan CRC174709A that iscovered by the Low Permeability Capping Layer described under Condition (6) of this resource consent: (a) There shall be no planting of trees or other deep rooting plant species other than those plants provided for under Condition (6)(e); and (b) Structures or services placed on or into the Low Permeability Capping Layer shall be designed and installed in a manner that does not compromise the integrity or low permeability nature of the Low Permeability Capping Layer and does not create preferential drainage paths. (c) There shall be no use of heavy machinery (gross weight greater than 10 tonnes) without prior approval and supervision by a suitable qualified geotechnical expert. The approval and any associated recommendations provided by the suitable qualified geotechnical expert shall be provided to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring, at least 10 working days prior to the heavy machinery being used.
(11)	(a) Information about any structure installed within the area that is covered by the Low Permeability Capping Layer shall be provided to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring, at least 10 working days prior to the structure being installed. (b) The information shall include design plans, drawings or sketches of the proposed structure(s), that clearly demonstrate that the structure does not compromise the integrity orlow permeability nature of the Low Permeability Capping Layer and does not create preferential drainage paths.
	Long-term Monitoring Management Plan (LTMMP)

(13)	The purpose of the LTMMP is to ensure that: (a) The Low Permeability Capping Layer required under Condition (6) of this resource consent is maintained and appropriately managed; and (b) Any actual and potential adverse effects on groundwater and surface water quality as a result of the deposition of Unsuitable Fill in the Central Reserve Depositional Site that are identified through groundwater quality monitoring are responded to in an effective and timely manner; and (c) Any actual and potential adverse effects on downgradient groundwater users, measured as an actual or potential exceedance of the Drinking Water Standards for New Zealand's Maximum Acceptable Value for nitrate-nitrogen in their downgradient groundwater bore, as a result of the deposition of Unsuitable Fill in the Central Reserve Depositional Site, that are identified through groundwater quality monitoring are responded to in an effective and timely manner.
(14)	The LTMMP shall include the following information: (a) Key contacts and responsibilities; (b) A description of the site including the location of the deposited Unsuitable Fill Material; (c) A description of the Low Permeability Capping Layer and any ongoing monitoring, inspection and maintenance requirements to ensure its performance; (d) Any limitations to the activities that are allowed to occur on the Central Reserve Depositional Site; (e) A detailed outline of the groundwater monitoring programme, location of groundwater monitoring bores, monitoring frequency, sampling methodology as required underConditions (17) and (18); (f) A description of the nitrate-nitrogen trigger limits adopted for sensitive receptors; (g) A description of the process to be followed and the investigations that are to be carried out when there is a breach of the nitrate-nitrogen trigger limits adopted for sensitive receptors; (h) A description of the potential mitigation measures to be employed to manage any potential adverse effects identified through monitoring, including a description of the process to be followed to select and then implement the preferred mitigation measure; and (i) Confirmation from the owners of bores BX23/0152 and M35/3662 that they have been consulted with and provided approval of the LTMMP.
(15)	The LTMMP may be amended, in consultation with the owners of Bores BX23/0152 and M35/3662, at any time. Changes or updates to the LTMMP shall be: (a) Only for the purpose of improving the efficacy of the mitigation measures described in the LTMMP; (b) Consistent with the conditions of this resource consent; (c) In response to monitoring results, including any outcomes in relation to the investigationsrequired or carried out under the LTMMP; (d) To address any changes to relevant national, and/or regional planning documents; and/or (e) To incorporate into the LTMMP the use of new technologies, new opportunities foradditional mitigation or new environmental data and research.
(16)	Any amendments to the LTMMP in accordance with condition (15) shall be submitted to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring for certification that it is consistent with the purpose of the LTMMP under Condition (13), all other conditions of thisresource consent, and that it contains the information required under Condition (14). The amended LTMMP shall not replace the previous version until the amendments have been certified by the Canterbury Regional Council as being consistent with the conditions of this resource consent. Once certified, the amended LTMMP will replace the LTMMP under Condition (12) and will forthwith be required to be implemented and maintained.
	Groundwater Monitoring
(17)	The consent holder shall maintain the following shallow groundwater monitoring bores in the locations shown on attached Plan CRC174709B, which forms part of this resource consent:

(a) At least one shallow groundwater monitoring bore, located immediately up-gradient of the Central Reserve Depositional Site;
(b) At least two shallow groundwater monitoring bores, located immediately down-gradient of the Central Reserve Depositional Site; and
(c) At least two shallow groundwater monitoring bores, located down-gradient of the Central Reserve Depositional Site and at or near the Waterloo Business Park site boundary.

Advice Note: Various shallow groundwater monitoring bores were installed during processing of this consent. The immediately up-gradient monitoring bore required under (17)(a) is numbered BX23/0815. The immediately down-gradient monitoring bores required under (17)(b) are numbered BX23/0816 and BX23/0817. The down-gradient monitoring bores on or near the Waterloo business Park site Boundary required under (17)(c) are numbered BX23/0819 and BX23/1024. The above mentioned bores are deemed to meet the requirements of Condition (17).

(18) Groundwater quality monitoring shall occur in the bores required to be installed and maintained in accordance with Condition (16)(a)(i) and (ii). Groundwater samples shall be taken as follows:
(a) Monthly samples shall be taken from the monitoring bores described in Condition (16)(a)(i) and (ii) by a suitably experienced person;
(b) Samples shall be analysed by an International Accreditation New Zealand (IANZ) accredited laboratory, or a laboratory accredited by an organisation with a mutual agreement with IANZ, for the following contaminants:

Nitrate nitrogen
Nitrite nitrogen
Nitrate + nitrite nitrogen
Total ammoniacal nitrogen

(19) The results of the monitoring required by Condition (18) shall be used calculate the change in Nitrate-N concentration between the monitoring bore immediately up-gradient of the Central Reserve Dispositional Site and each of the two monitoring bores immediately down-gradient of the Central Reserve Depositional site. The two values of change shall be calculated as follows:
(a) Nitrate nitrogen concentration in bore BX23/0816 less Nitrate-N concentration in bore BX23/0815; and
(b) Nitrate nitrogen concentration in bore BX23/0817 less Nitrate-N concentration in bore BX23/0815.

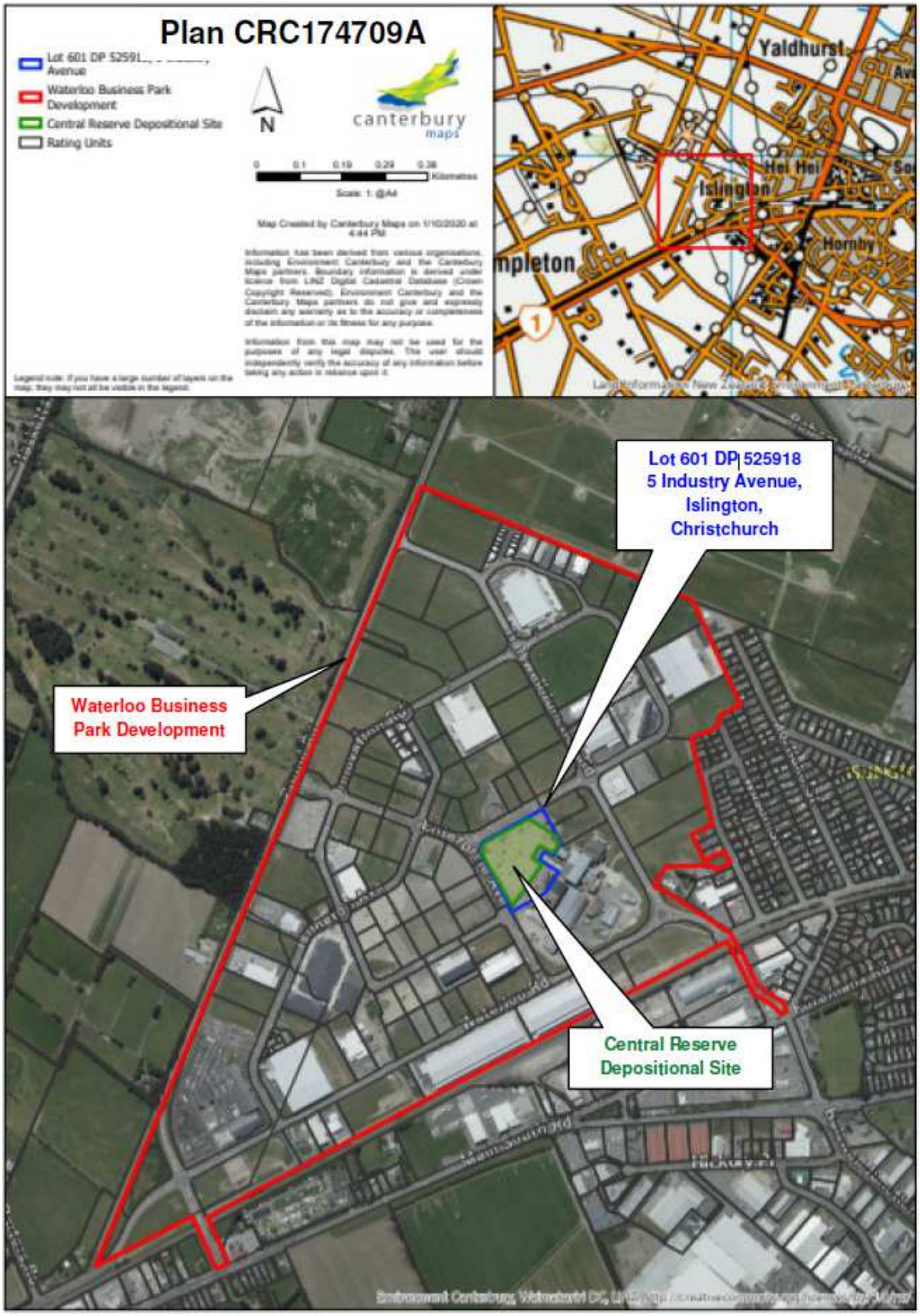
(20) If the change in nitrate nitrogen concentration calculated via Condition (19) exceeds the following trigger levels, then the actions outlined in the LTMMP shall be implemented:

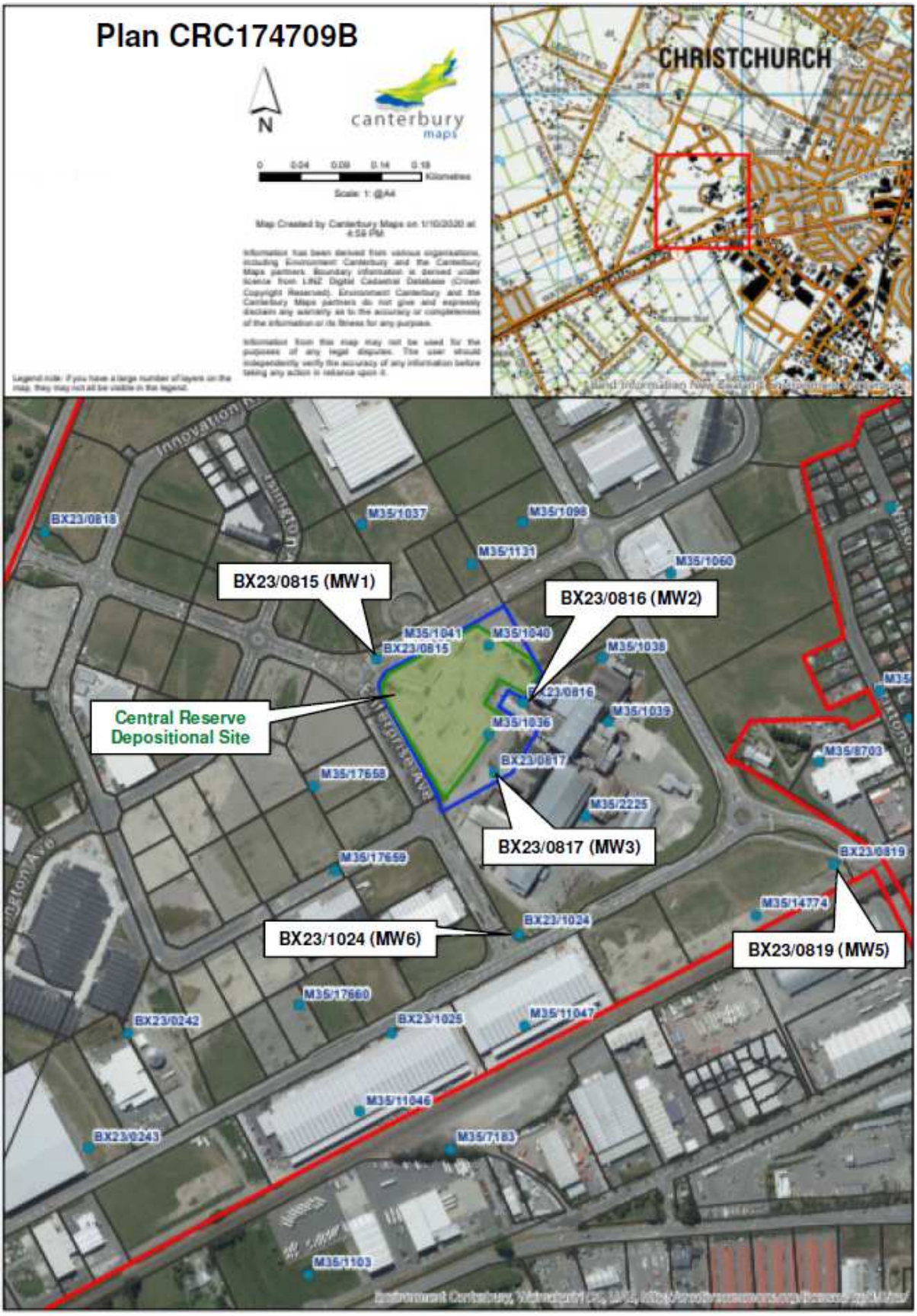
	Change in Nitrate-N concentration (1)	
Nitrate-N concentration in the monitoring bores immediately down-gradient of the Central Reserve Depositional site(2).	**Preparation Trigger**	**Implementation Trigger**
Nitrate-N concentration <11.3 mg/L	2.83 mg/l	5.65 mg/l
Nitrate-N concentration 211.3 mg/L	1 mg/l	2 mg/l

	Notes: (1) The change in Nitrate-N concentration shall be calculated as down-gradient concentration (namely concentration in bores BX23/0816 and BX23/0817) less up-gradient concentration(namely concentration in bore BX23/0815). Two change values will be calculated for each monitoring event. The trigger is breached if one or both of the two change values exceedsthe trigger. (2) Currently the monitoring bores immediately down-gradient of the Central Reserve Depositional Site are numbered BX23/0816 and BX23/0817.
(21)	The groundwater monitoring required by Condition (18) shall be continued for at least 24 months following completion of the physical works. After which the continuation and frequency of the groundwater monitoring shall be assessed annually as follows: (a) If the change in Nitrate-N concentration calculated via Condition (19) for all of the monitoring events undertaken in the previous 24 months does not exceed 50% of the Preparation Triggers in Condition (20), then the groundwater monitoring frequency shall reduce one step down through the following sequence: (b) monthly --- bi-monthly --- quarterly --- annually --- monitoring shall cease. (c) If any of the triggers outlined in Condition (20) are exceeded monitoring frequency shall revert back to monthly. (d) Should it be determined through the routine inspections required under Condition (9), that the Low Permeability Capping Layer has been compromised the groundwater monitoring frequency shall revert back to monthly. (e) Otherwise, the monitoring frequency shall remain at its current frequency.
(22)	The laboratory analysis results from the monitoring required under Condition (18) and the results of the analysis required under condition (19) shall be forwarded to the following entities of the Canterbury Regional Council within one week of receipt of the laboratory results: (a) The Regional Leader – Compliance Monitoring (via ECInfo@ecan.govt.nz); (b) The Team Leader Contaminated Sites (via Contaminated.Land@ecan.govt.nz); and (c) ComplianceWaterQuality@ecan.govt.nz; The data shall be provided in a format suitable for electronic upload to Canterbury Regional Council's water quality database.
(23)	In the event that the Implementation Trigger Limits set by Condition (20) are exceeded and the procedures outlined in the LTMMP have: (a) Confirmed the exceedance of the Trigger Limits through immediate retesting; and (b) Established that the confirmed exceedance is causing a contaminant plume which is moving towards bore BX23/0152 and/or bore M35/3662 and which is predicted to result in an exceedance of the Drinking Water Standards for New Zealand for nitrate nitrogen in bore BX23/0152 and/or bore M35/3662; The Consent Holder shall provide options acceptable to the owners of bore BX23/0152 and/or bore M35/3662 including the provision of an alternative water supply that meets the drinking water standard. Any alternative water supply that is provided shall be operative prior to any exceedance of the drinking water standard for nitrate nitrogen occurring in the relevant bore (i.e. bore BX23/0152 or bore M35/3662) it replaces. Any costs associated with the provision of the alternative water supplies shall be borne by the Consent Holder.
	Bond
(24)	Within three months of the commencement of this resource consent, the consent holder must enter into an enforceable agreement with the Canterbury Regional Council that provides a bond, pursuant to Sections 108(2)(b) and 108A of the Resource Management Act 1991 and in accordance with Conditions (25) to (28) of this resource consent, to the Canterbury Regional Council for a sum of: (a) NZ$ 52,750 excluding GST to secure compliance with all the conditions of this resource consent and enable any adverse effects on the environment resulting from

	the activities authorised by this resource consent to be avoided, remedied or mitigated; and (b) NZ$ 36,500 excluding GST to ensure the performance of any post-closure monitoring and aftercare obligations required under this resource consent can be carried out.
(25)	The purpose of the bond is to secure, in the event of any default by the consent holder: (a) Maintenance and reinstatement, as required, of the Low Permeability Capping Layer in accordance with Condition (8) of this resource consent; and (b) Groundwater monitoring required by Condition (18) this resource consent; and (c) Implementation of the trigger actions described in the LTMMP, including, but not limited to, provision of an alternative water supply to the owners of Bores BX23/0152 and M35/3662.
(26)	The enforceable bond agreement required under Condition (24) of this resource consent shall address any refund of the bond in whole or in part.
(27)	(a) The bond amounts under Condition (24) may be revised based on the provision to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring, of: (i) The estimated costs of maintenance and reinstatement of the Low Permeability Capping Layer in accordance with Conditions (6) and (8) of this resource consent; (ii) The estimated costs of complying with the monitoring regime described under Conditions (9) and (18) to (22) of this resource consent; and (iii) The estimated costs of implementing the actions outlined in Condition 23 and in the LTMMP including, as required, provision of an alternative water supply to the owners of bore BX23/0152 and/or bore M35/3662 that meets the drinking water standard. (b) The estimated costs under (a)(i) to (iii) must be reasonable and provide for the purpose for which they are required. (c) The Consent Holder shall provide the any revised estimated bond quantum under (a) and (b) to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring within two months of the commencement of this resource consent for the purpose of establishing a bond agreement with Canterbury Regional Council.
(28)	The bond must be a cash bond or a bond with a registered trading bank of New Zealand, to be provided as surety to the satisfaction of the Canterbury Regional Council. The purpose of the bond is to secure performance with the conditions of this resource consent. The bond quantum under Condition (24) shall be reviewed on each five year anniversary of the commencement of this resource consent with the consent holder providing a report to the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring on that date for review by an appropriately qualified person.
(29)	All costs of, and incidental to, the preparation of documentation to meet Conditions (24) to (28) of this resource consent, including the consent authority's costs, shall be met by the consent holder.
(30)	The bond may be released following a 30-year aftercare period, commencing with the date of the installation of the final Low Permeability Capping Layer required under Condition (6) of this resource consent.
(31)	If this resource consent is transferred in part or whole to another party or person, the bond lodged by the transferor shall be retained until any outstanding work at the date of transfer is completed, or a replacement bond is entered into by the transferee, to ensure compliance with conditions of this resource consent unless the Canterbury Regional Council is satisfied that adequate provisions have been made to transfer the liability to the new consent holder.
	Reporting
(32)	For every calendar year (1 January to following 31 December) when monitoring required by Conditions (9) and / or (18) and / or the LTMMP is undertaken, the consent holder shall prepare an Annual Activity and Monitoring Report which covers the calendar year. Any required Annual Activity and Monitoring Report shall be provided to the Canterbury

	Regional Council, Attention: Regional Leader – Compliance Monitoring and the owners of bores BX23/0152 and M35/3662 by 31 March of the year following the monitoring year. The annual report shall provide the following information for the period since the last annual report: (a) A summary of any significant activities (particularly earthworks) undertaken on the Central Reserve Depositional Site; (b) A summary of the main activities (particularly earthworks) undertaken within the wider Waterloo Business Park; (c) A summary of the monitoring undertaken and the key findings; and (d) Comment on the effectiveness and continued suitability of the monitoring programme and any recommendations for change. **Advice Note:** For the purpose of this condition, an annual report for the period 1 January 2020 to 31 December 2020 is to be provided by 31 March 2021, etc.
	Administration
(33)	The consent holder, and all persons exercising this resource consent, shall ensure that all personnel undertaking activities authorised by this consent are made aware of, and have access to, the contents of this resource consent, SRMP, the ESCP and the LTMMP, prior to undertaking their activities.
(34)	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: (a) Dealing with an adverse effect on the environment occurring as a result of the exercise ofthis resource consent; (b) Requiring best practicable options to be adopted by the consent holder to remove or reduceany adverse effect on the environment as a result of the exercise of this resource consent; (c) Requiring the consent holder to carry out monitoring and reporting instead of, or in additionto, that required by the resource consent; or (d) Requiring the consent holder to comply with a relevant rule in an operative regional plan.


Plan CRC174709A
Lot 601 DP 52591
Avenue
Waterloo Business Park Development
Central Reserve Depositional Site
Rating Units
N
canterbury maps
Yaldhurst
Islington
Hornby
Lot 601 DP 525918
5 Industry Avenue,
Islington,
Christchurch
Waterloo Business Park Development
Central Reserve Depositional Site


Plan CRC174709B
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canterbury maps
CHRISTCHURCH
BX23/0818
M35/1037
M35/1098
M35/1131
M35/1060
BX23/0815 (MW1)
BX23/0816 (MW2)
M35/1041
M35/1040
BX23/0815
M35/1038
BX23/0816
Central Reserve Depositional Site
M35/1039
M35/1036
M35/8703
BX23/0817
M35/17658
M35/2225
BX23/0817 (MW3)
M35/17659
BX23/0819
M35/14774
BX23/1024
BX23/1024 (MW6)
BX23/0819 (MW5)
M35/17660
BX23/0242
BX23/1025
M35/11047
M35/11046
BX23/0243
M35/7183
M35/1103

Long Term Monitoring Management Plan (LTMMP)

Long Term Monitoring Management Plan, October 2020 / Central Reserve Depositional Site / Waterloo Business Park / Waterloo Park Limited; Attachment B to the letter from Davis Ogilvie to Environment Canterbury of 16 November 2020, which forms Appendix 1 to the s42A Addendum to Officer's Report dated 19/11/2020.