

BEFORE Independent Commissioner appointed by Tasman District Council



IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of an application by CJ Industries Ltd for discharge application RM220578 for discharge of contaminants to land (backfill material) and for land use consent RM200488 for gravel extraction and associated site rehabilitation and amenity planting and for land use consent RM200489 to establish and use vehicle access on an unformed legal road and erect associated signage

EVIDENCE OF HAYDEN TAYLOR ON BEHALF OF CJ INDUSTRIES LIMITED PLANNING

1. INTRODUCTION

- 1.1 My full name is Hayden Craig Taylor. I am a Resource Management Consultant at Planscapes (NZ) Ltd, a resource management and surveying consultancy based in Nelson.
- 1.2 The applicant has applied for resource consents authorising the extraction of gravel, stockpiling of topsoil, and reinstatement of quarried land, with associated amenity planting, signage and access formation at 134 Peach Island Road, Motueka:
 - (a) RM200488 land use consent for gravel extraction and associated site rehabilitation and amenity planting; and
 - (b) RM200489 land use consent to establish and use vehicle access on an unformed legal road and erect associated signage.
- 1.3 The Applicant has subsequently sought a discharge permit for discharge of contaminants to land, which is required to carry out the backfill activity using cleanfill. A separate application has been lodged for this activity. This application has been

publicly notified and submissions have been received. Council has recently released their s42A report on the discharge application, in addition to an addendum to their original s42A report which addresses the National Policy Statement on Highly Productive Land 2022 (NPS HPL) and comments on evidence already filed by the Applicant.

- 1.4 I have previously prepared evidence addressing planning matters in relation to land use consents RM200488 and RM200489. The following evidence is supplementary to this, and specifically addresses the discharge activity and submissions and s 42A report received on the application for this, as well and commenting on Council's s42A addendum which relates to the land use consents.
- 1.5 This evidence does not repeat the evidence already filed, and so this statement should be read together with my statement dated 15 July 2022.

Qualifications and Experience

- 1.6 I hold a Bachelor of Science with Honours (Geography) degree from University of Otago, and I am an associate member of the New Zealand Planning Institute.
- 1.7 I have 14 years' experience in resource management and planning practice. I have been employed by Planscapes as a Resource Management Consultant since May 2018, and became a Director of Planscapes this year. Prior to this I worked in Auckland as a Resource Management Consultant for two years, and before for Auckland Council for five years in Intermediate Planner, Senior Planner and Resource Consents Team Leader roles. Prior to that I worked as a Planner for a London Borough Council for a period of three years.
- 1.8 I have prepared evidence and appeared both for private clients and local authorities as an expert witness at Council and Environment Court hearings, and have also participated in Environment Court mediation proceedings.
- 1.9 For the past four years much of my work has been in the Nelson/ Tasman Region and this has involved preparation of numerous applications for resource consent under the Tasman Resource Management Plan (the TRMP). These include a variety of land use applications in rural zones. I have a sound working knowledge of the TRMP, and its implementation in respect of environs within which the subject site is located.

- 1.10 Although this is not an Environment Court process, in the preparation of my evidence I have complied with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.
- 1.11 I have visited the site on numerous occasions between June 2020 and the present including in the company of various other specialists engaged by the Applicant and with Council representatives. I am familiar with the site.
- 1.12 I was involved in the preparation and lodgement of the Application and AEE supporting the original application to Council for land use activities, and I prepared the application for discharge permit.

Purpose and scope of evidence

- 1.13 The purpose of my evidence is to assess the proposed discharge activity against the relevant provisions of the Resource Management Act 1991, in particular sections 104, 105 and 107, and associated statutory documents. I address the following in my evidence on the discharge activity:
- (a) A description of the site and proposed discharge activity.
 - (b) A summary of the resource consents required and the activity status of the application.
 - (c) An assessment of the actual and potential effects of the proposed discharge activity on the environment.
 - (d) Comments on matters raised in submissions.
 - (e) Comments on the Council Officers' s42A report.
 - (f) An assessment of the proposal against the following statutory documents:
 - (i) Tasman Resource Management Plan (TRMP);
 - (ii) Tasman Regional Policy Statement (TRPS);

- (iii) National Policy Statement for Freshwater Management (NPS:FW).
 - (iv) Water Conservation (Motueka River) Order 2004 (WCO).
 - (g) An assessment of relevant other matters.
 - (h) My conclusions with regard to ss104, 105, 107 and Part 2 of the RMA.
- 1.14 In addition to the above, Council have prepared an addendum s42A report addressing NPSHPL, which Government has released since my previous evidence was prepared. The addendum also addresses the primary evidence of the Applicant prepared in respect of the land use application. I will address this addendum in my evidence.
- 1.15 To avoid duplication, I have referred to my previous evidence in respect of the land use consent applications where relevant.
- 1.16 I have produced my evidence having considered:
- (a) Submissions received on the application.
 - (b) Council Officers' s42A report Addendum and s 42A report on the discharge permit.
 - (c) Evidence previously filed by the Applicant on 15 July 2022.
 - (d) Supplementary evidence of the following expert witnesses appearing on behalf of the Applicant (either in respect of the discharge activity, the land use s42A Addendum, or both):
 - (i) Mr Tim Corrie-Johnston (Corporate and Operations);
 - (ii) Mr Ryan Nicol (Groundwater);
 - (iii) Dr Reece Hill (Soil management and land productivity);
 - (iv) Mr Wayne Scott (NPS HPL);
 - (v) Mr Gary Clark (Traffic);
 - (vi) Mr Jeff Bluett (Air Quality);

(vii) Mr Rhys Hegley (Noise);

(viii) Dr Bill Kaye-Blake (Economics).

2. EXECUTIVE SUMMARY

- 2.1 CJ Industries Ltd seek resource consent to discharge a contaminant (cleanfill) to land, in circumstances where it may enter water (groundwater) at 134 Peach Island Road. This follows an earlier application for land use consents to undertake quarrying (extraction of alluvial aggregates) activities, backfilling of excavation areas with imported cleanfill, and land rehabilitation activities at the subject site along with associated activities being the planting of vegetation and temporary stockpiling of soil in berm land, formation of access within legal road and display of signage. The activity is proposed to be undertaken in three stages. The land use and discharge activities are to be bundled and considered together. Overall, the proposal is a discretionary activity.
- 2.2 The recommendation of Council's reporting planner, as detailed in the s42A report, is consistent with the recommendation made for the land use consent applications. This is that consent be granted in part, subject to conditions, with the Stage 1 works allowed, but not the Stage 2 or 3 works.
- 2.3 A range of matters were raised in submissions on the application. Not all of these matters are relevant specifically to the discharge application, however those relating to relevant matters such as groundwater quality have been addressed in detail. I am satisfied that the matters raised in submissions have now been adequately addressed. My only qualification of this conclusion is in relation to the cultural effects in the absence of a Cultural Impact Assessment (CIA). The Applicant has been informed that a CIA will be submitted in support of Submitter evidence, and I intend to comment further on this in reply evidence.
- 2.4 Overall, taking into account the s42A report, submissions, volunteered conditions of consent and expert evidence, I am satisfied that (with the above qualification in relation to cultural effects) adverse effects on the environment associated with the proposed activities will be no more than minor.
- 2.5 I am also satisfied that the proposal is consistent with all relevant statutory documents. This includes the NPS HPL, which has come into effect since my previous evidence was prepared.

- 2.6 Taking into account expert advice in respect of groundwater quality matters, I am satisfied that sufficient regard has been had to the matters detailed at Section 105(1) of the RMA, and that none of the effects detailed at Section 107(1) (c)-(d) of the RMA occurring. As such, Section 107 should not prevent granting of consent for the proposed discharge.
- 2.7 I am satisfied that the proposal is consistent with Part 2 of the RMA in that it promotes the sustainable management of natural and physical resources. My conclusion in this regard stands on its own, in that effects on the environment and on persons will be adequately managed so as to be no more than minor. However, where adverse effects do occur, these are also justified when considered in the context of the demonstrable need for the mineral resources sought by this application and the functional need for these to be sourced from environments such as the application site.
- 2.8 In my opinion, the proposed discharge activity, subject to imposition of appropriate conditions of consent as detailed in the volunteered condition set, has sufficient merit from a resource management perspective to warrant granting of consent.

3. EVIDENCE ON DISCHARGE APPLICATION

Existing environment

- 3.1 The application site is largely located at 134 Peach Island Road, Motueka. The approximately 13.5 hectare property is owned by Timothy George Corrie-Johnston and is legally described as Lot 2 DP 2357 comprised in RT NL77/73 and Lot 2 DP 432236 comprised in RT 524970. The site contains a house and a shed, accessed via right of way from Peach Island Road. The remainder of the site is in pasture which is grazed. For the purposes of access, adjacent unformed legal road, an area of marginal strip (both in pasture and grazed) and part of 493 Motueka River West Bank Road (RTNL11A/1111) are proposed to be utilised.
- 3.2 Of specific relevance to consideration of the discharge of contaminants to land is the hydrogeological setting of the application site, particularly in relation to ground water. This has been detailed in the Hydrogeology Report prepared by Pattle Delamore Partners ('PDP') attached to the previous evidence of Mr Nicol and in additional information provided in response to Council's Request for Information.

- 3.3 The existing environment surrounding the application site is rural in nature. Land located immediately surrounding the site on the river flats is predominantly in productive use, including pasture, horticulture and a plant nursery, with associated dwellings. Land located further from the application site, particularly on surrounding hillsides, includes rural-residential activities and some plantation forestry. The existing environment surrounding the application site includes current and former aggregate quarrying sites on Peach Island and at Douglas Road, as will be addressed in more detail to follow. The Motueka River is located close to the site, to the east.

The discharge proposal

- 3.4 The proposal as a whole has been described in detail in the application documents lodged with Council on 15 June 2020 and as amended by the further information response documents provided to Council on the 8th and 10th of June 2021. Changes and clarifications to the proposal subsequent to the notification of the application and preparation of the s42A report were detailed in my previous evidence and are not repeated here. The discharge permit seeks consent to discharge a contaminant to land in circumstances where it may enter water. The discharge of clean fill meets the RMA definition of contaminant:

contaminant includes any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat—

(a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or

(b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged

- 3.5 As detailed in the evidence of Mr Nicol, the removal of the natural strata at the proposed quarry site and backfill with clean fill material in areas of the quarry that will be inundated by groundwater will cause a change in the physical structure of the land (i.e. a change in the hydraulic conductivity of the aquifer where fill is placed) and a change in the chemistry and biological condition of the groundwater could also occur as the natural strata in the quarry excavations will be replaced with material that may

have a different structure, porosity, geology, and/or chemistry. Based on this, the placement of the clean fill material may result in a change in chemistry and biological conditions of the groundwater caused by inundation of clean fill at the quarry.

3.6 Key elements of the proposed discharge activity are as follows:

- (a) The backfill material proposed to be used by the Applicant at the application site is, as identified above, to be restricted to cleanfill material as defined under the WasteMINZ document Technical Guidelines for Disposal to Land (2018). The acceptable materials are detailed in Table 3 of the Groundwater and Clean Fill Management Plan ("GMP").
- (b) The fill material will only comprise natural material sourced from both on site and off site and includes uncontaminated soil, clay, rock and gravel.
- (c) Fill material sourced off site must not be from a HAIL site and will only be accepted if total soil contaminant concentrations in the imported fill are not above soil background concentrations specific to the Tasman region as provided in the Landcare Research report "Background concentrations of trace elements and options for the managing of soil quality in the Tasman and Nelson Districts" (Cavanagh, 2015).
- (d) The fill material sourced both on site and off site may include some incidental biodegradable organic matter, but this will not exceed 2% by volume per load of fill and excludes soils with high organic content (i.e. peat, loam, topsoil etc.).
- (e) On the basis of these constraints, and as will be addressed in further detail below, the backfill material will not contain materials likely to adversely affect land or groundwater quality.
- (f) Key to ensuring the quality of the cleanfill used on site will be control over the receipt, inspection, and testing of material prior to it being discharged on site. Also of importance is the manner in which it is deposited on the application site, in particular through avoiding working in exposed groundwater, and management of any risks of accidental spills associated with machinery. These matters are proposed to be managed through the

preparation of and adherence to the GMP. A draft of this has been prepared by PDP and the current version is dated September 2022. This version was submitted with minor changes as part of a further information response to Council, and supersedes the versions attached to Mr Nicol's previous evidence and that submitted with the application. A condition is volunteered requiring a final GMP to be submitted to Council for certification prior to the commencement of cleanfill discharge activities.

The key elements of the GMP are:

- (i) Clean fill materials authorised
 - (ii) Proposed clean fill management system
 - (iii) Receipt
 - (iv) Inspection and testing of imported clean fill
 - (v) Placement of imported clean fill
 - (vi) Groundwater level monitoring and excavation controls
 - (vii) Response and mitigation to a spill
 - (viii) Groundwater quality monitoring
 - (ix) Response to issues arising from groundwater quality monitoring
- (g) The purpose of the GMP is to ensure that the application site will be managed to comply with consent conditions related to the quarrying activities and discharge of contaminants to land, specifically in respect achieving groundwater quality outcomes. The relevant performance indicators that the quarrying activities must achieve are:
- (i) Ensuring that excavations do not expose groundwater.
 - (ii) Ensuring that all backfill material is strictly managed to ensure it meets the definition of 'clean fill' under WasteMINZ guidelines.
 - (iii) Minimise any change to the physical and chemical properties of groundwater as result of the land use and discharge activities

associated with quarry activities (as defined by the trigger levels in Table 3 of the GMP).

- (iv) Ensuring that under no circumstances the land use and discharge activities associated with quarry activities result in groundwater quality exceeding the acceptable values in the Drinking Water Standards for New Zealand.
- (h) Control over the quality of this fill will enable the proposed activity to meet the requirements of a Class 5 Landfill under the WasteMINZ Guidelines, being the only class of landfill that the guidelines allow to be sited over aquifers used for drinking-water purposes, as is the case for this site.

3.7 A consent term of 17 years is sought. This term is sought to allow for discharge to land to occur over 15 years (being the same term sought for the land use consents for quarrying), plus two years of continued groundwater quality monitoring following the cessation of backfill activities.

Resource consents required and status of the application

3.8 In addition to the land use consents sought for the proposed quarrying activities, consent is required for the proposed discharge of cleanfill to land, as a **discretionary** activity under Rule 36.1.5.2 of the TRMP. This is confirmed in the second s42A report prepared by Council's reporting Planner.

3.9 Overall, when bundled with the associated land use consents, the proposal is for a **discretionary** activity.

Submissions

3.10 A total of 59 submissions were received on the discharge application, with 4 in support and 55 opposing. I have reviewed all submissions received on the discharge application. Few submissions raise issues specifically related to planning matters. Where such matters are raised, I will address these specifically. Most submissions raise matters relating to specialist topic areas addressed in the evidence of other experts appearing on behalf of the Applicant. I will generally refer to this expert evidence in respect of how these matters have been addressed, rather than duplicate this myself. I consider that the summary of

the issues raised in submissions given at section 5.8 of the s42A report generally encompasses the relevant issues raised in submissions.

Effects on groundwater quality

3.11 The majority of submissions in opposition to the proposal raised concerns regarding the effect on the proposed backfill material on groundwater quality. This extends also to concerns on drinking water quality and water quality in the Motueka River through interaction with groundwater. Specific matters raised in submissions are addressed below.

- (a) Some submitters including Submitters 1 (Walker), 19 (Clark and Rombouts) and 31 (Valley RAGE) consider that the proposed backfill procedures are not practical to follow, or won't be followed. In particular, procedures relating to excavation depth and fill quality controls. The procedures in question are those detailed in the GMP. This has been developed by Mr Nicol, in close consultation with Mr Corrie-Johnston of CJ Industries, who will be the quarry manager for the Peach Island site. This collaboration has been undertaken to ensure the procedures and controls put in place are practicable, measurable and enforceable. The evidence of Mr Nicol and Mr Corrie-Johnston on the discharge application address these matters specifically. Submitters including Submitter 11 (Dixon – Didier) query how backfill operations will take place if machinery breaks down or staff are unavailable. This has been addressed in the evidence of Mr Corrie-Johnston, who confirms that:
 - (i) Excavation will not take place if back fill or operators are unavailable.
 - (ii) CJ Industries has the ability to move machinery and people around from other sites if required.
 - (iii) CJ Industries has its own workshop and so can prioritise repairs as needed by operational requirements.
- (b) Many of the submissions that raise the above concerns regarding the practicality of the proposed procedures, and others including – Submitter 34 (Mae), question whether consent conditions would be complied with.

In particular, some submitters referenced the compliance history of the Applicant at their existing quarry sites. As a general planning principle, it must be assumed that a consent holder will comply with conditions of consent. Council has adequate mechanisms at its disposal to deal with enforcement issues in the event compliance issues should arise in relation to the stringent compliance requirements volunteered by and placed upon the Applicant.

- (c) A number of submitters, including Submitters 1 (Walker); 3 (Le Frantz); 31 (Valley RAGE) raise concerns regarding impacts on drinking water quality. Submissions including Submitter 44 (Webber) raised that the volunteered conditions would allow for degradation of drinking water standard before action is required of the consent holder. These matters are addressed in the evidence of Mr Nicol, and were also addressed in the Applicant's further information response to Council. In his further information response Mr Nicol noted that the proposed trigger levels are half of the Drinking Water Standards (DWS) Maximum Acceptable Values (MAV)'s, they are not set at MAV. Mr Nicol does not consider that reaching these trigger levels would represent deterioration of groundwater quality before a response was required, and notes that the 20% differential required between upgradient and down-gradient bore samples is necessary to enable causation of any changes to be attributed to activities on the site. Such variance is small and within the range of natural variation. Additionally, in Mr Nicol's evidence on the discharge activity, he notes that the Peach Island Aquifer is an unconfined aquifer in an area of rural land-use activities and on-site discharges of wastewater and stormwater, and areas of the aquifer are at times subjected to inundation from flood events in the Motueka River, it is possible that concentrations of some groundwater quality parameters may occasionally exceed the relevant MAV and GV from time to time, irrespective of any effects from the proposed quarry and its associated clean filling.
- (d) Some submitters including Submitters 31 (Valley RAGE) and 47 (Wakatū Inc) raise issue with the GMP being in draft form only, and that the final version would be approved without public input. This is a standard

approach for management plan conditions attached to a resource consent decision, allowing for refinement of the management plan prior to exercising the consent. It is important that such conditions clearly set out the required content of the management plan and the outcomes that are to be achieved by through its implementation. I consider that the volunteered conditions achieve these objectives. The proposed conditions will provide for certainty of outcome without further public input.

- (e) Submitters including Submitter 10 (Hodder) requested that there be no storage of backfill on site prior to testing/ screening. The application confirmed that the only circumstance when material would be screened on-site rather than off-site was in the event of a civil emergency, in which case material would be screened on site prior to being used as backfill. The Applicant now volunteers that this material, too, will be screened off-site before being delivered and this is reflected in the volunteered conditions of consent.
- (f) Submitters including Submitter 12 (Harris – Virgin) were concerned with contamination of groundwater from accidental spills of fuels etc. The application contains detailed procedures for minimising risk of spills and managing the effects of spills in the event that these do occur. These procedures have been addressed in the evidence of Mr Corrie-Johnson, are reflected in volunteered conditions and in the GMP, and associated effects on groundwater quality are addressed in the evidence of Mr Nicol. Adherence to the volunteered requirements will ensure that risks of mobilisation of contaminants including fuel, oil and hydraulic fluid into water bodies including groundwater are minimised. It must be acknowledged that heavy vehicle use is an anticipated part of many activities typical in rural environments such as this and such risks cannot be entirely eliminated, however the proposed measures are expected to be effective in minimising such risks.
- (g) Submitters including Submitter 7 (Howie) consider that there would be a reduction in natural filtration of groundwater following extraction and backfilling activities. This has been addressed in the evidence of Mr Nicol, who considers that, although the proposed backfill may result in physical

changes in the aquifer structure which could cause increased variations in hydraulic conductivity and therefore variations in the rate of groundwater flow and groundwater quality across the site, natural variations in hydraulic conductivity are expected within the heterogeneous existing strata, and therefore further changes to hydraulic conductivity and groundwater levels as a result of the proposed activity are expected to be generally within the existing range of hydraulic conductivities and groundwater levels. Mr Nicol has further supported this assessment by testing groundwater bores at the applicant's Douglas Road quarry. This testing demonstrates that the downgradient bores at Douglas Road do not display any changes in groundwater chemistry of concern and therefore are not adversely affecting downgradient groundwater users. (compared to a cross-gradient bore at Douglas Rd representative of "background" levels in this area).

- (h) Submitter 34 (Mae) submitted that the proposed depth of extraction was greater than has previously been granted. This is incorrect. Council have granted consent to a number of quarrying activities in the surrounding area to a variety of depths. These include Consent RM070949 at 15 Peach Island Road which allowed for excavations to a depth of 6 m below ground level and permanent interception of groundwater to create an artificial wetland with an area of approximately 1 ha. Further to this, an additional consent (RM200392) granted by Tasman District Council in January 2021 at site near the Motueka River at Douglas Road provided for excavation to be to 2 metres NZVD 2016 or the base of the shallow aquifer, whichever is shallower. This was expected to be approximately 8m below existing ground level, and 5.5m below groundwater level, with no constraints imposed in relation to working within groundwater.

Compliance and monitoring

3.12 Various submissions relate to proposed compliance and monitoring aspects of the proposed activities. Specific matters raised are addressed below.

- (a) Several submitters including Submitter 43 (Shuttleworth and Shay) consider that the proposed duration of post-quarrying monitoring is inadequate. This matter has been addressed in the evidence of Mr Nicol. He considers

that, given that the pattern of any groundwater chemistry changes is likely to have been well established during the period of quarry operations, this period of monitoring after the cessation of quarrying activities is sufficient to capture any longer-term patterns of groundwater quality changes that may have occurred as a result of the proposed quarry activities. Additional monitoring beyond two years following the cessation of quarrying and back filling would be unlikely to capture any additional changes that would not have been observed from groundwater quality monitoring undertaken up to that point.

- (b) Some submitters including Submitter 12 (Harris-Virgin) raise the issue that no independent/ third party monitoring is proposed. As detailed in the GMP, groundwater sampling will be undertaken by suitably and qualified persons using prescribed methodologies. Samples will be analysed by an accredited laboratory and results presented to Council. Additionally, the Applicant volunteers the use of telemetry equipment on excavators that removes the need for manual monitoring or recording of excavation depths. Monitoring bores will also have telemetry that will allow Council to obtain this data directly. Council is an independent party and it is their role to enforce compliance with conditions. Submitter 56 (Taia) considers that Council is under-resourced to monitor compliance with conditions. The presentation of data to Council as detailed above will minimise Council time requirements in assessing compliance with conditions of consent. In terms of monitoring of backfill material, third party monitoring (by Council or others) is impractical, however the processes detailed by Mr Corrie-Johnston are considered to provide a robust system for ensuring that compliance is achieved.
- (c) Some submitters including Submitter 11 (Dixon – Didier) consider that an insufficient extent of bore monitoring is proposed. This has been addressed in the evidence of Mr Nicol, who considers that, whilst the dedicated monitoring bores on site are most critical in terms of monitoring as they are immediately downgradient of the site and so are most likely to identify any changes in groundwater characteristics, additional monitoring up to 1km downgradient would be beneficial. The Applicant is open to

doing so, provided agreement is obtained from private landowners to do so, or Council (as landowner) agrees to a monitoring bore being established on road reserve or other publicly owned land. Amended volunteered consent conditions address this.

- (d) Several submitters including Submitter 56 (Taia) requested that high value bonds are required to ensure compliance. The proposed conditions of consent include a provision of a \$40,000 performance bond to enable Council to conduct remedial, repair, or rehabilitation works to the site, stopbank and/or access road, in the event that the consent holder fails to comply with conditions of this consent to the satisfaction of the Council's Team Leader - Monitoring & Enforcement.

Cultural effects

3.13 Several submitters, including Submitter 49 (Te Ātiawa), Submitter 47 (Wakatū Inc) and Submitter 58 (Ngāti Rārua) raised issues in relation to cultural effects of the proposed discharge. Specific matters raised are discussed below.

- (a) Submitters raised that cultural and spiritual effects were not adequately addressed in the application, and that it is inappropriate to comment that expert evidence relating to physical, biological and chemical properties can be compared to cultural values when only a CIA can appropriately inform this. The Application acknowledged this fact, but attempted to draw what limited conclusions were possible on the basis of the information available at that time, given that a CIA was being sought but at that time had not been made available. Submitters also noted that volunteering of Matakite condition was inappropriate without a recommendation for such by mana whenua iwi and whānau. The inclusion of this condition was in response to the earlier submission by Ngāti Rārua that requested inclusion of similar conditions to those imposed on the Fulton Hogan Douglas Road consent, which included such a condition. This condition was volunteered as a placeholder until the CIA was available or until iwi confirmed their desire for such a condition. This will be addressed further in reply evidence, once the CIA has been provided, however in the interim the condition has been removed from the volunteered condition set.

- (b) Relevant provisions of Poipoi Te Ao Tūroa were identified in the submission from Ngāti Rārua. These provisions have been addressed in my previous evidence. I will comment further on this matter in reply evidence, once the CIA has been provided.
- (c) Te Ātiawa raised concerns with regard to the impact of the proposal on their mana and role as kaitiaki. I will comment further on this matter in reply evidence, once the CIA has been provided.
- (d) Impacts on the mauri of land and water were raised. I will comment further on this matter in reply evidence, once the CIA has been provided.

Information inconsistencies

- 3.14 Submitter 1 (Walker) considers that there are inconsistencies in the application regarding backfill material. Specifically, that it states road cuttings and slip material may be used, but that all backfill material would be screened offsite before being brought to the site. There is no inconsistency here. Slip or road cutting material may be used, but only if it meets cleanfill criteria. For example, if the fill contains more than 2 % organic material, or roading materials such as bitumen or seal, it will not be used. Off-site screening of such materials would be undertaken to confirm this.
- 3.15 Submitter 31 (Valley RAGE) submitted that there were inconsistencies between the GMP and Dust Management Plan (DMP). These were not specified, there has been no response to the applicant's request for clarification of what these inconsistencies are, and the experts that prepared these reports are not aware of any. However, any specific matters raised in submitter evidence or at the hearing can be addressed in reply or at the hearing.

Impact on Motueka River

- 3.16 Water quality within the Motueka River was raised by a number of submitters including Submitters 31 (Valley RAGE) and 5 (Huff and Losch). Cumulative effects with other activities within the wider Motueka River catchment was also raised, including by Submitter 43 (Shuttleworth and Shay). These matters have been addressed in some detail in my previous evidence, and the evidence of Mr Nicol and Dr MacNeil which informed my evidence. These experts are satisfied that effects of the proposal on water

quality within the Motueka River as a result of surface water runoff and interaction of groundwater with the river, will be less than minor. With regard to water quality in the Motueka River, Dr MacNeil considers that any cumulative effects on the proposal on sediment loads in the river would be less than minor. Mr Nicol and Council's water quality experts are also in agreement that any change in groundwater characteristics will not result in degraded water quality in the Motueka River.

Other effects

- 3.17 Submitter 25 (Williams) expressed a preference to take more gravel from rivers instead of from the subject site. There is a limited amount of aggregate that is consented to be removed from the Motueka River bed annually, for the purposes of flood management. This is done under a global consent held by Council, who issue permits to various contractors to undertake the aggregate extraction. As identified in the evidence of Mr Corrie-Johnston there is insufficient supply from this source to meet the needs of the community for products derived from river aggregate, and there is uncertainty as to who will be allocated permits in any given year. As such, this is not a feasible alternative to the proposed activities.
- 3.18 Submitters 39 (Williamson), 36 (Claringbold) and 21 (Hewetson) submitted in support of the application, due to the need for aggregate supply for local products. This need has been addressed in some detail in the evidence/supplementary evidence of Mr Corrie-Johnston, Mr Scott and Dr Kaye-Blake. Whilst this matter is not specifically related to the proposed discharge, the discharge is required to enable the operation to take place through ensuring the productive potential of the site is maintained.
- 3.19 Some submitters, including Submitter 31 (Valley RAGE) queried the availability of sufficient cleanfill to match extraction rate. The supplementary evidence of Mr Corrie-Johnstone has addressed this matter. The Applicant has access to sufficient overburden material from their nearby hard-rock quarries to meet demand, should supply from other sources be limited at any time. Furthermore, only as much material will be excavated on any given day as can be replaced with backfill material available on the site if the need arises.

- 3.20 Submitter 31 (Valley RAGE) considers that the proposed discharge is not consistent with the TRMP and NPS HPL. I disagree with this, for the reasons detailed in my assessment of the proposal against these statutory documents, below.
- 3.21 Some submitters, including Submitter 2 (Forsey) consider that the proposal will create precedent, creating the opportunity for similar activities on other sites nearby that are also owned by the Applicants to obtain consent. My views on precedent were expressed in my previous evidence, and these apply equally to the land use and discharge activities.
- 3.22 Submitter 18 (Tucker) and others consider that the duration of consent sought is excessive. This matter was addressed in my previous evidence, and is also addressed in the evidence of Mr Corrie-Johnston. The duration sought on the land use consents is to enable flexibility in order to efficiently utilise finite gravel resources, including where these may become available from such sources as from river beds under Council's global consent. Additionally, there are various environmental factors that will influence when, where and to what depth aggregate extraction can take place, and under what conditions rehabilitation is undertaken, whilst maintaining compliance with volunteered conditions. This requires a longer duration to ensure flexibility is available in terms of timing of works. The additional 2-year duration sought for the discharge permit will not enable a longer duration of extraction or backfilling/ remediation activities; it is to enable ongoing monitoring for a duration of two years following completion of these activities whilst there is still a live resource consent to comply with.
- 3.23 Submitters including Submitter 7 (Howie) raised the issue of mobilisation of contaminants during floods. This matter was addressed in my previous evidence and in that of Mr Aiken. Whilst the risk of mobilisation of deposited material in general is low, the most important consideration is that the material, whilst technically a contaminant under RMA definitions, will be cleanfill and will not have any toxic properties that might result in adverse effects, if it were to be mobilised.
- 3.24 Submitter 31 (Valley RAGE) was concerned with the spread of pest plants in cleanfill. This would appear to be a low risk given that the cleanfill is required to have a very low organic content, such that from a practical perspective no obviously organic material will be used (the 2% limit essentially provides a margin of error). The evidence of Mr Corrie-Johnston confirms that topsoil will not be imported to the site. Additionally, the

cleanfill will be deposited below subsoil and topsoil that originates on the site itself.

The Applicant also volunteers to undertake pest plant management on the site for the duration of the consent.

- 3.25 Submitter 34 (Mae) raised concern with the ability of the consent holder to vary conditions without public input, should consent be granted. I note that any application to change consent conditions under Section 127 of the RMA is subject to notification tests, which include a requirement to specifically consider whether any persons who submitted on the original application are affected persons.

Submissions not considered relevant to discharge activity

- 3.26 A number of submissions raise issues that are not relevant to the discharge activity and have been addressed in evidence filed previously in respect of the land use activities.

These include:

- (a) Hours of operation
- (b) Carbon emissions
- (c) Visual effects
- (d) Traffic effects
- (e) Noise effects
- (f) Dust effects
- (g) Soil structure/ productive land
- (h) Ecosystem effects – flora and fauna
- (i) Stop banks not sufficient or are failing

- 3.27 I refer to my previous evidence on these matters and have nothing further to add in respect of these matters in the context of the discharge activity. Additionally, some submissions raised issues that are not considered to be relevant considerations at all, including:

- (a) Request a proportion of profits donated to native replanting and also to offset carbon. This does not relate to mitigation of the resource management effects of the proposal.
- (b) Property values. These are not considered to be a relevant resource management consideration. Such effects could, however, be related to amenity effects, which have been addressed in detail in previous evidence and supplementary evidence.

Council Officers' s42A report.

- 3.28 Council's reporting Planner has prepared a s42A report addressing the discharge permit application specifically. I provide comments on this below. I note that the reporting planner has also provided supplementary evidence in relation to evidence filed by the Applicants and their experts, and also on the NPS HPL. I will address the NPS HPL and Council's supplementary evidence last.
- 3.29 The key matters that the reporting planner considers to be in contention, having reviewed the application, further information response and previous evidence filed by the Applicant, are:
- (a) It is not clear how the applicant will manage the site to prevent inundation of the quarry floor during more prolonged periods of groundwater level rise.
 - (b) There are still concerns about the water quality trigger levels proposed as they could result in significant deterioration of water quality before a trigger is reached.
 - (c) 50% of MAV is not adequate as a trigger.
 - (d) The proposed trigger levels are based on drinking water standards but are not necessarily consistent with the NPS-FM and Te Mana o te Wai.

- (e) There is insufficient information on the current state of groundwater quality/ background levels, and it is therefore unclear if the proposed trigger levels would maintain or degrade the current state.
- (f) If contamination is observed through sampling, then the response to this needs to be more robust.

3.30 These matters have been addressed in the evidence of Mr Nicol. Taking Mr Nicol's evidence into account:

- (a) Mr Nicol is satisfied, based on the maximum area of any excavation, the measured rates and overall change of groundwater levels on site and the operational evidence of Mr Corrie-Johnston regarding the availability and on-site stockpiling of backfill material, that management of excavations and fill to achieve volunteered requirements for avoiding inundation of the quarry floor are achievable.
- (b) Mr Nicol acknowledges that change in the physical and chemical properties of the backfill material relative to the existing substrate of the site may result in changes to the groundwater chemistry of the ground water. However, this change is not expected by Mr Nicol to be adverse, nor to result in a deterioration of groundwater quality. From a planning perspective this is an important point as all activities including discharges and land use activities result in change, but this change is not always an adverse effect. The trigger levels are not intended as a target level to manage contaminant levels to. The primary control over effects of the proposed filling activities on groundwater quality is ensuring that groundwater is not exposed, and effective management of the quality of the fill that is used on site, in accordance with the GMP. Adverse effects on groundwater quality are not anticipated to occur as a result of quarrying and backfilling activities on site (or other activities associated with these). However, it is important to include clear, certain and enforceable standards that will ensure that any unforeseen outcomes are identified and managed (while also ensuring that natural variation does not result in a standard being breached and attributed to a quarry effect). The proposed trigger levels achieve this.

- (c) Bearing in mind the comments above, Mr Nicol is satisfied that the proposed trigger levels are appropriate.
- (d) As discussed above, Mr Nicol is satisfied that adherence to the GMP is sufficient to avoid adverse effects on groundwater quality. Whilst there may be changes in the characteristics of the groundwater in a limited area within and downgradient of the site, this is not expected to constitute a deterioration of water quality. The proposed activities are therefore not in tension with the NPS-FM and the fundamental concept of Te Mana o te Wai.
- (e) Although relatively limited background water quality data is available for the subject site, Mr Nicol considers that there is adequate information to assess the effects of the proposal, and I agree. Mr Nicol confirms that the sampling that has been undertaken indicates that existing groundwater quality is generally good, and complies with the proposed trigger values in all cases other than one bore sample that had an exceedance of iron levels. As discussed above, deterioration of water quality is not anticipated and it is not the intention to 'manage' any water quality effects to the proposed trigger levels (ie, they are not a target). As such, whether existing water quality sits above or below these trigger levels is of limited relevance. The proposed conditions provide a mechanism for identifying causation and response, should any adverse change to groundwater quality unexpectedly occur. This will enable attribution of cause where natural fluctuations or effects of activities other than the quarry result in levels being exceeded.
- (f) Mr Nicol considers the proposed responses to a potential contamination issue, as detailed in the GMP, to be robust. I agree with Mr Nicol that the alternative approach proposed by Council (as reflected in condition 104 of the Council's condition set) is inappropriate as it fails to adequately address the potential for exceedances of trigger levels to be caused by natural fluctuation of contaminants in groundwater, or by activities outside of the site such as bore head contamination. The conditions proposed by Council would unfairly impact the consent holder in such circumstances and are not sufficiently related to an effect of the activity.

3.31 On the basis of the above matters of contention remaining unresolved at the time of writing the s42A report, the reporting planner is unable to conclude that the proposal gives effect to the NPS-FM (specifically Policy 1 Te Mana o te Wai) and Objective 1 (ensuring people's drinking water supplies are not adversely affected). The reporting planner notes that these concerns relate to all stages of the proposed activity, but that the potential exists for consent to be granted to the Stage 1 works given the greater separation distance to downgradient bores. I disagree with this conclusion and will address the reasons why in more detail below. I note that the requirement under s 104 is to have regard to the NPSFM rather than give effect to it.

Relevant statutory considerations

3.32 I concur with the list of statutory documents relevant to the consideration of the discharge application given at Section 6 of the s42A report, these being:

- (a) National Policy Statement for Freshwater Management 2020 (NPS:FW);
- (b) Tasman Resource Management Plan (TRMP);
- (c) Tasman Regional Policy Statement (TRPS);
- (d) Motueka River Water Conservation Order (WCO)

3.33 These statutory documents are addressed in turn below.

3.34 I agree with the reporting planner that the National Environmental Standards for Sources of Human Drinking Water 2007 are not relevant to this application. The Water Services (Drinking Water Standards for New Zealand) Regulations 2022 are not directly applicable but the Maximum Acceptable Values (MAV) and Guidance Values (GV) within these Regulations have informed the consent conditions.

National Policy Statement for Freshwater Management 2020

3.35 The proposed discharge to land will occur near freshwater bodies, so the NPSFM is relevant to this proposal. The fundamental concept underlying the NPS:FM is Te Mana o te Wai. This is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about

restoring and preserving the balance between the water, the wider environment, and the community.

3.36 The overarching objective of the NPSFM is to ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

3.37 Key policies of relevance to this proposal are:

Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.

Policy 2: Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.

Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 8: The significant values of outstanding water bodies are protected.

Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement

3.38 On the basis of the specific methodologies proposed in the GMP to avoid effects on groundwater resources, and advice from Mr Nicol with regard to the likely effects of the proposed discharge of clean fill on groundwater quality, I consider the proposed activities to be consistent with the NPS-FM, including preservation of Te Mana o te Wai and the protection of drinking water resources. Specifically, this is because the proposed backfill material will be cleanfill which may affect the characteristics of the groundwater in the aquifer but, on the advice of Mr Nicol, not in such a way that will result in deterioration of the health or wellbeing of the groundwater body or associated surface water resources. This is achieved principally through avoiding exposure of

groundwater in excavations and strict controls over fill quality, as detailed in the GMP. For the same reason the health needs of people, in particular in respect of drinking water resources, will not be compromised. Monitoring to demonstrate compliance with the proposed trigger levels is intended to confirm that this is achieved.

- 3.39 Whilst it is not possible to comment regarding Māori freshwater values without the assistance of tangata whenua, given that adverse physical effects on water quality will be avoided, if there is alignment between Māori freshwater values and the physical, chemical and biological characteristics of water then adequate information appears to be available for a conclusion to be drawn that these values will also be maintained. This position may be reviewed should further information become available from tangata whenua.
- 3.40 Finally, the proposal will enable the community to provide for their social and economic wellbeing. The demonstrable need for the aggregate resources sought to provide for the needs of the community (including housing, roading and infrastructure), the economic imperative for these to be sourced locally and the functional and operational need to obtain these from river environments such as this have been addressed in detail in the supplementary evidence of Mr Scott and Dr Kaye-Blake as well as Mr Corrie-Johnston's July evidence.
- 3.41 Council's s42A report discusses concerns over whether the application will achieve environmental bottom lines included in the NPS:FM, in particular those relating to Nitrate-Nitrogen. As detailed by Mr Nicol in his evidence, the national water quality bottom line concentrations are listed in the NPS-FM for rivers and lakes, not groundwater, and as a result of the accepted significant dilution effects, any elevated concentrations within groundwater would have a negligible effect on concentrations in surface water ways with the relevant NPS-FM national bottom line concentrations.

Tasman Resource Management Plan (TRMP)

- 3.42 TRMP provisions relevant to the proposed discharge of cleanfill are those relating to groundwater quality and contaminants, at Chapters 5 and 33.

- 3.43 The Chapter 5 provisions are primarily focused on preserving amenity values and the qualities of natural and physical resources (Objective 5.1.2¹). Specific policies of relevance to water quality issues seek protection of ground and surface water quality and avoidance of discharge of contaminants beyond site boundaries (policies 5.1.3.2² and 5.1.3.11³), and appropriate management of contamination risks (policy 5.1.3.9⁴). Implementation of the proposed site management measures detailed in the GMP will enable consistency with these provisions to be achieved. In particular, I note that the proposed discharge of contaminants will occur only on the site, and not across boundaries. As confirmed by Mr Nicol, this material may result in changes to groundwater chemistry that may result in changes in a limited downgradient part of the aquifer, but these changes will not be adverse in terms of effects on the environment or users of groundwater for drinking water. The proposed discharge is also, therefore, considered to be consistent with objective 33.1.2.1⁵, noting that the existing groundwater resource is not considered to be degraded.
- 3.44 Objective 5.5.2⁶ is also relevant in relation to hazardous substances. Policies 5.5.3.4⁷, 5.5.3.5⁸ and 5.5.3.6⁹ deal with avoidance of discharge of hazardous substances to ground or surface water, and adopting land management practices that avoid potential to create future contaminated sites. These provisions are effectively replicated by

¹ 5.1.2 - Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources

² 5.1.3.2 To protect the quality of groundwater and surface water from the adverse effects of urban development and rural activities

³ 5.1.3.11 To avoid, remedy, or mitigate the likelihood and adverse effects of the discharge of any contaminant beyond the property on which it is generated, stored, or used

⁴ 5.1.3.9 To avoid, remedy, or mitigate effects of...(c) contaminant discharges; ...beyond the boundaries of the site generating the effect

⁵ 33.1.2.1 The discharge of contaminants in such a way that avoids, remedies or mitigates adverse effects while:

(a) maintaining existing water quality; and

(b) enhancing water quality where existing quality is degraded for natural and human uses or values.

⁶ 5.5.2 Reduction of risks to public health and safety, property and the environment, arising from fire and hazardous substances.

⁷ 5.5.3.4 To avoid any escape or discharge to surface water or groundwater, or drift to other property, of any hazardous substance, from within the site where it is used.

⁸ 5.5.3.5 To require adoption of land management practices that avoid the potential for creating future contaminated sites

⁹ 5.5.3.6 To require the preparation of a contingency plan to avoid, remedy or mitigate any adverse effects of an emergency discharge or accidental spill of hazardous substances

Objective 33.2.3¹⁰ and supporting policy 33.2.3.2¹¹ in relation to discharges. Whilst technically a contaminant, the proposed backfill material will not have toxic properties provided the GMP is adhered to, and discharges on site will not be of hazardous substances. There are risks associated with accidental spills of fuel, oil or hydraulic fluids, however these risks exist for many rural uses, and are proposed to be actively managed through refuelling and spill response procedures to ensure they are minimised.

3.45 Policy 33.1.3.5¹² is relevant in that it acknowledges that discharges invariably result in some level of localised change in conditions, including that of water environments. This is true of a wide range of discharges in a rural environment including stormwater, wastewater, fertilisers and sprays. The policy acknowledges that a level of localised attenuation is acceptable, provided that beyond the attenuation area there is no adverse effect on water quality. This is true of the proposed discharge activity as there will be an attenuation zone on and downgradient of the site that may experience changes to groundwater characteristics. However, as advised by Mr Nicol, in the case of the proposed discharge, even within the attenuation area there are not expected to be adverse changes to water quality for the environment or for other water users.

3.46 Additionally, based on the above measures the assessment criteria for discharges given at Schedule 36D of the TRMP (both general criteria and those specific to discharges to land) are considered to be met by the proposal. These provisions are included at Annexure E for reference. On the basis of advice provided by Mr Nicol, there are considered to be no adverse effects of the discharge to land of clean fill that cannot be avoided, remedied or mitigated, there is no reason to impose financial contributions to manage or compensate for adverse effects associated with the discharge.

Tasman Regional Policy Statement

3.47 The TRMP and its objectives and policies have been developed so as to be consistent with the objectives and policies in the Tasman Regional Policy Statement (TRPS). The

¹⁰ 33.2.3 The avoidance, remediation or mitigation of the adverse effects resulting from emergency discharges or accidental spills

¹¹ 33.2.3.2 To ensure that land use and discharge activities are carried out, having regard to contingency planning measures appropriate to the nature and scale of any discharge and risk to the environment for any accidental discharge of any contaminant that may result in connection with the activity.

¹² 33.1.3.5 To ensure that existing water quality is not degraded after reasonable mixing as a result of any discharge of contaminants into water and to take into account the following criteria when determining what constitutes reasonable mixing...

proposal will not undermine the policy direction of the TRPS and is considered to be consistent with it.

Water Conservation (Motueka River) Order 2004

3.48 Section 217(2) of the RMA states that

Where a water conservation order is operative, the relevant consent authority—

(a) shall not grant a water permit, coastal permit, or discharge permit if the grant of that permit would be contrary to any restriction or prohibition or any other provision of the order:

(b) shall not grant a water permit, a coastal permit, or a discharge permit to discharge water or contaminants into water, unless the grant of any such permit or the combined effect of the grant of any such permit and of existing water permits and discharge permits and existing lawful discharges into the water or taking, use, damming, or diversion of the water is such that the provisions of the water conservation order can remain without change or variation:

(c) shall, in granting any water permit, coastal permit, or discharge permit to discharge water or contaminants into water, impose such conditions as are necessary to ensure that the provisions of the water conservation order are maintained.’

3.49 The Motueka River WCO is applicable to this proposal. The part of the river that is adjacent to the application site is listed in Schedule 2 of the WCO. Relevant to discharges is Clause 11 of the WCO¹³ This includes a direction that no resource

¹³ Restrictions on alteration of water quality

(1) No resource consent may be granted or rule included in a regional plan permitting a discharge into any of the waters identified in Schedule 2 at any time, or into any of the waters identified in Schedule 3 during the months of May to October inclusive, if, after allowing for reasonable mixing of the discharge with the receiving waters, the discharge would—

(a) alter the concentration of suspended solids or turbidity in the receiving waters by more than 1 mg/l or 1 NTU where the ambient concentration of suspended solids or turbidity is less than or equal to 10 mg/l or 10 NTU respectively; or

(b) alter the ambient concentration of suspended solids or turbidity in the receiving waters by more than 10 mg/l or 10 NTU where the concentration of suspended solids or turbidity is more than 10 mg/l or 10 NTU respectively; or

(c) alter the visual clarity of the waters by more than 20%; or

(d) alter the natural temperature of the receiving waters—

(i) by more than 3°C; or

(ii) by increasing the water temperature to more than 20°C.

(2) No resource consent may be granted or rule included in a regional plan permitting the discharge into any of the waters identified in Schedule 2 at any time, or into any of the waters identified in Schedule 3 during the months of May to October inclusive, unless, after allowing for reasonable mixing of the discharge with the receiving waters,—

consent shall be granted that permitting a discharge into any of the waters identified in Schedule 2 at any time would result in a specified set of physical, biological and chemical changes to the waters. Given that the proposal does not include any discharge into the Schedule 2 waters (only to land located some distance from these waters) the WCO does not create any impediment to granting of consent for the proposed discharge. Notwithstanding this, the advice of Mr Nicol is that the proposed discharge will not create any adverse effects on groundwater quality. This being the case, it can be safely concluded that the proposal will also not indirectly impact on the physical, biological and chemical properties of the Motueka River as detailed in Clause 11 of the WCO.

3.50 For completeness, I also note that the granting of consent for the proposed discharge is not constrained by any other sections of the WCO. Specifically, Clauses 8 and 10 aren't applicable as these relate to damming of waters (river extent) and maintenance of fish passage. Clause 9 relates to alterations of river flows and form. The proposed discharge will not affect the river extent or other physical characteristics (9(a)), deposition of sediment in the river (9(b)), or the flow of the river including in a flood sense (9(c)). Effects on surface water were addressed by Dr MacNeil and also confirm that the activity is consistent with the WCO.

(a) any change in the acidity or alkalinity in the receiving waters, as measured by the pH and attributable to that discharge, either—

(i) maintains the pH within the range of 6 to 9 units; or

(ii) allows the pH to change by no more than 0.5 units when the natural pH lies outside the range of 6 to 9 units; and

(b) there would be no undesirable biological growths attributable to the discharge including (but not limited to)—

(i) bacterial or fungal slime growths that are visible to the naked eye; or

(ii) seasonal maximum covers of streams or river beds by—

(A) periphyton as filamentous growth or mats (longer than 20 mm) exceeding 30%; or

(B) biomass exceeding 120 mg of chlorophylla per square metre; or

(C) 35 g ash-free dry weight per square metre of exposed surface area; and

(c) aquatic organisms are not rendered unsuitable for human consumption through the accumulation of excessive concentrations of contaminants; and

(d) the water is not made unsuitable for recreation by the presence of contaminants, or the median bacterial level of 5 samples or more taken over a period of 30 days does not exceed 126 E coli per 100 ml.

(3) No resource consent may be granted or rule included in a regional plan permitting a discharge into any of the waters identified in Schedule 2 or Schedule 3 if, after allowing for reasonable mixing of the discharge with the receiving waters, the discharge would reduce the concentration of dissolved oxygen below 80% of saturation.

(4) For the purposes of subclause (3), if the natural concentration is less than 80% of saturation, the natural level must be maintained or increased.

Other matters

3.51 Pursuant to Section 104(1)(c) of the RMA, I consider the following other matters to be of relevance to the proposed discharge application:

- (a) Statutory acknowledgements of Ngāti Rārua, Ngāti Toa Rangitira, Ngāti Tama ki Te Tau Ihu, Ngāti Kuia and Te Ātiawa o Te Waka-a-Māui in relation to the Motueka River and its tributaries.
- (b) The Ngāti Rārua, Ngāti Tama, Pakohe and Te Ātiawa o Te Waka-a-Māui Iwi Management Plans. I do not consider the Ngāti Kōata Trust Iwi Management Plans identified in the s42A Report to be relevant as the site is outside of the rohe of this iwi.
- (c) Matters of precedent.

3.52 These matters have been addressed in my previous evidence and this assessment is considered equally relevant to the proposed land use and discharge activities. I note that the Applicant has, since the preparation of my previous evidence, engaged further with representatives of Ngāti Rārua and e Ātiawa o Te Waka-a-Māui, who are preparing a Cultural Impact Assessment in consultation with other Te Tau Ihu iwi. It is understood that the CIA will be presented as part of submitter evidence to be filed by Ngāti Rārua and e Ātiawa o Te Waka-a-Māui. It is anticipated that the CIA will include some further commentary in respect of Statutory Acknowledgements and Iwi Management Plans. As the CIA is not currently available, I have no further comment on these matters at this time, but will address this further in reply evidence.

Actual or Potential Effects on the Environment

3.53 My previous evidence addressed effects associated with the land use consents. Many of these effects are not relevant to the proposed discharge activity and will not be addressed further in this application. These include amenity effects (including visual and landscape effects, noise and dust), effects on land productivity, traffic effects, surface water quality, ecological effects, land stability effects and effects on flood risk. The potential effects that could result from cleanfill discharge activities are associated with water quality and any associated effects on cultural values. These are addressed below.

Groundwater Effects

3.54 The effects of the proposed discharge of clean fill material on groundwater are addressed in the Hydrogeology report prepared by Mr Nicol, the response to the request for information, and in Mr Nicol's evidence.

3.55 The potential risks to groundwater quality are those associated with exposure of groundwater in open excavations which might create a contamination pathway, and through groundwater inundation of backfill material that might result in the mobilization of contaminants into the groundwater. The latter is most relevant to this application. Any adverse effects could impact on down-gradient groundwater users, and down-gradient waterways. Mr Nicol explains:

“The existing strata at the site has been deposited via natural geological processes. Removal of natural material during excavation and backfilling of excavations with fill material will change the physical structure of the strata that the groundwater occurs in. Some of the clean fill material will be sourced from off site and therefore would be expected to contain material that has a different geology and chemistry compared to the existing strata. This has the potential to result in some level of change in groundwater chemistry, particularly if the fill material becomes inundated by groundwater.”

“Provided that the Applicant follows the requirements for acceptance of clean fill material at the Quarry site described above, any changes in groundwater chemistry from inundation of fill material would most likely be subtle differences in the concentrations of common cations and anions that would not be noticeable to people who use the aquifer for drinking-water supply purposes. Therefore, the effects of the backfilling of excavation pits with clean fill material that may be become inundated at times of high groundwater levels is expected to be less than minor.”

3.56 Mr Nicol is satisfied that adverse effects will be avoided or mitigated through the implementation of the GMP. Preparation of a final GMP and adherence to this is volunteered as a condition of consent. The GMP addresses the methodology for extraction of aggregates whilst avoiding excavation below groundwater levels (including real-time groundwater monitoring, alerts, and use of telemetry in excavating machinery), controls over the nature of fill materials that may be used (including quality control, monitoring and reporting requirements), emergency spill and vehicle refuelling controls and, out of an abundance of caution, ongoing groundwater quality monitoring, reporting and response requirements to demonstrate that these measures have been effective.

Volunteered conditions of consent detail the environmental outcomes that preparation of and adherence to the GMP must achieve in respect of these matters.

3.57 Mr Nicol concludes that adherence to the GMP will ensure that the overall effect of the quarrying activities on the groundwater quality at Peach Island is less than minor. Relying on Mr Nicol's expertise in relation to the technical aspects of his assessment of effects, I am satisfied that the GMP provides a robust framework for management of the proposed activities to ensure that the environmental outcomes specified in the GMP are achieved. These outcomes are:

- (a) Ensuring that excavations do not expose groundwater in excavations.
- (b) Ensuring that all backfill material is strictly managed to ensure it meets the definition of 'clean fill' under WasteMINZ guidelines.
- (c) Minimise any change to the physical and chemical properties of groundwater as result of the land use and discharge activities associated with quarry activities (as defined by the trigger levels in Table 3).
- (d) Ensuring that under no circumstances the land use and discharge activities associated with quarry activities result in groundwater quality exceeding the acceptable values in the Drinking Water Standards for New Zealand.

3.58 In achieving these outcomes, the proposal will result in adverse effects on the environment that are less than minor.

Cultural Effects

3.59 As detailed above, a CIA is being prepared and will be provided in support of Submitter evidence. I will address cultural effects associated with the proposed discharge to land in my reply evidence, once I have had the opportunity to consider the CIA.

Conclusions regarding Section 104 of the RMA

3.60 With regard to section 104(1)(a), having considered the expert evidence detailed above, and taking into account the mitigation measures detailed in the application and the volunteered conditions of consent, I am satisfied that the proposed discharge will

adequately avoid, remedy or mitigate adverse effects to the extent that they will be no more than minor overall. With regard to cultural effects, my assessment is made on the basis of the information I have available to me and may need to be revised in the event of information contained in a CIA being provided to the contrary. There will also be positive effects associated with the proposal, principally those associated with meeting the social and economic needs of the community through provision of scarce building materials in an economic manner. Whilst these are associated with the proposal as a whole, rather than with the discharge, the discharge of backfill is a necessity to enable the proposal to proceed. These positive effects are not an offset or compensation for any specific adverse effects for the purposes of section 104(1)(ab). Overall, actual and potential effects associated with the proposed activities will be acceptable from a resource management perspective.

- 3.61 With regard to section 104(1)(b), the proposed discharge is considered to be consistent with the relevant statutory instruments including the TRPS, TRMP, and the NPS-FM.
- 3.62 In relation to section 104(1)(c), relevant other matters have been considered. These include the Motueka WCO, Iwi Management Plans, Statutory Acknowledgements and matters of precedent. Having considered these matters I do not consider that they create any impediment to the granting of consent for the proposed activities. I will reconsider this conclusion if/when information is made available through a CIA.

Sections 105 and 107 of the Resource Management Act

- 3.63 Sections 105 and 107 of the RMA are relevant in relation to the proposed discharge of a contaminant (cleanfill) to land. Section 105 contains additional matters that the consent authority must have regard to if the application is for a discharge permit:
- the nature of the discharge and the sensitivity of the receiving environment;
 - the Applicant's reasons for the proposed choice; and
 - any possible alternative methods of discharge.
- 3.64 Section 107 refers to specific circumstances in which a consent authority shall not grant a discharge permit, where for example after reasonable mixing the contaminants are

likely to give rise to conspicuous change in the colour or visual clarity of water, objectionable odour or significant adverse effects on aquatic life.

- 3.65 The advice of Mr Nicol confirms that the clean fill proposed to be used on site, although technically considered a contaminant under the definition provided in the RMA, will not result in degradation of groundwater quality. His conclusions take into account the level of sensitivity of the receiving environment to receiving such contaminants.
- 3.66 There is no suggestion in the advice of Mr Nicol that the effects identified in Section 107 may occur. Any performance requirements and controls over the quality of the clean fill to be used, the recording and reporting of this and, out of an abundance of caution, groundwater quality monitoring to demonstrate that no adverse effects on groundwater quality result from the discharge are addressed through volunteered conditions of consent. There is no practicable alternative to discharging clean fill to the site, whilst also restoring the ground levels on the site to existing levels to achieve land productivity, visual amenity and ecological objectives, and to avoid creating pathways for other contaminants to enter groundwater.
- 3.67 Overall, I am satisfied that sufficient regard has been had to the matters detailed at Section 105(1) of the RMA, and that none of the effects detailed at Section 107(1) (c)-(d) of the RMA occurring. As such, Section 107 should not prevent granting of consent for the proposed discharge.

Part 2 of the Resource Management Act

- 3.68 Taking into account the expert advice of Mr Nicol with regard to the management of activities on the application site to maintain the quality of groundwater resources, I consider that the proposal will achieve the overall purpose of the Act, being to promote the sustainable management of natural and physical resources. In particular, by carrying out the proposed activities in accordance with the GMP and proposed conditions of consent, the life-supporting capacity of air, water, soil and ecosystems will be sustained, and adverse effects of the activities on the environment will be avoided, remedied or mitigated.

- 3.69 The proposal raises a matter of national importance, being; the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tāpu and other taonga, and the preservation of the natural character of rivers and their margins.
- 3.70 The proposal also raises relevant other matters for consideration. These include kaitiakitanga and the ethic of stewardship; intrinsic values of ecosystems; and maintenance and enhancement of the quality of the environment. Consideration of the principles of the Treaty of Waitangi is also relevant.
- 3.71 Based on the nature of fill materials proposed, and with adherence to the GMP there is assurance that adverse effects on groundwater quality will be avoided. Taking into account the expert advice of Mr Nicol in respect of this matter, it is evident that the proposal will maintain the quality of the environment. It is noted that Council's reporting planner considers that uncertainty regarding water quality bottom-lines raises the question of consistency with Section 7(f) 'maintenance and enhancement of the quality of the environment'. These bottom lines do not apply to groundwater resources, however in any case the evidence of Mr Nicol confirms that degradation of groundwater quality will not result from the proposed discharge. In relation to these matters, I note that the NPS:FM does not include any environmental bottom lines for groundwater, and it is agreed by Council's and the Applicant's experts that there will be no adverse effects on water quality within surface water bodies nearby including the Motueka River.
- 3.72 Māori freshwater values and Te Māna o te Wai have been considered and, to the extent possible I am satisfied that the application as it now stands (including volunteered conditions of consent and the implementation of the GMP) sufficiently addresses these matters to enable the conclusion to be reached that these values will be maintained. Continued efforts toward further consultation with tangata whenua have been made. The role of mana whenua iwi as kaitiaki of the Motueka River and its environs is recognized, and is reflected in volunteered conditions of consent.
- 3.73 Additional 'Other Matters are relevant, including the efficient use and development of natural and physical resources, the maintenance and enhancement of amenity values, and any finite characteristics of natural and physical resources. The proposed resources sought through this application are finite and locationally constrained. The proposal seeks to efficiently recover these resources, and will do so whilst maintaining the

amenity values of the site and surrounds both in the short and long term. The efficient use of resources is particularly relevant to the term of consent, and also to the excavation depth. There is a suggestion in Dr Rutter's report that it might be better to have a base level to quarry to, presumably 1 m above groundwater is intended. If this is not necessary in order to protect groundwater (if groundwater can be protected by application of the GMP while allowing excavation in stable conditions to 0.3 m above groundwater), Mr Corrie Johnston's supplementary evidence explains that this enables an additional 120,000 tonnes (or well over one year's supply) of aggregate to be extracted.

- 3.74 As detailed above, I consider that the proposed activities have been appropriately designed and will be appropriately managed to achieve consistency with Part 2 of the RMA.

4. EVIDENCE ON COUNCIL'S LAND USE APPLICATION S42A ADDENDUM

The National Policy Statement on Highly Productive Land 2022 ("NPS HPL")

- 4.1 The NPS HPL came into effect on 17 October 2022. The overall focus of the NPS HPL is to ensure that sufficient highly productive land (HPL) is available for primary production use, both now and for future generations. The core resource management issue the NPS-HPL seeks to address is the ongoing, incremental loss of HPL, primarily from urban rezoning and land fragmentation arising from rural lifestyle development. It also seeks to avoid 'inappropriate' use of HPL.
- 4.2 The NPS HPL has been addressed in the evidence of Dr Hill. As detailed in the evidence of Dr Hill, the application site does not contain any LUC 1 or 2 land. The NPS HPL applies only to the approximately 1.3ha of land on the landward side of the stop bank (within the Stage 2 area) that is classified as LUC 3 land, and approximately 1.8ha of land on the river side of the stop bank (within the Stage 1 area) that is also classed at LUC 3 land. This is out of a total of approximately 8.8ha of land within stages 1-3.
- 4.3 Council Officers are reluctant to rely on the more detailed mapping of the site that has been undertaken by the Applicant, which identifies that most of the site is LUC 4 and lower. The Council's land productivity specialist, Ms Langford, has not raised any concerns with the methodology undertaken or the conclusions reached in this mapping,

but prefer to rely on the broader, high-level LUC 3 classification applied to the Peach Island area as a whole, in the absence of a guidance document to support more detailed mapping. Ms Langford acknowledges at Section 2(a) of her memo that she agrees that:

‘The property scale soil and LUC assessment undertaken by LandVision (2021) provides the best soil and LUC map information for the Peach Island site’

- 4.4 Given the agreement with this statement, it is difficult to understand why Council would prefer to rely on less detailed and accurate information in applying the NPS HPL. I note that the s32 report for the NPS HPL identifies the scale of the existing mapping that exists (largely from the 1970’s and 1980’s at a scale of 1:50,000) as a key limitation of using the LUC system instead of other systems considered. Additionally, the LUC mapping undertaken meets the definition of LUC 1, 2, or 3 land under the NPS HPL:

‘LUC 1, 2, or 3 land means land identified as Land Use Capability Class 1, 2, or 3, as mapped by the New Zealand Land Resource Inventory or by any more detailed mapping that uses the Land Use Capability classification’ (my emphasis).

- 4.5 I consider it appropriate to apply the NPS HPL to that land within the subject site that meets the NPS’s own definitions. Dr Hill has addressed this matter in his evidence also, and considers that the more detailed mapping available should be used over broader scale historical mapping which may not have even involved sampling on the site. Dr Hill adds that, if a broader, site-wide classification were to be used, this classification would be LUC 4, as this is the dominant classification of the site, not LUC 3.

- 4.6 The s32 report for the NPS HPL makes it clear that a decision was made to enable permanent constraints on productive use of land to be assessed on a case-by-case basis through a consenting process, as opposed to requiring Council’s to assess such factors as part of their mapping process. Clause 3.10(1) of the NPS HPL addresses this, setting out specific conditions that must be met in order for territorial authorities to allow highly productive land to be used for activities not otherwise enabled under the NPS HPL. Mr Hill concludes that, on account of an inherent seasonally high water table, flood risk, and variable or shallow soil depth the land on the river side of the stopbank has *“permanent or long-term constraints ... 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”*, as per clause 3.10(1)(a) of the

NPS HPL, and the other clauses of clause 3.10(1) are also met. Council Officers agree with this conclusion.

4.7 The s32 report for the NPS HPL makes clear several matters relevant to the intent of the NPS HPL, including:

- (a) The NPS-HPL does not seek to provide absolute protection of HPL, nor does it specify that there should be no loss of HPL within a region or district. The NPS-HPL recognises the need for certain (non-productive) uses and developments to occur on HPL and provides for these in specified circumstances, either through rezoning or resource consents.
- (b) The NPS-HPL enables a number of appropriate (non-productive) uses on HPL where these provide wider environmental, economic, social and cultural benefits (eg, indigenous biodiversity restoration, renewable electricity generation, new specified infrastructure and mineral or aggregate extraction).

4.8 Clause 3.9(1) of the NPS HPL requires that territorial authorities avoid ‘inappropriate’ use or development of highly productive land that is not land-based primary production. The reason for this and the intent of how it is applied is addressed in the s32 report for the NPS HPL in relation to the overarching objective of the NPS HPL:

‘This objective aims to protect HPL for use in land-based primary production for current and future generations. This does not imply absolute protection of HPL from being used for non-productive purposes. Rather, in recognition of the values and benefits of HPL, the intent of the NPS-HPL objective is to ensure that land uses that are not land-based primary production only occur on HPL:

- *in circumstances where it is appropriate and necessary*
- *when alternative options have been appropriately considered*
- *where those alternative uses provide wider environmental, economic, social and cultural benefits.*

This means urban rezoning and other uses (eg, specified infrastructure, defence facilities and mineral and aggregate extraction) may be appropriate on HPL provided the overall HPL resource within each region is protected for land-based primary production for current and future generations.’ (my emphasis).¹⁴

4.9 Clause 3.9(2)¹⁵ sets out the activities that are considered to be appropriate. Mr Hill concludes that the proposed gravel extraction activities on the LUC 3 land on the landward side of the stopbank, to which Clause 3.9 applies, can be considered a “temporary land use activity that has no [adverse] impact on the productive capacity of the land” in terms of clause 3.9(2)(g) of the NPS HPL. Council’s reporting planner, Ms Bernsdorf Solly, considers that the proposed activities are neither ‘small-scale’ or ‘temporary’ and that therefore they are by definition inappropriate, irrespective of the level of effects that result. Whilst it is debatable whether the proposed activities are small-scale¹⁶, they are certainly temporary (and are only required to be one or the other), and Ms Bernsdorf Solly gives no reasons why an alternative conclusion should be drawn. Such activities must also have “no impact on the productive capacity of the land”. The productive capacity of the land means its ability to support primary production over the long term, which suggests there is “no impact” even if there is a temporary loss of productive capacity. Dr Hill’s evidence confirms there will be no impact in the long term.

4.10 Central to the NPS-HPL objective is the avoidance of ‘inappropriate’ subdivision, use and development of HPL and prioritising the use of HPL for land-based primary production. However, the provisions recognise that there are other activities and uses that are necessarily or appropriately located on HPL in certain circumstances. As detailed in the s32 report for the NPS:

It was also intended the proposed NPS-HPL did not inappropriately restrict other (non-productive) uses of HPL, particularly where these uses deliver wider environmental, economic, social or cultural

¹⁴ Pg 44 National Policy Statement for Highly Productive Land: Evaluation report under section 32 of the Resource Management Act

¹⁵ A use or development of highly productive land is inappropriate except where at least one of the following applies to the use or development, and the measures in subclause (3) are applied:

... (g) it is a small-scale or temporary land-use activity that has no impact on the productive capacity of the land:

¹⁶ Although the overall works area is approximately 8.8ha, the works are staged and will progress in a manner that the scale of operations is reasonably confined, and could therefore be considered small-scale.

*benefits, and there is clarity on how such uses should be considered and provided for under the NPS-HPL.*¹⁷

4.11 As such, clause 3.9(2)(j) makes allowance for such activities provided they can demonstrate that (in the case of aggregate extraction) they provide a significant national or regional public benefit and (in all cases) have a functional or operational need to be located on HPL. Bearing this in mind, the proposal is considered to be an appropriate use pursuant to clause 3.9(2)(j)(iii), given that the proposal is ‘*aggregate extraction that provides significant national or regional public benefit that could not otherwise be achieved using resources within New Zealand*’, and has a ‘*functional or operational need*’ (my emphasis) to be located on highly productive land. The supplementary evidence of Mr Scott and of Dr Kaye-Blake and the previous evidence of Mr Corrie-Johnston confirms that there is both significant regional benefit that could not be achieved using other resources in New Zealand, and that there is a functional and operation need to source the materials from the subject site in particular, and from production land in general. I concur that there is a functional and operational need for the activity to locate on this site and in an alluvial river plain environment in general, as detailed in my previous evidence and as discussed further below. I note that the reporting planner accepts that there is an operational need for the activity in this location, thereby meeting the requirement of clause 3.9(2)(j), but disagrees that there is a functional need.

4.12 As the activities meet the relevant tests of 3.9(2)(g) and (j) they are not considered to be ‘inappropriate’ in relation to the NPS HPL and consent may be granted to them provided the requirements at 3.9(3) are also met. These require that the proposed activity:

- (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

¹⁷ Pg 96 National Policy Statement for Highly Productive Land: Evaluation report under section 32 of the Resource Management Act

- 4.13 In relation to these matters, the evidence of Mr Hill confirms that the proposal minimises and mitigates any loss of the availability and productive capacity of highly productive land. The proposal is not for any activities that would be sensitive to the effects of surrounding soil-based production activities, therefore no reverse sensitivity effects will occur in relation to these neighbouring activities.
- 4.14 Relying on Dr Hill's expertise in respect of the above conclusions, I consider that the proposed activities are consistent with the objectives and policies of the NPS HPL. Specifically:
- (a) The small area of 'highly productive land' within the site that is not subject to long term constraints on production will be protected for use in land-based primary production, both now and for future generations (Objective 2.1).
 - (b) The proposal recognises, and will not diminish, the finite characteristics and long- term values for land-based primary production within the site and region as a whole (Section 2.2, Policy 1).
 - (c) The proposed activities, when carried out in accordance with the SMP, will not be an 'inappropriate use' for the reasons detailed above and given that productive values will not be diminished (Section 2.2, Policy 8).
 - (d) The proposal does not involve subdivision, urban rezoning, residential/ rural lifestyle development, or any other activities that would impact on the long-term productive potential of the land (Section 2.2 Policies 5, 6, and 7). This will enable the long-term use of the land for land-based primary production to be prioritised (Section 2.2, Policy 4).
 - (e) The proposed activities will not result in any adverse reverse sensitivity effects in relation to surrounding primary production activities (Section 2.2, Policy 9).

Comments on other matters raised in Council's addendum report

- 4.15 Council's addendum report identified that the amendments made to the application, volunteered conditions of consent and specialist evidence prepared by the Applicant's team has resolved some of the matters of concern detailed in Council's initial s42A

report. The reporting planner, Ms Bernsdorf Solly, has helpfully outlined matters of contention that still remain. These will be addressed in turn below.

Planning matters

4.16 Outstanding matters of contention in relation to planning matters are as follows:

- (a) There is disagreement that there is a ‘functional need’ for the activity to be located within this particular river environment.
- (b) The reporting planner maintains that the permitted baseline is not applicable to the assessment of effects.
- (c) The reporting planner disagrees that quarrying is an ‘anticipated’ activity in the Rural 1 zone.
- (d) The reporting planner retains an emphasis on ‘avoiding’ adverse effects in consideration of the Supreme Courts decision on ‘*King Salmon*’.

4.17 As detailed above, the NPS HPL refers to a ‘functional or operational’ need for an activity to be located on productive land, and Ms Bernsdorf-Solly and I are in agreement that there is an operational need for the activity to locate on the proposed site and in the proposed environment. Although I also consider there is also a functional need for the reasons detailed in my assessment against the NPS HPL, this is not critical for the NPS HPL given that we agree there is an operational need. As such, I see this matter as resolved in respect of its implications for use of highly productive land.

4.18 Ms Bernsdorf-Solly also notes that the NPS:FM refers to ‘functional need’ and that she is not satisfied that such a need exists. The NPS:FM refers to ‘functional need’ only twice – once in relation to circumstances where the loss of extent and values of natural inland wetlands is justified; and once in relation to circumstances where the loss of river extent and values is justified. Neither of these are relevant to the proposal, therefore I do not see why it would be considered necessary to demonstrate a functional need for the proposed activities in relation to the NPS:FM. Nevertheless, it is my opinion that there is a functional need to locate aggregate extraction activities in alluvial river valley environments, given that this is where these resources are located. This is also addressed in the evidence of Mr Scott.

- 4.19 With regard to the application of a permitted baseline, I agree with Ms Bernsdorf Solly that there are no permitted activities that would provide a useful comparison to the full suite of effects generated by the proposed activities. I do not consider this a reason to entirely avoid applying a permitted baseline lens to the assessment of effects. Generally speaking, if this approach to application of the permitted baseline were to be taken, it would apply in an extremely limited range of circumstances, and this does not align with my understanding of how the permitted baseline is intended to be applied.
- 4.20 Ms Bernsdorf Solly takes a similarly narrow view on what activities can be considered to be 'anticipated' in a zone. Ms Bernsdorf Solly considers that discretionary activities can be considered to be 'anticipated' provided they align with policy direction. This requires an interrogation of the specifics of a discretionary quarrying activity to determine whether it is 'anticipated' by the plan. In this sense, I suspect that Ms Bernsdorf Solly's views on this and my own are not that far apart, and any differences may just be a matter of semantics. I do not mean to imply through the word 'anticipate' that the TRMP includes a presumption toward such applications being granted consent. The TRMP clearly contemplates quarrying activities (ie they are specifically provided for) and invites the appropriateness of such activities to be determined through a resource consent application. As detailed in my previous evidence, there have been a number of quarrying activities of varying scales that have been assessed against the TRMP and found to be acceptable within the Rural 1 zone, including in the immediately surrounding environment. I do not consider it relevant whether or not all granted consents have been given effect to, as suggested by Ms Bernsdorf Solly. Based on the provisions of the TRMP and the history of quarrying consents being granted, I consider that the community can reasonably expect that, under the right circumstances, such activities could be consented and established in this environment. In this sense, I consider quarrying activities to be 'anticipated'. By way of comparison, quarrying of aggregates is certainly not "anticipated" in most other zones in the region (the Rural 2 zone being the only other zone that has similar provisions to the Rural 1 zone in this respect) which by virtue of their dominant character (ie urban or lifestyle zones), special values (ie Conservation zone) or particular resource (ie Quarry Areas) are unsuited to gravel extraction. Alluvial gravels are by location most likely to be in the Rural 1 zone and the TRMP anticipates and provides for that in its discretionary activity rules

4.21 With regard to Ms Bernsdorf-Solly's comments regarding *King Salmon*, I accept that "avoid" means "prevent the occurrence of", but the meaning will depend on what must be avoided. Where the requirement to avoid relates to productive capacity, this infers a longer-term assessment (given the definition in the NPS HPL¹⁸) rather than a focus on temporary effects. Additionally, I understand that the Court in *King Salmon* said at [145]:

... It is improbable that it would be necessary to prohibit an activity that has a minor or transitory adverse effect in order to preserve the natural character of the coastal environment, even where that natural character is outstanding. Moreover, some uses or developments may enhance the natural character of an area.

4.22 Based on Mr Hill's evidence, the proposal will maintain or enhance the productive capacity of the site. As such, there is no conflict with a requirement to avoid effects as detailed in *King Salmon*, in my opinion.

Traffic

4.23 Outstanding matters relating to traffic are:

- (a) The need for widening of access between Motueka River West Bank Road and the bridge
- (b) Bridge width
- (c) Passing bays within the site
- (d) Speed limits on the sealed haul road within the site
- (e) Public access on the haul road

4.24 Ms Bernsdorf Solly has provided an amended set of conditions that address her concerns and those of Council's consultant traffic engineer, Mr Fon. Subject to adoption of these, both Ms Bernsdorf Solly and Mr Fon are satisfied that traffic-related effects would be no more than minor. The supplementary evidence of Mr Clark confirms that he agrees for the most part with the additional recommendations of the

¹⁸NPS HPL interpretation Section 1.3: '**productive capacity**, in relation to land, means the ability of the land to support land-based primary production over the long term, based on an assessment of...' (my emphasis)

Council Officers, and the Applicant accepts most of the proposed condition changes relating to these. Mr Clark maintains that passing bays are not required within the site, and notes the extremely low likelihood of any public accessing the part of the legal road that will be used for a haul road. I concur with this.

Land productivity effects

4.25 Outstanding matters relating to land productivity are:

- (a) The interpretation of the definition of highly productive land under the TRMP, PLC 1994, PLC 2021 and NPS HPL. This relates also to the matter of accepting more detailed LUC mapping as detailed above in relation to the NPS HPL.
- (b) Whether the practical implementation of the SMP can successfully achieve the outcomes sought and prevent a loss of productive value due to compaction and drainage issues.
- (c) Whether the conditions (as volunteered) will lead to a degradation in productive capacity.

4.26 Dr Hill confirms in his supplementary evidence that soil rooting depth (pre-gravel extraction) is a limiting factor across most of the site (LUC 3s1, 4s1, 5s1 and 6s1). Dr Hill considers that the combination of features is not therefore such that the land is capable of producing crops at a high rate or across a wide range, this being the key qualifier for meeting the definition of 'highly productive land' under the TRMP. This is consistent with Mr Nelson's evidence. Dr Hill also addresses the matter of the LUC classification of the subject land and how this relates to the application of the NPS HPL to the site. Mr Hill considers it appropriate to use the detailed LUC mapping of the site prepared by LandVision rather than the broader land unit LUC mapping of the wider area as favoured by Council Officers. Dr Hill points out that, if a mapped as a whole unit, the site would be considered LUC 4 land as this is the dominant land class present.

4.27 Dr Hill reconfirms in his supplementary evidence that he is satisfied that the implementation of the SMP will maintain or enhance productive capacity on the site. Council Officers' reservations regarding efficacy of the SMP rely on the lack of local

examples of successful remediation examples. Dr Hill has discussed the unsuccessful examples mentioned by Council in the SMP. In Dr Hill's opinion, these examples do not demonstrate that soil restoration is inherently difficult in this region, rather they are simply examples of poor practice. Dr Hill states that:

'The provision of the Soil Management Plan and its correct implementation will prevent similar poor practices from occurring and ensure the productivity capacity of the restored soil on the site is at least retained. The inherent characteristics of the land in question lend themselves to positive restoration outcomes.'

4.28 Dr Hill addresses the matter of whether conditions of consent will enable soil degradation in respect of enable post-remediation soils to be imperfectly drained. His inclusion of this parameter recognises that there may be inherent water table effects (predominantly in the areas of LUC 3w1 and 4w1) that may result in the reinstated soil profile being less well drained (i.e. imperfectly drained). Dr Hill does not agree that the inclusion of imperfectly drained will result in a degradation in productive capacity when comparing the pre-gravel extraction soils on the site with the post-gravel extraction reinstated soil. Dr Hill confirms that the reinstated soil profile, even with imperfect drainage will be suitable for cropping and orchards.

Noise effects

4.29 Outstanding matters relating to noise are:

- (a) Use of site layout as an alternative to broadband reversing alarms.
- (b) Sealing of haul road through marginal strip.
- (c) Application of uncorrected daytime noise limit of 51dBLAeq.

4.30 Mr Corrie-Johnston has addressed the first matter in his supplementary evidence. Whilst it is possible to accommodate vehicle movements on site through layout to generally avoid reversing, the Applicant volunteers that all vehicles will be enabled with technology that avoids the need for tonal alarms.

4.31 I am able to confirm that the haul road will be sealed through the section that traverses the marginal strip. Approval from Department of Conservation has been obtained for a concession to construct and use a sealed road through the marginal strip.

4.32 Mr Hegley, in his supplementary evidence, addresses the third matter. This relates both to the noise limit specified in consent conditions, and the use of averaging. Mr Hegley considers it appropriate to condition noise limits to 55dB rather than the 51dB maximum established through his modelling. Mr Hegley expresses a number of technical reasons for this, but also from a planning perspective I see no reason why a limit lower than the permitted noise level for the zone should be applied. I explained reasons for this in my previous evidence. Under Section 16 of the RMA there is a general duty to avoid unreasonable noise, and if the consent holder is able to operate at a lower noise level on site then they should, but there is no justification for this being reflected as a lower noise limit in consent conditions, in my opinion. With regard to averaging, Mr Hegley explains that averaging is a well-established principle in the management and measurement of noise, and there is no reason to deviate from this practice in this instance. Mr Hegley also points out that, due to the nature of proposed noise sources on site, the use of averaging would not be expected to result in discernibly different noise levels than if it were not used. The previous reference to uncorrected noise limits was included in error.

Visual effects

4.33 Outstanding matters relating to visual effects is the matter of whether public access is to be provided for along the paper road. I can confirm that public access will remain technically possible from the north (the end of Peach Island Road), as is currently the case. This legal road 'dead ends' at the Motueka River to the south of the site, and is therefore would be very unlikely to be (and could not legally be) used as a through-route. Additionally, from the end of the Peach Island Road formation the site reads as paddocks, with no visual cues to suggest that a legal road exists, or that it leads anywhere. No public access is available from Motueka River West Bank Road to the paper road.

Conditions

4.34 The reporting planner has prepared a draft set of consent conditions for the land use consents. This condition set is based on the volunteered set attached to my previous evidence, and the reporting planner has tracked her proposed changes to these. Having considered advice from the Applicant and the remainder of their specialist team, I can confirm that the majority of the proposed changes are acceptable. Those draft

conditions that remain in contention are (note condition number references are to the condition set attached to the s42A addendum report:

- (a) Trigger levels (Conditions 104-108). The reasons why the changes proposed by Council are not accepted are detailed above. In particular, the conditions are unworkable, not sufficiently linked to the effects of the activity (in that they would require actions in response to effects unrelated to the activity) and the mechanisms incorporated into the GMP to identify and address any unexpected deterioration of water quality achieve the broad intent of these conditions and are considered by Mr Nicol to be sufficiently robust, without unnecessarily burdening the consent holder.
- (b) Batter gradients (Condition 86) I do not believe the mechanism for agreeing an alternative batter angle with a neighbouring property owner is ultra vires, as if such approval is not forthcoming then the condition still applies. In other words third party approval is not relied upon.
- (c) Stockpiles within 100m of orchards during January to May period (Condition 67). This condition can be amended to specify that stockpiles will not be placed in this area.
- (d) Working in high winds (Condition 66). Mr Bluett considers that the restriction on ceasing works in all high winds, rather than only when there is a downwind sensitive receiver, is unnecessary. I consider that the condition is not sufficiently linked to an environmental effect of the activity.
- (e) Passing bays (Condition 32). The evidence of Mr Clark confirms that this requirement is unnecessary. I agree with Mr Clark that the potential of other private vehicles on the unformed legal road is extremely low, and any inconvenience effects can be adequately managed by the Applicant. However, the applicant is willing to accept passing bays if the Commissioner considers these necessary.
- (f) Soil stockpiles (Conditions 72 and 81). Condition 72 as originally volunteered was intended to address the height and location of stockpiles of extracted aggregate and backfill material, for the purposes of managing

visual effects. The changes to this condition in the s42A report incorporate controls over soil stockpiles as well. Soil will not be stockpiled in this area, rather it will be temporarily stockpiled near to excavation pits. Condition 81 addresses soil stockpiles specifically, including a 3m height limit. This height is proposed for the purposes of managing soil structure in accordance with the SMP, and excavating the area beneath these stockpiles is not necessary or proposed. I do not agree to Council's proposed changes to condition 72 and consider that it should remain as volunteered.

- (g) Noise (Condition 54). For the reasons expressed above, Council's proposed changes to Condition 54 relating to the noise level reduction (51dB) are not accepted, and the condition should provide for the use of averaging in accordance with NZS6802
- (h) Monitoring bores (Condition 47). Mr Nicol agrees with Council Officers that it would be appropriate to monitor groundwater up to 1km downgradient of the site, as a conservative outer limit of the zone of any potential changes to groundwater chemistry associated with activities on the site. This would rely on either agreement from private landowners within this area, or the establishment of a dedicated monitoring bore on public land such as the Peach Island road reserve. The Applicant is open to both of these options. Given that third party approval would be required for these, inclusion of this as a requirement of a condition is problematic, although I note that bores within road reserve are not uncommon and the risk of Council (as landowner) not agreeing to such a proposal is low. Condition 47 currently requires the establishment of two dedicated down-gradient monitoring bores, which have already been established within the site. I proposed that Condition 47 be amended to retain this requirement, but to also to require the consent holder to endeavour to obtain permission from Council or private bore owners to sample from existing bores or establish a dedicated bore a third (or more) should this be possible. The key monitoring bores (being those closest to the activity and therefore most likely to indicate any changes) are ensured by the condition, with additional bore or bores being required if possible.

- (i) Excavation batters (Condition 86). Ms Bernsdorf Solly considers that the part of the condition that allows a different batter angle to that specified in the condition to be agreed with a neighbouring property owner to be ultra vires. I assume that this relates to the inclusion of provision for third party approval. Given that if such approval is not obtained, the condition is clear on what batter angle applies (ie the condition does not rely on a third party approval) I do not consider this to be ultra vires, and recommend that this clause remain in the condition.
- (j) Machinery when heavy rain forecast (Condition 74). This condition proposed by Council requires that heavy machinery be moved inside the stopbank when heavy rain is forecast. This is acceptable, however this should not restrict backfilling of excavations should this be required under circumstances of rising ground levels, and will apply principally to overnight storage of vehicles.
- (k) Condition 64 (No processing, washing, crushing or screening of gravel shall be carried out on the site) is more appropriately located under ‘Site Management’ conditions rather than ‘Traffic Movement’ conditions.
- (l) Drainage properties of remediated soil (Condition 43(c)). As detailed above, Dr Hill does not consider that rehabilitated soils will necessarily need to achieve ‘well-drained’ characteristics in order to meet the objectives of the SMP and maintain or enhance the productive capacity of the land. Such a change would also fail to acknowledge that there may be inherent drainage limitations on parts of the site that are not caused or exacerbated by the proposed quarrying and rehabilitation.

I attach a revised version of these land use conditions that addresses the above issues from the Applicant’s perspective. I also attached a revised set of discharge consent conditions which align with the land changes to the land use conditions. Both sets are volunteered by the Applicant.