RESOURCE CONSENT DECISION

Decision of the Hearing Commissioner

Hearing held in the Tasman Regional Sports Trust Meeting Room, Sports House, Saxton Field on Monday 21 November 2022, Tuesday 22 November 2022, Thursday 24 November 2022, Friday 25 November 2022; and in the Council Chambers, Tasman District Council, 189 Queen Street, Richmond on 9 May 2023.

Hearing closed on 17 May 2023.

This is the report and decision of independent Hearing Commissioner, Craig Welsh. I was appointed by the Tasman District Council (**TDC** or 'the Council') to hear and determine applications lodged by CJ Industries Limited ('the Applicant'), for a land use consent for gravel extraction and associated site rehabilitation and amenity planting and for a land use consent to establish and use vehicle access on an unformed legal road and erect associated signage, and a discharge permit to discharge cleanfill to the excavated land.

The application site is located at 134 Peach Island Road, Motueka. The proposed vehicle entrance is located at 493 Motueka River West Bank Road. The application, made in accordance with the Resource Management Act 1991 (**RMA** or 'the Act'), was lodged in two stages with the Council. The land use consents were lodged on 15 June 2020 and the discharge permit was lodged on 15 July 2022. The land use consents received a total of 147 submissions, of which 111 were in opposition. The discharge permits received 59 submissions, of which 55 were in opposition. Many of the submitters to the discharge permit also submitted on the land use consents.

Attendances

Applicant	Ms Sally Gepp, Legal Counsel Mr Timothy Corrie-Johnston, Consultant Contractor Ms Elizabeth Gavin, Senior Principal Landscape Planner Dr Reece Hill, Soil Consultant Landsystems Mr Michael Nelson, Horticultural Consultant – Fruition Horticulture (SI) Ltd Mr Wayne Scott, Chief Executive Officer – Aggregate and Quarry Association Mr Jeff Bluett, Technical Director: Air Quality – Pattle Delamore Partners Limited (PDP)

Mr Simon Aiken, Senior Water Resources Consultant – Tonkin & Taylor Ltd (T&T)

Mr David Averill, Senior Geotechnical Engineer – T&T

Mr Ryan Nicol, Hydrogeologist – PDP

Dr Callum MacNeil, Freshwater Ecologist – Cawthron Institute

Mr Tony Payne, Principal Ecologist – RMA Ecology Ltd

Mr Gary Clark, Director – Traffic Concepts Ltd

Mr Rhys Hegley, Partner – Hegley Acoustic Consultants

Dr Bill Kaye-Blake, Principal Economist – New Zealand Institute of Economic Research

Mr Hayden Taylor, Resource Management Consultant – Planscapes (NZ) Ltd

Submitters

Mr Ian Williamson, 4 Wilkie Street, Motueka

Ms Coralie Le Frantz, 131 Peach Island Road

Ms Patricia Harris-Virgin, 273 College Street

Mr Darin Sunbye, 132 Peach Island Road

Ms Helen Webster, 132 Peach Island Road

Mr Paul Dixon-Didier, 3 Wilkinson Street, Motueka

Ms Dhilum Nightingale, Legal Counsel for Valley RAGE Inc.

Mr Joachim Lang, Acoustic Consultant – Nelson Acoustics for Valley RAGE Inc.

Dr Iain Campbell, Soil Scientist Consultant for Valley RAGE Inc.

Mr Peter Taia, Plant Nurseryman – Westbank Natives for Valley RAGE Inc.

Dr Michael Harvey, Retired Water Resources Engineer/Fluvial Geomorphologist for Valley RAGE Inc.

Ms Jessica Hollis, Resource Management Consultant for Valley RAGE Inc.

Mr Darren Horne, Tohu Kaitiakitanga (Taiao Cultural Advisor) – Te Ātiawa Manawhenua ki Te Ta Ihu Trust (Te Ātiawa)

Ms Sylvie Filipo, Pouwhakahaere Taiao (Environmental Manager) - Te Ātiawa

Ms Aneika Young, Poutohutoho (Environmental Advisor) – Te Rūnunga o Ngāti Rārua (Ngāti Rārua)

Ms Rowena Cudby, Pouwhakahaere Taiao (Environmental Manager) - Ngāti Rārua

Mr Mike Ingram, Property Manager – Wakatu Incorporated

Ms Josephine Tucker, 411 Motueka Valley Road and 749 Motueka River West Bank Road (MRWBR)

Mr Chris Petzold, 750 MRWBR

Ms Gillian Wratt, Chair – Nelson Tasman Cycle Trails Trust

Ms Anthea Garney, 394 MRWBR

	Ms Linda Jenkins, 6/26 Kotare Place, Little Kaiteriteri Mr Arthur Woodcock, 121 King Edward Street, Motueka Ms Hannah Mae, 370 MRWBR Mr John (Max) Clark and Ms Lynette Rombouts, 300 MRWBR Mr Ollie Langridge and Ms Natalyia Langridge, 520 MRWBR Mr Trevor Howie, 133 Motueka Valley Highway (MVH) Mr Peter Taia, 370 MRWBR Mr David Kellogg, 398 MRWBR Mr Barry Evans, 29 Hurley Rd, Motueka Ms Helen Forsey, 24 Mickell Road, Brooklyn, Motueka Sally King, 681 MRWBR - evidence read into the record by Mr Alastair Jewell
Reporting Officers	Mr Giles Griffith, River and Coastal Engineer – Tasman District Council (TDC) Mr Daniel Winter, Team Leader Environmental Health (Noise), TDC Mr Ari Fon, Director – Affirm NZ (Traffic) Dr Helen Rutter, Principal Groundwater Hydrologist – Aqualinc Research Limited Ms Mirka Langford, Senior Resource Scientist (Land) – TDC Ms Susanne Solly, Consultant Planner - WSP Mr Alastair Jewell (Hearing Facilitator and Principal Planner, TDC)

1 Summary

[1] Under delegated authority of the Council, I **REFUSE** the following resource consents:

- RM200488 Land use consent for gravel extraction and associated site rehabilitation and amenity planting;
- RM200489 Land use consent to establish and use a vehicle access on an unformed legal road and erect associated signage;
- RM220578 Discharge permit to discharge cleanfill to the excavated land.

2 Procedural matters

[2] The hearing of this application commenced at 9.30 am on Monday 21 November 2022, and continued on Tuesday 22 November 2022, Thursday 24 November 2022, Friday 25 November 2022, and Tuesday 9 May 2023.

[3] Several procedural matters were addressed prior to the hearing commencing as outlined in the Minutes attached in Appendix 1 (Minute 1, Minute 2 and Minute 3). A summary of the matters is outlined below.

[4] Minute 1 directed that background information referenced in the section 42A Report (s42A Report) be made available to all parties.

[5] Minute 2 determined not to proceed with the hearing of the application for the land use consents until such time as a discharge permit application was lodged, a notification decision made and followed through, and the discharge permit had effectively "caught-up" with the timetable of the land use consents proposal.

[6] Minute 3 issued directions with respect to evidence exchange to integrate the land use consent evidence that had already been received with the yet to be received evidence relating to the discharge permit application. The directions provided a timetable for any addendum evidence to the land use consent evidence to be submitted to address new information relating to the land use consents that arose as a result of the discharge permit application.

[7] The directions also enabled the submitters who submitted on both the land use consents application and the discharge permit application to submit just one piece of evidence addressing their concerns.

[8] One procedural matter arose in response to Minute 7 with regard to Mr Corrie-Johnston clarifying[1] that clean fill material will either be transported to the site from Hau Road or from the other sites listed by him, including several quarry sites on the West side of the Motueka River. This raised a question regarding the scope of the application as notified. The discharge permit application and AEE - 15 July 2022 clearly stated in the transport and access section on page 8 that

> *"[t]he truck and trailer units will travel to and from the site to CJ Industries' processing plant at 34 Hau Road, Motueka… This route has been chosen so as to avoid travelling across the busy Motueka River bridge on State Highway 60 as well as through Brooklyn and Motueka Township".*

[9] Several of the submitters were concerned that the clean fill would be trucked through the Brooklyn township.

[10] The Applicant and Ms Solly agreed that trucks travelling directly from the Applicant's quarries to the Site (via Brooklyn) would be outside the scope of the Application. I accept this. The Applicant volunteered a condition to address this (condition 68)[2]. I stated at the hearing that this does not specifically state that trucks must not pass through Brooklyn which would provide more clarity with respect to this issue. This was not addressed further by the Applicant.

[11] Applicant's legal counsel noted that the applications were silent on the location of the various sites from which clean fill would be sourced (its origin), and the route that would be taken by vehicles transporting clean fill from those source sites to Hau Road[3].

[12] Whilst the original application as notified stated that trucks would bring clean fill to the site from Hau Road, I note that there is no clean fill generated on the Hau Road site.

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1 Supplementary evidence dated 9 March 2023.
2 "All trucks associated with the activity must use Motueka River West Bank Road from 493 Motueka River West Bank Road to Alexander Bridge".
3 Memorandum of Counsel dated 17 March 2023, response to Minute 7 at paragraph 6.

Logically this means that that clean fill would need to be transport to Hau Road from somewhere for it to be then transported to the site.

[13] The Applicant's legal counsel considered that truck movements from clean fill source sites that travel via the SH 60 Motueka River Bridge, to King Edward Street, College Street and MVH (without stopping at Hau Road) are, to the extent they are part of the activity for which consent is sought, within the scope of the Application[4].

[14] Mr Fon considered that even though the transport of clean fill material from sites other than Hau Road wasn't covered in the traffic assessment, provided the maximum number of truck movements to and from the site isn't exceeded, (volunteered condition 64)[5], then the overall net traffic effect of some trucks travelling to Peach Island via a different route than those departing from Hau Road is likely to be negligible. Bearing in mind that I have found that trucks travelling to the site via Brooklyn is outside the scope of the application, I accept Mr Fon's opinion with regard to travel via the SH 60 Motueka River Bridge, to King Edward Street, College Street and MVH (without stopping at Hau Road).

[15] Having regard to the discussion above, I accept that trucks travelling via the SH 60 Motueka River Bridge, to King Edward Street, College Street and MVH (without stopping at Hau Road) are within the scope of the application.

[16] I addressed another procedural matter during hearing of the Right of Reply. This related to some discrete pieces of new information presented in the Right of Reply. I noted that this includes reference to the Appleby Site Case Study in the evidence of Dr Hill (paras 3.96 – 3.118), and a number of footnotes in the monitoring section of the Soil Management Plan (SMP) referencing documents I had not seen.

[17] Also, legal counsel for Valley RAGE Incorporated (Valley RAGE) considered that the "tranched" approach[6] for quarrying and rehabilitating Stage 1 in three "tranches" (or sections) was new information and that other parties should have a chance to comment on this.

[18] Ms Gepp discussed the Appleby Case Study and footnotes with Dr Hill (at the hearing) and stated that if these sections of evidence were struck out, then Dr Hill's findings would remain unchanged and that the Applicant would be happy for this information to be struck out. I directed that the Appleby Case Study in Dr Hill's reply evidence and the footnotes in the monitoring section of the SMP referencing new documents be struck out.

[19] With regard to the "tranched" approach, I determined that it is not new information and it did not need to be circulated for other parties to respond to. The reasons for this are outlined in Minute 11 (refer Appendix 1).

2.1 Site visit

[20] I visited the application site via Peach Island Road on Friday 11 November 2022. I was accompanied by Alastair Jewell who assisted me with navigation and identifying key features outlined in the hearing evidence. We met Mr Richard Deck from CJ Industries on

4 Right of Reply, paragraph 30.
5 Condition 66 in final proffered conditions.
6 Suggested by Mr Aiken during Joint Witness Conferencing and incorporated into volunteered conditions dated 23 March 2023.

site and he accompanied us when we walked the site for health and safety reasons. Mr Deck was not involved in the hearing process and I did not discuss the proposal with him other than to ensure I was familiar with the boundaries of the site.

[21] We walked the site along the top of the stop banks that surround the stage 2 and stage 3 areas. This enabled me to gain a clear view of the site (including stage 1) and assisted in viewing the surrounding environment, including adjacent properties, Motueka River West Bank Road (MRWBR), the Motueka River and the existing stream channels to the west of stage 1. I noted the existing apple orchard located at 131 Peach Island Road and the residential properties immediately to the north of the site (on Peach Island).

[22] Mr Jewell and I left the site and proceeded unaccompanied to visit the proposed site access (493 MRWBR) and haul road. I noted the existing bridge crossing the stream at the site entrance. We drove to and from the site via the proposed truck haulage route (from the site access along MRWBR to the Alexander Bluff Bridge and along the MVH towards Motueka.

[23] During the hearing I identified that I required a further site visit to CJ Industries' Hau Road depot (where some of the cleanfill will be assessed) and to several of the submitters' properties. With the permission of the Applicant and the submitters I visited the following properties on 9 December 2022:

(a) CJ Industries' Hau Road depot. Mr Brendan Jones, the Transport Manager from CJ Industries met me on site and showed me the location of the proposed cleanfill storage and handling facility. Mr Jones was not involved in the hearing process but was familiar with the proposal as it related to Hau Road;

(b) The property of Patricia Harris-Virgin at 273 College Street;

(c) The property of Josephine Tucker at 411 MVH;

(d) The property of Trevor Howie at 133 MVH;

(e) The property of David Kelly at 398 MRWBR; and

(f) The property of Ollie and Natalia Langridge at 520 MRWBR.

[24] During my site visits I did not discuss the proposal with any of the parties other than to clarify the location of the site from the perspective of the submitter's properties.

2.2 Officers' Reports

[25] Prior to the hearing, two reports were produced pursuant to section 42A of the Act ('s42A Reports') on behalf of the Council by Ms Susanne Solly.

[26] The first s42A Report dated 28 March 2022 addressed the land use consents application and included eight attachments. Attachment 5 was a technical review of traffic effects by Mr Fon. Attachment 6 was a technical review of land production values by Ms Langford.

[27] The Applicant supplied their evidence in support of the land use consents on 15 July 2022. This evidence included some changes to the application, including new information and mitigation measures that arose from the discharge permit application (RM220578) lodged on the same day. These changes were detailed in the Applicant's evidence of Mr Taylor.

[28] The second s42A Report dated 21 November 2022 included an addendum (s42A Report Addendum) covering matters relating to the new information and mitigation measures provided by the Applicant on 15 July 2022, including inputs from the relevant Council Officers and technical experts on the Applicant's evidence. Attachment 3 was a report from Mr Winter relating to noise effects. Attachment 4 was a report from Mr Leif Piggott Team Leader Natural Resource Consents at the Council relating to dust issues. Attachment 5 was updated traffic evidence from Mr Fon. Attachment 6 was updated land productivity evidence from Ms Langford.

[29] Comments on the specific mitigation measures were provided under the respective key issue sections of the addendum.

[30] A separate s42A Report was provided for the discharge permit (the discharge permit s42A report). In order to avoid duplication (arising from overlap between considerations relevant to the discharge permit and the land use consents) the discharge permit s42A Report only covered the keys issues relating to effects on ground water quality, including an assessment against the National Policy Statement for Freshwater Management 2020 (NPS-FM) and the Tasman Resource Management Plan (TRMP) objectives and policies. The discharge permit s42A Report included a table summarising submissions on the discharge permit in Attachment 2. Attachment 3 was a technical review of hydrogeological issues and the proposed clean fill management plan by Dr Rutter.

[31] After considering the evidence presented at the hearing Ms Solly tabled an addendum to her s42A Reports dated 28 November 2022. This addendum maintained that consent for Stage 1 could be granted, for the reasons detailed in para 17.2 of the s42A addendum (21 November 2022) – and subject to adopting the relevant groundwater conditions discussed in her addendum report dated 28 November 2022.

[32] The 28 November 2022 report recommended that consent for stage 2 and 3 be declined as the land is highly productive, and the proposal is contrary to the relevant TRMP objectives and policies and the National Policy Statement for Highly Productive Land 2022 (NPS-HPL); and high risk due to backfill within the groundwater fluctuation zone and insufficient monitoring bores between the site and sensitive downstream receptors.

[33] Ms Solly's recommendation was amended in the Council Officers' comments on additional information, management plans, revised conditions and submitter comments received on these (dated 14 April 2023).

[34] Her final position was that consent should not be granted for any of the stages. This was because the Council Officers considered that the volunteered conditions / trigger values allow:

(a) a degradation of existing water quality which is inconsistent with the NPS-FM and Te Mana o te Wai, which covers a wider scope than compliance with drinking water standards or the management of potential contaminants up to a trigger level; and

(b) a degradation / loss of soil productivity that is contrary to the relevant TRMP objectives and policies and the NPS-HPL.

[35] These issues are discussed in more detail below.

2.3 The evidence

[36] The s42A Reports and addendums, submitters' evidence and the Applicant's evidence was pre-circulated prior to the hearing in accordance with section 103B of the Act. This enabled application documentation, submissions, s42A Reports and addendums and pre-circulated evidence to be pre-read and I directed that it be 'taken as read' during the hearing[7]. However, I did provide everybody with appropriate opportunity to present their material as they "saw fit", recognising the need to provide sufficient information to make a decision whilst avoiding repetition.

2.4 Hearing adjournment

[37] The Hearing was adjourned at 4.30 pm on Friday 25 November 2022 after hearing from the Council Officers and prior to the Applicant's Right of Reply to enable:

(a) the provision of some further information from the Applicant arising from questioning at the hearing;

(b) expert witness caucusing;

(c) further information to be provided on specific matters raised via minutes during the adjournment;

(d) provision of a revised set of proposed conditions and management plans (without prejudice); and

(e) circulation of new information, updated conditions and management plans to all parties for comment.

2.5 Right of Reply and hearing closure

[38] I received the Right of Reply on Monday 24 April 2023. The hearing reconvened on Tuesday 9 May 2023 to hear the Right of Reply. I adjourned the hearing on this day to allow the Applicant to provide some written response to questions on the Right of Reply.

[39] I received the written response to questions of clarification relating to the Right of Reply on Monday 15 May 2023. I closed the hearing via a Minute on Wednesday 17 May 2023 as I considered I had sufficient information to enable me make a decision. I doubled the timeframe for releasing the decision for reasons outlined in Minute 11.

2.6 Section 113 of the Act

[40] Section 113(3) of the Act states:

A decision prepared under subsection (1) may, -

(a) instead of repeating material, cross-refer to all or a part of -

(i) the assessment of environmental effects provided by the Applicant concerned:

(ii) any report prepared under section 41C, 42A, or 92; or

(b) adopt all or a part of the assessment or report, and cross-refer to the material accordingly.

[7] As provided for by section 41C(1)(b) of the Act

[41] Accordingly, in the interests of brevity and economy, I used section 113 of the Act where appropriate.

3 Introduction

[42] This decision is made on behalf of the Council by Craig Welsh, Independent Hearing Commissioner, appointed and acting under delegated authority under sections 34 and 34A of the Act.

[43] This decision contains the findings from my deliberations on the application for resource consent and has been prepared in accordance with section 113 of the Act.

[44] The application for two land use consents, made in accordance with the Act, was lodged with the Council on 15 June 2020.

[45] The land use consent applications were publicly notified on 8 December 2021, and 147 submissions were received. Of these, 33 supported the application, 111 opposed the application, and 3 were neutral. 43 submitters asked to be heard.

[46] The application for the discharge permit to land was lodged with the Council on 15 July 2022, and further information was received on 2 September 2022.

[47] The discharge permit application was publicly notified on 12 August 2022, and 59 submissions were received. Of these, 4 supported the application and 55 opposed the application. 21 submitters asked to be heard. I note that 37 of the submitters to the discharge permit application also submitted on the land use consent applications.

4 Description of the proposal

[48] A detailed description of the proposed activity was contained in the resource consent application lodged on 15 July 2022 and the further information response submitted on 2 September 2022 and in response to questions at the hearing (provided 19 December 2022), in response to Minutes (post hearing), and in updated management plans provided on 23 March 2023. An overview of the proposal is outlined below.

4.1 Gravel extraction and clean fill operations

[49] The Applicant proposed to undertake gravel extraction and clean fill deposition in three stages, within an area of approximately 73,500 m^2, and over a 15 year period (refer Site Plan in Appendix 2). Stage 1 covers an area of approximately 24,874 m^2, Stage 2 is approximately 42,142 m^2 in size, and the footprint of Stage 3 is approximately 6,680 m^2. The Applicant anticipated that between 400,000 and 550,000 tonnes of gravel can be extracted over the course of 15 years.

[50] This Plan shows the maximum proposed footprint of excavation and backfill at any one point in time is 20 m x 80 m. The stockpile and service area shown on the western side of Stage 2 is approximately 5,250 m^2 in size. This area will be excavated last with no new stockpile and service area being created. While this area is being excavated and back filled with clean fill none of the areas that have been backfilled and rehabilitated will be disturbed.

[51] Stages 2 and / or 3 of the proposal will be undertaken first, with Stage 1 works to commence only when mitigation planting has adequately established (Refer Appendix 3). No processing or crushing of gravel will occur on site.

[52] Excavations to extract aggregate are proposed to a depth that will not result in exposure of groundwater at the surface, with shallower excavation occurring at times of high groundwater levels and deeper excavations occurring at times of low groundwater levels.

[53] The final Groundwater and Clean Fill Management Plan (GCMP) (21 April 2023) outlined a complex site management system that aims to ensure that gravel extraction will leave at least 0.3 m of gravel above the groundwater level at the time of extraction.

[54] The system proposed follows:

> *2. Any excavation into the range of groundwater fluctuation must only occur when there is sufficient clean fill material available to rapidly backfill the excavation.*
>
> *3. At least 1 m of material must be maintained between the base of the working gravel extraction pit and the groundwater level beneath that excavation at the time of the gravel extraction, except as described in 4 or 5.*
>
> *4. Deeper excavations to between 0.3 and 1 m above groundwater level may occur, but:*
>
> *a. Only during stable weather conditions, which means:*
>
> *i. Decreasing or stable groundwater level trends, based on the groundwater level monitoring requirements described in the consent conditions of RM200488; and*
>
> *ii. Decreasing or stable flow within the Motueka River as measured at the TDC Woodmans Bend flow recorder site.*
>
> *b. Must immediately cease, and backfilling must occur if any of the following occur:*
>
> *i. Tasman District Council issue any flood warnings for the Motueka River catchment.*
>
> *ii. Any weather warnings are issued for the Nelson/Tasman region that might be expected to cause groundwater levels at the clean fill site to rise.*
> *iii. When groundwater level monitoring described in the consent conditions of RM200488 display an increasing trend.*
>
> *c. Such excavations must be backfilled to at least 1 m above groundwater level on the same day as extraction.*

[55] Groundwater levels within the site fluctuate in the order of 2 to 3.5 metres[8] (explained in more detail below). This means that the depth of extraction will vary across the site over time.

[56] According to Mr Corrie-Johnston[9], the rate of advancement of the pit (20 m x 80 m) will vary depending on depth of topsoil and subsoil, and distance to groundwater. Based on

[8] PDP Further Information Request Reply, 2 September 2022.
[9] Response to hearing questions, 18 December 2022.

2.5 m of raw aggregate beneath the topsoil and subsoil, and 300 mm freeboard above groundwater, the daily rate of advancement is anticipated to be 16 linear metres or 320 m^2.

[57] The hours of operation will be limited to 7 am to 5 pm Monday to Friday. No heavy machinery shall be operated on site earlier than 7.30 am. No operations are proposed on Saturdays, Sundays, public holidays, or between 20 December and 10 January the following year (Christmas holiday period).

[58] No excavation will occur within 20 m of stop banks, on the Motueka River side of the stop bank within Lot 2 DP 2357, nor within the land surrounding the dwelling and sheds. Any excavation which approaches property boundaries will have a 1:1.3 - 1:1.7 batter of material (differing gradients relate to upper and lower mantles) which will remain unexcavated.

[59] Any concentrated stormwater flows will also be diverted away from cut faces. Excavations near the application site's boundaries will be overseen by a geo-professional to ensure these requirements are met and any land stability issues are avoided.

[60] Topsoil and subsoil will be removed from the extraction area and, unless being reused for reinstatement the same day, will be stockpiled separately in an area behind the stop bank and 1 m below ground level to reduce noise and visual effects. The soil stockpiles will not exceed 3 m in height.

[61] Aggregates will then be extracted using an excavator and then carted from the excavation area using 30-ton dump trucks. The material will be stockpiled separately from soil in the general stockpile area. The base of this stockpile will also be 1 m below ground level, and the maximum height of this stockpile for its base will be 4 m (so 3 m above existing ground level).

[62] The site layout provides for vehicles to deposit fill and then loop around to the point at which they load up (using front end loader), although the trucks will have to reverse into the clean fill stockpile to dump fill. All trucks will be owned by or contracted to the Applicant.

[63] Clean fill will replace extracted material so that by the end of each day the pit size will be no greater than 1600 m^2 i.e., 20 m x80 m, though the shape may vary from time to time. In this way the extraction site will move daily.

[64] At the point in time that clean fill material is placed in the pit the Applicant proposes to maintain at least 300 mm of clearance between the pit floor and the water table. However, as the water table varies considerably over time, and the Applicant anticipates removing 2.5 metres of gravel on average, a substantial proportion of the clean fill will be located directly in the aquifer. This is discussed in more detail below. Rainfall will leach through any clean fill that is not sitting in the aquifer. Hence, in spite of some of the clean fill siting above the highest groundwater level, the entire clean fill site will be either sitting directly in the aquifer or be hydraulically linked (via rainfall) to the aquifer.

[65] The clean fill sources and management process are outlined in the final GCMP. This includes procedures for on-site material and offsite material. The potential off-site sources include:

(a) overburden from quarries controlled by the Applicant (stated as being a granitic rock quarry at 44 Takaka Hill Highway; a limestone quarry at 49 Moss Road, Sandy Bay ; and a quartz quarry at 142 Riwaka Valley, Left Branch Rd);

(b) selected and approved construction sites, slips or other clean fill material not controlled by the Applicant;

(c) as above (b), but where the material is taken to one of the Applicant's sites for testing (stated in the GCMP as (e.g. Hau Rd or Lower Queen St,) or any other of CJI's sites ("CJI Yard").

[66] When the clean fill arrives at the site a copy of the truck docket book entry and laboratory results for the load will be provided to the Site Manager. The Site Manager will visually inspect the load and the clean fill will be deposited as directed by the Site Manager.

[67] Only CJ Industry employees or contractors would cart clean fill to the site. Third parties will not be allowed to deposit clean fill directly at the site. I discuss the Waste Acceptance Criteria (WAC) and Waste Acceptance Protocol (WAP) in more detail below.

[68] The excavation and back filling process is outlined in Figure 1 and Figure 2 below[10]. These figures indicate how quarrying and clean fill placement and rehabilitation will proceed across a stage and from one pit to the next.

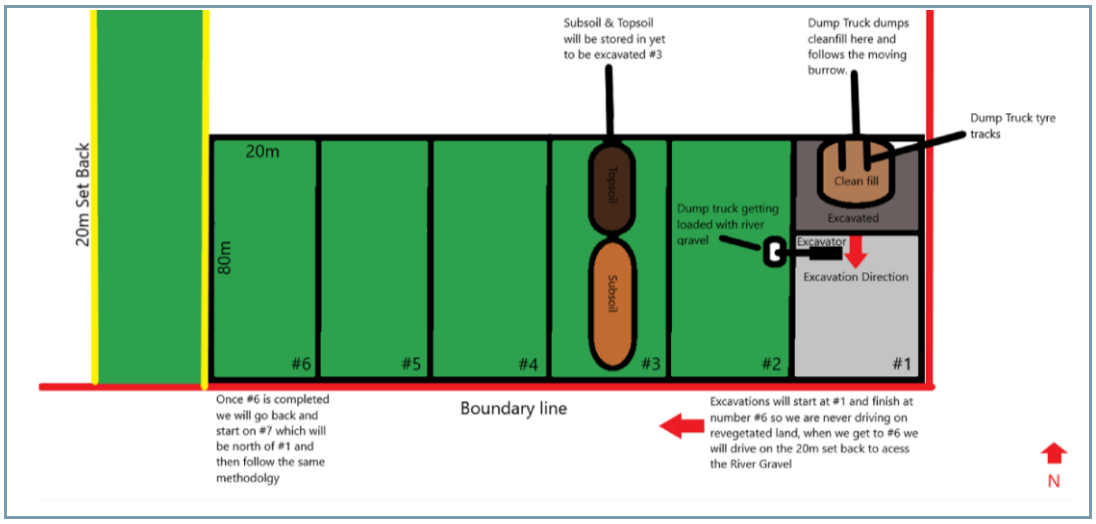

Figure 1: Quarrying, clean filling and rehabilitation process across a stage

[10] Provided in the response to Right of Reply questions at the hearing (dated 12 May 2023).

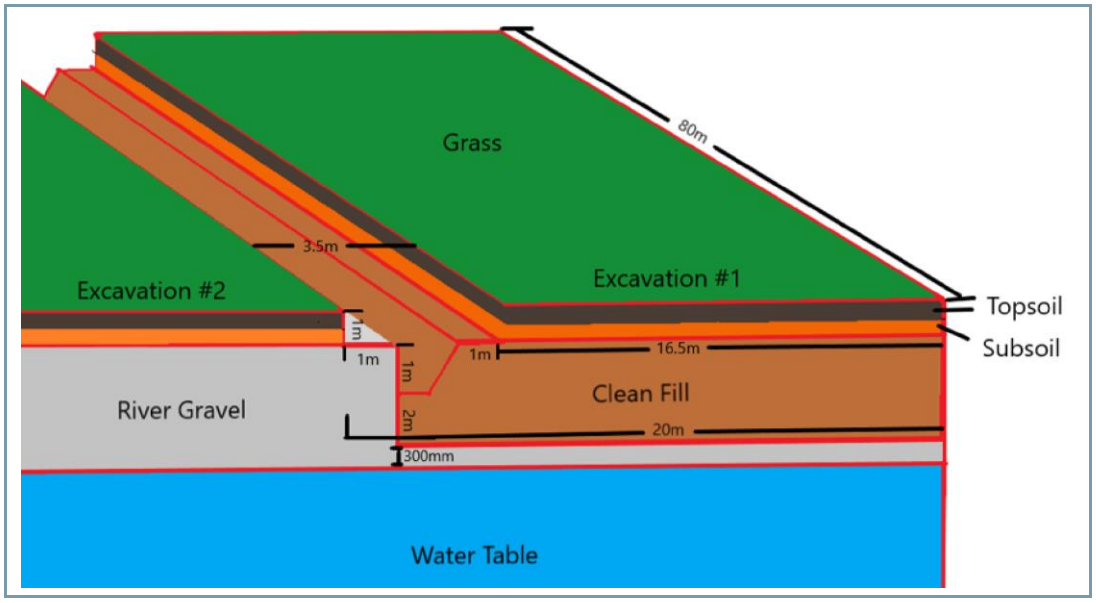

Figure 2: Quarrying, clean filling and rehabilitation process interrelationship between pits.

[69] The clean fill will be compacted with the excavator bucket as it is placed. A compacting machine will not be used.

[70] The stockpile and staging area (part of Stage 2) is to be excavated last without disturbing any rehabilitated or back filled parts of the site[11].

4.2 Transport

[71] At the hearing it was proposed that truck and trailer units would return from Hau Road with clean fill (after transporting gravel from the site to Hau Road) to be used for reinstatement of the extraction site, and that these return trips would result in 30 heavy vehicle movements per day (15 in and 15 out) with the expected hourly flows to be around two trucks in and two trucks out per hour[12].

[72] Trucks or truck-and-trailer units will carry up to 28 tonnes of material each, with a maximum of 420 tonnes of gravel transported each day. The round trip including picking up gravel and then dropping it at the Hau Road depot is around one hour.

[73] As outlined in my procedural matters section, the Applicant clarified that clean fill will either be transported to the site from Hau Road or another of the Applicant's yards or from the other sources, including CJ Industry quarries on the west side of the Motueka River and third party sites.

[74] On site, a speed limit of 15 km/h is proposed for all vehicles.

4.3 Site access

[75] The site will be accessed from 493 MRWBR via an existing paper road. It is proposed that the existing paper road (currently in pasture) will be formed into a sealed road generally

[11] Response to Right of Reply questions 12 May 2023, section 10.
[12] Application Assessment of Effects, 15 July 2022, page 11.

no less than 3.5 m in width with 0.5 m gravel shoulders and side drains to drain to existing drain paths / and or soak pits[13].

[76] The proposed access crosses the Peach Island overflow channel via a vehicle bridge before reaching the MRWBR. The bridge will be widened to at least 3.5 metres to match the proposed 3.5 m haul road. According to the application, any upgrade can be completed as a permitted activity. This was not disputed at the hearing. The vehicle access will be formed to a minimum sealed carriage way width of 6 m from the existing sealed edge of MRWBR up to the western end of the bridge. The access will be maintained by the Applicant.

[77] A Concession has been granted by the Department of Conservation to use and seal the marginal strip

4.4 Stormwater management

[78] According to the proposal, stockpiles of topsoil will be designed to avoid the sedimentation of waterways or contamination of groundwater. Temporary sediment traps will be dug and positioned in appropriate places as a mitigation measure to capture sediment suspended in water. Any internal access roads created for the proposal will be designed so that any sediment laden runoff will be directed to bunded sedimentation traps and not to water bodies. No permanent fixtures such as drainpipes or culverts are proposed to be installed.

4.5 Noise and dust mitigation bund

[79] The Applicant has proposed to construct a 3 m high earth bund to screen the dwelling at 131 Peach Island Road to mitigate the effects of noise and dust. The proposed bund is shown in Appendix 2.

4.6 Dust mitigation buffers

[80] No quarrying or clean filling activities are proposed within 100 m of orchards on neighbouring properties between the months of January and May (inclusive). Furthermore, no soil stockpiles will be placed with 100 m of orchards on neighbouring properties.

4.7 Groundwater quality monitoring

[81] Groundwater quality monitoring bores have been installed at four locations shown on the plan in Appendix 5. During the hearing the proposal was modified to include a fifth groundwater monitoring bore to be installed at the downstream boundary of the site (shown as the purple line in Appendix 5). The monitoring methodology proposed is discussed in more detail below.

[13] Mr Clark, supplementary evidence, 4 November 2022, page 3.

5 Existing environment

[82] The existing environment is described in detail in the s42A Reports, the application documentation and the evidence. The following summary selected from these documents provides context for my decision.

5.1 Site and surrounds – overview

[83] The application site is located at 134 Peach Island Road. The site is located near the western edge of the Moutere Depression at the foot of the Arthur Range, in the lower Motueka River Valley. The elevation of the site ranges between 17 and 20 metres above sea level and is partly located on an active flood plain of the Motueka River.

[84] The Arthur Range to the west of the quarry site consist of steep hills which provides the catchment for "Shaggery Stream", which diverts surface flows from the Arthur Range around the western edge of Peach Island. Peach Island is located around 1 km upstream of the Motueka – Riwaka Plains.

[85] The three stages of gravel extraction and clean fill deposition are located within property legally described as Lot 2 Deposited Plan (DP) 432236 (Record of Title (RT) 524970), and Lot 2 DP 2357 (RT NZ77/73). The 13.4894 hectare property is owned by Timothy George Corrie-Johnston (who is part of the extended CJ Industry family).

[86] The two lots are separated by an unformed legal road that will be utilised for the site access and haulage road. The site is also able to be accessed from the north via Peach Island Road.

[87] The site is approximately 6 kilometres west of Motueka (aerial distance) and approximately 4.3 kilometres north of Alexandra Bluff Bridge (measure along MRWBR).

[88] The site is zoned Rural 1 and is predominantly flat agricultural pastureland on an alluvial terrace of the Motueka River. It is surrounded by land used for rural production activities, including predominantly agriculture and horticulture, and rural residential living.

[89] The site is effectively located in a valley with hills that are immediately to the west of MRWBR and east of MVH. The submissions outline a range of activities that occur on Peach Island and in the surrounding hills that overlook the site. These activities and surrounding land use are described in more detail below.

5.2 Geology and soils

[90] According to Ms Langford's Attachment to the s42A report[14]:

> *Peach Island, is part of the Eastern Lowland Major River Valley Land Type (Lynn, 2012) formed on Holocene-aged river alluvium. As to be expected, Peach Island being an old riverbed, there is a high degree of variation in gravel and other, smaller grain sediment deposits. The loosely assorted regolith is the parent material of the soils observed on-site which, following the New Zealand Soil Classification (NZSC), were identified as Fluvial Recent soils. Fluvial Recent soils that form in sediments deposited by flowing water, are relatively young (a few thousand years), and may be weakly developed.*

[14] Attachment 6, s42A Report 28 March 2022.

However, in a site-specific context, the young age of the soils was not seen as a productivity limiting factor. As previously described by Molloy in 1998, fluvial recent soils in the Tasman District are among the most-valued soils for horticultural production, and this includes the soils of Peach Island. Note: Following the old, now outdated New Zealand Genetic soil classification Peach Island soils are named Riwaka and Motueka soils.

[91] Further details with respect to the soils on the site are provided in section 10.2 of my decision which addressed the productive value of the soils.

[92] CJ Industries has undertaken some test pit excavations to evaluate the depth of gravel below the surface at different points across the application site, including the thickness of over burden (topsoil). On average the gravel surface is around 0.5 m to 1 m below ground level.

[93] According to the Application, historic aerial photographs of the site identify that the property was used for a mixture of pasture and potentially tobacco in the 1940's, and pasture only in the 1980's, so it's considered unlikely that this area would be at risk from contaminated soils. This was not disputed at the hearing and I accept this.

[94] Available borelogs for the Peach Island area indicate that the strata consist predominantly of sandy gravel and do not indicate any presence of lower permeability confining strata or naturally occurring organic rich strata (i.e. peat).

5.3 Terrestrial ecology

[95] The site is located within the Motueka Ecological District which is characterised as containing alluvial flats and terraces which in pre-human times supported lowland tōtara, mataī and, more locally, kahikatea dominated forests, with black beech common and some silver beech present.

[96] Mr Payne undertook a terrestrial ecological survey of the site on 18 February 2022. The results of Mr Payne's survey were not challenged and I accept them in my decision. A summary of the results of Mr Payne's survey follows.

(a) The current ecological state of the site is the result of extensive modification of the original, pre-human natural state. The site predominantly supports exotic pasture grasses.

(b) A total of 44 plant species were recorded within the site, all of which are exotic, mostly consisting of common pasture grasses and herbs typical of a rural environment. There are occasional mature exotic trees on site, including macrocarpa, eucalyptus, poplar, pine, London plane, black wattle, Portuguese laurel and a few weed species. There is no vegetation within the site that constitutes "indigenous vegetation".

(c) Twelve (12) species of birds were recorded during the February 2022 site survey, including five (5) native species, one of which, the black shag (Phalacrocorax carbo), is listed as 'At Risk'. The black shag was recorded flying over the Motueka River, approximately 170 m from the site.

(d) The mature trees on site provide suitable roosting and nesting habitat for a range of small native passerines such as grey warbler and fantail. It is expected that a wider range of local native birds that occur in the surrounding rural area, which

were not recorded during the site visit, would also frequent the site (e.g., morepork).

(e) No species of conservation significance were recorded within terrestrial environments. No species of conservation significance have been recorded utilising the site, and the site does not provide core or important habitat for indigenous wildlife.

(f) There are no areas on site or within 10 m of the proposed works footprint that meet the definition of a 'natural inland wetland' under the NPS-FM, or a 'natural wetland' under the TRMP. That is, there are no areas dominated by hydrophytic vegetation. There are no Significant Natural Areas identified within the site in the TRMP.

5.4 Groundwater

The groundwater on the site is a shallow (10 m), unconfined alluvial aquifer system that is predominantly recharged by flow losses from the Motueka River. This provides a source of groundwater for irrigation and domestic supply purposes for a number of properties at Peach Island and some of the properties on the hill adjacent to MRWBR (discussed further below).

Water supply bores

[97] Information available from the Council indicates that there are 20 bores located in the Peach Island area. The locations of the bores are shown in Appendix 4. The uses of the bores are documented as irrigation, monitoring / piezometer, domestic and unknown.

[98] Of the 20 bores, 16 are located downgradient of the site, 10 of these within 1 km from the site. The closest bore used for water supply purposes, bore number 21033 is 4.8 m deep and located 86 m downgradient. This bore is owned by Mr Corrie-Johnston but it provides domestic water to residential properties on the adjacent hillside.

[99] Other nearby bores include bore number 21435 which is located 88 m downgradient and screened between 3.0 – 6.8 m bgl, and bore number 22116 which is located around 250 m downgradient and screened between 7.5 and 9.0 m bgl.

Groundwater levels

[100] The groundwater levels at the site have been measured at four piezometers on the boundary of the site, labelled Piezo1-Piezo4 (shown on the plan in Appendix 5). Table 1 in the Applicant's further information response (2 September 2022) show the range of groundwater levels at each of these piezometers. The period of available date was from August 2020 through to July 2022. The groundwater levels are (arranged from south to north):

(a) Piezo 4 highest 2.1 m below ground level (bgl) and lowest 4.2 m bgl;

(b) Piezo 2 highest 1.6 m bgl and lowest 5.1 m bgl;

(c) Piezo 3 highest 0.5 m bgl and lowest 3.4 m bgl;

(d) Piezo 1 highest 1.7 m bgl and lowest 3.8 m bgl;

[101] Changes in groundwater levels within these monitoring bores indicate that groundwater level increases in the order of 1 m/day in bores located closest to the river with decreasing rates further away from the river[15].

Groundwater recharge and flow

[102] Groundwater levels measured on 7 July 2022 in six bores at Peach Island by PDP were used to generate groundwater elevation contours (refer Appendix 5) to interpolate groundwater flow directions[16].

[103] The groundwater level contours indicate that groundwater has an overall, north to north easterly flow direction that is generally subparallel to the Motueka River. The contours indicate that a major source of groundwater recharge at the southern extent of the proposed quarry is sourced from the Motueka River, which would be consistent with flow losses at a bend in the Motueka River in the vicinity of Hurley Road.

[104] The contours indicate that toward the eastern extent of the proposed quarry site, groundwater flows back toward the Motueka River. Available geological information indicates that a paleo channel exists in the vicinity of Shaggery Stream locally known as the "Peach Island Channel" and is a topographical low.

[105] It is possible that the alluvial strata in the vicinity of this paleo channel is relatively more permeable than surrounding strata and may cause some groundwater at the western side of the proposed quarry site to flow in this direction.

[106] Smaller contributions of recharge to the Peach Island Aquifer are likely to also occur from rainfall infiltration and flow losses from Shaggery Stream.

Hydraulic conductivity and groundwater velocity

[107] A hydraulic conductivity of 100 m/day has been estimated for the strata underlying the site.[17] Hydraulic conductivity is not a measure of the groundwater velocity as the groundwater velocities are also dependant on the hydraulic gradient and porosity of the strata.

[108] Based on a hydraulic conductivity estimate of 100 m/day, a hydraulic gradient of 0.004 (measured from groundwater contours measured in July 2022) and porosity estimates of 25% to 40% for sandy gravel, average groundwater pore velocities of 1 to 1.6 m/day (on average) were estimated for the aquifer underlying the site.

[109] It was noted in Mr Nicol's evidence that 1.6 m/day is an average, and that within alluvial aquifer there can be a wide range of different velocities over distances of a few metres, which makes it difficult to accurately predict travel times from one location to another.

[15] Mr Nicol, supplementary evidence, 4 November 2022, paragraph 3.15
[16] Mr Nicol, primary evidence, 15 July 2022, paragraph 3.8 – 3.10. There is an error in the numbering in the evidence resulting in two section 3.8s. My reference it to the first paragraph 3.8.
[17] Mr Nicol third supplementary evidence, 19 December 2023, paragraph 2.7.

Groundwater quality

[110] Groundwater sampling was undertaken at the site in September 2022 and November 2022 to assess groundwater chemistry conditions[18]. The results[19] indicated that the measured concentrations generally complied with the proposed trigger values (in the volunteered conditions), with the exception of iron and manganese concentrations in bore 21033, which exceeded the proposed trigger values of 0.3 g/m3 (iron) and 0.04 g/m3 (manganese).

[111] It is expected that the groundwater environment at Peach Island has predominantly naturally oxidising conditions.[20]

5.5 Surface Water

[112] The Motueka River is located approximately 170 m east[21] of the site, and is separated from the site by river berm and a stopbank system that encompasses Stages 2 and 3 of the proposal. The stopbank system is shown on the plans in Appendix 2 to 5.

[113] The Motueka River drains the largest catchment in the Nelson Region (area of 2180 km^2 and main stem length of 110 km). Water quality is generally high, with evidence of nutrient enrichment confined to lower reaches of the river. Suspended and deposited fine sediment concentrations are generally low with the exception of some streams draining forestry catchments during harvest.

[114] The Motueka River has a range of native fish species, including galaxiids, bullies and eels. Macroinvertebrate communities are dominated by fauna typical of good water quality such as mayflies and stoneflies. The Motueka River is an important brown trout fishery and maintains a high-quality fish habitat[22].

[115] A Water Conservation Order (WCO) applies to the Motueka River and schedule 2 of the WCO applies to the stretch of the Motueka River adjacent to and downstream of the site. This is discussed in more detail in the principal issues in contention section of my decision.

[116] A tributary of the Shaggery stream is located between the MRWBR and stage 1 of the proposal. The southern end of the tributary is connected to the Motueka River. Sections of the stream are intermittently dry. The tributary is approximately 30 m distance, at its nearest point, to the boundary of the proposed Stage 1 works.

[117] The "Peach Island overflow channel" is located through the centre of the Stage 1 area. The overflow channel is referred to as such, as the Motueka River flows in this direction during extreme flood events.

18 Mr Nicol, summary statement of evidence, 22 November 2022, paragraph 11 and 12.
19 September 2022 results shown in Table 1 Mr Nicol first supplementary evidence 4 November 2022. November 2022 results shown in Table 2 of Mr Nicol second supplementary evidence 21 November 2022.
20 Mr Nicol, third supplementary evidence, 19 December 2022, paragraph 3.30.
21 Primary evidence of Mr Payne, 15 July 2022, paragraph 3.1.
22 Dr MacNeil primary evidence, 15 July 2022, paragraph 3.1.

5.6 Meteorology and air quality

[118] Meteorological data has been obtained from the Motueka, Riwaka Weather Station for the years 2018 to 2021. This station is situated 3.5 km northeast of the proposed quarry site.

[119] The data shows winds from the south-westerly direction are predominant, with winds from the north-easterly direction occurring relatively frequently compared to other wind directions. Lower wind speeds are more common in the winter months.

[120] According to Mr Bluett, existing air quality is expected to be good, with no significant sources of dust nearby except the existing riverbed which will contribute some natural particulate. Agricultural activities in the area also have potential to cause small quantities of dust. I accept this.

6 Notification and submissions

6.1 Notification

[121] The land use consents were lodged on 15 June 2020 and publicly notified on 8 December 2020. Notice of the application was served on a number of parties outlined in section 5.3 of the s42A Report (28 March 2022). A total of 147 submissions were received, of which 111 were in opposition.

[122] Attachment 3 of the s42A Report (28 March 2022) provides an overview of the submitters and the issues of concern, whether they support or oppose the proposal and the relief sought. No party challenged Attachment 3 and I accept this summary and adopt it in my decision. The submission points were usefully incorporated into a summary included in section 5.8 of the s42A Report (28 March 2022). Section 5.8 addressed noise, dust and visual effects under the heading of amenity values. I note here that the amenity effects raised in the submissions extended beyond noise, dust and visual effects. This is discussed further below.

[123] No written approvals were provided.

[124] The discharge permit was lodged on 15 July 2022 and publicly notified on 12 August 2022. Of the 59 submissions received, 55 were in opposition. Many of the submitters to the discharge permit also submitted on the land use consents[23].

[125] Attachment 2 of the discharge permit s42A Report (21 November 2022) provides an overview of the submitters and the issues of concern, whether they support or oppose the proposal and whether they wish to be heard. No party challenged Attachment 2 and I accept this summary and adopt it in my decision. The submission points were usefully incorporated into a summary included in section 5.8 of the discharge permit s42A Report (21 November 2022).

[126] I have carefully considered the issues raised in the submissions in my decision.

[23] According to the discharge permit s42A Report about two thirds of the discharge permit submitters previously lodged a submission on the land use consents.

7 Summary of evidence heard

[127] Copies of all the written material submitted during the consent process are held by the Council, and the proceedings were recorded. In addition, I took my own notes of the verbal statements and verbal evidence presented to me, and any answers to my questions. I refer to relevant elements of the submissions, statements, and evidence in this decision. The responses to questions are woven into the assessment below as appropriate.

[128] A summary of the evidence and other matters heard is outlined below.

7.1 The Applicant

[129] **Ms Gepp** presented her opening legal submissions and conducted the Applicant's case. This included introducing witness, coordinating responses to questions, providing memorandums and summarising evidence in response to Minutes. She also addressed procedural matters and presented closing submissions during the Right of Reply.

[130] **Mr Corrie-Johnston** provided primary evidence and several supplementary statements[24] regarding operational matters.

[131] His evidence addressed aggregate use, anticipated yield and availability, and operational matters including stage of development, site procedures and source of clean fill. He addressed compliance with consent conditions with a focus on clean fill quality control measures, operational matters raised in submissions and the s42A Report. A copy of the Peach Island Proposed Quarry: GCMP (14 July 2022) was appended to his evidence.

[132] His supplementary evidence responded to the s42A Report addendum, verified that in his view the updated GCMP was able to be implemented, responded to submission points including carbon footprint and availability of back fill material, and weed management. He also confirmed that it is practicable to start excavations within a stage at the end of the stage that is furthest from water supply bores.

[133] Further supplementary evidence from Mr Corrie-Johnston addressed alternative sources of rock for use in concrete and sealing chip, estimated daily extraction rates, an update on source of clean fill and locations for inspecting and testing clean fill, and clean fill handling facilities and procedures.

[134] His fourth supplementary statement of evidence explained that he was no longer the Site Manager for CJ Industries' operations base at Hau Road and for all of CJ Industries quarries. He is now engaged as a consultant contractor with his role being to support operations for CJ Industries and related companies. This change occurred during the hearing process.

[135] Mr Corrie-Johnston's reply evidence addressed some of the matters raised at the hearing, submitters' comments from 7 April 2023, and council officer's comments from 14 April 2023.

[136] **Ms Gavin** provided primary evidence and a statement of reply regarding the landscape and visual amenity effects of the proposal. This included recommendations to avoid, remedy or mitigate adverse effects on landscape and visual amenity values, and an

[24] Dated 4 November 2022, 19 December 2022, 9 March 2023 and 23 March 2023.

assessment of consistency with the TRMP provisions (objectives and policies). She also provided the landscape mitigation and restoration plans (refer Appendix 2 and 3 of my decision).

[137] **Dr Hill** provided primary evidence addressing soil management and land productivity and supplementary evidence dated 4 November 2022 addressing the NPS-HPL. He produced a draft Soil Management Plan (SMP) dated 15 July 2022, and a revision filed on 23 March 2023. His evidence referenced a site soil survey report undertaken by LandVision Limited[25]. His reply evidence addressed soil related matters raised at the hearing by submitters and the Council Officers and in the information circulated after the November hearing.

[138] **Mr Nelson's** primary evidence addressed the productivity of the site in terms of its capability of producing crops at a high rate or across a wide range. This included an assessment of the site's current horticultural opportunities, and the horticultural opportunities for the site post extraction (once filled).

[139] **Mr Scott** provided evidence with regard to the functional or operational need of the proposal to be located at the site and the regional public benefit from the extraction of river run gravel at the site. This was in relation to the NPS-HPL.

[140] **Mr Bluett** provided primary evidence that summarised his assessment[26] of the effects of the dust discharged from the proposal, commented on the consistency of the application with policy direction, addressed matters raised in submissions and considered matters raised in the Council's s42A report. He provided a Dust Management and Monitoring Plan – Peach Island Quarry (DMMP) including the final draft dated April 2023.

[141] His supplementary evidence[27] provided: a summary of the findings of his site visit; some amendments to the DDMP; and comments on the Council's addendum evidence with respect to air quality matters (primarily dust related).

[142] His reply evidence addressed air quality questions and points of clarification during the hearing process and responded to the submitter and the Council's air quality comments dated 7 April and 14 April 2023 respectively.

[143] **Mr Aiken** addressed the impact of the proposed activity on floodplain hydraulics and offsite flooding related effects (changes in water levels and velocity), particularly with regard to the Peach Island stopbanks. He provided recommendations to avoid, remedy or mitigate any adverse flooding effects. He addressed submitter concerns and matters raised in the s42A Report with respect to flooding, as well as consistency with policy direction. His reply evidence responded to matters raised by submitters and submitter technical evidence relating to flooding and erosion.

[144] **Mr Averill's** primary evidence assessed the effects of the proposal on the geotechnical slope stability of the existing stopbanks, and provided recommendations to avoid, remedy or mitigate adverse geotechnical effects on the stopbanks. His evidence

25 Peach Island LUC & Soil Survey Peach Island Road Motueka Valley CJ Industries, May 2021.
26 Peach Island Quarry - Assessment of Air Quality Effects, prepared for CJ Industries, July 2022
27 4 November 2022.

referenced geotechnical modelling work[28] that supported his assessment. He addressed geotechnical matters raised in submissions and the s42A Report.

[145] **Mr Nicol** provided evidence[29] assessing the effects of the proposal on groundwater, provided recommendations to avoid, remedy or mitigate potential adverse effects on groundwater resources at Peach Island, and provided updates to groundwater monitoring data (levels and quality).

[146] He contributed to the further information response dated 22 September 2022 with respect to groundwater issues, produced a hydrogeology report[30] that addressed gravel extraction and clean fill activities, and supplied the draft GCMP[31]. Mr Nicol also contributed to the conditions with respect to matters that related to groundwater.

[147] His third supplementary evidence responded to groundwater questions that arose at the hearing. His reply evidence responded to outstanding questions from me, and addressed groundwater related comments made by submitters and Council Officers.

[148] **Dr MacNeil's** primary evidence addressed the surface water quality and fresh water ecology effects. His evidence was based on the proposal documents and a site visit. Dr MacNeil provided supplementary evidence regarding the potential effects of sediment loss as a result of flooding of the pit in Stage 1 in response to Minute 7. He also provided reply evidence responding to relevant matters raised by submitters and Council Officers through the process.

[149] **Mr Payne** provided primary evidence addressing terrestrial ecology with reference to a terrestrial ecology survey he undertook of the site on 18 February 2022. His evidence included an overview of ecological values of the site, potential ecological effects, and matters raised by submissions. He also provided reply evidence responding to relevant matters raised by Mr Taia and Mr Langridge.

[150] **Mr Clark** assessed traffic effects of the proposal in his primary evidence. This included an overview of the existing road network, traffic data, crash history in the area, the s42A Report (focusing on Mr Fon's section) proposed conditions, relevant submissions and consistency with policy direction. His first supplementary evidence[32] related to the s42A Addendum Report which included a supplementary technical report on traffic effects from Mr Fon (in Attachment 5). He provided two additional sets of supplementary evidence that responded questions of clarification from the hearing and a matter of clarification in Minute 6. His reply evidence covered matters from the hearing not previously addressed and comments from submitters and Council Officers that arose from circulated information.

[151] **Mr Hegley** provided primary evidence that summarised his assessment[33] of the noise effects of the proposal, identified measures to avoid, remedy or mitigate the effects of noise, addressed issues raised by submitters and the s42A Report, and responded to the

28 Tonkin and Taylor, 16 December 2020. Peach Island Gravel Extraction Report. Further information response, 8 June 2021.
29 Dated 15 July 2022, 4 November 2022 and 21 November 2022.
30 Pattle Delamore Partners Ltd, Peach Island Proposed Quarry: Hydrogeology, 15 July 2022.
31 Initially dated 14 July 2022, but updated through the process.
32 4 November 2022.
33 Excavation of River Run, 134 Peach Island Road Motueka, Assessment of Noise, December 2019.

conditions outlined in the s42A Report. He provided a Noise Management Plan (NMP) including the final draft dated 20 April 2023.

[152] His supplementary evidence (4 November 2022) responded to some of the questions, comments and recommendations made in the addendum s42A Report. This included reference to corrected noise levels, and the numerical noise limit.

[153] His reply evidence responded to noise issues raised both at the November hearing and subsequent to the hearing.

[154] **Dr Kaye-Blake's** primary evidence assessed the economic benefit of having a local source of aggregate, and the environmental benefit from reduced emissions from cartage of low-value, high-bulk material. He also addressed the economic cost of loss of pastoral production. His supplementary evidence provided an economic analysis of the proposal in relation to clause 3.2(1)(c) and clause 3.9(2)(j)(iv) of the NPS-HPL. His reply evidence responded to evidence relating to economic matters, specifically the evidence of Ms Hollis with regard to flooding and its implications for economic viability, and regional public benefits.

[155] **Mr Taylor** provided primary evidence, supplementary evidence and reply evidence relating to planning matters. He was closely involved in developing the final set of proffered conditions. Mr Taylor's evidence is discussed in more detail in the relevant statutory and plan provisions section of my decision.

[156] Further details with respect to the evidence of the witnesses is outlined below in the principal issues in contention and the relevant statutory and plan provisions sections of my decision. I asked several questions of the witnesses in relation to their evidence. The witness responses are outlined in the remainder of this decision report as appropriate.

7.2 Submitters

[157] Ms Solly provided an overview of the submissions from both applications in her s42A Reports. I consider these overviews capture the points raised in submissions and I have adopted her summary tables. The discussion below focuses on points raised by submitters in the hearing in support of their submissions. I have considered the content of the original submissions as well as the points raised in the hearing in my decision.

[158] **Mr Williamson** submitted on both applications and appeared in support of the proposal. He considered that these operations are needed to ensure continued growth of the local economy and for local employment. If the proposal is not approved it will be necessary to source material from greater distances which will increase costs and emissions and carbon footprint.

[159] **Ms Le Frantz** appeared in opposition to both applications. She tabled evidence that she read to the hearing. She lives at 131 Peach Island Road, immediately adjacent to the site. They have 27 ha of land, of which 5 ha is planted in export apples, 1 ha local market pears and the rest is grazing land[34]. They also graze the Wakatu Land to the south of stage 2 and south of the proposed sealed haul road. Their residential dwelling and apple orchard

[34] Ms Solly tabled a replacement page showing property ownership at the hearing which I refer to in my decision.

is immediately north the site. A strip of their grazing land is immediately adjacent to stage 1.

[160] The main points from her evidence related to effects on their peace and tranquillity from living next door to a noisy industrial site, contamination of their potable water and orchard irrigation water, concerns about the frequency of water quality monitoring, dust affecting their export fruit, concern for grazing livestock (the haul road cuts across the grazing area), and erosion of stage 1 affecting their farmland. She provided feedback on concerns about the proposed NMP and DMMP on 7 April 2023.

[161] **Ms Harris-Virgin** appeared in opposition to both applications. She tabled evidence that she read to the hearing. Ms Harris Virgin lives at 273 College Street which I visited on 9 December 2022. She is concerned about the impact of truck traffic, water contaminations issues, excessive dust impact, starting at 7 am (resulting in truck traffic at 6.30 am), and negative visual impacts. She noted that they have just replaced their drinking water well at Woodman's corner[35] and that this services 4 households.

[162] **Mr Sunbye** appeared in opposition to both applications. He presented verbal evidence at the hearing and presented me with a cup of water taken from his drinking water bore located at 132 Peach Island Rd. He is an immediate neighbour and is very concerned about effects on his drinking water. He is also concerned about dust, noise and increased traffic and with the loss of his quiet lifestyle. He provided feedback on concerns about the proposed NMP and DMMP on 7 April 2023.

[163] **Ms Webster** appeared in opposition to both applications. She tabled evidence that she read to the hearing. Ms Webster lives at 132 Peach Island Road where she chose to live for the quiet ambience. Her evidence stated she is concerned about degradation of her bore water supply, loss of productive land, health issues from dust, excessive noise, disruption of the overflow channel with planting, effects on land and river ecosystems and wildlife, extra truck movements on the MRWBR, visual effects, jeopardising of stopbank integrity and reduction in property values. She provided feedback on concerns about the proposed NMP and DMMP on 7 April 2023.

[164] **Mr Dixon-Didier** appeared in opposition to both applications. He provided verbal evidence to the hearing. His concerns included transportation and traffic effects, stormwater management and flood effects, dust and noise, visual amenity effects, site contamination of surface and groundwater (including from clean fill contamination and hydrocarbon spillages). He stated that his main concern was degradation of river and marine ecosystems, noting that the Motueka River has a WCO in place, and that sediment loads in the Motueka catchment and marine environment are unacceptable.

[165] **Ms Nightingale** presented legal submissions on behalf of Valley RAGE Inc. and conducted their case in opposition to the entire proposal. This included introducing witness, coordinating responses to questions, providing memorandums and summarising evidence in response to Minutes. She noted that Valley RAGE Inc., was established in 2021 and comprised 62 residents of Motueka Valley including residents living on Peach Island or MRWBR. Valley RAGE was formed is response to the proposal. Ms Nightingale also provided me with case law that she considered was relevant to my decision.

[35] Located near Peach Island.

[166] **Mr Lang** provided a statement of evidence on behalf of Valley RAGE Inc. regarding the potential noise levels and noise disturbance effects of the proposal was well as the proposed measures to avoid, remedy or mitigate the acoustic effects.

[167] **Dr Campbell** provided a statement of evidence on behalf of Valley RAGE Inc. regarding the identification and nature of the soils in the Peach Island area and their potential productivity, and outlined issues associated with soil restoration generally and in regard to the proposal. He also addressed some broader issues around the management of soil and land resources and the need for aggregate material.

[168] **Mr Taia's** evidence on behalf of Valley RAGE Inc. addressed concerns about the mitigation planting proposed. Whilst he is a self-employed nursery man and was providing technical evidence, he acknowledged that he lodged a submission opposing the proposal. Therefore, he was not independent.

[169] **Dr Harvey** provided a statement of evidence on behalf of Valley RAGE Inc. focusing on the potential effects of the proposal on erosion of the backchannel during Stage 1 quarrying and immediately following pit backfilling and consequent fine sediment delivery to the Motueka River and Tasman Bay. His evidence also addressed stability of the stopbanks during flood events, and other opportunities for aggregate extraction in the region. He acknowledged that he lodged a submission opposing the proposal and was not independent.

[170] **Ms Hollis's** evidence on behalf of Valley RAGE Inc. addressed planning matters relating to land productivity. She also addressed noise effects in relation to amenity values, and cultural effects.

[171] **Mr Horne, Ms Filipo, Ms Young and Ms Cudby** tabled and spoke to a combined statement of evidence in opposition to the proposal on behalf of Te Ātiawa and Ngāti Rārua. Their evidence addressed several aspects of cultural effects. I address their submission and evidence in more detail in the principal issues in contention section of my decision.

[172] **Mr Ingram** appeared in opposition to both applications. He presented verbal evidence at the hearing. He stated that Whakatu Incorporated is an adjoining land owner of both the Stage 2 and 3 pits and also the access road. He expressed concern about the lack of cultural recognition and consultation, matakiti should be engaged beforehand not via consent conditions, the need for an adjacent landowner buffer, the access route selected, and the duration of the consent.

[173] **Mrs Tucker** appeared in opposition to both applications. She tabled evidence that expanding on points in her submissions and she also described additional issues of concern verbally. Ms Tucker lives at 411 MVH which I visited on 9 December 2022. Her family also own 749 MRWBR. They farm both properties. She covered a number of issues including the noise and vibration of truck traffic, impacts on roads, impacts on wildlife, the possibility of floods and blow-out of Stage 1, and contamination of flood plain and water. She worries about industrial activity in what she describes is a beautiful place and noted the national importance of the Motueka River. Mrs Tucker appended photos to her evidence.

[174] **Mr Petzold** appeared via zoom in opposition to the proposal. He lives at 750 MRWBR a 6.5 ha property adjacent to the road. His house is 25 m from the road. He explained concerns about road safety from heavy vehicles on narrow roads with reference to

crashes in recent years. MRWBR is a recreational vehicle thoroughfare. He expressed concern about increased flood risk, and loss of quality of life describing truck movements on the road as "feeling quite similar to a minor earthquake – the windows rattle". He considered that quarrying should be excluded from banks of rivers.

[175] **Ms Wratt** appeared as a neutral submitter on behalf of the Nelson Tasman Cycle Trails Trust which is leading the project to build the Great Taste Trail (GTT) - a 175 km cycle trail part of which runs down the MRWBR. The off road section from Peach Island to Alexander Bluff Bridge is yet to be built. She considered the impact of heavy truck and trailers carting gravel and clean fill along this section of the GTT will be significant. I expand on this issue in more detail in the principal issues in contention section of my decision.

[176] **Ms Garney** appeared in opposition to both applications. She presented verbal evidence at the hearing in support of the points raised in her submissions. She lives at 394 MRWBR and noted that the bore for her house and 4 other households is within 100 m of the site. I clarified that his bore is number 21033. Her verbal evidence focuses on groundwater quality, flooding (where is the backfill from stage 1 going to end up), safety issues on MRWBR for pedestrians and horse riding as it has no verge, and loss of productive land. In addition, she is concerned about noise - stating that their health and wellbeing will suffer as she needs peace and quiet. Ms Garney confirmed that the site is not visible from her property.

[177] **Ms Jenkins** appeared on zoom in opposition to the land use consents. She lives in Little Kaiteriteri and presented verbal evidence focusing on traffic issues, particularly from a safety point of view. This included concerns about the width of Alexander Bluff Bridge ("little wriggle room"), speed of heavy vehicles on MVH, lack of visibility and limited reaction time.

[178] **Mr Woodcock** appeared in opposition to both applications. He is an owner of a block of land adjacent to the proposed haul road to the east of the site access. He listed a number of issues of concern in his submission as summarised in the s42A Report. At the hearing he tabled evidence which he read. This included concerns about water, dust, noise, visual impacts, and the inability of MRWBR to handle the traffic generated by the proposal. He stated that he has been using this road from Brooklyn through to Alexander Bluff Bridge for 78 years. He noted that the access at 493 MRWBR has a right of way over his property and that he had not been consulted with respect to the proposal.

[179] **Ms Mae** appeared in opposition to both applications. She tabled evidence that expanding on points in her submissions (as summarised in the s42A Reports). Ms Mae lives at 370 MRWBR. She considered the proposal will spoil her amenity and wellbeing. She provided me with photographs relating to flooding of the Stage 1 area and gravel extraction activities on other sites (including Douglas Rd). I found the flood photos useful, but was unable to place much weight on the gravel extraction activity evidence at other sites[36].

[180] She noted concerns about loss of productive land and risk from disturbance of land, potential erosion from variable backfill, effects on groundwater, concerns about depth of

[36] I do not know the context of those activities (what is happening or existing environment factors for example). My deliberations and my decision are based upon the proposal in front of me at the site – 134 Peach Island Road.

extraction and measurement of groundwater levels, the 15 year consent term is unreasonable, and discharge of potential contaminants from back fill. She also noted a general concern about expert evidence findings effects are less than minor, minor or more than minor provided management plans are implemented exactly. She considers the onerous and complex list of conditions and the ability to successfully integrate all plans is concerning. Ms Mae addressed concerns about changing conditions under s127 of the Act (with regard to public involvement), and history of non-compliance. She provided her working with respect to gravel extraction rate and transport as an appendix to her written evidence.

[181] Ms Mae provided 118 comments (dated 7 April 2023) with respect to evidence circulated between the substantive hearing and the Right of Reply. This related to memorandums of counsel, supplementary evidence, proposed conditions and management plans. It was obvious that she spent some considerable time providing these comments which I have had regard to.

[182] **Mr Clark and Ms Rombouts** appeared on zoom in opposition to both applications. Mr Clark presented verbal evidence in support of the issues raised in their submission. He stated that his land was split by the Shaggery River and that the 60 m bridge was the only connection between the two properties. He noted the ambiguity in the application with respect to transport routes and was concerned about traffic safety if trucks access the site via Brooklyn and across the above mentioned bridge. He is very concerned about the safety of his family and other families in the area particularly those walking and cycling on the road. They provided feedback on Mr Clark's supplementary evidence that was circulated after the substantial hearing on 7 April 2023.

[183] **Mr and Mrs Langridge** appeared in opposition to both applications. They presented video evidence in support of their submission. They live at 520 MRWBR which I visited on 9 December 2022. Visibility was limited on the day of the site visit by cloud cover, but I was able to see the proposed access route and when combined with Ms Gavin's visual evidence considered I gained enough information to assist me in my decision in spite of the reduced visibility. Their presentation expanded on the existing environment, and highlighted a consent[37] they have obtained to operate a yoga retreat centre (which I noticed was partly constructed when I visited the site). I accept that this yoga retreat centre is part of the existing environment.

[184] They are particularly concerned about the effects on the proposal on this business which requires peace and quiet to function. In their response (7 April 2023) to circulated information they stated that the proposal "to extract gravel in an industrial site immediately in front of this property would be catastrophic to this venture, both in ongoing unacceptable noise levels and visual amenity". Due to the elevation of their property, they stated that no berms, shelter belts or bunds would mitigate these effects. Looking at Ms Gavin's evidence I accept this.

[185] **Mr Howie** spoke in opposition to both applications. He presented verbal evidence at the hearing in support of the points raised in his submissions. He lives at 133 MVH that I visited on 9 December 2022. He reiterated concerns about dust, and noise, noting that

[37] RM211153 Land use consent to build a geodesic dome that does not comply with internal boundary setbacks and to operate a commercial activity (yoga retreat) in the Rural 2 Zone that contravenes access passing bay and maximum gradient standards. The consent allows for one retreat per week which may be up to three (3) days in duration and for up to 30 persons. It is located 1km from the site.

he can clearly hear voices from the other side of the river when farmers are talking in the fields. He considers underground water systems should remain intact. He is also concerned about flooding issues, and soil structure being altered as this will affect future drainage.

[186] **Mr Taia** provided lay evidence[38] in opposition to both applications. He tabled evidence in support of the points raised in his submission. He lives at 370 MRWBR where he runs a local nursery. He stressed that over time the effects of the proposal will "impact our lifestyle, business and potentially our mental health…". His main concerns are dust, noise, significantly increased heavy traffic, groundwater quality degradation, and the waste of highly productive land and soils. He expressed concerns about the Applicant's lack of consultation with the local community, and illustrated (with the use of a map on a board) concerns about CJ Industries using Brooklyn as a haul route. He is concerned about the precedent this project would set. He outlined his thoughts on environmental, lifestyle and wellbeing costs and considers the benefits are solely profit for the Applicant.

[187] **Mr Kellogg** appeared on zoom in opposition to both applications. He lives at 398 MRWBR that I visited on 9 December 2022. His property is elevated and looks down onto the site which is directly east of his property. He presented verbal evidence in support of the issues raised in his submission. His presentation stated that the proposal will kill the peace and quiet (ambience) that they treasure. His concerns include noise, visual effects from dozens of truck and machine movements per day from an industrial site. Truck movements already cause their house to shake. He is concerned about the precedent this project would set. In response to questions he stated that the hedges on his property may get trimmed, referring to the hedges in Ms Gavin's landscape graphics showing views form his place back towards the site).

[188] **Mr Evans** appeared in support of the proposal. He lives at 29 Hurley Street Motueka. His support was conditional on a number of mitigation measures being undertaken by the Applicant to address effects on Alexander Bluff Bridge, road damage, quality of backfill, and traffic loading at intersection of College, Queen Victoria and King Edward Street.

[189] **Ms Forsey** appeared in opposition to the discharge permit application. She lives at 24 Mickell Road, Brooklyn and presented verbal evidence in support of the points raised in his submissions. She considers the proposal goes against restoration of the Lower Motueka River catchment that the community wants. There is a lot of enhancement work going on. She is concerned about water quality effects on swimming holes downstream of the site (Bluegums corner and Kayak corner), and the precedent this will set for future applications from the Applicant on land their family owns next to the site (to the south).

[190] Mr Jewell read the tabled evidence of **Ms King** to the hearing as she was unable to attend in person. She lives at 681 MRWBR and is opposed to the proposal. She is particularly concerned about road and traffic management along with noise and road maintenance.

[191] I have had regard to the matters raised by submitters in identifying the principal issues in contention and these matters are discussed in more detail below. I asked several

[38] In addition to the technical evidence discussed above.

questions of the witnesses in relation to their evidence. The witness responses are outlined in the remainder of this decision report as appropriate

[192] With regard to concerns about property values, actual and potential effects on property values are not a relevant consideration under the Act. Hence, I will not address loss of property values further. Section 16.3 of the s42A Report dated 28 March 2022 noted relevant case law[39] that supports this approach.

7.3 Reporting Officers

[193] This section of my decision is a brief overview of the reporting officers I heard from and the topics they covered in their evidence. I address their evidence in more detail in the principal issues in contention and relevant statutory and plan provisions section of my decision.

[194] I have discussed Ms Solly's s42A Reports in section 2.2 of my decision. I also heard from the following reporting officers:

(a) Mr Griffith, with respect to flood protection and river control effects;

(b) Mr Winter, with regard to the potential noise effects;

(c) Mr Fon, with respect to traffic matters;

(d) Ms Langford with regard to land productivity and soil management;

(e) Dr Rutter with respect to hydrogeology, groundwater and clean fill management.

[195] I note here that Mr Pigott the Team Leader Natural Resource Consents at the Council provided an addendum to the s42A Report (21 November 2022) in relation to dust management, but did not speak at the hearing.

7.4 Joint witness caucusing

[196] At the hearing I directed caucusing of relevant experts to address outstanding issues (areas of disagreement) regarding productive land, groundwater quality and erosion of stage 1 pit. Caucusing was undertaken in accordance with Minute 5.

[197] I directed Mr Jewell to facilitate the caucusing having regard to the confidentiality matters raised in a memorandum from the Applicant. I directed the parties to confer on the appropriate agenda (Applicant to provide first draft). I commented on and approved the final agenda before caucusing commenced.

[198] Table 1 is a summary of the experts who caucused, who they represented, when they caucused, and the results of the caucusing.

Topic	Experts	Representing	Date(s) of caucusing	Results
Stage 1 Pit Erosion	Mr Aiken Dr Harvey Mr Griffith	Applicant Valley RAGE Inc Council Officer	14 February 2022, 9.00 am to 10.30 am	Joint Witness Statement dated 6 March 2023

[39] Giles vs Christchurch City Council (A92/00) and Land Air Water Association vs Waikato Regional Council (A110/01).

Topic	Experts	Representing	Date(s) of caucusing	Results
Groundwater Quality	Mr Nicols Dr Rutter	Applicant Council Officer	15 February 2023, 1.00 pm to 4.30 pm	Joint Witness Statement dated 3 March 2023.
Productive Land	Dr Hill Mr Nelson Dr Campbell Ms Langford	Applicant Applicant Valley RAGE Council Officer	16 February 2023, 1.00 pm to 4.00 pm	Joint Witness Statement dated 6 March 2023

Table 1: Expert witness caucusing summary

[199] I refer to the results of the expert witness caucusing in my discussion on the principal issues in contention section of my decision.

7.5 Applicant's Right of Reply

[200] I received the Right of Reply on Monday 24 April 2023. The hearing reconvened on Tuesday 9 May 2023 to hear the Right of Reply. I adjourned the hearing on this day to allow the Applicant to provide some written response to my questions on the Right of Reply.

[201] During the hearing of the reply evidence, I asked Ms Gepp to confirm whether the witnesses who referred only to gravel extraction in their evidence had taken into account the discharge permit application in their assessments. She confirmed that their evidence related to the entire proposal including the discharge permit. I accept this.

7.6 Closure of hearing

[202] I received the written response to questions of clarification relating to the Right of Reply on Monday 15 May 2023. I closed the hearing via a Minute on Wednesday 17 May 2023 as I considered I had sufficient information to enable me to make a decision. I doubled the timeframe for releasing the decision for reasons outlined in Minute 11.

8 Relevant statutory provisions considered

[203] In accordance with section 104 of the Act, I have had regard to the relevant statutory provisions, including the relevant sections of Part 2 and sections 104, 104B, 105, 107, 108 and 108AA of the Act.

[204] Under section 104(1) when considering an application for a resource consent and any submissions received, and subject to Part 2 of the Act, I must to have regard to-

(a) Any actual and potential effects on the environment of allowing the activity;

(ab) Any measure proposed or agreed to by the Applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will result from allowing the activity;

(b) Any relevant provisions of a national environmental standard, other regulations, a national policy statement, a New Zealand coastal policy statement, a regional policy statement or a proposed regional policy statement, a plan or proposed plan; and

(c) Any other matters the consent authority considers relevant and reasonably necessary to determine the application.

[205] The actual and potential effects on the environment are discussed in the principal issues in contention sections below (sections 9 and 10).

[206] The Applicant has not offered measures to offset or compensate for any adverse effects on the environment that will result from allowing the activity.

[207] Section 11 of this report identifies and discusses the relevant provisions of the documents listed in subsection (b) above.

[208] I discuss other matters that are relevant and reasonably necessary to determine the application in section 12 of my decision.

[209] Under section 104(2), when forming an opinion for the purposes of section 104(1)(a) regarding actual and potential effects on the environment, I may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect. This referred to as consideration of the 'permitted baseline'.

[210] Ms Solly discussed the permitted baseline matter in her s42A Report (28 March 2022)[40] and in the discharge permit s42A Report[41]. She found that the permitted baseline should not be applied to gravel extraction which is permitted up to 50 m^3 in any 12-month period by the TRMP in the Rural 1 zone due to the proposal being much greater in scale[42]. She also discussed her reasons why the permitted baseline should not be applied with regard to noise stating that the proposed activity is neither permitted nor anticipated in the Rural 1 zone.

[211] Mr Taylor agreed that that the scale of quarrying activities permitted in the Rural 1 zone is significantly different to that proposed in the application, so as to not provide a useful comparison for the purposes of assessing effects[43].

[212] He argued that "s104(2) of the RMA does not only allow the effects of an activity to be disregarded if *that activity* is permitted by the Plan or an NES, but rather if any activity *with that effect* is permitted" (emphasis per original). He stated there are a range of activities that could be undertaken as of right on the site that have an effect that is sufficiently similar to that of the proposal as to warrant consideration as part of the permitted baseline. He listed examples of these in section 3.15 of his primary evidence as follows:

> *(a) Horticultural activities and associated vehicle movements, which could involve heavy machinery. (b) Agricultural activities, including intensive farming and associated vehicle movements, could involve heavy machinery. (c) Disturbance or recontouring of the land over the entire site. This could include activities like cultivation. (d) Formation of any road or track up to 100 m per hectare.*

40 Section 6.5 to 6.10.
41 The s42A report for the discharge permit is Item 2.2. Council Agenda 28 October 2022 see section 6.5
42 Approximately 300 time according to Ms Solly.
43 At paragraph 3.15 of his primary evidence.

[213] Mr Taylor considered these activities could result in effects similar to those that would result from the proposed activities in relation to visual effects, noise effects, dust effects, erosion and sediment movement. He acknowledged that there are in some cases performance standards / conditions given in the TRMP in relation to these effects that would need to be met to undertake them as a permitted activity. However, he was of the opinion that where these do exist (for example for noise, sediment movement into waterways), such performance standards are also proposed to be met in respect of the proposed activities.

[214] He stated that the permitted baseline is discussed in expert evidence relating to specific effects of the proposal relevant to their area of expertise. I decided to accept Mr Taylor's approach to the permitted baseline and scrutinised any permitted baseline discussions relevant to the expert evidence on the principal issues in contention and refer to it is appropriate in that section. Having said that, apart from the TRMP noise limit (discussed below) I found limited reference to the permitted baseline in the expert evidence, and note that the experts did not refer to the performance standards / conditions given in the TRMP, such that I found the application of the permitted baseline to be of very limited use in my decision.

[215] In terms of section 104(3), in considering the applications, I must not have regard to any effect on any person who has given written approval to the application. No written approvals were provided.

[216] Under section 104B, I may grant or refuse the application, and if granted, I may impose conditions under section 108.

[217] In respect of RM220578 (discharge permit) I must have regard to section 105 and s107. I discuss these sections in more detail below.

[218] Section 6.23 of the discharge permit s42A Report outlined that section 104G of the Act (consideration of activities affecting drinking water supply source water) was inserted into the RMA on 15 November 2021. This section is not applicable to the proposal as there are no registered drinking water supplies in the vicinity of the site. I accept this. However, this does not undermine my findings on groundwater quality effects, including effects on drinking water.

9 Principal issues in contention

[219] On the basis of the evidence in front of me, I consider the principal issues in contention are as follows:

(a) Groundwater quality effects (particularly risks to drinking water quality);

(b) Effects on soil productive value;

(c) Effects on amenity values;

(d) Cultural effects;

(e) Traffic effects;

(f) Noise;

(g) Dust;

(h) Landscape and visual effects;

(i) Surface water quality and ecology;

(j) Flooding inundation and erosion of Stage 1 area.

[220] My findings on the principal issues in contention are included in the following section of my decision. Unless otherwise stated, any reference to conditions means the final set proffered in the Right of Reply. Similarly, reference to any management plan means the management plans supplied in the Right of Reply dated April 2023.

Positive effects

[221] Whilst not a principal issue in contention, I acknowledge that I have considered the positive effects of the proposal in accordance with section 104(1)(a) of the RMA 1991.

[222] The positive effects of the proposal are outlined in the evidence of Dr Kaye Blake, Mr Taylor, Mr Corrie-Johnston and Mr Payne.

[223] Dr Kaye-Blake concluded[44] that the economic benefit arises from having a local source of aggregate, and the environmental benefit arises from reduced emissions from cartage of low-value, high-bulk material. The economic cost is loss of pastoral production for 15 years. No other environmental, social or cultural impacts are included in this analysis. The total annual economic benefit is valued at $306,000, and the total annual economic cost is $970. The annual environmental benefit from reduced GHGs is valued at $21,400. The net benefit of the proposed activity over 15 years is $3.56 million.

[224] Mr Taylor noted a number of submissions raised the positive effects that would result from the proposed activities. These relate mainly to economic effects associated with the relative cost of aggregates (and associated impact on building costs) sourced from close to Motueka as opposed to sources further away, and the positive social and economic effects for the community in relation to employment by the Applicants.

[225] Mr Payne considered planting of eco-sourced native trees and shrubs suited to alluvial terraces within the Stage 1 area (refer Appendix 3) will create approximately 1.35 ha of native forest (subject to successful establishment as outlined in proffered condition 27). This will constitute a positive ecological effect.

[226] I accept the evidence in relation to the positive effects as outlined above and adopt it in my decision.

10 Main findings on the principal issues in contention

10.1 Groundwater quality effects (particularly risks to drinking water quality)

Context

[227] I received technical evidence regarding groundwater quality effects from Mr Nicol on behalf of the Applicant, and from Dr Rutter on behalf of the consent authority. A significant number of submitters were concerned about groundwater quality effects, and in particular drinking water quality for residents with bores on Peach Island. The risks to drinking water quality was the most significant issue for me to consider. Whilst I was

[44] Primary evidence, paragraph 4.1.

particularly concerned about drinking water quality, groundwater quality is relevant to other uses on Peach Island including stock water and irrigation water for crops.

[228] The following national policy statements, regulations, water conservation orders, and guidelines are relevant to my consideration of groundwater quality effects:

(a) NPS-FM;

(b) Water Services (Drinking Water Standards for New Zealand) Regulations 2022 (DWS 2022);

(c) Water Conservation (Motueka River) Order 2004. This is relevant as groundwater at the site is hydraulically linked to the Motueka River;

(d) Waste Management Institute New Zealand, October 2022, Technical Guidelines for Disposal to Land Revision 3 (WasteMINZ guidelines). These are technical guidelines relating to the siting, design, operation and monitoring of landfills in New Zealand.

[229] Mr Nicol stated[45] in the absence of regionally specific limits in the TRMP, that he considered Environment Canterbury's groundwater quality limits in Schedule 8 of Environment Canterbury's Land and Water Regional Plan (LWRP) to be a useful example of groundwater chemistry limits for changes in groundwater chemistry from discharges that may enter groundwater.

[230] He also noted that while not specific to the groundwater zone that includes Peach Island, Schedule 36A, Class G (Water Classification for the Motueka / Riwaka Plains Water Management Area) at Chapter 36 of the TRMP also includes qualitative groundwater quality standards to minimise groundwater chemistry changes. Furthermore, he considered that based on the descriptions in the TRMP, the Schedule 8 groundwater quality limits in the LWRP appear to be consistent with the TRMP qualitative limits in Schedule 36A and therefore are considered to be appropriate.

[231] The use of Schedule 8 of the LWRP was not challenged by Dr Rutter. Therefore, I accept that Schedule 8 Region-wide Water Quality Limits from the LWRP are useful limits to consider.

[232] I accept paragraph 6.11 of the discharge permit s42A Report that there are no registered drinking water supplies in the vicinity of the site and thus the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (the NES-DW 2007) are not relevant to my decision. This is because the NES-DW 2007 provisions only apply to an activity that has the potential to affect a registered drinking water supply that provides no fewer than 25 people with drinking water for not less than 60 days each calendar year.

[233] In spite of this, I consider that the potential adverse effects on drinking water quality for downstream bore owners is the most significant issue for me to consider with respect to this proposal.

[234] Section 3.37 of Mr Nicol's reply evidence replied to Dr Rutter noting that the Ministry for the Environment (MfE) Hazardous Activities and Industries List guidance: Identifying HAIL land was published on 30 March 2023 not 2012 as listed in the final version of the GCMP. He noted this was after the revised GCMP (March 2023) was supplied and updated

[45] Reply evidence, at paragraph 3.10.

groundwater conditions were filed with Council on 23 March 2023. He agreed that the reference to updated MfE guidelines should be incorporated into the consent conditions, although noted there are no changes to the guidelines that alter the requirements of the standard operating practice (of the GCMP).

[235] The above mentioned guidance document focuses on enabling users to make informed decisions on the identification, classification and registration of HAIL land, and the assessment of resource consent applications for HAIL land. In the context of the decision before me, I noted that it is relevant in that it provides a management framework that assists in management of the quality of fill that may potentially be brought to the site. The Applicant has applied the guideline in this way.

[236] The Applicant proposes to manage groundwater quality in accordance with the April 2023 version of the GCMP and the April 2023 version of the proposed conditions.

[237] The following activities were noted to be relevant to groundwater quality effects.

(a) Extraction of gravel;

(b) Hazardous substances storage and management; and

(c) Backfilling activities.

[238] The evidence discussed a number of groundwater quality issues associated with these activities. These matters are considered in more detail below.

[239] With regard to concerns about drinking water quality for the bore supplying 273 College Street and other residences, section 3.7 of Mr Nicol's reply evidence addresses this. He concluded the Motueka River is expected to act as a hydraulic barrier between groundwater at Peach Island and groundwater abstracted by the closest bore(s) to the property at 273 College Street. Therefore, there is expected to be no effect from groundwater at the proposed Peach Island quarry on bores located on the true right of the Motueka River. I accept this.

Issues

[240] Dr Rutter identified several groundwater issues in Addendum 3 of the discharge permit s42A Report being:

(a) Exposure of groundwater within an open pit;

(b) Inundation of contaminated fill material in backfilled pits, mobilising contaminants within the fill;

(c) Leaching of contamination from any fill, not just inundated material;

(d) Risks of accepting non-cleanfill material at the site; and

(e) Risks from fuel spills / hydraulic hose breaks.

[241] Her concerns were summarised in her evidence as follows:

> *"In summary the proposed activities would allow excavation and placement of fill in the zone of water table fluctuation. This would increase the risk of potential contaminants leaching from any placed fill. Assuming there were no contamination issues caused by spills, and there was strict adherence to waste acceptance criteria and no mistakes in terms of fill quality accepted, there should be limited effect on*

groundwater. However, if there were to be an adverse effect on groundwater, it is not possible to say exactly how far impacts might propagate and there needs to be adequate protection of down-gradient users, and mitigation provided, in the case that there was an incident."

[242] Whilst Mr Nicol and Dr Rutter attempted to narrow down and resolve the groundwater issues associated with the proposal, they still had divergent opinions at the close of the hearing.

[243] Mr Nicol's concluding statement in his reply evidence was that provided the controls and procedures proposed in the revised GCMP (March 2023) and groundwater consent conditions are met, effects on groundwater are considered to be less than minor.

[244] At the close of the hearing Dr Rutter had outstanding concerns[46] and uncertainty regarding the successful implementation of the GCMP, in particular regarding groundwater levels and the exposure of groundwater during excavations. In her mind, fill quality remained the greatest risk and she was concerned that 100% compliance without operational / human errors over 15 years may not be achievable in practice. She also noted that the volunteered conditions / trigger values allow for a degradation of existing water quality. These issues are discussed in more detail below.

[245] On the basis of the evidence I heard the issues for me to consider are:

(a) Exposure of groundwater in an open pit;

(b) Leaching and mobilisation of material in backfilled pits;

(c) Management of fill quality;

(d) Proposed trigger values in conditions allow significant degradation of existing groundwater quality;

(e) Proposed compliance limits;

(f) Response to exceedance of trigger levels and compliance limits;

(g) Remediation of contamination;

(h) Groundwater flow uncertainties and proposed monitoring regime;

(i) Risks from fuel spills / hydraulic hose breaks; and

(j) Other issues.

[246] I discuss each of these issues in more detail below.

Discussion and findings

(a) Exposure of groundwater in an open pit.

[247] Dr Rutter expressed concerns and uncertainty regarding the successful implementation of the GCMP, in particular regarding groundwater levels and the exposure of groundwater during excavations. She considered there is insufficient data to understand the groundwater level response to rainfall events of different magnitudes, different antecedent conditions and within different sub catchments. Therefore, the proposed

[46] 14 April 2023

conditions (C88, C89 and C92 in Appendix 247) do not mitigate the risk of exposing groundwater during excavations.

[248] Dr Rutter expressed concerns about the filling regime. Her Addendum 3 to the discharge permit s42A Report stated that

> *"The hydrographs show a change in groundwater levels (GWL) of 2 to 2.5 m over quite short time periods. It would be really useful to know the likely maximum rate of change in GWLs to assess whether any proposed intention to excavate to within 0.3 m of the water table could actually be achieved. Given the variations shown in Figure 5 over a period of only a month (of up to close to 2.5 m), the question must be raised as to how the filling operations will be carried out. If excavation is to within 0.3 m of the water table at times when groundwater levels are low, this could then require filling of up to 2.5 m thickness of fill within a period of a month. This does not take into account any longer-term variability in groundwater level – the 2.5 m variation from May to June 2022 is almost certain not to contain the full range of variability, and we have no information at all regarding that. I would question the practicality of this".*

[249] Mr Corrie-Johnston assured me at the hearing that sufficient clean fill will be available to address this concern and this was included in the final proffered conditions (condition 100 RM200488).

[250] In her review of the s92 response Dr Rutter considered the approach outlined in the GCMP with regard to managing excavation depth on a day-to-day basis appears to be a reasonable approach to understanding the depth to groundwater over a limited area. However, she was concerned about how backfilling activities would be managed across the wider site with rapidly rising groundwater levels.

[251] She was not convinced that it will be possible to avoid inundation at times (s92 review).

[252] Dr Rutter considered that "Dry weather" conditions needed to be defined as this influenced excavation management. Similarly, the Applicant needed to define what river flows / predicted rainfall would cause quarrying to stop and backfilling to start. If they wait until groundwater levels are already rising, it could well be too late to prevent inundation.

[253] In response to this, the Applicant proposed that all excavations between 0.3 and 1 m above groundwater level shall only occur during stable weather conditions which are defined as: (a) Decreasing or stable groundwater level trends, based on the measurements described in Condition 85; and (b) Decreasing or stable flow within the Motueka River as measured at the TDC Woodmans Bend flow recorder site.

[254] Also, excavations between 0.3 and 1 m above groundwater level will immediately cease and backfilling shall occur if any of the following occur: (a) Tasman District Council issue any flood warnings for the Motueka River catchment; (b) Any weather warnings are issued for the Nelson / Tasman region that might be expected to cause groundwater levels at the clean fill to rise; (c) When groundwater levels measured in Condition 85 display an increasing trend (reference to groundwater level monitoring).

[255] According to Dr Rutter, it seems sensible to change the definition to stable weather and put in place the conditions noted. However, she was unclear about the second set of

[47] Council comments and Reply to minute 9 dated 14 April 2023.

conditions, particularly what weather warnings might be expected to cause a rise in groundwater levels at the site. How will the weather warnings be interpreted to know that there is likely to be a rise in groundwater levels? She recommended carrying out an analysis of rainfall/river stage/groundwater level responses to understand what sort of events are likely to cause an issue in terms of rapidly rising groundwater.

[256] I accept Dr Rutter's reservations about the lack of clarity of the second set of conditions particularly 89(b). The management approach of linking gravel extraction depth to a fluctuating groundwater system is complex and I accept Dr Rutter's reservations that it will not be possible to avoid inundations at times.

[257] Given the emphasis put on ensuring that the excavations did not expose groundwater (in order to avoid contamination), I am concerned about the lack of evidence regarding the effect of flooding removing the backfill from stage 1 pits, thereby directly exposing groundwater (the aquifer) to flood water and the effect this would have on groundwater and drinking water quality. Mr Nicol responded to my question about why ensuring excavations do not expose groundwater was important (as emphasised in the GCMP). He stated that open water in the pits opens up different exposure pathways.

[258] In note that currently, with the vadose zone in place, there is a buffer between flood waters and the aquifer in the Stage 1 area. Flooding of the Stage 1 area would open up an exposure pathway.

(b) Leaching and mobilisation of material in backfilled pits

[259] Both experts agreed that the key to avoiding issues arising from inundation of contaminated fill material in backfilled pits, mobilising contaminants within the fill; and leaching of contaminants from any fill, not just inundated fill was to manage the quality of the fill arriving at the site.

[260] Mr Nicol[48] considered that a change in groundwater chemistry is expected as part of clean filling, although the level of change in chemistry is expected to be within the proposed trigger limits such that it doesn't cause any adverse effects.

[261] Dr Rutter stated that if all aspects of the waste acceptance criteria are met, exceedances of trigger limits are unlikely so trigger levels could be lower. She outlined the Applicant should consider trigger levels based on current groundwater quality.

[262] Both experts agreed that provided that all clean fill material used as backfill at Peach Island meets the Class 5 requirements in the WasteMINZ guidelines, there will be no adverse effects on groundwater.

[263] They also agreed the clean fill parameters in Table 1 of draft GCMP are appropriate.

[264] Furthermore, they agreed that if the requirements of the GCMP are always met, adverse effects are unlikely to arise. I now turn to the issue of management of fill quality.

(c) Management of fill quality

[265] The experts acknowledged that successful implementation of the GCMP was a key to managing fill quality.

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[48] JSW Groundwater Quality, response to question 8b.

[266] In the JWS Dr Rutter stated even with best processes, accidents can happen. She has seen this occur.

[267] She noted this proposal is unusual in that material will be paced into the zone of groundwater level fluctuation. If contaminated material was to be placed, then there is much higher potential for contaminants to migrate rapidly than if there was unsaturated material between the fill and groundwater.

[268] In response to this, Mr Nicol stated that if undetected contaminated material was to occur in the material for backfilling purposes, the WAC [in the GCMP] is expected to limit the quantity of contaminated material to small, localised zones of material (as opposed to gross contamination). If mobilised, elevated contaminant concentrations would be expected to be attenuated/diluted due to small volume.

[269] Mr Nicol noted the placement of fill material within the zone of groundwater level fluctuations has been previously granted under resource consents RM150896 (granted in 2016) and RM210649 (granted in 2021 for the Applicant at their (CJ Industries) Douglas Road site which also allow the exposure of groundwater in excavations). Therefore, he did not consider the proposed methodology to be unusual for the region. He stated[49]:

> *"The key control for minimising the migration of contaminants in groundwater is the quality of the fill material. The requirements of the revised GCMP (March 2023) and the updated groundwater consent conditions (March 2023) are strict. Provided the requirements are met there is a low probability for accidental placement of a large enough volume of contaminated fill material to cause adverse effects as agreed by Dr Rutter in Section 4(c) of the JWS".*

[270] Although I understand the point he is making about other activities in this region occurring within the groundwater zone I am unable to draw any conclusions from Mr Nicol's comparison with other sites as these examples occur in different locations with different "existing environments". I am also unsure about the operation of the above mentioned projects.

[271] I understand that Dr Rutter has significant experience with groundwater in the Canterbury region. In other cases[50] I have presided over in Canterbury, the retention of a 1 m buffer of vadose zone between the highest recorded groundwater level and the bottom of any fill pit was a requirement to enable the vadose zone to act as a natural filter against any contaminants released from the fill. I took Dr Rutter's statement to be made within this context. If the activity occurs in the aquifer, there is no vadose zone to filter contaminants that may be in the fill. In other words the natural buffer is removed.

[272] Both experts agreed that if the requirements of the GCMP are always met, adverse effects are unlikely to arise. They also agreed that there was a low probability for an accident to occur and a significant volume of contaminated material would be required to cause adverse effects. Mr Nicol noted the requirements of the proposed waste acceptance criteria make the probability of an "accidental" use of a large volume of contaminated fill material low. Dr Rutter stated that complex conditions can be difficult for consent holders to follow.

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49 Reply evidence, paragraph 3.34.
50 Fulton Hogan, Miners Road and Frews Hororata.

[273] Both experts agreed people using bores to abstract groundwater is the focus. Changes in downgradient water chemistry within the drinking water standards will not cause an adverse effect on water quality groundwater users.

[274] In the Council Officers' final evidence in response to Minute 9, I note that Dr Rutter considers fill quality remains the greatest risk from the proposal and there is concern that 100% compliance without operational / human errors over 15 years may not be achievable in practice.

[275] The legal submissions in reply (paragraph 36b) responded to the concerns about accidents happening. Ms Gepp outlined that an applicant is entitled to be treated on the basis that it will comply with the consents it holds, and with the Act[51]. It is impossible for an applicant to prove future compliance (or disprove future non-compliance).

[276] Whilst I accept this, this does not mean that I should not take notice of Mr Nicol considering that there is a low probability of an accidental use of large volume of contaminated material and Dr Rutter's concerns about the complexity of the consent conditions.

[277] I noted in the GCMP that the management of clean fill acceptance onto the site (including screening) and disposal of the clean fill hinges on the Site Manager. I note at this point that I received little evidence relating to how the site operations would be implemented under the Management Plans. I am referring to identification of staff, and their roles and responsibilities.

[278] It appears based on the evidence that the Site Manager needs to be available approximately every half hour (based on 15 trucks entering the site with clean fill) to carry out the functions outlined in the GCMP as well as being responsible for implementing the requirements stated in the other management plans. Mr Corrie-Johnston stated that the hearing that this will include walking the site to assess dust nuisance as outlined in the DMMP for instance.

[279] There was no mention of a reception area for incoming trucks and a weighbridge as anticipated by the WasteMINZ guidelines. Section 7.5 of the WasteMINZ guidelines states:

> *Unauthorised entry to landfills/fills can lead to illegal waste dumping, exposure to landfill/fill hazards, fires, vandalism, and loss of amenity. In order to control site access, the perimeter of the landfill/fill site should be securely fenced, and the gates locked outside normal operating hours. Close control over issuing keys to the landfill/fill should be maintained to ensure public health is adequately safeguarded and the operational procedures are complied with at all times. All incoming vehicles should report to the weighbridge or reception office before proceeding further to waste tipping or working areas.*

[280] With regard to site security, I asked the Applicant if the site would be locked. In the response to questions arising from the Reply evidence, the Applicant stated:

> *There will be no public access to the southern end of the site, which crosses private land. Public access from the northern end (Peach Island Road) is legally available and will not be gated, however public access is unlikely given the nature of the paper road*

[51] Citing *Guardians of Paku Bay Assn Inc v Waikato RC* (2011) 16 ELRNZ 544, [2012] 1 NZLR 271 (HC).

(see Evidence of Gary Clark dated 4 November 2022 at 2.6 – 2.7 on this point). In addition, security cameras will be in operation.

[281] This does not address best practice as outlined in the WasteMINZ guidelines.

[282] Section 7.3 of the WasteMINZ guidelines states:

> *Landfill / fill operators should provide adequate staffing to ensure that during operating hours all continuous tasks (including acceptance, compaction and covering) are completed in accordance with site management plan procedures.*

[283] Given the complexity of the GCMP (amongst other complex management plans) based on the evidence I received I am not confident that the management plans will be able to be implemented on a continuous basis by the Site Manager alone.

[284] I also noted that the procedures relating to making sure the material coming to the site (from multiple source sites) is clean fill and that it meets the Waste Acceptance Criteria as outlined in Appendix A of the GCMP are complex and rely heavily on a SQEP (Suitably Qualified and Experienced Practitioner) being available across multiple sites.

[285] The above discussion leads me to accept the expert advice with regard to the risks of contamination as outlined above.

(d) Proposed trigger values in conditions allow significant degradation of existing groundwater quality

[286] Dr Rutter noted concerns about the volunteered conditions / trigger values allowing for a degradation of existing water quality. Dr Rutter stated that for some parameters even 50% of MAV is significantly higher than current background measurements (e.g., for dissolved copper the trigger concentration in Table 1 is 50 times or more than current background measurements).

[287] She considered trigger levels should be set that acknowledge current groundwater quality. She also considered that allowing significant deterioration in groundwater quality before any action would be required is not acceptable in terms of the NPS-FM and complying with the objectives of Te Mana o te Wai. She considered it is not consistent with the idea of maintaining current state as set out in the NPS-FM.

[288] Mr Nicol's reply evidence stated the proposed exceedance criteria and water chemistry trigger limits allow changes in groundwater chemistry to a degree that does not result in adverse effects on downgradient water users and the environment. Such localised effects on groundwater quality are also allowed to occur through permitted (and potentially also consented) activities that occur in the rural area for wastewater and stormwater discharges. Therefore, he disagrees with the view expressed by the Council Officers who consider any change in groundwater chemistry outside of "current state" to be inconsistent with the NPS-FM and the concept of Te Mana o te Wai.

[289] I have given thought to this. I note that under section 2.2 Policies of the NPS-FM, policy 5 requires the health and wellbeing of all other water bodies (i.e. non degraded water bodies) and freshwater ecosystems to be maintained and (if communities choose) improved. The terms health and wellbeing are not defined. Hence, it is not clear that this policy requires "maintenance of current state". There may be room for some reduction in water quality to occur while still maintaining the health and wellbeing of water bodies.

[290] I understand that TDC has not yet implemented the National Objectives Framework identified in subpart 2 of Part 3 of the NPS-FM. Hence, I am unable to draw any conclusions about whether management of the quality of the aquifer down to the compliance limits that have been set by condition 26 (RM220578) are inconsistent with the NPS-FM. Condition 26 is drafted as an absolute limit or compliance limit. This is different to the trigger levels that require a management response as set out in the consent conditions.

[291] The approach of setting compliance limits at the DWS is not consistent with the requirements to Schedule 8 of the LWRP, which require water quality compliance limits to be set at ½ MAV. I discuss this further below.

(e) Proposed compliance limits

[292] Conditions 26, 34 and 35 indicate that the Applicant intends to manage the water quality within a compliance limit set at the values outlined in the DWS which includes parameters set at MAV. In this case, the compliance limits are not consistent with Schedule 8 of the LWRP where the water quality limits (compliance limits) are set at <50% MAV.

[293] As Mr Nicol has referenced Schedule 8 of the LWRP as being relevant in setting the compliance limit conditions, I have referred to the corresponding policy 4.7 in the LWRP which reads:

> *"Resource consents for new or existing activities will not be granted if the granting would cause a water quality or quantity limit set in Sections 6 to 15 to be breached or further over allocation (water quality and / or water quantity) to occur or in the absence of any water quality standards in Sections 6 to 15, the limits set in Schedule 8 to be breached".*

[294] This indicates to me that the management framework set by the Applicant is not consistent with Schedule 8 of the LWRP and allows for contamination of the groundwater to twice the level set in Schedule 8 with regard to contaminants of health significance (the MAV parameters).

(f) Response to exceedance of trigger levels and compliance limits

[295] Mr Nicol considered[52] the water chemistry trigger limits have been proposed at a level that won't cause adverse effects on downgradient groundwater users (i.e. GV and half MAV). The proposed trigger limits apply to the dedicated monitoring bores at the downgradient boundary of the clean fill site as well as the more distant, down gradient drinking-water supply bores. Unanticipated changes in groundwater chemistry would be expected to occur in the dedicated monitoring bores prior to changes occurring in downgradient drinking water supply bores. Furthermore, unanticipated changes in water chemistry within the dedicated monitoring bores would be expected to be larger in magnitude than the more distant downgradient drinking water supply bores. Therefore, the proposed response times are a reasonable and an appropriate response to an exceedance in the dedicated monitoring bores.

[296] In his reply evidence, Mr Nicol identified the updated groundwater conditions include requirements to identify any adverse trends in groundwater chemistry data and to investigate and mitigate the cause of any adverse trend before the exceedance criteria or

52 JWS Groundwater Quality, response to question 11.

trigger limits are exceeded. The mitigation actions include requirements to commission an investigation of a significant trend in the direction of a breach of trigger levels and if appropriate identify recommendations for remedial action.

[297] Furthermore, if an exceedance of the trigger limits occurs in a downgradient water supply bore, according to Mr Nicol a repeat sample will be undertaken in that bore, and if the exceedance is confirmed by the additional sample, the consent holder will provide an alternative water supply. Additional groundwater sampling in other downgradient bores may have to be undertaken as well. The reason for repeat sampling is to check that the sampling and laboratory testing procedures have not inadvertently caused incorrect information to be reported.

[298] Dr Rutter was of the opinion that the overall response to an exceedance should occur faster and be more pro-active than what has been proposed particularly given the fact that exceedance of the proposed triggers would be a significant change in water quality. Repeat sampling should occur faster than the proposed 72 hours. Notification of the Council and downgradient bore owners should occur immediately if an exceedance of trigger values occurs. Provision of an alternative water supply should be prepared for as soon as possible if half MAV exceedances occur in downgradient drinking-water supply bores.

[299] There are four aspects to the Applicant's proposed response to groundwater trigger level exceedances that concern me.

[300] The first is that notification of the closest downgradient water supply bore owner / landowner (bore 24135) would only occur after a second groundwater sample showed an exceedance of trigger levels (refer condition 33) and an alternative water supply would be provided at that point (refer condition 34). According to Mr Nicol the rationale behind this is "to check that the sampling and laboratory testing procedures have not inadvertently caused incorrect information to be reported".

[301] As drinking water is fundamentally important, a precautionary approach requiring notification of the first exceedance would be prudent. In Dr Rutter's opinion, if contamination is observed through sampling, then the response to this needs to be more robust. In particular, it should be assumed that the filling activities are the cause until proven otherwise. I accept this.

[302] Secondly, in the event of the second exceedance of the trigger levels at the monitoring bores (bore 1,3, or 5) other bores (within 500 m downgradient of the clean fill) would only be sampled with the bore owners' and landowners' approval and alternative water supply provided if the sampling showed a continued exceedance of the trigger values. This relies on a third party enabling sampling for the condition to mitigate effects.

[303] Thirdly, although I raised it at the hearing, I heard no evidence outlining how an alternative drinking water supply would be provided. How would long term supply occur for instance? How would an alternative drinking water supply be provided to 16 downstream bores long term (worst case based on Council records)?

[304] Fourthly, work is only required to cease if water quality exceeds the acceptable values in the NZDWS (condition 34). In other words when water quality contamination had moved beyond the trigger levels to an exceedance of the drinking water standards. Condition 29 trend analysis does not require work to cease, rather this is one of the remedial options that could be recommended.

[305] This is not a cautious approach.

(g) Remediation of contamination

[306] Dr Rutter noted in her primary evidence that once contamination has occurred, it will not be simple to remediate it.

[307] There is reference in the conditions to actions that could occur to remedy a "significant" trend in the direction of a breach of trigger levels (condition 29 – RM220578). However, I received little evidence from the Applicant explaining processes to remedy exceedances of trigger level and compliance limits.

[308] Hence, in the event that remedial action is required, I am uncertain this can be achieved. To add to this uncertainty, I note one of the actions offered (in condition 29) is capping of the contaminant's source. I questioned how this would work (at the hearing) when the fill is already exposed to groundwater inundation (back fill having been placed directly into the fill). The purpose of a cap is prevent water interacting with fill material. This was not addressed in the Right of Reply or the final condition set.

(h) Groundwater flow uncertainties and proposed monitoring regime

[309] Dr Rutter in reference to Figure 3 of the hydrographic report supplied with the application considered it showed very detailed piezometric contours with 0.2 m intervals. These are based on six piezometers, none of which are within the proposed site. She noted there is no assessment of how the contours may vary seasonally, in terms of level or direction.

[310] Conditions 95 and 96 outline the groundwater level monitoring (at bores 1 to 4) that the Applicant intends to undertake using a telemetry system that collects and stores all of the data continuously to address this. This is to be used to generate groundwater level elevation contour maps on a daily basis for the entire clean fill area that can be accessed by the Clean Fill Operator and excavator operator(s). There is no reference to updating flow directions, although on the basis of the evidence I heard this may be possible.

[311] Mr Nicol stated the purpose of the existing monitoring bores [1 to 4] is to capture seasonal fluctuations, trends in water chemistry from land use activities, and to calculate year to year median concentrations. Quarterly monitoring is sufficient to collect enough data for these assessments. Dr Rutter considered additional data is always better.

[312] In response to the question[53], "will the monthly monitoring at the proposed bore enable unanticipated changes in groundwater chemistry to be picked up before there is any change in water chemistry in bore 24135 or any other downgradient bore", Mr Nicol considered the proposed bore is located upgradient and as close as possible to the closest private downgradient bore used for drinking-water supply. It is the best practicable option for achieving this monitoring objective.

[313] I note that both experts agreed there is a good probability that the proposed monitoring bore will detect changes in water chemistry before changes are detected in bore 24135. I note that this does not mean that bore 5 is located in the best position to pick up on contamination issues for other downstream bores.

[53] JWS Groundwater Quality, question 9b.

[314] Dr Rutter considered that you can never be 100% certain that the proposed bore will capture everything. Even monthly monitoring means a discharge could get through without detection if it was a pulse.

[315] Mr Nicol noted the average groundwater pore velocities of 1 to 1.6 m/day (on average) were estimated for the aquifer underlying the site. However, when I questioned him about the average groundwater pore velocities post clean filling he stated that these have not been calculated. In other words, they are unknown. This leaves me uncertain that the frequency of monitoring may be inadequate in the event that post filling average groundwater pore velocities are faster that the current groundwater port velocities. I am also concerned by lack of reference to other downstream bores when determining the monitoring regime.

[316] Mr Nicol acknowledge that the location of bore 24135 (as shown on the plan in Appendix 5) may differ from the true location of the bore on the ground. However, if consent is granted and if the bore / landowners allow access, the location of bore 24135 would be confirmed during a bore condition survey of downgradient privately owned bores. He recommended that the condition incorporated flexibility to adjust the location of the additional proposed monitoring bore if it turns out that the nearest downgradient water supply bore is not in the location shown in information from the Council. The Applicant offered a condition to address this.

[317] Given the discussion above, I am concerned the monitoring regime may miss contaminants entering the downstream drinking water bores. I am particularly concerned that the post filling groundwater pore velocity is unknown and no attempt was made to estimate it before establishing the monitoring frequency.

(i) Risks from fuel spills / hydraulic hose breaks

[318] Dr Rutter considered (section 92 response) that servicing machinery should be carried out away from the site, and that any storage of fuel is not within the quarry / fill area. This is to avoid risk of contamination of groundwater.

[319] Mr Corrie-Johnston confirmed[54] that services like oil changes would normally happen on-site, as this avoids the need to transport an excavator to a different location for these routine services.

[320] The proffered conditions of consent require no refuelling or machinery maintenance shall be undertaken within 20 metres of surface water (including exposed groundwater). Also, no heavy vehicle maintenance apart from servicing (e.g., an oil change by trained personnel) shall occur on site.

[321] Furthermore, in the event of a spill of machinery oil (including hydraulic oil) or fuel from excavation machinery, all works will cease and measures taken to limit the extent of the spill. Any contaminated strata or spill response material will be excavated and removed from the site and disposed of at an appropriate disposal facility. If any spill occurs within an excavation pit, or if any spill greater than 20 litres occurs elsewhere on the site, the site operator must immediately notify the Council.

[54] Reply evidence.

[322] Mr Nicol stated in his reply evidence that spills less than 20 litres outside an excavation do not need to be notified to the Council because the risk of such spills contaminating groundwater is lower.

[323] Dr Rutter agrees with H Mae's comments in Paragraph 96 (of H Mae's comments on the additional information (dated 7 April 2023)) regarding the need for ground water testing / monitoring following a spill. Dr Rutter also recommended that a lower spill limit (<20 litres) should be considered by the Applicant (in the GCMP, section 6, point 4) where a spill occurs close to the water table / groundwater.

[324] I note the entire site is close to groundwater when the groundwater levels are high (refer to existing environment section of my decision – section 5).

[325] Subject to any contaminated strata or spill response material being excavated and removed from the site and the other conditions of consent, I find that this issue is adequately addressed.

(j) Other issues

[326] I heard that the Council database does not accurately reflect the bores on Peach Island. Mr Nicol noted in his reply evidence that unregistered bores are not uncommon and it is possible that some bore locations and bore details provided by the Council may differ from the actual bore locations on the ground. However, he considered the data provided by the Council is expected to be generally representative of the overall number and depths of bores in the Peach Island area. He stated the updated groundwater consent conditions (March 2023) and the revised GCMP (March 2023) are designed to protect all bores, including those that may not be correctly recorded on the Council database.

[327] Whilst, I understand the approach that Mr Nicol outlined, I was surprised that for an issue as important as drinking water quality, that a survey of bores on Peach Island had not been undertaken by the Applicant. A good understanding of the bores linked to the aquifer would provide better information to assess the effects of the proposal and to identify mitigation measures, including monitoring bore locations that did not rely on property owner access to be implemented (such as along the road reserve). This is reflected in Mr Nicol's statement regarding the need to find the exact location of bore 24135 before monitoring bore 5 is established (refer paragraph [316] above).

[328] Mr Nicol noted that topsoil will not be used as clean fill that is placed at depths greater than 1 m bgl as the organic content of topsoil would exceed the clean fill acceptance criteria of less than 2% incidental organic material. However, as a result of subsidence on the site from settling, and with possible side wall slippage in backfill (refer to section 10.2) there is the possibility that some of this topsoil will enter the clean fill zone (i.e. be more than 1 m below ground level). This is another potential source of contamination that was not addressed. I note here though that I did not put much weight on this in my decision.

Overall findings

[329] I have had regard to the qualifications and experience of Dr Rutter and Mr Nicol in my findings. Dr Rutter is more qualified and has considerably more experience than Mr Nicol in respect to hydrogeology and groundwater.

[330] Section 3 of the RMA defines the term effect. This includes under subsection (f), any potential effect of low probability which has a high potential impact. I accept the

experts' opinions that there is a low probability of effects occurring. I consider that contamination of the groundwater downgradient from the site, including drinking water bores on Peach Island is a high potential impact.

[331] On the basis of the discussion above I find that the adverse effects on groundwater quality will not be appropriately avoided, remedied or mitigated. I find that the risks to groundwater quality, including drinking water quality, from the proposal are unacceptable. My reasons for this finding include:

(a) The management approach of linking gravel extraction depth to a fluctuating groundwater system is complex and I accept Dr Rutter's reservations that it will not be possible to avoid inundations at times;

(b) The back fill is to be deposited into the aquifer with no retention on the vadose zone (which acts a natural filter);

(c) I am concerned about the lack of evidence regarding the effect of flooding removing the backfill from Stage 1 pits, thereby directly exposing groundwater (the aquifer) to flood water and the effect this would have on drinking water quality;

(d) Whilst there is a low probability of effects occurring, there is a high potential impact;

(e) The management framework set by the Applicant is not consistent with Schedule 8 of the LWRP and allows for contamination of the groundwater to twice the level set in Schedule 8 with regard to contaminants of health significance (the MAV parameters);

(f) The response to a trigger level exceedance is not cautious (given the critical nature of groundwater quality);

(g) I am concerned the monitoring regime may miss contaminants entering the downstream drinking water bores. I am particularly concerned that the post filling groundwater pore velocity is unknown and no attempt was made to estimate it before establishing the monitoring frequency;

(h) I accept Dr Rutter's opinion that a pulse of contamination may not be detected.

10.2 Effects on soil productive value

Context

[332] I received technical evidence regarding effects on soil productivity from Dr Hill and Mr Nelson on behalf of the Applicant, Dr Campbell on behalf of Valley RAGE and Ms Langford on behalf of the consent authority. A large number of the submissions also had concerns about effects on the soil resource.

[333] The TRMP[55] notes that the zone framework within Tasman District's rural areas is based on the productive capacity of the Tasman District's land and soil resources. The rural production zones are the Rural 1 and Rural 2 Zones, and the Rural 3 Zone where that zone contains land with high productive value. In these zones where that value is high, activities involving plant and animal production are prioritised above opportunities for

[55] Section 7.0.

rural housing, industry or commercial activity unless the activity is a rural industry directly associated with plant and animal production.

[334] The site is located in the Rural 1 zone.

[335] I heard competing evidence regarding the productive value of the soils on the site. There was also competing evidence with regard to the soil productive values post rehabilitation relating to whether the existing productive values would be maintained or lost.

[336] Chapter 7 of the TRMP and the NPS-HPL are relevant to my consideration of effects on soil productive value. In particular, interpretation of the sections of the NPS-HPL are directly relevant to the effects assessment.

[337] According to section 7.4 of the s42A Report Addendum, "the weighting that is given to the NPS-HPL needs to be determined. The NPS-HPL mirrors the relevant policy 7.1.2.1 of the TRMP, avoiding the loss of productive value. Thus, the new NPS-HPL is consistent with the current policy environment and significant weighting should be given to the relevant policies contained within it". I accept this. However, another reason to give the NPS-HPL significant weight is that it is a higher level document and sits above the TRMP. I have given significant weight to the NPS-HPL compared to the TRMP in relation to soil issues in my decision.

[338] I received evidence relating to interpretation of the various sections of the NPS-HPL from Ms Solly on behalf of the consent authority, Ms Hollis on behalf of Valley RAGE, and Mr Taylor on behalf of the Applicant, as well as legal submissions from Ms Gepp and Ms Nightingale. The focus of this was to address whether or not the proposal was consistent with the NPS-HPL. However, the definition of land of high productive value and associated objectives and policies under the TRMP was also considered in the evidence.

[339] The Objective of the NPS-HPL is:

> *Highly productive land is protected for use in land-based primary production, both now and for future generations.*

[340] Highly Productive Land (HPL) is defined in section 1.3 of the NPS-HPL to mean:

> *Land that has been mapped in accordance with clause 3.4 and is included in an operative regional policy statement as required by clause 3.5 (but see clause 3.5(7) for what is treated as highly productive land before the maps are included in an operative regional policy statement [emphasis added] and clause 3.5(6) for when land is rezoned and therefore ceases to be highly productive land).*

[341] Land-based primary production under the NPS-HPL means:

> *Production, from agricultural, pastoral, horticultural, or forestry activities, that is reliant on the soil resource of the land*

[342] The TRMP defines High Productive Value – in relation to land, to mean:

> *Land which has a combination of at least two of the following features, one of which must be: (a) a climate with sufficient sunshine that supports sufficient soil temperature; (b) a slope of up to 15 degrees; (c) imperfectly-drained to well-drained soils; (d) soil with a potential rooting depth of more than 0.8 metres and adequate available moisture; (e) soil with no major fertility requirements that could not be practicably*

remedied; (f) water available for irrigation; where that combination is to such a degree that it makes the land capable of producing crops at a high rate or across a wide range. NOTE: This meaning is adapted from "Classification System for Productive Land in the Tasman District", Agriculture New Zealand, December 1994 and is equivalent to land under classes A, B, and C.

Issues

[343] The four key issues for me to consider in relation to soil productive value are:

(a) The existing productive values of the soil on the site;

(b) Do the NPS-HPL exemptions (as listed in clause 3.9 and 3.10) apply to the site?

(c) Effects on productive capacity of the HPL; and

(d) Whether the proposal is consistent with the relevant objectives and policies of the NPS-HPL and the soil productive values objectives and policies of TRMP. I address this in section 11 of my decision.

[344] I discuss the matters listed in (a) to (c) in more detail below.

Discussion and findings

(a) Existing productive values of the soil on the site

[345] I received divergent technical evidence regarding the existing productive value of the soils on the site, particularly whether the site or part of the site is "highly productive land" as defined under the NPS-HPL, and whether the site or part of the site is land of "high productive value" under the TRMP. The joint witness caucusing[56] did not resolve the difference of opinion on this matter.

[346] I note here that TDC has not mapped HPL in accordance with clause 3.4 of the NPS-HPL and consequently highly productive land is not identified in the Tasman Regional Policy Statement (TRPS) or the TRMP.

[347] This means that for the purpose of my decision clause 3.5(7) is relevant for what is treated as HPL. I note here also that clause 3.5(6) is not relevant as the land covered by the site is not subject to an approved plan change to rezone the land.

[348] Section 3.5(7) states:

Until a regional policy statement containing maps of highly productive land in the region is operative, each relevant territorial authority and consent authority must apply this National Policy Statement as if references to highly productive land were references to land that, at the commencement date:

(a) Is (i) zoned general rural or rural production; and (ii) LUC 1, 2, or 3 land; but

(b) Is not: (i) identified for future urban development; or (ii) subject to a Council initiated, or an adopted, notified plan change to rezone it from general rural or rural production to urban or rural lifestyle

[56] Refer JWS Productive Land.

[349] The site is zoned Rural 1 under the TRMP and is land use class (LUC) 3 according to evidence supplied by Ms Langford[57]. Subclause (b) is not applicable to my decision.

[350] Dr Hill's evidence relied on a Land Use Class and Soil Survey undertaken for the site and immediate surrounds by LandVision Ltd[58].

[351] He considered that whether the Site is "highly productive" in terms of the NPS-HPL is to be determined by whether it is "LUC 1, 2 or 3" land. Other classification systems for assessing land productivity are not relevant to the NPS-HPL. I accept this.

[352] He also considered that it is appropriate to use the LandVision mapping to assess which areas are LUC 1, 2 and 3 land. Based on his on-site observations he consider that the LandVision LUC mapping provides a fair representation of the LUC classes on the subject site at a scale that is more appropriate for property scale decisions than the regional scale LUC map information.

[353] The LUC map produced by LandVision appears on page 15 of their report. This shows that a large proportion of stage 2 of the proposal is LUC 3 (shown as a blue polygon labelled IIIs1) and a significant proportion of stage 1 is LUC 3 (shown as a crimson polygon labelled IIIw1).

[354] Dr Campbell challenged the results of the LandVision report in his summary statement presented at the hearing (paragraphs 6 to 15). In his view the Landvision Report lacks soil science substance. I note here that Dr Campbell is highly qualified and has extensive (60 years) experience as a soil scientist and that a large part of his work has concerned the mapping and identification of soils.

[355] Dr Campbell's evidence did cause doubt in my mind with regard to the LUCs identified by LandVision. However, I did not need to explore this further. In order to accept Dr Hill's argument that it is appropriate to use the LandVision more detailed mapping, I would need to accept that clause 3.4(5)(a) of the NPS-HPL 2022 applied to the site[59]. I have found that it does not. As outlined above, clause 3.5(7) is relevant.

[356] Based on this, the more detailed mapping in the LandVision Report is not open for me to accept. Therefore, I have found the entire site is HPL as defined under the NPS-HPL.

[357] As the site is HPL under the NPS-HPL I consider that I do not need to evaluate the evidence regarding whether the site is land with "high productive value" under the TRMP. The NPS-HPL is the superior document on this matter.

(b) Do the NPS-HPL 2022 exemption clauses (as listed in clause 3.9 and 3.10) apply to the site?

[358] Having determined that the site is HPL, I turn my attention to whether the exemption clauses 3.9 and 3.10 of the NPS-HPL apply to the proposal.

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57 March 27 2023.

58 LandVision Ltd, *Peach Island LUC and Soil Survey Peach Island Road Motueka Valley CJ Industries*, May 2021.

59 Clause 3.4(5)(a) states that that for the purpose of identifying land referred to in subclause (1): (a) mapping based on the New Zealand Land Resource Inventory is conclusive of LUC status, unless a regional council accepts any more detailed mapping that uses the Land Use Capability classification in the New Zealand Land Resource Inventory; and…"

Clause 3.9

[359] Clause 3.9 comprises 4 sub-clauses labelled (1) to (4).

[360] Sub-clause 3.9(1) is that territorial authorities must avoid the inappropriate use or development of highly productive land that is not land-based primary production.

[361] Sub-clause (2) offers an exemption whereby a use or development of highly productive land is inappropriate except where at least one of the matters listed in (a) through (j) applies to the use or development, and the measures in sub-clause (3) are applied.

[362] Sub-clause 3 requires that territorial authorities must take measures to ensure that any use or development on highly productive land: (a) minimises or mitigates any actual loss or potential cumulative loss of the availability and productive capacity of highly productive land in their district; and (b) avoids if possible, or otherwise mitigates, any actual or potential reverse sensitivity effects on land-based primary production activities from the use or development.

[363] Sub-clause 4 directs that territorial authorities must include objectives, policies, and rules in their district plans to give effect to this clause [clause 3.9] and is not relevant to my decision.

[364] With regard to sub-clause (2), I heard evidence regarding matters (g) and (j) that could apply to the proposal.

Sub-clause 2(g)

[365] Sub-clause 2(g) states:

> *it is a small-scale or temporary land-use activity that has no impact on the productive capacity of the land.*

[366] The opening legal submissions considered that Dr Hill's evidence shows the activity would meet this clause. However, the closing legal submissions accepted that although the proposal is indeed a "temporary" use of productive land, it is likely not the type of temporary use that the NPS-HPL drafters had in mind in clause 3.9(2)(g). I accept this. This leaves me to consider the scale of the proposal.

[367] Table 2 of the NPS-HPL lists examples of activities that may be appropriate on HPL under 3.9(2). Under (g) – *small scale or temporary activities*, the table refers to activities such as home businesses, festivals / events, markets, small scale visitor accommodation that may be appropriate.

[368] Section 7.24 of the s42A Addendum stated that according to Mr Corrie-Johnston's evidence, the amount of aggregate to be extracted over 15 years is between 181,000 and 250,000 m^3. In comparison, the TRMP permits quarrying in the Rural 1 zone of up to 50 m^3, which could be considered small-scale. In Ms Solly's opinion, the proposal is not a small-scale or temporary land use activity.

[369] I accept Ms Solly's evidence on this matter and adopt it in my decision.

Sub-clause 2(j)

[370] When I referred to the MfE NPS-HPL Guide to Implementation December 2022 (the NPS-HPL Guide)[60] I noted it stated that clause 3.9(2) provides further direction to implement Policy 8 by providing a specific list of activities[61] that may be appropriate on HPL (and provided the other matters listed are met). This is in reference to sub-clause 2(j).

[371] Sub-clause 2(j) states:

> *It is associated with one of the following, and there is a functional or operational need for the use or development to be on the highly productive land: (i) the maintenance, operation, upgrade, or expansion of specified infrastructure: (ii) the maintenance, operation, upgrade, or expansion of defence facilities operated by the New Zealand Defence Force to meet its obligations under the Defence Act 1990: (iii) mineral extraction that provides significant national public benefit that could not otherwise be achieved using resources within New Zealand: (iv) aggregate extraction that provides significant national or regional public benefit that could not otherwise be achieved using resources within New Zealand.*

[372] The Applicant's evidence on this matter was summarised in legal submissions, which considered that the proposal meets part (iv) of sub-clause 2(j). The Applicant legal submissions and planning evidence considers there is a functional or operational need for the aggregate extraction to be located at the site (which I have found to be HPL). The Applicant also considered that the aggregate extraction provides significant regional public benefit that could not otherwise be achieved using resources within New Zealand.

[373] At this juncture I note an important point. The Applicant's position that the aggregate extraction meets part (iv) fails to recognise that the proposal also includes deposition of clean fill which is a separate activity. This activity is not specifically listed in sub-clause 2(j). Therefore, I am unable to accept the Applicant's position that the proposal that I am considering meets the exemption provided by sub-clause 2(j).

[374] With regard to aggregate extraction alone, I accept based on the evidence I heard that there is a functional or operational need for extraction to occur where the aggregate is located.

[375] In spite of my finding that the clean fill activity is not specifically listed if, even if it was listed I do not accept that with regard to aggregate extraction there is significant regional public benefit that could not otherwise be achieved using resources within New Zealand.

[376] Ms Gepp[62] asserted that the Applicant's evidence demonstrated that alternative locations or sources of aggregate are not feasible or would have significantly higher transport costs and emissions in comparison to Peach Island, and reinforces that the proposal will provide significant regional public benefit that could not otherwise be achieved using resources within New Zealand. This relied on the evidence of Dr Kaye-Blake.

[377] Paragraph 7.21 of Ms Solly's s42A Report Addendum addresses this and stated "the Applicant has provided evidence from Mr Kaye-Blake (the economic evidence) which

60 https://environment.govt.nz/publications/national-policy-statement-for-highly-productive-land-guide-to-implementation/
61 Emphasis added.
62 Reply submissions, paragraph 65.

outlines the economic benefit of the proposal. However, this does not demonstrate that there is 'significant national or regional benefit that could not otherwise be achieved using resources in the district', let alone within New Zealand."

[378] Whilst I accept that there would be higher transport costs and more emissions from sourcing gravel further afield, I do not accept that avoiding higher transport costs by allowing gravel to be extracted at the site translates to a public benefit let alone a significant public benefit. I heard that the extra transport costs are passed onto the purchaser of the gravel. Avoiding these costs benefits the end user of the gravel not the public.

[379] Dr Kaye-Blake stated that the emission costs avoided were an environmental benefit. The purpose for seeking reduction in greenhouse gas emission is to attempt to avoid climate change. Reducing greenhouse gas emissions is a global issue. I accept that there may be a public benefit from reducing greenhouse gas emission but from a regional perspective, I cannot accept that the saving in greenhouse gas emissions (which would be insignificant at a global scale) would create significant public benefit to the Tasman District[63].

[380] Mr Scott's evidence also addressed this issue. He stated[64] that further aggregate sources are needed to deliver essential public infrastructure now and in the future and that there is a serious shortage of accessible aggregate within the region. He considered[65] it is also important to note the regional public benefit stemming from the role of aggregates in strengthening resilience to natural hazards and climate change.

[381] Whilst I accept that there will be an element of public benefit as outlined by Mr Scott, his evidence did not demonstrate that there will be a significant regional public benefit.

[382] I accept Ms Solly's position on this matter.

Sub-clause 3(a)

[383] With regard to sub-clause 3(a), I have found that the adverse effects on the productive capacity of the HPL will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the HPL. As a result the proposal would not minimise or mitigate any actual loss or potential cumulative loss of the availability and productive capacity of highly productive land in the district.

[384] With regard to sub-clause 3(b) Mr Taylor considered[66] the proposed activities would not result in any adverse reverse sensitivity effects in relation to surrounding primary production activities (section 2.2, policy 9).

[385] Reverse sensitivity describes the effects of existing activities on a new development. It usually results from the people involved in an activity that is newly established (in this case the proposal, if I was minded to grant consent), complaining about the effects of existing activities in an area.

[386] I accept Mr Taylor's evidence on this matter.

63 Recalling that TDC is a unitary authority and therefore TDC is a region.
64 Paragraph 3.14.
65 Paragraph 3.18.
66 Reply evidence 3.74(e).

Overall finding clause 3.9

[387] Overall, I consider the proposal does not meet the exemption provided under clause 3.9(2) and that it is an inappropriate use of the HPL.

Clause 3.10

[388] Clause 3.10 is an exemption for HPL subject to permanent or long-term constraints. This clause states that territorial authorities my only allow HPL to be subdivided, used, or developed for activities not otherwise enabled under clauses 3.7, 3.8 or 3.9 if it is satisfied that all three sub-clauses 3.10(1)(a) through 3.10(1)(c) are able to be met.

[389] Clause 3.7 relates to avoiding rezoning of HPL for rural lifestyle and is not applicable to this proposal. Clause 3.8 addresses subdivision of HPL and is not applicable to the proposal. I have addressed clause 3.9 above.

Sub-clause 3.10(1)(a)

[390] Subclause 3.10(1)(a) states:

> *"there are permanent or long-term constraints on the land that mean the use of the highly productive land for land-based primary production is not able to be economically viable for at least 30 years; and"*

[391] Dr Hill[67] considered that the land area outside the stop bank is not suitable for agricultural land development due to limitations of an inherent seasonally high water table and flood risk. In his opinion, it has "permanent or long-term constraints" in terms of clause 3.10(1)(a) of the NPS-HPL

[392] Ms Solly[68] noted there is agreement that Stage 1 is subject to flood risk and thus clause 3.10(a) is met. Mr Taylor agreed with this[69]. Ms Hollis, based on the evidence of Dr Campbell, considered that insufficient evidence has been provided to demonstrate that flood risk, in and of itself (as referred to by Ms Solly and Mr Taylor), is a permanent or long-term constraint that means the use of the highly productive land for land-based primary production is not able to be economically viable for at least 30 years[70].

[393] Ms Langford confirmed[71] that, in her opinion, NPS-HPL clause 3.10 (1) would apply to Stage 1 as frequent flooding may be viewed as a long-term constraint. Dr Kaye Blake also provided reply evidence to support this viewpoint.

[394] A decision with respect to sub-clause 1(a) is required to consider clause 3.10(2) and 3.10(3).

[395] With respect to sub-clause 3.10(2) which links back to the assessment of sub-clause 1(a), I note here that no practical options were put forward at the hearing that would address the flooding issues associated with Stage 1. Indeed, the evidence I heard was concerned with ensuring that Stage 1 remained as an overland flow path when the Motueka River was in high flood. With respect to sub-clause 3.10(3) the matters listed are not relevant

67 Reply evidence paragraph 3.183(b).
68 S42 Addendum paragraph 7.28
69 Reply evidence 3.56.
70 Primary evidence paragraph 28.
71 Council comments and reply to minute 9 dated 14 April 2023.

as I have accepted there are no reasonably practical options available for the flooding issues identified.

[396] On the basis of the evidence I heard I consider that it has been demonstrated that sub-clause 3.10(1)(a) has been met with respect to Stage 1 of the proposal.

[397] There was general agreement that this sub-clause did not apply to Stages 2 and 3 as they are inside the stopbanks.

Sub-clause 3.10(1)(b)

[398] Sub-clause 3.10(1)(b) states:

> *"the subdivision, use, or development: (i) avoids any significant loss (either individually or cumulatively) of productive capacity of highly productive land in the district; and (ii) avoids the fragmentation of large and geographically cohesive areas of highly productive land; and (iii) avoids if possible, or otherwise mitigates, any potential reverse sensitivity effects on surrounding land-based primary production from the subdivision, use, or development; …"*

[399] Mr Taylor[72] considered the proposal minimises or mitigates any actual loss or potential cumulative loss of the availability and productive capacity of highly productive land in the district (based on Dr Hill's Evidence).

[400] I have found that the adverse effects on the productive capacity of the HPL will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the HPL (see below). Sub-clause 3.10(1)(b)(i) does not refer to "availability".

[401] With regard to the sub-clause 3.10(1)(b)(i), I heard little if any evidence about the significance of losing the area of HPL covered by the proposal or Stage 1 (if I was minded to grant consent for Stage 1 only) compared to the area of HPL in the District.

[402] Hence, I am uncertain whether this loss would be significant.

[403] I consider that the proposal will not avoid the fragmentation of large and geographically cohesive areas of highly productive land. This is because allowing Stage 1 (which is the subject of the exemption) would result in fragmentation of the large and geographically cohesive area of HPL shown in the evidence of Ms Langford (27 March 2023).

[404] I have addressed reverse sensitivity above, and found that it is highly unlikely that if consent was granted that reverse sensitivity issues would arise.

[405] Overall, I consider the requirements of sub-clause 3.10(1)(b) are unable to be met as allowing Stage 1 (which is the only stage subject to the exemption) would result in fragmentation of the large and geographically cohesive area of HPL shown in the evidence of Ms Langford (27 March 2023). In addition, I have insufficient evidence to confirm whether or not the loss of Stage 1 HPL is significant.

Sub-clause 3.10(1)(c)

[406] Sub-clause 3.10(1)(c) states:

[72] Reply evidence 3.74(d).

the environmental, social, cultural and economic benefits of the subdivision, use, or development outweigh the long-term environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production, taking into account both tangible and intangible values.

[407] This is complex sub-clause to consider. I received little direct evidence on this matter.

[408] Dr Kaye-Blake stated in his primary evidence, that the economic benefit arises from having a local source of aggregate, and the environmental benefit arises from reduced emissions from cartage of low-value, high-bulk material. The economic cost is loss of pastoral production for 15 years. No other economic, environmental, social or cultural impacts are included in this analysis. The total annual economic benefit is valued at $306,000, and the total annual economic cost is $970. The annual environmental benefit from reduced GHGs is valued at $21,400. The net benefit of the proposed activity over 15 years is $3.56 million

[409] He did not address social and cultural benefits. His assessment of environmental benefits was limited to reduced emissions from cartage of low-value, high-bulk material. Based on the evidence I received I am not aware of any social or cultural benefits from the proposal apart from employment opportunities.

[410] The only other environmental benefit presented to me arises from the planting regime outlined in Ms Gavin's evidence which the Applicant presented as a positive effect.

[411] Dr Kaye-Blake's assessment with regard to economic costs relates to the loss of pastoral production for 15 years. This is because, in his opinion expert evidence indicates that the site can be reinstated and long-term productivity will not decline (Hill, 2022). For this reason, economic impacts on production are calculated for 15 years to the end of the consent, at which time impacts are expected to end.

[412] With reference to my findings below I do not accept there will be no loss of the productive capacity of the land beyond 15 years. In addition, Dr Kaye-Blake has only assessed the economic loss of pastoral land not other land based primary production uses of the HPL which the NPS-HPL 2022 requires.

[413] No environmental, social or cultural costs are included in his analysis.

[414] Overall, I consider that the Applicant has not demonstrated that the requirements of sub-clause 3.10(3)(c) are able to be met.

Overall finding sub-clause 3.10

[415] I find that there are permanent or long-term constraints on the land that mean the use of the highly productive land for land-based primary production is not able to be economically viable for at least 30 years. Hence, sub-clause 3.10(1)(a) has been met.

[416] I find that the requirements of clause 3.10(1)(b) are not able to be met and I consider the Applicant has not demonstrated that the requirements of sub-clause 3.10(1)(c) are able to be met.

[417] As all the sub-clauses (a), (b) and (c) under sub-clause (1) must be met in order to satisfy the exemption under clause 3.10, I find that the exemption outlined under clause 3.10 has not been met with regard to Stage 1 of the proposal. The exemption does not apply to Stage 2 or Stage 3 of the proposal (as agreed in evidence).

(c) Effects on productive capacity of the HPL

[418] Dr Campbell outlined his concerns with the proposal on soil productivity.

[419] At paragraph 20 of his evidence he summarised his concerns as follows:

> *"The removal and replacement of the soils on low terrace surfaces cannot successfully maintain their physical characteristics and productivity potential. The natural network of pores and fissures and soil structure within the soil material, which are essential for moisture movement, moisture storage, root penetration and biological and chemical processes are destroyed during the removal, stock-piling and replacement, irrespective of whether or not excessive compaction occurs."*

[420] He expanded on these issues in later parts of his evidence. Dr Hill responded to the issues raised by Dr Campbell. Ms Langford noted in the addendum to her evidence tabled at the hearing that:

> *"Dr Campbell has the most experience in this region with regard to detailed soil mapping as well as with various gravel extraction and soil restorations sites. He has done extensive mapping and scientific reports for TDC over the years. I therefore, agree with the reservations in his evidence and summary statements."*

[421] For this reason my discussion below focuses primarily on the evidence of Dr Hill and Dr Campbell. Noting however that Ms Langford supports Dr Campbell's position.

Effects on soil properties

[422] Dr Campbell stated[73] soil biological processes and macro fauna populations which are essential for soil nutrient relationships are curtailed [by the proposal]. The micro-pores present in undisturbed soil allow plant root hairs to grow into the network of pore spaces where the microbiological interactions associated with plant moisture extraction and nutrient uptake take place. This highly complex system is largely destroyed during soil removal and replacement when pore space, soil structure and soil moisture holding capacity are disrupted.

[423] Further, he stated: also destroyed are the natural progressive chemical and physical changes that occur through the soil profile with increasing depth. These physical and chemical gradients are important for plant root adaptation and soil moisture movement within the soil profile and constitute one reason why some plants perform better on different soils.

[424] Dr Campbell[74] considers that it is unlikely that the physical or chemical properties of the backfill material in each extraction area will be the same. I accept this as the backfill material is to be sourced from a number of different sites. He considered this is likely to result in making crop management for consistent yield over an area difficult due to a lack of uniformity in the soil profiles.

[425] Dr Hill considered the effects of the proposal on soil properties are soil physical effects related to soil compaction, loss of soil structure and degradation of soil aggregates during removal, transport and storage, and compaction of the soil material during placement. In turn, these can lead to impeded soil drainage (reducing air and water flow

73 Paragraph 66.
74 Primary evidence, paragraph 74.

pathways in the soil), reduced soil water storage capacity, and reduced soil pores for biological activity. Soil fertility is not considered to be of primary concern as this can be remedied with the addition of fertiliser.

[426] Dr Hill referred me to Table 5 of the SMP[75] which includes recommendations to avoid, remedy, or mitigate effects on soil properties.

[427] He stated[76] that reduced site productivity and impacts on soil physical properties following reinstatement of the soil post gravel extraction are anticipated in the short term (0-3 years). However, careful soil management throughout the operation and following reinstatement of the soil will reduce impacts on soil properties such that any impacts are likely to only be short term (0-3 years) while the pasture establishes and restores soil structure and soil biology.

[428] According to the SMP, following three years the soil organic matter and soil structure should be developed sufficiently to support more intensive land uses including cropping and orchards. Annual soil monitoring can be used to check and confirm this[77].

[429] Dr Campbell did not agree with this statement drawing on his experience on similar extraction projects over many years. He considered significant time would be needed to restore functionality[78].

[430] He stated [79] that soil materials such as those at Peach Island are vulnerable to compaction, and their removal and replacement, backfilling with foreign materials, is likely to lead to physical breakdown, loss of productivity characteristics and potential and destruction of the natural network or pores, fissures and soil structure which are essential for moisture movement, moisture storage, root penetration and biological and chemical processes.

[431] Further, he noted this in turn curtails macro fauna populations which are essential for soil nutrient relationships. Highly complex soil biological and chemical processes which are important for plant root adaptation and soil moisture movement will be destroyed during the extraction and replacement operations proposed in this application. The well-drained subsurface material at Peach Island should not be replaced with a non-uniform, drainage impeded medium. This will cause significant effects on deeper rooting horticultural crops in particular.

[432] At the close of the hearing whilst the experts both agreed there would be adverse effects on soil properties, they remained divided on whether these adverse effects could be avoided, remedied or mitigated.

Subsidence issues

[433] Dr Campbell noted that the extraction areas at Peach Island would vary between 3 and >4 metres deep. Assuming that the backfill materials were able to be replaced without compaction as envisaged, there would be natural settlement within the loose soil materials when they later became saturated with fluctuating groundwater, which will rise to 1.2 m from the soil surface. The amount of settlement that would follow will differ

75 Table 3 of the SMP dated 24 April 2023.
76 Primary evidence, paragraph 2.12
77 SMP page 20 Appendix 1 Primary evidence.
78 JWS-PL response to question 3.
79 Para 77

across the restored ground surface depending on the thickness and nature of the backfill. It would be expected that over time, the finished ground surface would develop uneven hollowing due to the differential subsurface settlement which would be exacerbated by the periodic saturations by the ongoing fluctuating water-table changes. I accept this.

[434] In response to this, the Applicant volunteered to survey the site and supply a contour plan to ensure that finished ground levels across the site are generally consistent with existing ground contours[80].

[435] Soil that is added to address subsidence over time[81] will need to be source off site (refer to previous discussion with regard to soil shortage on site). Whilst this may address settling issues in terms of reinstating the topography of the site, I find that it does not address the issues raised by Dr Campbell with regard to lack of uniformity in the soil profiles and differing physical or chemical properties of the soil. Areas that have greater settling will result in thicker soil profiles (as more soil is placed on top). Top soil would be sourced from various locations over a five year period resulting in differing physical and chemical properties. In addition, sourcing soil from different locations over time will make it difficult to ensure separation of A horizon and B horizon over time as the new soil is placed on top of the A horizon.

Soil horizon management

[436] In his summary statement presented at the hearing Dr Campbell indicated there was no clear indication of the need to separately remove the topsoil (soil A horizon) and the lower subsoil (B horizon) in the SMP (page 9).

[437] Furthermore he stated that the intention that site vegetation be destroyed before the A topsoil horizon is removed is also an indication of the unawareness of the need to separately remove the topsoil (A horizon) and subsoil materials. Separate removal of the A horizon does not require vegetation to be removed because incorporating this organic matter with the removed A horizon soil is little different to incorporating live plant material into the soil when ploughing.

[438] In response to this the Applicant proffered condition 95 requiring the Topsoil (A Horizon) and subsoil (B and C Horizons) shall be stripped and stockpiled separately for the purpose of reuse on site. Condition 119 was proffered to address soil placement to reinstate these horizons.

[439] According to page 19 of the SMP:

> *"Operator performance in the lifting phase is crucial, and on-site guidance on soil horizon recognition and on machine routing is required to be provided to the operator in consultation with a soil scientist and site remediation contractor. This guidance can be provided to all relevant staff as part of the site induction programme. Additionally, an excavator with GPS depth control is recommended to ensure the correct soil horizon is being removed".*

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80 Condition 120 requires "Subsoil and topsoil shall be reinstated, and ongoing management shall be undertaken, in accordance with the methodology specified in the certified SMP. Subsoil and topsoil shall be placed to reinstate the land to the finished levels on site as specified in the Contour Plan required by Condition 21. Additional topsoil may need to be added following any settlement of the reinstated land surface."

81 Condition 140 requires ongoing maintenance for 5 years after completion of quarrying and backfilling.

[440] I have heard that soil thickness varies over the site and this is confirmed in the LandVision report. I have serious reservations about the practicality of an operator of a GPS depth controlled excavator being able to separately strip the Topsoil A horizon from the B and C horizons with enough precision to comply with this condition. Particularly when the soil horizon varies across the site.

[441] Page 10 of the SMP (soil removal and placement) states that before any soil removal (also referred to as lifting or stripping) activities are carried out all existing vegetation must be killed and / or removed. This will avoid green vegetative materials being incorporated into the replaced soil at the site. According to Dr Campbell there is no need to do this. I accept Dr Campbell's evidence on this matter.

JWS Issues arising from question 3

[442] At the hearing Dr Hill considered that the key to the effective re-establishment of the soil on the gravel extraction site are careful pre-planning, and adherence to the guidance provided in the SMP. I also heard that the proffered conditions addressed adverse effects on soil productivity.

[443] The veracity of this was tested at the JWS in response to Question 3 in the JWS-PL. Question 3 was:

> *Do the proposed conditions and the draft Soil Management Plan provisions provide a framework that will prevent a loss of productive value of soil on the site?*

[444] In response to this question Dr Campbell and Ms Langford expressed concerns about several aspects of the reinstatement process. Ms Langford expressed concerns about moisture levels of the soil being handled. This issue is discussed further below.

[445] Dr Campbell considered there would be major dislocation / disruption of the soil profile with no way back to functional soil, and that significant time would be needed to restore functionality. This issue is discussed above. He indicated there was no clear demarcation of soil horizons. I discussed this issue above.

[446] Dr Campbell indicated that there would be logistical challenges with backfilling. He wondered how you could ensure the walls of the backfill material could be maintained when working (extracting gravel) next to the backfilled areas. I discuss this below.

[447] Dr Campbell had concerns about stockpile heights (compaction issues). The Applicant addressed this concern by limiting the height of the stockpiles and by requiring that no machinery be driven over the stockpiles (condition 96). Mr Corrie-Johnston confirmed these requirements could be met.

[448] Dr Campbell also expressed concerns about where the extra topsoil would come from to achieve the stated soil depths (noting that the depths outlined in the conditions and SMP are greater than the available top soil on the site). I addressed this point above (subsidence issues).

Soil moisture levels (compaction versus loss of soil structure)

[449] Dr Campbell[82] noted that he had experience with similar soil restoration projects. Even where similar management approaches to that proposed by Dr Hill have been followed,

[82] At paragraph 44

there has been a marked loss in soil productivity and physical impairment of various soil properties. He referenced two case studies that he had been involved in that supported his position.

[450] Dr Hill read these case studies and concluded it is evident that their failure was primarily due to poor operational procedures, which included the use of contaminated cleanfill (Campbell, 2017) and placement of the soil materials when wet by heavy machinery, resulting in compaction and impeded soil drainage (McQueen, 1983)[83]. I have addressed contamination issues elsewhere in my evidence.

[451] In Dr Hill's opinion, these examples do not indicate that the reinstated soil cannot be successfully returned to productive use, instead they reinforce the need to follow correct soil management procedures that will ensure the impacts are minimised.

[452] Page 10 of the SMP requires the handling of the topsoil and subsoil material may only be undertaken in "dry" soil condition to avoid soil compaction. Compaction restricts root growth and drainage and is the main risk to being able to return the soil to a usable condition. A useful field method of deciding whether a soil is sufficiently "dry" to be moved safely is the spade test: plasticity is determined by hand-rolling a sample from the relevant horizon on the back of a spade to see if a thread of 3 mm diameter can be formed without crumbling. If a thread can be formed the soil is too wet for working (Ramsay, 1986). Light irrigation for dust suppression purposes does not render topsoil too wet for placement.

[453] At paragraph 64 of his evidence, Dr Campbell noted that handling these weakly structured soils[84] under dry conditions is more likely to lead to physical breakdown than when the soil is moist, as under dry conditions there is little soil cohesion in these weakly structured soils, and more especially when the soils have sandy textures.

[454] I accept Dr Campbell's evidence on this matter. I can see that attempting to handle soil under dry conditions to avoid compaction has implications for maintaining soil structure.

Backfill wall subsidence

[455] Dr Campbell questioned how the walls of the backfill material could be maintained when working (extracting gravel) next to the backfilled areas.

[456] Referring to Figure 2 of my decision, I note that there is a vertical line demarcated between the River Gravel area and the Clean Fill area. I have heard that the Clean Fill area will take time to settle and become stable. Dr Campbell is concerned that the wall of the Clean Fill area consequently will subside as the excavator moves along the new gravel extraction area (the 20 m x 80 m row) in the River Gravel area. This would result in sections of the Clean Fill area slipping into the River Gravel area. This makes sense as the Clean Fill area is un-compacted and would be unstable. How much slippage would occur and the effects of this are unknown. I heard no evidence to address this but it does create uncertainty in my mind with regard to Dr Hill's reliance on the need for careful soil management following reinstatement to address soil productivity issues.

[83] Primary evidence dated 15 July 2022, paragraph 3.39.
[84] Dr Hill agreed the soils on the site are weakly structured.

Amendments to conditions to address issues raised

[457] The Applicant responded to issues raised by amending the conditions of consent and by amending some sections of the SMP. Condition 119 in particular was drafted with the intent of addressing several of the concerns raised by Dr Campbell and Ms Langford.

[458] The final proffered condition relating to soil are addressed in conditions 119 through 126. Condition 119 includes very precise specifications with regard to soil depth, soil root penetration resistance, soil profile, compaction, and drainage characteristics.

[459] These standards are to be achieved by undertaking subsoil and topsoil reinstatement and ongoing management in accordance with the methodology specified in the certified SMP. Condition 23 requires the SMP to be in general accordance with the draft SMP prepared by LandSystems Ltd dated 24 April 2023 and lists matters that must be covered by the SMP.

[460] Backfilling of clean fill material is managed by conditions 112 through 118 (as well as by the conditions proffered with respect to the discharge permit application).

[461] I refer to the backfilling conditions as this material will site beneath the soil and form a foundation for the soil material.

[462] Condition 118 requires that light-tracked machinery or flotation tyred vehicles must be used for the placement of the clean fill. I understand this is to address soil compaction on land that has already been rehabilitated.

[463] Dr Hill's reply evidence considered that the measures required by the proffered consent conditions and the SMP will at least retain, if not enhance the productive capacity of the site. I do not accept that these measures will address the issues discussed above. I prefer Dr Campbell's evidence on these issues.

Overall finding on effects on productive capacity of the HPL

[464] I note that Dr Hill considers that reducing the impacts on soil properties such that any impacts are likely to only be short term (0-3 years) while the pasture establishes and restores soil structure and soil biology the adverse effects is subject to careful soil management throughout the operation and following reinstatement of the soil.

[465] This relies on the procedures in the SMP and successful implementation of those procedures. Several of the points raised by Dr Campbell in the discussion above and my scrutiny of the SMP lead me to the finding that the SMP will not appropriately address the adverse effects on soil properties and I have considerable doubt that the methodology in the SMP could achieve the outcomes envisaged through the conditions.

[466] I accept Dr Campbell's evidence that it will take significant time to restore soil functionality.

[467] Dr Campbell is highly qualified and has significant experience (60 years), particularly in Tasman District. Dr Hill is highly qualified as well, but has notably less experience (28 years). Ms Langford agrees with the Dr Campbell's evidence.

[468] I found Dr Campbell's evidence to very compelling. It identified issues that had not been thought through[85] and was logical. Furthermore, he provided a very detailed overview of the soil issues (physical, chemical, biological) that would arise on the soil properties. Dr Hill did not counter these with a similar level of detail, instead referring to the SMP as the key to address these issues.

[469] I prefer the evidence of Dr Campbell as to the short and long term effects on productive capacity of the HPL and the issues associated with successfully avoiding, remedying or mitigating these issues.

[470] On the basis of the evidence I received, and the discussion above, I find that the adverse effects on the productive capacity of the HPL will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the HPL. Therefore, the productive capacity of the HPL will not be maintained or protected.

10.3 Effects on amenity value

[471] Ms Solly addressed amenity values with regard to noise, dust and visual effects. I discuss her findings on these matters below. Paragraph 5.39 of the s42A Report Addendum stated that

> *"subject to compliance with the recommended conditions of consent, I consider that the noise associated with the proposal will be noticeable, but not unreasonable. With regards to dust, the proposed mitigation measures will ensure that dust can be adequately managed. The adverse visual amenity effects are considered acceptable with the proposed mitigation in place."*

Her position on these matters had not changed at the close of the hearing.

[472] Mr Taylor's primary evidence accepted that the amenity effects of the proposed activities were a key issue raised in submissions, in particular from submitters who reside or own land within close proximity to the application site. He viewed amenity effects as effects from noise, dust and visual amenity.

[473] He argued[86] that an important matter to consider in relation to any amenity effects associated with the proposal is whether quarrying is an 'anticipated' activity in the rural zones in general, and in this location specifically. He noted the view put forward in the s42A report is that it is not. He disagreed with this view, and in particular considered this influenced the reporting planner's conclusions regarding noise effects. However, he considered this is also relevant to the context of how other effects are considered.

[474] He noted, the Principal Reasons for Rules for the Rural 1 zone state:

> *"Quarrying. The Rural 1 zone is, in places, closely subdivided and closely settled, is often used for intensive productive rural activity, and the land resources have high actual and potential productive and versatile qualities for present and future generations. Quarry activities have a range of potential adverse effects. In the context*

[85] As was evident by the Applicant's continued response to issues resulting in several iterations to the SMP and soil related conditions.
[86] Primary evidence, paragraphs 3.21-3.23.

of the zone, the effects of new quarries and quarry expansion activities need to be evaluated on a case-by-case basis as a discretionary activity."

[475] This indicated to Mr Taylor that the activity is anticipated, but needs to be assessed on a case-by-case basis. He stated this is further supported by the fact that the activity is specifically provided for in the Rural 1 zone as a permitted activity at smaller scales and as a discretionary activity at larger scales. He also noted that 'Quarry Areas' which are in-situ rock (rather than river aggregate) resources identified in the TRMP are exclusively located within rural zones.

[476] He stated, the primary production activities that occur within rural zones include quarrying activities, as reflected in the definition of primary production in the National Planning Standards:

> *"Primary production" means: (a) any aquaculture, agricultural, pastoral, horticultural,* ***mining, quarrying*** *or forestry activities; and (b) includes initial processing, as an ancillary activity, of commodities that result from the listed activities in a); (c) includes any land and buildings used for the production of the commodities from a) and used for the initial processing of the commodities in b); but (d) excludes further processing of those commodities into a different product."* ***(Emphasis added).***

[477] Furthermore, he opined there is a history of consented aggregate quarrying activities in the surrounding area, both within berm land and elsewhere. Of specific relevance to the particular locality of this proposal, a variety of aggregate quarrying activities have been consented and carried out on two sites within Peach Island (15 Peach Island Road and 130 Peach Island Road), in addition to various operations nearby at Douglas Road. In his opinion this makes untenable any position that suggests such activities are unexpected or unanticipated in this environment.

[478] I do not accept Mr Taylors' position on this matter. His assessment is complex and links back to a national planning standard. Ms Solly stated that the proposed activity is neither permitted nor anticipated in the Rural 1 zone. If I look to Chapter 7 of the TRMP there are several statements that lead me to accept Ms Solly's position on this matter.

[479] This includes the introduction which states

> *"An important aspect of managing rural environmental effects is recognising the qualities and character of rural areas, the legitimacy of existing established activities and a range of potential future activities that involve the productive use of the land resource, particularly those that support the processing and transportation needs of plant and animal production".*

[480] Policy 7.1.3.2 "To avoid, remedy or mitigate the effects of activities that reduce the area of land available for plant and animal production purposes in rural areas"

[481] Policy 7.1.3.12 "To accommodate rural living, commercial and rural industrial activities in the Rural 1 zone where the activity is wholly undertaken within existing buildings and the effects on plant and animal production are avoided"

[482] The introductory statement and polices referenced above support Ms Solly's position on this matter. I can accept that permitted activities are anticipated in the Rural 1 zone, but with reference to the TRMP policies discussed above, and given the scale of the proposal I do not accept the proposal is anticipated in the Rural 1 zone or the site. Another

important factor here is that the proposal also includes discharge of clean fill to land, and this activity is not permitted in the TRMP.

[483] I accept Ms Solly's position on this matter. The proposal is not an 'anticipated' activity in the rural zones in general, and in this location specifically.

[484] Mr Taylor concluded[87] that that noise, dust and visual effects will be appropriately managed to ensure that effects on amenity values are reasonable, and are no more than minor.

[485] Under the RMA amenity values is defined as:

> *"those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes".*

[486] Under this definition, the amenity effects of the proposal extend beyond noise, dust and visual amenity effects[88]. I address cultural effects as a principal issue below.

[487] Many of the submitters identified concerns about adverse effects on amenity values as separate issues to noise, visual effects and dust. This included references to killing peace and quiet (ambience), devaluation of peaceful lifestyle, loss of quiet lifestyle, loss of quality of life, health and wellbeing will suffer, spoilt wellbeing, lifestyle devaluation, loss of lifestyle and well-being. The Langridge's are concerned about their consented yoga business which requires peace and quiet to function. Their perception is that the presence of the proposal will adversely affect their business. These submitters concerns clearly fall within the RMA definition of amenity values.

[488] On my examination of the submissions, most of the submitters concerned about amenity effects I listed above live near to the site. Apart from reference to dust, noise and visual amenity I heard no evidence to counter the amenity value concerns of the lay submitters.

[489] On the weight of the lay evidence I discuss above, and given the proximity of many of the submitters to the site, I find that there will be adverse amenity effects (over and above noise, dust and visual effects). However, I am unable to draw any conclusions regarding the significance of these effects.

10.4 Cultural effects

Discussion

[490] Mr Horne, Ms Filipo, Ms Young and Ms Cudby addressed the cultural effects of the proposal on Te Ātiawa and Ngāti Rārua. Their combined evidence addressed:

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87 Primary evidence, paragraph 3.44.

88 Kellog – 398 WBR = "lifestyle – proposal will kill the peace and quiet (ambience) that they treasure", Azzis 51 stony ridge way = Amenity, Le Frantz 131 PIR = peace and tranquillity, Peacock 396 WBR = devaluation of peaceful lifestyle, Sunbye 132 PIR = loss of quiet lifestyle, Petzold 750 WBR = loss of quality of life describing truck movements on the road as "feeling quite similar to a minor earthquake – the windows rattle, Garney 394 WBR = health and wellbeing will suffer as she needs peace and quiet", Mae 370 WBR = spoil her amenity and wellbeing, Langridge 520 WBR = effects on the proposal on this business which requires peace and quiet to function, Taia 370 WBR = lifestyle and wellbeing, Stoker 88 Mytton Heights = lifestyle devaluation, Burridge 40B WBR = lifestyle devaluation, Frater 390 WBR = amenity concerns, Foote 472 WBR = lifestyle, Lucas 39 Stony Ridge Way = amenity effects

(a) Lack of consultation leading to an inadequate assessment of cultural effects;

(b) The range of cultural effects assessed in the s42A Report are wider than just Māori freshwater values and cultural heritage;

(c) Te Ātiawa believe that if granted the proposed activities will have an effect on the Moteka Awa, a taonga which holds great cultural and spiritual significance to Te Ātiawa and will compromise the role of Te Ātiawa as kaitiaki;

(d) Te Ātiawa acknowledged in their submission that they were opposed primarily because they had not been adequately engaged by the Applicant regarding the proposal;

(e) The Ngāti Rārua submission stated that the Application does not adequately identify the cultural values, interests and associations of tangata whenua with this area, not the potential impacts of the proposed activity on these. A Cultural Impact Assessment (CIA) is required. Specific concerns listed in the submission were concerns about the use of back fill material and effects on groundwater and surface water; disturbing the ground will have a permanent effect on the mauri and integrity of the land. Its character will not be the same and it may alter the behaviour of the river and groundwater, particularly during times of raised water levels; concerns about limiting access to a public right of way;

(f) Te Ātiawa and Ngāti Rārua raised issues about the proposal on the health of the Awa and considered section 7(a) of the RMA was pertinent to this proposal. They also considered that there was a high potential for discovery within the cultural landscapes.

[491] The combined evidence of Te Ātiawa and Ngāti Rārua outlined measures to avoid, remedy or mitigate adverse cultural effects in their evidence. These included cultural induction, iwi monitoring of all land disturbance, cultural health indicator monitoring and the need for a shorter term of consent. They also provided feedback on the conditions outlined in the s42A Report.

[492] At the hearing I was told that Te Ātiawa and Ngāti Rārua were happy to engage with the Applicant over a set of conditions that might be appropriate if consent was granted, but that their position was that they were still opposed to the proposal.

[493] I note that the Applicant has responded to the issues raised in the submissions of Te Ātiawa and Ngāti Rārua by engaging with them over the condition set since the time of the November portion of the hearing.

[494] Before closing the Applicant provided a memorandum of counsel clarifying the final position of Te Ātiawa and Ngāti Rārua with respect to conditions addressing cultural effects. Mr Taylor has prepared a Memorandum addressing this.

[495] Mr Taylors memorandum was dated 12 May 2023 and it stated:

> *I prepared a subset of draft volunteered consent conditions for consideration of Te Ātiawa and Ngāti Rārua and provided these to representatives of these iwi organisations on 16 December 2022. A response was received on 10 February 2023, which attached a tracked change version of these conditions. The email response and the tracked change document are included as Annexure A to this memo. The changes suggested by Te Ātiawa and Ngāti Rārua were largely adopted by the Applicant and are reflected in the current volunteered condition set.*

The outstanding conditions in contention were the Iwi Monitoring and Landscape Mitigation Plan conditions. Subsequent correspondence on the landscape condition resulted in Te Ātiawa and Ngāti Rārua accepting that the mitigation planting could remain on the condition that it be removed at the cessation of the quarrying activity. Refer to correspondence on this matter at Annexure B.

Agreement was not reached on the final wording of the iwi monitor condition. Correspondence on this is included at Annexure C, along with a tracked changes version showing the preferred wording of Te Ātiawa and Ngāti Rārua.

[496] The concern regarding mitigation planting was the use of exotic trees in the planting. The final proffered condition set addressed this by requiring (condition 141) Any exotic species used for Landscape Mitigation Planting (condition 27) shall be removed from the site within two years of the cessation of the quarrying activity.

[497] I have not attempted to resolve the differences of opinion over the wording of the iwi monitor condition. However, I note that the Applicant has moved to address cultural effects through consultation with Te Ātiawa and Ngāti Rārua.

[498] Mr Ingram on behalf of Wakatū Incorporated expressed concern about: lack of cultural recognition and consultation; matakiti should be engaged beforehand not via consent conditions; the need for an adjacent landowner buffer, the access route selected, and the duration of the consent. These issues were discussed more fully in the submission. He noted that with regard to cultural issues he generally deferred to the evidence of Te Ātiawa and Ngāti Rārua. This is consistent with Wakatū's approach in the summary of the Applicant's engagement with Wakatū, Ngāti Rārua and Te Ātiawa attached to Mr Taylors primary evidence.

Finding

[499] At the close of the hearing I note that that in spite of the consultation with Te Ātiawa and Ngāti Rārua over the condition set, the iwi monitor condition remained in dispute. Furthermore, Te Ātiawa and Ngāti Rārua had not amended their position that they are opposed to grant of consent.

[500] As Te Ātiawa and Ngāti Rārua are opposed to the grant of consent, and a condition set proffered to address adverse effects remained in dispute, I find the cultural effects of the proposal have not been adequately avoided, remedied or mitigated. This finding is further strengthened by my finding that the adverse effects on groundwater quality will not be appropriately avoided, remedied or mitigated and that the risks to groundwater quality from the proposal are unacceptable. I heard that adverse effects on water quality was an important issue to Te Ātiawa and Ngāti Rārua[89].

10.5 Traffic effects

Discussion

[501] Numerous submissions raised concerns about traffic effects. These effects included:

[89] I acknowledge that Te Ātiawa and Ngāti Rārua made the point at the hearing that the potential effects of the proposal on cultural values are wider than Maori Freshwater Values, but my finding in regard to groundwater quality is a relevant consideration.

(a) Road safety issues, particularly with regard to truck traffic including accessing Hau Road;

(b) The suitability of the MRWBR, Alexander Bluff Bridge and MVH for truck traffic;

(c) Location and design of the site access at 493 MRWBR;

(d) Road maintenance;

(e) Traffic noise;

(f) Effects on the GTT;

(g) Using Brooklyn as a transport route.

[502] I have addressed the site access details in section 4.3 and the use of Brooklyn as a transport route in section 2 of my decision.

[503] At the close of the hearing, the traffic experts Mr Clarke and Mr Fon were in agreement that the traffic effects of the proposal would be appropriately managed by the proffered conditions of consent. They have both inspected the proposed transport route, and have reviewed all the relevant information relating to traffic effects.

[504] In his right of reply[90] Mr Clark confirmed that the traffic effects of the proposed activity are less than minor.

[505] According to the s42A Report Addendum[91] Mr Fon concluded, that subject to the conditions of consent, the "traffic effects of the activity on the safety and efficiency of the existing road environment will be no more than minor". Ms Solly accepted this finding.

[506] In section 2.0 of my decision, I outlined Mr Fon's finding that even though the transport of clean fill material from sites other than Hau Road wasn't covered in the traffic assessment, provided the maximum number of truck movements to and from the site isn't exceeded, (volunteered condition 64)[92], then the overall net traffic effect of some trucks travelling to Peach Island via a different route than those departing from Hau Road is likely to be negligible. I accept this.

[507] With regard to the effects of the proposal on the GTT, I heard from Ms Wratt that the Nelson Tasman Cycle Trails Trust is currently negotiating with landowners to construct a cycle track adjacent too but off the MRWBR.

[508] Mr Taylor provided an update on the Applicant's response to this issue in his reply evidence[93]. The Applicant has continued to liaise with the Tasman Great Taste Trail Trust. A new volunteered land use condition (condition 5) has been added to reflect their current arrangement to provide reasonable assistance to the Trust in establishing an off-road trail between the application site and Alexander Bluff Bridge. This condition does not require the establishment of the trail as such, as this relies upon agreement of a variety of private landowners.

[509] I accept that the effects of the proposal on the GTT are being appropriately addressed.

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90 Paragraph 2.39
91 Paragraph 6.29
92 Condition 66 in final proffered conditions.
93 Paragraph 3.77

Findings

[510] Overall, I accept the evidence of the traffic experts and I find, subject to the proffered conditions of consent, that the traffic effects of the proposal are appropriately avoided, remedied or mitigated.

10.6 Noise

Discussion

[511] Noise generated by the proposal was a common issue raised by submitters, particularly those living near to and immediately adjacent to the site. I received technical evidence regarding noise effects from Mr Hegley for the Applicant, Mr Lang on behalf of Valley RAGE and Mr Winter for TDC.

[512] Mr Hegley's evidence referenced his noise assessment report December 2019. He provided supplementary evidence addressing issues raised by submitters and council officers during the hearing process. This resulted in updates to the consent conditions, including a recommendation to construct a noise mitigation bund adjacent to 131 PIR. He also provided the final NMP dated 20 April 2023.

[513] Mr Lang's evidence disputed many aspects of Mr Hegley's assessment.

[514] Mr Winter audited Mr Hegley's primary evidence, the noise report and the MNP dated May 2021. His conclusion[94] was that with both the proposed mitigation in place and compliance with the recommended conditions of consent, he then agreed that the proposal should not result in unreasonable noise effects. He outlined key factors that were the basis of his opinion. All of the key factors have been included in the final proffered conditions with the exception that Mr Winter considered a 51 dB L_{Aeq} (unadjusted) noise limit should be complied with rather than the 55 dB L_{Aeq}.

[515] At the hearing Mr Winter provided feedback on the noise evidence he had heard from all parties via a memorandum dated 25 November 2022. He noted that the decibel limit remained in dispute. He stated that

> *"…[he] did not agree with Mr Hegley that the noise limit for the proposal should be 55 dB L_{Aeq} (the TRMP Rural Noise Limit). The TRMP noise limits only apply to permitted activities, which this is not. The highest predicted noise level is 51 dB L_{Aeq} so a noise limit of 55 dB L_{Aeq} authorises a higher level of noise than is being applied for".*

[516] Mr Winter also outlined problems with Mr Lang's assessment which I accept.

[517] Mr Hegley's reply refuted each of Mr Lang's points which I accept.

[518] While Valley RAGE did not formally withdrawn Mr Lang's evidence, counsel indicated at the hearing that joint witness conferencing on noise issues would not be required and that Valley RAGE supported the evidence of Mr Winter.

[519] At the close of the hearing Mr Winter and Mr Hegley were in agreement on almost all noise matters with the exception of the noise limit discussed above.

[94] Hearing agenda 21 November 2022, page 79.

[520] On the basis of the discussion above, I accept the noise evidence of Mr Winter and Mr Hegley over Mr Lang's. I note that Mr Winter responded to the submission of Mr Dixon-Didier and Mr and Mrs Langridge. I accept his evidence in relation to those submissions. I also accept Mr Hegley's reply evidence in response to the submissions of Mr Kellogg and Mr and Mrs Langridge. His assessment took topography into account and he stated that with regard to Mr and Mrs Langridge's property, the low levels of noise predicted[95] are due to the fact that, at its closest, the proposed excavations are approximately 1400 m from the retreat.

[521] With regard to the appropriate noise limit that remained in dispute I prefer Mr Hegley's approach on this matter. The Applicant is not applying for a limit of 51 dB L_{Aeq}. They have applied for a bundle of consents to undertake activities (as outlined elsewhere in my decision) and have undertaken a noise assessment that shows the highest predicted noise level is 51 dB L_{Aeq} . Mr Hegley's assessment and evidence demonstrates that 55 dB L_{Aeq} is acceptable in the existing environment. I accept this.

Findings

[522] Having heard the evidence, and on the basis of the discussion above, and subject to the proffered conditions of consent, I find that the noise effects of the proposal will be appropriately avoided, remedied or mitigated.

10.7 Dust

Discussion

[523] Many submitters were concerned about dust generated by the proposal. The issues of concern related to environmental effects, nuisance and amenity effects, health effects and effects on existing uses surrounding the site, including horticulture and in particular apple orchards.

[524] I received technical evidence regarding dust effects from Mr Bluett for the Applicant, and Mr Pigott for TDC. Ms Solly also provided feedback on this issue in the Council's comments dated 14 April 2023.

[525] I have outlined the scope of Mr Bluett's evidence in section 7.1. He was involved in several stages of the hearing process. He responded to dust issues raised by submitters and Council Officers. This included providing updates on the DMP and further development of the dust management conditions outlined in the final proffered conditions of consent. This included conditions to address the effects of dust on orcharding activities (condition 54). He drafted the final DMP dated 21 April 2023.

[526] Mr Bluett stated

> *"When combining the influences of the scale of the activity, the sensitivity of the receiving environment, the proposed mitigation measures and dust travel distance, I consider the potential effects of dust discharged from the proposed activity are less than minor".*

[527] Mr Pigott reviewed Mr Bluett's evidence, the Assessment of Air Quality Effects (July 2022) and the draft DMP. He noted the draft DMP (which has since been updated and

[95] Ranging from 25 to 27 dB LAeq

improved in response to issues raised during the hearing process) was in line with Ministry for the Environment good practice and guideline and best practical option. In his opinion, subject to the conditions of consent (highlighted in his report), he considered the Applicant can adequately manage the activity so the dust generated will result in amenity and health impacts that are less than minor. The Applicant took Mr Pigott's comments on the conditions into account in the final condition set.

[528] Section 2.2 of the Council Officers' comments dated 14 April 2023 noted that Mr Bluett and Mr Pigott were in agreement at the hearing.

[529] The comments stated that the updated DMMP (the version provided in March 2023) has been reviewed by Mr Pigott and is considered to be in line with best practice. The Officers recommended a definition of "orcharding activities" in response to Ms Nightingale's comments. This has been adopted in the final proffered conditions subject to one minor amendment.

[530] With regard to comments from submitters Webster, Sundbye, and Le Frantz, regarding dust management out of hours, the Council Officers noted that the DMMP provides an after-hours contact. However, they considered the Applicant may wish to detail more specific measures in their Right of Reply. In response legal submissions stated that the Applicant has incorporated into the final proffered conditions a requirement for automated measures to manage dust out of hours. I was unable to locate this in the final proffered conditions, but if I had been minded to grant consent I accept the intent of the Applicant, and I would have included such a condition.

Findings

[531] I find that the Applicant has appropriately responded to dust issues raised by submitters and by Council Officers. I accept the conclusions of Mr Bluett noting that they are supported by Mr Pigott.

[532] Having heard the evidence, and on the basis of the discussion above, and subject to the proffered conditions of consent, I find that the dust effects of the proposal will be appropriately avoided, remedied or mitigated such that they are less than minor.

10.8 Landscape and visual effects

Discussion

[533] Ms Gavin provided technical evidence with regard to landscape and visual effects of the proposal. This included photographic evidence from many viewpoints shown on Figure 3 of her graphic supplement attached to her evidence. She also drafted the overall landscape mitigation plan (Appendix 4) and river terrace restoration plan (Appendix 5) to assist with mitigation of the landscape and visual effects of the proposal. Her evidence addressed issues raised by submitters. Appendix 3 of her evidence provided a detailed review of visual amenity effects from submitters properties.

[534] I received no technical evidence disputing Ms Gavin's evidence. She responded to planting issues raised by Mr Taia. This resulted in an amendment to the condition set and river terrace restoration plan to address issues he raised.

[535] I found Ms Gavin's evidence to be thorough and I accept her findings. In particular, I accept section 4.0 of her reply and adopt it in my decision.

[536] Ms Gavin's conclusion was:

> *"… overall the landscape effect of the application will have a low-moderate adverse effect on landscape character, and visual amenity associated with the stockpile and excavation activity. This will reduce to an overall low positive effect on landscape character and amenity values by completion of consent."*

I accept that a low-moderate adverse effect equates to a minor effect[96] in RMA terminology.

[537] I note that whilst Ms Solly disagreed with Ms Gavin's opinion that the permitted baseline should be applied, Ms Solly[97] concurred with Ms Gavin's conclusions on visual effects and adopted her assessment of the relevant TRMP objectives and policies[98]. Ms Solly also supported the proposed mitigation and restoration planting. Ms Solly did not consider landscape issues to be a key issue in her report.

Findings

[538] On the basis of the discussion above, and subject to the proffered conditions of consent, I consider that the landscape and visual effects of the proposal will be appropriately avoided, remedied or mitigated such that they are minor.

10.9 Surface water quality and ecology

Discussion

[539] The surface water quality and ecology issues (including issues raised by submitters) were assessed by Dr MacNeil. Dr MacNeil was involved in the hearing process, including a review of the JWS-PE and associated Stage 1 pit erosion evidence as described below.

[540] Dr MacNeil addressed the Motueka River WCO in his evidence. He noted:

> *"…the Motueka River is an important brown trout fishery and maintains a high-quality fish habitat. A WCO applies to the Motueka River and schedule 2 and 3 of the WCO apply to the stretch of the Motueka River adjacent to and downstream of the proposed gravel extraction site".*

[541] According to Dr MacNeil[99], this means it is subject to a direction that no resource consent shall be granted that:

(a) will cause the material alteration of the channel cross-section, meandering pattern, and braided river channel characteristics of the form of any river specified in Schedule 2.

(b) will cause, for those rivers specified in Schedule 2, at any time of year, either by itself or in combination with other existing consents or rules, a 50 percent or greater increase in the deposition of fine sediment (less than 2 mm diameter) on the riverbed after reasonable mixing, relative to the point immediately upstream of the area to which the resource consent or rule relates.

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96 Ms Gavin, primary evidence, paragraph 3.75.
97 s42A Report Addendum.
98 Ms Gavin, primary evidence Appendix 2.
99 Primary evidence, paragraph 3.20 and 3.21

[542] Dr MacNeil considered that the proposal is consistent with these requirements and stipulations.

[543] At the close of the hearing it was Dr MacNeil's opinion[100] that, subject to the conditions associated with the proposal, the presence and location of stopbanks and the distance of the gravel workings from the Motueka River will protect instream ecological values in the Motueka River and that there will be less than minor effects on the unnamed stream in the Peach Island overflow channel. He noted "the council memorandum of 14 April, states that Mr. Trevor James, Council's Senior Resource Scientist Freshwater & Estuarine Ecology, has reviewed my supplementary evidence and agrees with my view that quarrying stage 1 in three tranches reduces erosion risk and hence risk of sediment discharge."

[544] I have seen the email correspondence from Mr James confirming this. Whilst he was not involved in the hearing I am familiar with his work and know that he is suitably qualified and experienced and accept his review comments.

[545] Dr MacNeil confirmed[101] that his evidence relating to surface water quality and ecology applies to both the deposition of clean fill into quarried pits as well as quarrying itself.

Findings

[546] I accept Dr MacNeil's evidence, and find, subject to the proffered conditions of consent, that adverse effects on surface water quality and ecology will be appropriately avoided, remedied or mitigated. The fact that Stage 2 and 3 are located within the stopbanks assisted me in reaching this conclusion.

10.10 Flooding inundation and erosion of Stage 1 area

Discussion

[547] There was general agreement amongst the parties that the stopbanks would prevent inundation and erosion issues in the Stage 2 and Stage 3 areas from overland flow during flooding. I accept this.

[548] Potential inundation and erosion issues in the Stage 1 area were addressed in more detail as the "Peach Island overflow channel" is located through the centre of the Stage 1 area. I heard flood water from the Motueka River flows in this direction during large flood events.

[549] At the hearing I indicated I wished to receive more evidence regarding the inundation and erosion issues arising from flooding in the Stage 1 area.

[550] Mr Aiken's primary evidence addressed the flooding assessment of the activities for which consent is sought. His supplementary evidence[102] addressed the potential for material to be eroded from backfilled areas should inundation of the Stage 1 works occur prior to vegetation becoming established.

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100 Right of Reply, paragraph 3.1
101 Memorandum of counsel – responses to Commissioner questions to witnesses not required for hearing - 8 May 2023, paragraph 12.
102 19 December 2022.

[551] Mr Aiken's memorandum attached to his supplementary evidence noted that there are several factors that contribute to the potential erodible volume of material. This includes the degree of vegetation establishment at the time of the event, the magnitude of the flooding and other factors not explicitly accounted for in his assessment (i.e. depth of flow, availability of erodible material etc).

[552] Mr Aiken estimated the total volume of backfill material in a 4.6 m deep 80 m x 20 m pit was 7,360 m^3. He estimated the maximum material that can be eroded is between approximately 4,246 m^3 and 5, 314 m^3 should all the material be exposed to erosive flows. If such an event was to occur (noting that there is a 10-15% probability this could occur during the 12–15-month operational period of the Stage 1 area), it would represent between 1.85% to 2.31% of the long-term annual average suspended sediment load (reference to the Motueka River catchment load).

[553] In his opinion it is unlikely that the erosive forces would extend to the 4.6 m depth of the pit. Therefore, he stated, the numbers presented above are conservative and likely an overrepresentation.

[554] Valley RAGE legal submissions[103] questioned whether it is appropriate to assume a 10% AEP when, as set out in Dr Harvey's evidence presented at the hearing, flood events have occurred on average annually across a 10-year period (ie 100% AEP). They also stated that whilst Mr Aiken's modelling shows an average of 4,246 m^3 of eroded material (57-58% of the backfill material) and a maximum of 5,314 m^3 (69% of backfill material) the amount of eroded material would be significantly higher if the Stage 1 area flooded annually as it has done on average for the past 10 years.

[555] This issue was covered in more depth during expert caucusing between Mr Aiken, Dr Harvey and Mr Griffith on 14 February 2023 resulting in the production of the JWS-PE dated 6 March 2023.

[556] In the JWS-PE, Dr Harvey stated he had no problems with adoption of the 10% AEP flood since it had been modelled and hydraulic output data were available for computation of pit backfill erosion. However, he concluded that the use of the 10% AEP event for the period of operation (with a 10%-15% probability of occurrence during the proposed period of mining) is not conservative since more frequent annual events of higher magnitude and lower frequency could also occur.

[557] Mr Griffiths also considered the 10%-15% probability of occurrence is not conservative, but the erosion calculation estimate is conservative (as you would not get erosion down to the bottom of the pit), except that more than one pit may not be stabilised at the time of a flood event.

[558] Overall, Dr Harvey and Mr Griffiths were happy with the 10% event used.

[559] I note that Mr Griffiths considered that overall the estimate of erosion is conservative. Dr Harvey agreed the pit erosion numbers were reasonable.

[560] The experts discussed options to stabilise the back filled areas as these are susceptible to erosion. Whilst no solution was agreed, Mr Aiken suggested that the Stage 1 work could be broken into areas (for example thirds) and revegetated and stabilised before working on the next area. This would reduce the area of unconsolidated ground. This mitigation

[103] 27 January 2023.

measure was brought into the conditions by the Applicant and referred to as a "tranche" system.

[561] Introducing the "tranche" approach into working the Stage 1 area was challenged by Valley RAGE who considered the idea was new information that all parties should have a chance to comment on. I addressed this procedural matter in Minute 11.

[562] I determined that it is not new information. Rather, it is a mitigation measure raised at the Joint Witness conferencing and parties had a chance to comment on it during the March / April circulation of information (and in fact they did comment). I also took into account the fact that the pit size outlined in the final volunteered conditions has not changed since the primary hearing (it remains 80 mx20 m) and that the "tranche" is an additional measure that further restricts the proposed activity rather than expanding it.

[563] Following the production of the JWS-PE, I directed (via Minute 7) Dr MacNeil to review the JWS-PE and Mr Aiken's supplementary evidence dated 19 December 2022 (which is referenced in the JWS-PE) and identify any changes he might want to make to his surface water quality and freshwater ecology effects evidence (if any). I discussed Dr MacNeil's response above.

Finding

[564] Overall, on the basis of the discussion in the JWS-PE, I accept the evidence of Mr Aiken with respect to the volume of material that could be eroded from one pit in the Stage 1 area. My decision takes into account the proffered conditions of consent that state (condition 99) that "the maximum size of excavation open at any one time shall not exceed 1600 m^2 (generally 20 m in width and 80 m in length)". Furthermore, condition 103 requires that "Stage 1 is to be quarried in 3 "tranches", with a maximum of one third of the Stage 1 area to be actively quarried or being remediated at any time. Subsequent "tranches" within Stage 1 shall only commence when the previous "tranche" has been rehabilitated to the point that a vegetated cover is established".

[565] I accept that this is an appropriate mitigation measure. On the basis of the evidence I received I am satisfied that the effects of the proposal on the flood plain and stop banks can be appropriately mitigated by the proffered conditions of consent. The Applicant's and the Council's technical experts agree that the proposed activity will not worsen existing flood risk and is unlikely to result in damage to flood control structures. I accept this and adopt it in my decision.

[566] The effects of the potential erosion of pit erosion on surface water quality and groundwater are discussed above.

11 Relevant provisions of policy statements and plans

[567] Ms Solly and Mr Taylor identified the NPS-HPL, the NPS-FM, the Motueka River WCO, the TRPS and the TRMP as the relevant planning documents, which I accept.

[568] I note here that Ms Hollis identified the scope of her evidence is generally restricted to planning matters relating to land productivity. I have accepted that the NES-DW is not relevant to my decision (refer to section 10.1).

[569] Ms Solly and Mr Taylor agreed that the objectives and policies in the TRPS relevant to the proposal are reflected in the provisions of the TRMP. I accept this and consider that their assessment of the lower level relevant policies in the TRMP gives effect to the relevant higher level policies in the RPS.

[570] With regard to the Motueka River WCO, Ms Solly[104] agreed that the proposal is consistent with the requirements of the Motueka River Water Conservation Order (WCO) as outlined in section 3.99 of Mr Taylor's evidence. I have accepted Dr MacNeil's evidence on this matter. I accept Ms Solly's and Mr Taylors evidence on this matter and find that the proposal is consistent with the requirements of the Motueka River WCO 2004.

[571] Hence, I only refer to the NPS-HPL, NPS-FM and the TRMP provisions in my discussion below. I accept Ms Solly's opinion that none of the currently proposed TRMP plan changes are relevant to the proposal.

[572] The TRMP zoning and overlay areas are as follows:

Zoning:	Rural 1
Areas:	Land Disturbance Area 1
Other notations:	Flood Hazard

11.1 Objective and policies of the NPS-HPL 2022

[573] The s42A Report Addendum[105] identifies that the objective of the NPS-HPL is relevant and that Policy 1,4,8 and 9 are relevant. These are outlined below.

> *The objective of the NPS-HPL is "Highly productive land is protected for use in land-based primary production, both now and for future generations."*
>
> *The policies of particular relevance to the proposal are:*
>
> ***Policy 1**: Highly productive land is recognised as a resource with finite characteristics and long-term values for land-based primary production.*
>
> ***Policy 4**: The use of highly productive land for land-based primary production is prioritised and supported.*
>
> ***Policy 8**: Highly productive land is protected from inappropriate use and development.*
>
> ***Policy 9**: Reverse sensitivity effects are managed so as not to constrain land-based primary production activities on highly productive land.*

[574] Mr Taylor assessed the proposal against the objective and policies listed above and did not dispute their relevance. I accept that these are the relevant policies for me to consider. I have found in section 10.2 of my decision that the proposal is unlikely to result in reverse sensitivity effects.

[104] s42A Report Addendum, paragraph 9.2.
[105] Paragraph 7.2 and 7.3.

[575] Ms Solly's assessment was based on the conclusion that the entire application site is defined as highly productive land under the NPS-HPL. Whilst I reached the same conclusion (but took a different route to get there) I do not agree with Ms Solly that Stage 1 meets all the requirements of the exemption under the NPS-HPL[106].

[576] Mr Taylor's policy assessment was based on the evidence of Dr Hill which I did not accept as outlined in section 10.2 of my decision.

[577] I found that the adverse effects on the productive capacity of the HPL will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the HPL. Therefore, the productive capacity of the HPL will not be maintained or protected.

[578] Ms Solly considered that:

> *"[W}ith regards to the loss of productive land (Stages 2 and 3), there are still concerns and uncertainty regarding the successful implementation of the SMP. As detailed in Section 2.5 above and in the JWS for productive land, the volunteered conditions allow for a degradation / loss of soil productivity. This is contrary to the relevant TMRP objectives and policies and the NPS-HPL".*

With the exception of the reference to policy 9 (which I found is not relevant to my decision) I accept her opinion.

[579] I also consider these concerns are valid (along with other concerns outlined in section 10.2 of my decision) with regard to Stage 1 which I have found does not meet the exemption under the NPS-HPL. Hence, I find that Stage 1 of the proposal is also contrary to the relevant TMRP objectives and policies and the NPS-HPL.

[580] According to section 7.4 of the s42A Report Addendum,

> *"[. . .] the weighting that is given to the NPS-HPL needs to be determined. The NPS-HPL 2022 mirrors the relevant policy 7.1.2.1 of the TRMP, avoiding the loss of productive value. Thus, the new NPS-HPL 2022 is consistent with the current policy environment and significant weighting should be given to the relevant policies contained within it".*

I accept this. However, another reason to give the NPS-HPL significant weight is that it is a higher level document and sits above the TRMP. I have given significant weight to the NPS-HPL compared to the TRMP in relation to productive capacity of the land in my decision.

[581] Overall, I find that the proposal is not consistent with the objective, or policies 1, 4 and 8 of the NPS-HPL and that the objective and relevant policies can best be met by refusing consent. The proposal is an inappropriate use of the HPL and granting consent would not protect the HPL for use in land-based primary production, both now and for future generations.

106 Her final position as outlined in paragraph 2.5.4 Council comments dated 14 April 2023.

11.2 Objective and policies of the NPS-FM 2020

[582] Ms Solly concluded[107] that the volunteered conditions / trigger values allow for a degradation of existing water quality. She considered this is inconsistent with the NPS-FM and Te Mana o te Wai, which covers a wider scope than compliance with Drinking Water Standards or the management of potential contaminants "up to" a trigger level.

[583] In my discussion in section 10.1 I found that I am unable to draw any conclusions about whether management of the quality of the aquifer down to the compliance limits that have been set by condition 26 (RM220578) are inconsistent with the NPS-FM 2020 policy that requires the health and well-being of water bodies to be maintained (Policy 5 NPS-FM 2020).

[584] Mr Taylor agreed with the evidence of Mr Nicol with regard to the consistency of the proposal with the principle of Te Mana o te Wai.

[585] I have I found that the adverse effects on groundwater quality will not be appropriately avoided, remedied or mitigated such that the risks to groundwater quality from the proposal are unacceptable. Hence, I do not accept Mr Taylor's evidence on this matter.

[586] Overall, with respect to the NPS-FM I find that (on the basis of my findings with regard to groundwater quality) that the proposal is inconsistent with the fundamental concept – Te Mana o Te Wai (section 1.3) and hence policy 1 (freshwater is managed in a way that gives effect to Te Mana o te Wai) is best met by refusing consent.

[587] I consider my decision prioritises the health and well-being of freshwater now and into the future (a requirement of principle (d)) and manages freshwater in a way that ensures it sustains present and future generations (a requirement of principle (e)). In addition, the decision prioritises the health and needs of people (such as drinking water) over the economic well-being (as listed in the hierarchy of obligations (subclause 5). Refusing consent is consistent with objective 2.1 of the NPS-FM 2020. Correspondingly, I find that granting consent would be inconsistent with objective 2.1 of the NPS-FM.

11.3 Objectives and policies of the TRMP

[588] The s42A Report and the evidence of Mr Taylor identify the relevant provisions (objectives, policies and rules) within the TRMP that I need to consider. Ms Solly has included a list of the relevant objectives and policies for the land use consent in Appendix 2 of the s42A Report (28 March 2022).

[589] Ms Solly assessed the relevant provisions under the key issue headings in the s42A Reports. These were:

(a) Potential amenity effects (noise, dust, visual effects);

(b) Traffic effects;

(c) Loss of productive land;

(d) Effects on the floodplain and stopbank;

(e) Effects on surface water quality;

[107] Council comments 14 April 2023, section 4.

(f) Cultural effects;

(g) Effects on groundwater quality.

[590] Mr Taylor adopted a similar approach using similar headings whereby he assessed the relevant objectives and policies in the "conclusion" regarding the key issues. I found their consistency in approach to be useful.

[591] I have reviewed their findings under each of my principal issues in contention headings and discuss these below. I note that Mr Taylor considers the proposal is consistent with every relevant objective and policy in the TRMP[108]. Hence, my discussion below focuses on points of difference between Ms Solly's findings and Mr Taylor's findings.

Groundwater quality

[592] The relevant objectives and policies in the TRMP are listed in Appendix 2 of the s42A Report (28 March 2022).

[593] Mr Taylor generally agreed with the listed objectives and policies and provided more detailed assessment of their relevance. I note that he also considered policy 33.1.3.4 "To ensure that water quality is not degraded where the existing water quality is the same or higher than the relevant water classification or any water conservation order" was relevant, which I accept.

[594] Ms Solly concluded:

> *"[T]he proposal could only be considered consistent with the NPS-FW if the applicant can clearly demonstrate that the works can be managed in a way that maintains existing water quality (TRMP Objective33.1.2.1), gives effect to Te Mana o te Wai (NPS-FM Policy 1) and ensures that people's drinking water supplies are not adversely affected (NPS-FM Objective 1 and TMRP Policy 5.1.3.9). This is for the applicant to address".*

[595] I do not accept Mr Taylor's position as he based his opinion on the evidence of Mr Nicol and I did not accept Mr Nicol's findings. Ms Solly did not reach a firm conclusion regarding the objectives and policies in the TRMP (but did consider the proposal was inconsistent with the NPS-FM).

[596] Based on my findings that that the adverse effects on groundwater quality will not be appropriately avoided, remedied or mitigated and that the risks to groundwater quality from the proposal are unacceptable, I find that the proposal is inconsistent with the relevant objectives and policies in the TRMP relating to groundwater quality. In particular objective 5.1.2 and the associated relevant policies and objective 33.1.2.1 and the associated relevant policies.

Soil productive value

[597] Mr Taylor considered that objective 7.2.2.3 and policy 7.2.3.9 (which are listed in the s42A report in relation to land productivity effects) are not relevant as these relate to the location of Rural Industrial activities. I accept this.

[108] Refer paragraph 3.80 right of reply and paragraph 4.2 primary evidence.

[598] As outlined above in the discussion with regard to the NPS-HPL, Ms Solly concluded that the proposal is contrary to the relevant TMRP objectives and policies.

[599] I have found that that the adverse effects on the productive capacity of the HPL will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the HPL. My reasons for this include accepting that there are concerns and uncertainty regarding the successful implementation of the SMP and that the volunteered conditions allow for a degradation / loss of soil productivity.

[600] Overall, I consider the proposal is inconsistent with the relevant objectives and policies in the TRMP relating to loss of productive land. In particular objectives 7.1.2.1, 7.1.2.2, 12.1.2, and policies 7.1.3.2, 7.1.3.3, 12.1.3.4.

Amenity values effects

[601] As outlined in section 10.3 of my decision I found there will be amenity value effects (over and above noise, dust and visual effects). However, I was unable to draw any conclusions regarding the significance of these effects.

[602] Ms Solly and Mr Taylor identified relevant objectives and policies regarding amenity effects. However, as I was unable to determine the significance of the amenity effects (over and above noise, dust and visual effects) I can draw no conclusions with regard to the consistency of these effects with the relevant objectives and policies.

Cultural effects

[603] The s42A Report provided some limited assessment with regard to relevant objectives and policies in the TRMP. On the basis of limited consultation (at the time the report was written) Ms Solly found[109] that there are inconsistencies with the relevant policies in the TRMP, in particular objective 10.2.2 and policy 10.2.3.2. I note that there has been further consultation since this statement was made, therefore I can place little weight on this statement.

[604] In her s42A Report Addendum[110] Ms Solly was not able to form a conclusion regarding the effects on cultural values without a CIA, as only iwi can gauge the cultural importance of the area and determine the level of cultural effects. This position did not change by the close of the hearing.

[605] Section 3.9 of Mr Taylor's reply evidence stated:

> *"Similarly, my previous evidence did not reach a firm conclusion on cultural effects, with the expectation that a CIA would be provided with submitter evidence. My evidence on the land use consents detailed the amendments and refinements made to the proposed activities to address specific matters raised by Te Ātiawa and Ngāti Rārua in their submissions. The Te Ātiawa and Ngāti Rārua evidence acknowledges these measures taken to address environmental effects and details further measures to avoid, remedy or mitigate adverse cultural effects. Given that these measures have been largely adopted by the Applicant, I have no reason to conclude that adverse effects of the proposal on cultural values have not been adequately addressed. 3.10*

[109] Paragraph 13.7
[110] At paragraph 10.7.

For the same reason, I am satisfied that the proposal aligns with TRMP provisions relating to cultural values, as detailed in my previous evidence."

[606] I have found that cultural effects of the proposal have not been adequately avoided, remedied or mitigated. Hence, I do not accept Mr Taylor's position.

[607] I find the proposal is inconsistent with the relevant cultural effects objectives and policies of the TRMP. This includes objective 10.2.2 and policy 10.2.3.2 referred to by Ms Solly. I also find that the proposal is inconsistent with policy 10.2.3.4 as the activity has not been approved by manawhenua iwi as an affected party.

Traffic

[608] Ms Solly concluded[111], while the proposed increase in truck movements will be noticeable, the traffic effects of the proposed activity, including access, vehicle entrance and the bridge across the overflow channel can be appropriately managed by Mr. Fon's recommended conditions of consent (i.e., subject to resolving the outstanding matters). This is consistent with Policies 11.1.3.2(b), 11.1.3.3 and 11.1.3.6. Mr Fon's recommended conditions were included in the final proffered conditions.

[609] Overall, I find, subject to the proffered conditions of consent, the proposal is consistent with the TRMP objective and policies relevant to traffic effects.

Noise

[610] The s42A Report Addendum found that subject to the matters (listed in the Addendum) being addressed, I consider that the proposal is consistent with the TRMP objective and policies relevant with regards to noise, i.e., objective 5.1.2, policy 5.1.3.9 and policy 5.2.3.8. The matters referenced were addressed except that I have found that inclusion of daytime limit of 51 dB LAeq is not required as discussed above. I found that the 55 dB LAeq is appropriate.

[611] Overall, I find the proposal I sconsistent with the TRMP objective and policies relevant to noise.

Dust

[612] Subject to the inclusion of, and compliance with, the revised conditions of consent, Ms Solly considered that the proposal is consistent with the TRMP policies relevant to dust, namely, policy 5.1.3.1 and policy 7.4.3.4. I accept this and adopt it in my decision.

Landscape and visual effects

[613] Ms Solly considered the adverse visual amenity effects are considered acceptable with the proposed mitigation in place.

[614] Mr Taylor[112] was satisfied (based on the expert evidence of Ms Gavin) that the proposal is consistent with the objective 8.2.2, supporting policies 8.2.3.4 and 8.2.3.7, and objective 9.2.2 and supporting policies 9.2.3.3, 9.2.3.4 and 9.2.3.5. These relate to maintaining the natural character of the margins of rivers and of the contribution that rural landscapes make to the character and amenity values of the District. In particular, policy 9.2.3.4

111 s42A Report Addendum, paragraph 6.30.
112 Primary evidence, paragraph 3.48.

encourages landscape enhancement and mitigation of changes through landscape analysis and planting proposals throughout rural areas. Mr Taylor considered, based on the advice of Ms Gavin, that it is evident that the proposal achieves this.

[615] On the basis of Ms Solly's and Mr Taylor's evidence, I accept that the proposal is consistent with the relevant objectives and policies in the TRMP relating to landscape and visual effects. I do not accept Mr Taylor's findings with regard to natural character as landscape is only one component of a natural character assessment.

Surface water quality and ecology

[616] Ms Solly[113] was satisfied that the proposal will have no direct effects on the surface water quality of the Motueka River or the unnamed stream in the overflow channel. She also considered that the effects of dust, sediment and erosion can be appropriately managed with conditions of consent so as not to adversely affect surface water quality. She also agreed with Dr MacNeil that during large flood events that could inundate the site, any effects [on surface water quality] resulting from the proposal would not be discernible. Her position on this matter remained unchanged at the close of the hearing.

[617] In section 10.9 of my decision I found that, subject to the proffered conditions of consent, the adverse effects on surface water quality and ecology will be appropriately avoided, remedied or mitigated.

[618] Overall, I find that the proposal is consistent with the relevant objectives and policies in the TRMP relating to surface water quality and ecology.

Flooding inundation and erosion of Stage 1 area

[619] Ms Solly considered[114] that the "proposal is consistent with the relevant objectives and policies detailed in Attachment 2 to the original land use consents s42A report (refer to Section 11: Key issues – Effects on flood plain and stop bank), in particular objective 13.1.2.1 and associated policies 13.1.3.9 and 13.1.3.14". The further evidence relating to flooding inundation and erosion of Stage 1 area discussed in section 10.10 of my decision did not change her opinion.

[620] I find that, subject to the proffered conditions of consent, the proposal is consistent with the relevant TRMP objectives and policies relating to effects on the flood plain and stopbanks.

Relevant rules and activity status

[621] Section 4.4 of the s42A Report includes a table outlining the activity rule status for the land use consents. Section 4.3 of the discharge permit s42A Report includes a table outlining the rule status for the discharge permit. I accept and adopt these assessments.

[622] The applications have been bundled and assessed as a **discretionary activity** under section 87A(4) of the Act. This overall status was not disputed by the parties. I accept the overall activity status and adopt it in my decision.

[113] s42A Report Addendum, paragraph 9.6.
[114] s42A Report Addendum, paragraph 8.9.

12 Other matters – section 104(1)(c)

[623] I have not considered any other matters under section 104(1)(c) in my decision.

[624] I have considered Statutory Acknowledgement Areas and Iwi Management Plans under the cultural effects section of my decision.

[625] However, I will note here that for a project of this scale in this location with a significant number of residences and land uses surrounding the site, I was surprised by the lack of consultation undertaken prior to the Application being lodged. Schedule 4 of the RMA requires an assessment of effects to include identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted. This resulted in many issues being discovered via submissions and evidence which needed to be addressed through the hearing process.

13 Overall finding under section 104(1)

[626] Following the hearing of evidence and having regard to all of the information in front of me I now turn to my overall finding with regard to my assessment of the proposal under section 104(1) of the Act.

13.1 Section 104(1)(a)

[627] With regard to section 104(1)(a) I have found that:

(a) The adverse effects of the proposal on groundwater quality will not be appropriately avoided, remedied or mitigated. I find that the risks to groundwater quality, including drinking water quality, from the proposal are unacceptable.

(b) The adverse effects on the productive capacity of the HPL will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the HPL. Therefore, the productive capacity of the HPL will not be maintained or protected;

(c) There will be adverse amenity effects (over and above noise, dust and visual effects). However, I am unable to draw any conclusions regarding the significance of these effects;

(d) The cultural effects of the proposal have not been adequately avoided, remedied or mitigated;

(e) Subject to the proffered conditions of consent, that the traffic effects of the proposal are appropriately avoided, remedied or mitigated;

(f) Subject to the proffered conditions of consent, the noise effects of the proposal will be appropriately avoided, remedied or mitigated;

(g) Subject to the proffered conditions of consent, the dust effects of the proposal will be appropriately avoided, remedied or mitigated such that they are less than minor;

(h) Subject to the proffered conditions of consent, the landscape and visual effects of the proposal will be appropriately avoided, remedied or mitigated such that they are minor;

(i) Subject to the proffered conditions of consent, adverse effects on surface water quality and ecology will be appropriately avoided, remedied or mitigated;

(j) The effects of the proposal on the flood plain and stop banks can be appropriately mitigated by the proffered conditions of consent.

[628] I accept the evidence in relation to the positive effects as outlined by the Applicant.

13.2 Section 104(1)(b)

[629] With regard to section 104(1)(b) I have found that:

(a) The proposal is not consistent with the objective, or policies 1, 4 and 8 of the NPS-HPL 2022 and that the objective and relevant policies can best be met by refusing consent. The proposal is an inappropriate use of the HPL and granting consent would not protect the HPL for use in land-based primary production, both now and for future generations;

(b) Overall, with respect to the NPS-FM I find that (on the basis of my findings with regard to groundwater quality) that the proposal is inconsistent with the fundamental concept – Te Mana o Te Wai (section 1.3) and hence policy 1 (freshwater is managed in a way that gives effect to Te Mana o te Wai) is best met by refusing consent.

(c) My decision prioritises the health and well-being of freshwater now and into the future (a requirement of principle (d)) and manages freshwater in a way that ensures it sustains present and future generations (a requirement of principle (e)). In addition the decision prioritises the health and needs of people (such as drinking water) over the economic well-being (as listed in the hierarchy of obligations (subclause 5). Refusing consent is consistent with objective 2.1 of the NPS-FM. Correspondingly, I find that granting consent would be inconsistent with objective 2.1 of the NPS-FM;

(d) The proposal is inconsistent with the relevant objectives and policies in the TRMP relating to groundwater quality. In particular objective 5.1.2 and the associated relevant policies and objective 33.1.2.1 and the associated relevant policies;

(e) The proposal is inconsistent with the relevant objectives and policies in the TRMP relating to loss of productive land. In particular objectives 7.1.2.1, 7.1.2.2, 12.1.2, and policies 7.1.3.2, 7.1.3.3, 12.1.3.4.

(f) The proposal is inconsistent the relevant cultural effects objectives and policies of the TRMP. This includes objective 10.2.2, policy 10.2.3.2 and policy 10.2.3.4;

(g) Subject to the proffered conditions of consent, the proposal is consistent with the TRMP objective and policies relevant to traffic effects, noise, dust effects, landscape and visual effects, and surface water quality and ecology; and

(h) Subject to the proffered conditions of consent, the proposal is consistent with the relevant TRMP objectives and policies relating to effects on the flood plain and stopbanks.

[630] I could not reach a conclusion with regard to the consistency of amenity effects (over and above noise, dust and visual effects) with the relevant objectives and policies of the TRMP.

13.3 Section 104(1)(c)

[631] I have not considered any other matters under section 104(1)(c) in my decision.

14 Sections 105 and 107

[632] With respect to discharge permit RM220578, section 105 specifies that I must, in addition to the matters in section 104(1), have regard to—

(a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

(b) The Applicant's reasons for the proposed choice; and

(c) Any possible alternative methods of discharge, including discharge into any other receiving environment.

[633] I have considered the nature of the discharge and the sensitivity of the receiving environment as described in section 10.1 of my decision and the Applicant's reasons for the proposed choice. This includes the reasons outlined in the Applicant's evidence, including the evidence of Mr Corrie-Johnston. I have not considered alternative methods of discharge including discharge into any other receiving environment as these options were not discussed in evidence. I consider sub-part (c) is of little relevance to my decision.

[634] Section 107(1) is outlined below:

> *"Except as provided in subsection (2), a consent authority shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A allowing—*
>
> *(a) the discharge of a contaminant or water into water; or*
>
> *(b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or*
>
> *(ba) the dumping in the coastal marine area from any ship, aircraft, or offshore installation of any waste or other matter that is a contaminant,—*
>
> *if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:*
>
> *(c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
>
> *(d) any conspicuous change in the colour or visual clarity:*
>
> *(e) any emission of objectionable odour:*
>
> *(f) the rendering of fresh water unsuitable for consumption by farm animals:*
>
> *(g) any significant adverse effects on aquatic life"*

[635] M Solly was satisfied that the proposal will not result in the effects identified under s107(1)(c) to (g) with regards to surface water[115]. With reference to my findings under section 10.9, I accept this.

[636] Ms Solly also considered that as the proposal relates to a discharge to land, the matters listed under s 107(1)(c)-(g) are unlikely to arise. On the basis of my findings in section 10.1, I accept her evidence. The reason for this is that section 107 states "is likely to give rise to". My findings in section 10.1 do not lead me to conclude that the matters listed are likely to arise. However, reference to section 107 does not alter my findings in section 10.1 of my decision.

15 Part 2 of the Resource Management Act 1991

[637] Section 104(1) of the Act states that my consideration of the application is subject to Part 2 of the Act, which covers ss 5 – 8, inclusive.

[638] The overall purpose of the Act according to section 5 is "*to promote the sustainable management of natural and physical resources*". In turn, "sustainable management" means:

> *"... managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while –*
>
> *(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> *(b) Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
>
> *(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment".*

[639] I consider that overall the proposal will not meet the overall purpose of the Act for reasons outlined in section 13.1 and section 13.2 as summarised below.

[640] Section 6 requires me to recognise and provide for matters of national importance. Mr Taylor[116] considered the relevant matters are:

> *"(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development; …*
>
> *(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;*
>
> *(h) the management of significant risks from natural hazards".*

[641] I accept Mr Taylor's evidence that these are the relevant matters. On the basis of my findings in section 10, I consider sub-section (a) and (e) are best provided for by refusing consent. My findings with regard to HPL are relevant to my consideration of natural character of the margins of the river, i.e the natural character of the soil would be adversely affected. However, I note here that I put little weight on natural character

[115] Discharge permit s42A Report, paragraph 6.28.
[116] Primary evidence, paragraph 4.5.

matters in my decision as I did not consider it was a principal issue in contention. Matter (h) would be provided for by the proffered conditions of consent.

[642] Section 7 of the Act lists other matters that I shall "have particular regard to". I consider the subsections of relevance as outlined in Mr Taylor's evidence[117] are:

> *(a) kaitiakitanga:*
>
> *(aa) the ethic of stewardship:*
>
> *(b) the efficient use and development of natural and physical resources:*
>
> *(c) the maintenance and enhancement of amenity values:*
>
> *(d) intrinsic values of ecosystems:*
>
> *(f) maintenance and enhancement of the quality of the environment:*
>
> *(g) any finite characteristics of natural and physical resources:*

[643] I have had particular regard to these matters when assessing the proposal. With reference to my findings in section 10 in particular, I concluded that the proposal is not consistent with kaitiakitanga and the ethic of stewardship, it will not maintain and enhance amenity values or the quality of the environment. I have recognised the finite characteristics of the HPL in my decision.

[644] Finally, section 8 requires that I shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). I have taken section 8 into account in my decision, particularly in relation to cultural effects.

16 Reasons for the decision

[645] My reasons for refusing consent are:

(a) The adverse effects on groundwater quality will not be appropriately avoided, remedied or mitigated. I find that the risks to groundwater quality, including drinking water quality, from the proposal are unacceptable. Section 10.1 expands on my reasons for this finding;

(b) The adverse effects on the productive capacity of the highly productive land will not be appropriately avoided, remedied or mitigated resulting in a loss of the productive capacity of the highly productive land. Therefore, the productive capacity of the highly productive land will not be maintained or protected;

(c) The cultural effects of the proposal have not been adequately avoided, remedied or mitigated;

(d) The proposal is not consistent with the objective, or policies 1, 4 and 8 of the NPS-HPL. The objective and relevant policies can best be met by refusing consent. The proposal is an inappropriate use of the highly productive land and granting consent would not protect the highly productive land for use in land-based primary production, both now and for future generations;

[117] Primary evidence, paragraph 4.6.

(e) With respect to the NPS-FM the proposal is inconsistent with the fundamental concept – Te Mana o Te Wai (section 1.3) and hence policy 1 (freshwater is managed in a way that gives effect to Te Mana o te Wai) is best met by refusing consent.

(f) My decision prioritises the health and well-being of freshwater now and into the future (a requirement of principle (d)) of the NPS-FM and manages freshwater in a way that ensures it sustains present and future generations (a requirement of principle (e)). In addition the decision prioritises the health and needs of people (such as drinking water) over the economic well-being (as listed in the hierarchy of obligations (subclause 5). Refusing consent is consistent with objective 2.1 of the NPS-FM. Correspondingly, I find that granting consent would be inconsistent with objective 2.1 of the NPS-FM;

(g) The proposal is inconsistent with the relevant objectives and policies in the TRMP relating to groundwater quality. In particular objective 5.1.2 and the associated relevant policies and objective 33.1.2.1 and the associated relevant policies;

(h) The proposal is inconsistent with the relevant objectives and policies in the TRMP relating to loss of productive land. In particular objectives 7.1.2.1, 7.1.2.2, 12.1.2, and policies 7.1.3.2, 7.1.3.3, 12.1.3.4.

(i) The proposal is inconsistent with the relevant cultural effects objectives and policies of the TRMP. This includes objective 10.2.2, policy 10.2.3.2 and policy 10.2.3.4.

[646] I have given significantly more weight to the NPS-FM (with respect to groundwater quality effects) and the NPS-HPL (with respect to soil productivity effects) than the TRMP in my decision.

[647] I acknowledge that I have taken into account the recommendation of Ms Solly that the Application be refused.

[648] With respect to RM220578, I have had regard to section 105 and consider that I am not restricted from granting the discharge permit by section 107.

[649] The proposal is not consistent with kaitiakitanga and the ethic of stewardship, it will not maintain and enhance amenity values or the quality of the environment. I have recognised the finite characteristics of the highly productive land in my decision.

[650] Overall, I consider that refusing this Application achieves the purpose as set out in section 5 of the Act.

28 June 2023

Craig Welsh
Hearing Commissioner