

27 June 2024

Humphrey Tapper
Meridian Energy Limited

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By Email

Dear Humphrey

Introduction

- 1 We have been engaged by Meridian Energy Limited (*MEL*) to assist with the hearing of its application to Northland Regional Council (*NRC*) for resource consents for earthworks, associated stormwater diversion and discharges and vegetation clearance for the construction of a solar farm at Ruakākā (APP.045356.01.01) (the *Proposal*).
- 2 You have asked for our preliminary advice on a legal matter associated with the Proposal, namely “functional need”. We have reviewed the application and supporting material afresh, together with the case law and other guidance that is available in relation to this matter.

Summary

- 3 The case law has established that functional need depends on the nature and degree of a proposal’s need to be in a particular location. This requires consideration of the elements that are necessary to make the proposal functional and the characteristics and constraints of the location. The existence of alternatives for a proposal is not a fatal flaw to the establishment of functional need. Any alternatives must be thoroughly examined and are, in fact, likely to be informative as to whether the functional need threshold is met.
- 4 Ultimately, a purposive interpretation is required, taking into account the words of the functional need definition and the legislative framework in which it sits.
- 5 Based on our application of the relevant legal principles to the information provided by MEL, we consider that the Proposal satisfies the functional need test. There is a functional need for the Proposal in the proposed location due to the nature of the solar infrastructure and its role in the electricity system, the requirements for a functioning solar farm, and the fact that the alternatives are constrained by cost, energy yield/capacity, constructability (including worker safety), ecological and maintenance issues.
- 6 This means the jurisdictional requirement under Regulation 45(6)(b) of the National Environmental Standard for Freshwater Regulations 2020 (*NES-FW*) is met and the Proposal can be considered substantively for consent.

Functional need trigger

- 7 As part of the overall package of consents for the Proposal, discretionary activity resource consent is required under Regulation 45 of the NES-FW, for vegetation



clearance, earthworks and land disturbance, associated with specified infrastructure, within natural inland wetlands.

- 8 Regulation 45(6) states that resource consent for a discretionary activity must not be granted unless the consent authority has first:
 - 8.1 satisfied itself that the specified infrastructure will provide significant national or regional benefits; and
 - 8.2 satisfied itself that there is a functional need for the specified infrastructure in that location; and
 - 8.3 applied the effects management hierarchy.
- 9 The focus of this advice is functional need in Regulation 45(6)(b). However, in reviewing the application and supporting material we have considered the other clause 6 requirements. In our view, it is clear that the Proposal will provide significant national and regional benefits and that the effects management hierarchy has been correctly applied. We are able to provide further advice on these matters, noting that we will address them in legal submissions at the hearing.
- 10 We have also proceeded at this stage on the basis that, for the purposes of the NES-FW and National Policy Statement for Freshwater Management 2020 (*NPS-FM*), the relevant wetlands in question are “natural inland wetlands”, and the Proposal is specified infrastructure. Again, we will cover these matters in legal submissions at the hearing, as required.

Functional need definition and relevant case law

- 11 To define functional need, the NES-FW refers to the definition in the NPS-FM.¹ The NPS-FM defines functional need as “*the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment*”.² This definition is the same as that found in the National Planning Standards 2019 (*National Planning Standards*).
- 12 Both national environmental standards and national policy statements are secondary legislation and, as such, are to be interpreted in accordance with the Legislation Act 2019 (*Legislation Act*).³ The Legislation Act provides that the meaning of legislation must be ascertained from its text and in light of its purpose and its context.⁴ This is commonly known as the purposive approach to interpretation, where words should be given their plain and ordinary meaning, but a literal interpretation should not preclude them from achieving their intended purpose.⁵

¹ NES-FM, Regulation 3.

² NPS-FM, Part 3, Subpart 3, Clause 3.21.

³ RMA, sections 43(5) and 52(4).

⁴ Legislation Act, section 10(1).

⁵ *Powell v Dunedin City Council* [2004] NZRMA 49 (HC), at [35]; affirmed by the Court of Appeal in *Powell v Dunedin City Council* [2004] 3 NZLR 721 at [12].



- 13 The objective of the NPS-FM is to ensure that natural and physical resources are managed in a way that prioritises: first, the health and well-being of water bodies and freshwater ecosystems; second, the health needs of people; and third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and into the future. Of particular relevance to the Proposal, the NPS-FM contains policy direction both that:
- 13.1 there should be no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted;⁶ and
- 13.2 communities are enabled to provide for their social, economic and cultural well-being in a way that is consistent with the NPS-FM.⁷
- 14 To that end, the NPS-FM contemplates regional planning frameworks containing specific pathways for certain activities that may impact natural inland wetlands in certain circumstances, for example specified infrastructure. The pathways relate to both the activities proposed and the condition of the subject wetlands (i.e. through the application of the effects management hierarchy).⁸
- 15 The NES-FW set nationwide requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems. In particular, the NES-FW are designed to protect natural inland wetlands. However, like the NPS-FM, they contain specific pathways for certain activities that may impact natural inland wetlands.⁹
- 16 It is clear that the requirements of both the NPS-FM and NES-FW, as they relate to natural inland wetlands, are not absolute. There are pathways for certain activities and there is recognition that such activities may necessarily impact the wetlands. It is in this context that Regulation 45(6)(b) of the NES-FW and the term “functional need” must be interpreted and applied.
- 17 The Courts have considered the definition of functional need, including in the context of Regulation 45(6)(b), in several key cases.¹⁰ We briefly set out the facts of these cases in **Appendix 1** and summarise the decision-makers’ findings below. We have also included a recent consenting decision which, albeit at the council level, provides assistance on the legal issues at hand.

⁶ NPS-FM, Policy 6.

⁷ NPS-FM, Policy 15.

⁸ NPS-FM, Part 3, Subpart 3, Clause 3.22.

⁹ NES-FW, Regulation 45.

¹⁰ *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2022] NZHC 629; *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2019] NZEnvC 196 (affirmed in *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2020] NZHC 3388; affirmed in *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2022] NZCA 598; note Supreme Court has granted leave to appeal: *Sustainable Otakiri Inc v Whakatane District Council* [2023] NZSC 35).



Summary of key principles

- 18 In our view, the findings in the decisions discussed in **Appendix 1** can be distilled into the following key principles:
- 18.1 The functional need test imposes a high threshold but it is not absolute. Whether it is met depends, in the particular circumstances, on the nature and degree of a proposal's need to be in a particular location.
 - 18.2 The "need" is to be assessed in terms of the "functioning" of the proposal, that is, what are the necessary elements that make the proposal functional. This must be ascertained by way of expert evidence as to the design of the proposal and the characteristics and constraints of the location.
 - 18.3 The existence of alternatives is not a fatal flaw to the establishment of functional need. Alternatives must be thoroughly scrutinised by the relevant experts and may indeed be informative as to whether the functional need threshold is met.
 - 18.4 The relevant "environment" for the application of the functional test is the broader area, not just the specific site (or, as in this case, specific wetland).
 - 18.5 A purposive interpretation is required, taking into account the words of the functional need definition and Regulation 45(6)(b) of the NES-FW, and the broader context and purposes of the NES-FW, NPS-FM and RMA. In terms of that context, while the planning framework recognises the importance of natural inland wetlands, it does not provide for their absolute protection. Rather, there are pathways for certain activities in certain circumstances, related to both the activity and the condition of the wetlands.

Is there is a functional need for this Proposal in this location?

- 19 We have reviewed the information provided by MEL in the application and initial (9 October 2023) and further (11 March 2024) section 92 responses. We have also had additional discussions about certain aspects of the Proposal with MEL's company representatives and planning advisor.
- 20 In our view, in the circumstances and based on the information provided by MEL, there is a functional need for the Proposal in the proposed location. In this respect, we note that we agree with the analysis on functional need provided by MEL's planner as part of the 11 March 2024 section 92 response.
- 21 As a starting point for our analysis, we note that:
- 21.1 The infrastructure in this case is a solar farm. On its face, it would seem that a solar farm is different in nature to the examples discussed in **Appendix 1** of roads, water extraction and mining. Roads have a start and end point which must necessarily connect; water extraction depends on a point source; and mining depends on an extractable mineral.



- 21.2 However, when these examples (and the findings in the relevant decisions) are considered in more detail it becomes evident that the need for them to traverse, locate or operate in a particular environment is not clear cut or absolute. There are options for how a road gets from A to B; water extraction depends on a resource but that resource may be found in many places and extraction alone is not the only component of the operation; and similarly mining depends on a mineral resource but that resource may also be found in various locations and the overall process will dictate where exactly the activity in fact needs to occur.
- 21.3 The upshot is that all proposals generally have alternatives and the necessary assessment is to consider the nature of the project and how that dictates the design and location. Once that is established, a determination can be made as to whether the functional need threshold is met. In that context, the nature of a solar farm is not in fact substantially different to the examples given in **Appendix 1** and the principles drawn from those cases can be applied in the current circumstances.
- 22 Applying the principles to the current circumstances, at a broader scale:
- 22.1 By its nature, a solar farm cannot simply be built anywhere and, in fact, it is challenging to find suitable solar sites across New Zealand due to the design requirements and necessary characteristics of a proposed location.
- 22.2 A location in the Ruakākā/Marsden Point area was necessary in order to connect to the Bream Bay substation and, accordingly, reduce transmission losses and improve the reliability and resilience of the grid. These outcomes are not “nice to have”; a different location in Northland would be unviable from both an electrical practicability and commercial perspective.
- 22.3 A location in the Ruakākā/Marsden Point area was also necessary to support the already consented, and currently under construction (with operations scheduled to commence in December 2024), Ruakākā Energy Park Battery Energy Storage System (BESS). The BESS is projected to provide sufficient energy for an average of 50,000 households for a duration of two hours. In this case, even on a strict/literal interpretation of the functional need definition, the BESS is essentially the road connection, the water source or the extractable mineral.
- 22.4 In our view, due to the location of the Bream Bay substation and the BESS, this “particular environment” (i.e. the Ruakākā/Marsden Point area) is the only possible broader location for the Proposal.
- 22.5 Within that environment, a large, continuous area of flat land that would receive sufficient solar irradiance was necessary for the purposes of yield and capacity. Yield is an important aspect of project viability, servicing the BESS, and providing national and regional benefits (as recognised in the TiGa Minerals decision). We understand that constraints across the rest of the Ruakākā/Marsden Point area for finding such a site include existing land uses



and ownership, zoning constraints and compatibility, and ecological conditions (i.e. the presence of more wetlands, or wetlands in less degraded condition, on other undeveloped sites).¹¹

- 22.6 Ultimately, various factors, including proximity to the Bream Bay substation and BESS, existing transmission infrastructure, topographical suitability, surrounding land uses, the underlying zoning, support from local iwi and locating near a growth area strongly support the appropriateness of the site for the Proposal and, in fact, indicate there were no real alternatives to the proposed site in the broader area. The fact that MEL has already obtained the necessary district land use consents for the Proposal equally supports this position, with a solar land use already forming part of the existing environment.
- 23 At the site-specific level:
- 23.1 The Proposal site¹² is large (190ha) and there is a substantial distance between some parts of the site and the BESS and Bream Bay substation. Certain infrastructure components will be shared between the BESS and the solar farm. In part, these aspects dictated the design of the Proposal on the site itself, including the location of the solar infrastructure and the wetland offsets, in order to achieve a functioning solar farm and overall energy park.
- 23.2 Similar to the TiGa Minerals scenario (where it might have been possible to mine outside the wetland setback envelope), here, it might have been possible to propose less intrusion into the wetlands across the three sites, but that would not enable the Proposal to function properly as a whole. Importantly, the uniqueness of the Proposal and its functional requirements mean that it will not create a precedent for establishing solar farms in wetlands as a blanket approach. Any such proposal would need to be considered based on its functional requirements and the condition of the subject wetlands (as the Boffa Miskell Report considers here).
- 23.3 In addition, as outlined in the Beca Alternatives and Optimisation Report accompanying the application, there were various other characteristics and constraints of the site that dictated the design in order to create a functioning (in terms of both construction and at the operational stage) solar farm. These on-site alternatives were thoroughly assessed.
- 24 Based on the above, we consider that due to the nature of the solar infrastructure and its role in the electricity system, the requirements for a functioning solar farm, and the fact that the alternatives are constrained by cost, energy yield/capacity, constructability (including worker safety), ecological and maintenance issues, the Proposal meets the functional need test.

¹¹ We understand that the constraints mapping will be provided in evidence for the hearing.

¹² By site we generally refer to Sites 1, 2 and 3 unless these are specifically identified.



25 We therefore consider that the “jurisdictional” requirement of Regulation 45(6)(b) of the NES-FW is met, enabling the Proposal to be considered substantively for consent.

Conclusion

26 In our view, there is a clear functional need for the Proposal to locate at the subject site and in the manner proposed.

27 Please let us know if you would like to discuss any aspects of our advice.

Ngā Mihi Nui

Jo Appleyard / Annabel Hawkins

Partner / Senior Associate



APPENDIX 1 – RELEVANT DECISIONS

Poutama

- 1 *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council*¹³ concerned a proposal for a new 6km section of state highway north of New Plymouth (referred to as the Mt Messenger bypass). The area contained multiple wetlands and therefore engaged Policy 6 and Clause 3.22 of the NPS-FM, requiring the High Court to determine whether there was a functional need for the specified infrastructure in that location.¹⁴
- 2 In its decision, the High Court acknowledged that the strict language of “*can only occur*” in the functional need test employs a high threshold.¹⁵ However, the High Court found that the proposal met that threshold due to the nature of the linear infrastructure, the distance of the project, the particular (valley) environment and the fact that the alternatives were constrained by cost, distance, terrain and constructability issues.¹⁶
- 3 The High Court noted that the existence of alternatives does not mean that, in and of itself, an activity will not satisfy the functional need test. Alternatives will generally always exist for specified infrastructure, so if that interpretation were correct, the specified infrastructure exception would serve no purpose.¹⁷
- 4 The High Court also noted that the focus of the test is the need for an activity to locate in a “*particular environment*”. The High Court observed that the Resource Management Act 1991 (*RMA*) definition of “environment” is much broader than a “location”. The “environment” subject to the activity and therefore relevant for the functional need test was the broader valley area, not just the relevant wetland.¹⁸
- 5 In a similar situation, *Waka Kotahi NZ Transport Agency v Manawatū-Whanganui Regional Council*¹⁹ concerned a new stretch of state highway (Te Ahu a Turanga: Manawatū Tararua). The proposal engaged Policy 6 and Clause 3.22 of the NPS-FM. Functional need was only briefly addressed in the decision, with the Environment Court finding that there was a functional need for the project to occur in the proposed location after consideration of options in the route designation process.²⁰

¹³ *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2022] NZHC 629 (*Poutama*).

¹⁴ We note there was debate about whether the wetlands in question were “natural inland wetlands”, however, as the High Court found the specific infrastructure exemption was met, it did not need to determine the status of the subject wetlands.

¹⁵ *Poutama*, at [48].

¹⁶ At [58].

¹⁷ At [57].

¹⁸ At [54], [55] and [58].

¹⁹ *Waka Kotahi NZ Transport Agency v Manawatū-Whanganui Regional Council* [2020] NZEnvC 192.

²⁰ At [314].



Ngāti Awa

- 6 *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council*²¹ concerned a proposal to expand an existing water extraction and bottling operation in Otakiri. This involved both new consents and changes to conditions of existing consents.
- 7 The meaning of functional need was relevant in order to determine whether the proposal was for a discretionary or non-complying activity. To be discretionary, it had to be a “rural processing activity” and, by definition, either rely on the productive capacity of land or have a functional need for a rural location. It would otherwise be an “industrial activity”, with non-complying activity status.
- 8 The Environment Court considered that the term functional need was best understood “*in contradistinction to its fraternal twin, operational need*”. “Operational need” is defined in the National Planning Standards as “*the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints*”. The Environment Court noted that the difference between functional and operational need is usually obvious when dealing with infrastructure, but that it could be more complex when dealing with activities where the nature of the function and the operational requirements may be less sharply defined.²²
- 9 The Environment Court held that the taking of water at this location reflected a functional need. While it might be possible to take groundwater from many locations, the assurance of access to the resource in this particular location demonstrated a functional need.²³ The Environment Court held further that while the extraction of water was the principal activity, the other ancillary components, including blow-moulding the plastic bottles, bottling the water, and packaging the bottles on pallets for transport formed part of the proposal which was, overall, a rural processing activity, and therefore a discretionary activity.²⁴
- 10 The Environment Court’s findings on functional need were upheld on appeal by both the High Court and Court of Appeal.²⁵

TiGa Minerals

- 11 TiGa Minerals²⁶ concerned a mining proposal on the West Coast. The proposal triggered a discretionary activity consent under Regulation 45D of the NES-FW as it proposed works, for the purpose of the extraction of minerals and ancillary activities, within a 100m setback from a natural inland wetland. Regulation 45D contains the

²¹ *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2019] NZEnvC 196 (*Ngāti Awa*).

²² At [223] and [224].

²³ At [225].

²⁴ At [226]-[228].

²⁵ *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2020] NZHC 3388 at [235]; *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2022] NZCA 598 at [152].

²⁶ Application by TiGa Minerals and Metals Limited for resource consents (West Coast Regional Council RC-2023-0046, Greymouth District Council LUN-3154/23), 29 April 2024.



same clause 6 as Regulation 45, requiring the consent authority to be satisfied that there is a functional need for the extraction of minerals in that location.

- 12 Three independent Commissioners were appointed by the relevant regional and district councils to hear and decide the applications. Their decision considered functional need in detail. They concluded that there was a functional need for the proposal in the location. While at the council level, we consider the legal analysis in the decision assists in the current context. We have therefore considered, but not relied upon it, in forming our opinion.
- 13 The applicant's planner contended that the functional need test was met by a straightforward analysis that because extractable minerals were found within the 100m setback envelope, the functional need test was met. The regional council's reporting planner initially²⁷ maintained the opposite, that because extractable minerals were found both within and outside the setback envelope, it could not be said that the mining activity could *only* be located within the envelope, as required on the face of the functional need definition.
- 14 The Commissioners disagreed with both positions and found that a more nuanced approach was required. The assessment was a mixed question of law and fact encompassing consideration of the characteristics of the proposal in its entirety and not simply based on the presence and distribution of extractable minerals on the site or nearby. In particular, the assessment required a good appreciation of all the expert evidence about the proposal's design.²⁸
- 15 The Commissioners' key findings were:
 - 15.1 The functional need test relates to the nature and degree of a proposal's need to be in a particular location. The term points to a need that arises from the necessary elements that make the proposal functional. When comparing functional and operational need, functional need focuses attention on the strength of the need as it relates to the functioning of the proposal.²⁹
 - 15.2 The words "*can only occur*" in the functional need definition require an applicant to demonstrate that the activity or proposal traverses, locates or operates in the particular environment as an "*inevitable but undesirable outcome*" of the location's characteristics and constraints. In that case, the functional need arose when the proposal's design inevitably encroached into the setback envelope for the system to operate practically. The imperatives the applicant had to address and trade-offs it had to manage to inform a design that delivered an achievable proposal all contributed to meeting the functional need standard.³⁰

²⁷ Noting he changed his position through the course of the hearing.

²⁸ At [216].

²⁹ At [227], [229] and [234].

³⁰ At [237], [241] and [242].



- 15.3 It is reasonable to assume that Parliament, when creating the exceptions in Regulations 45-45D of the NES-FW, considered that proposals that would benefit from the exceptions because they are nationally or regionally significant would be sizeable, complex operations.³¹
- 16 Ultimately, the totality of the applicant's evidence satisfied the Commissioners that there was a functional need for the extraction of minerals and ancillary activities forming the proposal within the wetlands setback envelope.³²

³¹ At [240].

³² At [259].

**IN THE HIGH COURT OF NEW ZEALAND
NEW PLYMOUTH REGISTRY**

**I TE KŌTI MATUA O AOTEAROA
NGĀMOTU ROHE**

**CIV-2021-443-15
[2022] NZHC 629**

BETWEEN POUTAMA KAITIAKI CHARITABLE
TRUST AND D & T PASCOE
Appellants

AND TARANAKI REGIONAL COUNCIL
First Respondent

NEW PLYMOUTH DISTRICT COUNCIL
Second Respondent

WAKA KOTAHI NZ TRANSPORT
AGENCY
Third Respondent

TE RŪNUNGA O NGĀTI TAMA TRUST
Section 301 Party

Hearing: 18-19 October 2021
[Further submissions received on 22 and 26 October and
8 November 2021]

Appearances: M Gibbs and R Gibbs for Poutama Kaitiaki Charitable Trust (until
withdrawal from the hearing on 18 October 2021)
S J Grey for D and T Pascoe (granted leave to withdraw on
18 October 2021)
D Allen, C A Easter and T Ryan for Third Respondent
P F Majurey and V N Morrison-Shaw for Te Rūnunga o Ngāti
Tama Trust

Judgment: 30 March 2022

JUDGMENT OF ISAC J

Introduction

[1] This is an appeal on a point of law from decisions of the Environment Court granting approvals under the Resource Management Act 1991 for the construction of a new section of state highway.

[2] Te Ara o Te Ata is a proposed new six-kilometre stretch of State Highway 3 to the north of New Plymouth. On 8 December 2018, Taranaki Regional Council and New Plymouth District Council granted the New Zealand Transport Agency (Waka Kotahi) resource consents for the project and recommended the confirmation of Waka Kotahi's Notice of Requirement (NoR) altering the existing State Highway 3 designation.

[3] The proposed new road runs predominantly through Ngāti Tama land in the Mangapepeke and Mimi valleys. Te Rūnanga o Ngāti Tama, the iwi authority for the purpose of the Resource Management Act 1991, has been actively engaged in consultation with Waka Kotahi regarding the Project since April 2016. An agreement has been reached regarding the acquisition of approximately 22 hectares of land for the project with a further 15.9 hectares to be leased for the duration of construction.

[4] The appellants oppose the project. Mr and Mrs Pascoe (the Pascoes) hold a large piece of privately owned farmland, some of which is needed for the project. Mr Pascoe has lived in the Mangapepeke Valley for over 65 years. The level of activity surrounding their home during the construction period will be disruptive.¹ A trust called Poutama Kaitiaki Charitable Trust (Poutama) also claims an interest in the land through which the Project runs.

[5] The appellants have brought a series of previous challenges to the project, appealing the Environment Court's first interim decision on preliminary issues to the High Court, and unsuccessfully seeking leave for a direct appeal to the Supreme Court.

¹ *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2020] NZHC 3159 [High Court decision] at [7], citing the finding of the Environment Court that noise during the construction period would make it untenable for the Pascoes to continue to live in the house: *Director-General of Conservation v Taranaki Regional Council* [2018] NZEnvC 203 at [157].

The current appeal is against the second interim and final decisions of the Environment Court approving the resource consents and confirming Waka Kotahi's NoR.

[6] In a separate judgment issued today I have also provided my reasons for declining an application by Poutama for recusal and an application for an adjournment of the appeal hearing.²

Procedural background

[7] The background to the highway project is set out comprehensively in the earlier judgment of this Court.³ The following is a summary.

First Interim Decision

[8] On 18 December 2020 the Environment Court issued an interim decision.⁴ The Court found it was unable to determine that the effects of the project would be appropriately addressed at that time, as there was no certainty Waka Kotahi and Ngāti Tama would reach agreement as to the acquisition of the necessary land, or finalise an agreement for mitigation of cultural effects. However, the Environment Court did make final determinations that:

- (a) Waka Kotahi undertook a detailed and extensive consultation process and gave adequate consideration to alternative sites, routes, or methods of undertaking the project;⁵
- (b) Ngāti Tama are tangata whenua exercising mana whenua over the project area and accordingly are the only body to be referred to in conditions addressing cultural matters;⁶

² *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2022] NZHC 628.

³ High Court decision, above n 1, at [10]–[29].

⁴ *Director-General of Conservation v Taranaki Regional Council* [2018] NZEnvC 203 [first interim decision].

⁵ At [100]–[101] and [458].

⁶ At [333] and [462].

- (c) Poutama are not tangata whenua exercising mana whenua over the project area and should not be recognised in any consent conditions addressing kaitiakitanga;⁷
- (d) Mrs Pascoe and her family had not established they have and are able to maintain whanaungatanga relationships or exercise associated tikanga that would require recognition under Part 2 of the Act;⁸
- (e) Mrs Pascoe is not kaitiaki in the sense the term kaitiakitanga is used in the Act;⁹ and
- (f) the significant adverse effects the project will have on the area may be appropriately addressed through proposed conditions.¹⁰

[9] The appellants appealed this interim decision to the High Court. The appeal challenged the ability of the Environment Court to issue an interim decision, the Court's assessment of customary and cultural rights, tikanga, mana whenua and kaitiaki, and other alleged adverse effects of the project. The High Court dismissed the appeal on all grounds.¹¹ A subsequent application for leave to bring a direct appeal to the Supreme Court was also declined.¹²

Second Interim decision

[10] The Environment Court issued its second interim decision on 10 March 2021.¹³ The Court noted that, as Te Rūnanga and Waka Kotahi had reached agreement regarding the acquisition of land and related mitigation, it could complete its assessment of effects. Of relevance to the current appeal, the Environment Court made findings that:

⁷ At [339] and [467].

⁸ At [318]–[326] and [463].

⁹ At [327]–[330] and [464].

¹⁰ At [212]–[214] and [469].

¹¹ High Court decision, above n 1.

¹² *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2021] NZSC 87. There have also been the following recall applications: *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2021] NZHC 326; *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2021] NZSC 124; *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council* [2021] NZSC 153.

¹³ *Director-General of Conservation v Taranaki Regional Council* [2021] NZEnvC 27 [second interim decision].

- (a) given Ngāti Tama 's acceptance of the project and the acquisition of its land and the related agreements, the cultural effects of the NoR and the project would be properly addressed;¹⁴
- (b) no aspect of the project will be inconsistent with any objective or policy contained in the National Policy Statement for Freshwater Management 2020;¹⁵ and
- (c) the conditions proposed appropriately address the adverse effects of the project on land-owners.¹⁶

[11] Accordingly, the Environment Court dismissed the appeals from Poutama and the Pascoes. The Court directed Waka Kotahi to make some minor amendments and lodge an amended complete set of NoR conditions, regional resource consent conditions and a full set of the latest plans to the Court.¹⁷ Following receipt of these documents, the Court issued its final decision on 1 April 2021, issuing formal approval to the resource consents and confirming the NoR.¹⁸

[12] Shortly after the hearing of this appeal commenced on 18 October 2021, counsel for the Pascoes, Ms Grey, and Ms Gibbs on behalf of Poutama sought an adjournment. After I declined their application the appellants withdrew from the hearing and took no further part in it. Accordingly, I have addressed the grounds of appeal as they are identified in an amended notice of appeal dated 22 April 2021, and written submissions for the appellants dated 28 September 2021. My reasons for declining the late application for an adjournment are addressed in a separate judgment.¹⁹

¹⁴ At [11]–[12].

¹⁵ At [29]–[48].

¹⁶ At [69].

¹⁷ At [76].

¹⁸ *Director-General of Conservation v Taranaki Regional Council* [2021] NZEnvC 40 [final decision].

¹⁹ *Poutama Kaitiaki Charitable Trust v Taranaki Regional Council*, above n 2.

Approach to appeal

[13] The appeal is brought pursuant to s 299 of the Resource Management Act 1999 (RMA). Appeals to this Court against a decision of the Environment Court are only available on a question of law.²⁰ The Supreme Court clarified the parameters of questions of law in *Bryson v Three Foot Six Ltd*,²¹ which has since been applied in an RMA context.²² This has helpfully been summarised in subsequent cases.²³ A court will have erred in law where it has:

- (a) applied a wrong legal test. Misinterpretation of a statutory provision will obviously constitute an error of law;
- (b) taken into account matters which it should not have taken into account;
- (c) failed to take into account matters which it should have taken into account; or
- (d) come to a conclusion without evidence or to one which, on the evidence, it could not reasonably have come.

[14] Any error of law must materially affect the result of the court's decision before it would be appropriate for the appellate court to grant relief.²⁴ Materiality is a matter of judgment for the appeal court rather than a question of proof to a particular standard.²⁵

²⁰ Resource Management Act 1991, s 299(1).

²¹ *Bryson v Three Foot Six Ltd* [2005] NZSC 34, [2005] 3 NZLR 721 at [24]–[27].

²² *Estate Homes Ltd v Waitakere City Council* [2006] 2 NZLR 619 (CA) at [198].

²³ *Tauranga Environmental Protection Society Inc v Tauranga City Council* [2021] NZHC 1201, [2021] NZRMA 492 at [60]; *Redmond Retail Ltd v Ashburton District Council* [2021] NZHC 2887 at [38]–[39].

²⁴ *Countdown Properties (Northlands) Ltd v Dunedin City Council* [1994] NZRMA 145 (HC) at 153; *Transpower New Zealand Ltd v Auckland Council* [2017] NZHC 281 at [52]–[54].

²⁵ *Manos v Waitakere City Council* [1996] NZRMA 145 (CA) at 148, as cited in *Auckland Council v Cabra Rural Developments Ltd* [2019] NZHC 1892, (2019) 21 ELRNZ 185 at [75].

Grounds of appeal

[15] While the appellants set out a number of allegations in their amended notice of appeal and in written submissions, the appeal mostly reflects an effort to relitigate factual and other findings that have been finally determined.

[16] In particular, many of the arguments raised on appeal:

- (a) were the subject of final and binding determinations of the Environment Court in its first interim decision, or the decision of this Court on appeal, and are *res judicata*;
- (b) are matters of fact that cannot be challenged on an appeal under s 299 of the RMA;
- (c) are legally irrelevant to the appeal, which concerns the Environment Court's decision to approve the NoR and resource consents; or
- (d) were not developed at all, or were inadequately addressed in submissions, and therefore cannot be given further consideration.

[17] These allegations cannot be advanced on appeal because the Court lacks jurisdiction, or the ability, to consider them. They are addressed in a schedule to this judgment.

[18] Two grounds of appeal have the potential to constitute challengeable questions of law and require more detailed consideration. The first is whether the Environment Court was wrong in its application of the National Policy Statement for Freshwater Management 2020 (Policy Statement). The second is whether the Environment Court was wrong not to impose a lapse date on the amended designation.

First ground of appeal: error in the application of the Policy Statement?

The Policy Statement

[19] Under the RMA the Minister for the Environment may create national policy statements.²⁶ These are directional instruments by which central government can set policy and environmental benchmarks to be met by local authorities when making decisions.

[20] Decision-makers under the RMA must have particular regard to any relevant national policy statement when determining an application for a resource consent.²⁷

[21] The Policy Statement came into force on 3 September 2020,²⁸ over a year after the Environment Court hearing. The Environment Court recognised this in its second interim decision:²⁹

Although [the Policy Statement and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020] came into force well after the conclusion of the hearing, we are obliged to have particular regard to the [Policy Statement] in considering the NOR and the application for regional resource consents under the relevant provisions of ss 104 and 171 of the Act.

[22] The appellants advance two challenges to the second interim decision under this ground of appeal which could qualify as an appeal on a point of law. They submit the Environment Court wrongly applied the Policy Statement because it:

- (a) failed to determine whether the Mangapepeke Wetland fell within the Policy Statement’s definition of a “natural inland wetland”; and
- (b) wrongly concluded that there is a “functional need” for the project in terms of cl 3.22(1)(b)(iii) of the Policy Statement.

²⁶ Resource Management Act 1991, ss 45–55.

²⁷ Resource Management Act 1991, ss 104(1)(b)(iii) and 171(1)(a)(i).

²⁸ National Policy Statement for Freshwater Management 2020 [Policy Statement], cl 1.2.

²⁹ Second interim decision, above n 13, at [25].

Natural inland wetland

[23] The appellants argue that the Environment Court was required to determine whether an area of the lower Mangapepeke Valley was a natural inland wetland under the Policy Statement.

[24] The Policy Statement applies to all freshwater (including groundwater) and, to the extent they are affected by freshwater, to receiving environments.³⁰ Part 2 of the Statement sets out its objective and policies. Its objective is:

2.1 Objective

- (1) The objective of this National Policy Statement 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.

[25] Clause 2.2 of the Policy Statement then identifies 15 policies which local authorities are required to give effect to. Policy six requires that:

There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

[26] This policy is then implemented by cl 3.22, which provides:

3.22 Natural inland wetlands

- (1) Every regional council must include the following policy (or words to the same effect) in its regional plan(s):

“The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where:

...

- (b) the regional council is satisfied that:
 - (i) the activity is necessary for the construction or upgrade of specified infrastructure; and

³⁰ Policy Statement, above n 28, cl 1.5.

- (ii) the specified infrastructure will provide significant or regional benefits; and
- (iii) there is a *functional need* for the specified infrastructure in that location; and
- (iv) the effects of the activity are managed through applying the effects management hierarchy.

(emphasis added).

[27] A key issue for the Environment Court was whether parts of the lower Mangapepeke Valley, owned by the Pascoes and through which part of the proposed new section of highway would run, falls within the Policy Statement's definition of a "natural inland wetland". If it does, the roading project would need to comply with policy six and cl 3.22 of the Policy Statement.

[28] A "natural inland wetland" is defined as "a natural wetland that is not in the coastal marine area".³¹ And a "natural wetland" means:

a wetland (as defined in the Act) *that is not*:

...

- (c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain-derived water pooling.

(emphasis added).

[29] The Policy Statement then defines improved pasture in these terms:

improved pasture means an area of land where exotic pasture species have been deliberately sown or maintained for the purpose of pasture production, and species composition and growth has been modified and is being managed for livestock grazing.

[30] Both the appellants and Waka Kotahi have opposing views as to whether the lower Mangapepeke Valley constitutes a natural inland wetland and, as such, whether cl 3.22 is engaged. The appellants consider it is, and the project does not satisfy the specified infrastructure exception in cl 3.22(1)(b). Waka Kotahi's position is that it is

³¹ Policy Statement, above n 28, cl 3.21(1).

not a natural inland wetland because the area falls within the improved pasture proviso contained in the definition of a wetland.

[31] The Environment Court struggled with the definition of “natural inland wetland”, concluding:³²

In considering this matter we find the definition of “natural inland wetland” to be imprecise – it raises more questions than it answers, particularly in relation to the meaning of “improved pasture”.

[32] In particular, the Court questioned whether management techniques beyond grazing are required for an area to be deemed “improved pasture”, and whether “exotic pasture species” (not defined in the Policy Statement) include exotic herbaceous and rush species occurring in pasture, having significant implications when assessing whether “exotic pasture species” constitute over 50 per cent of the land in question.³³

[33] The Court noted that, as the Policy Statement came into force after the hearing, it was unable to hear from ecological experts as to whether part or all of Mangapepeke Valley is a natural inland wetland for the purposes of the Policy Statement. Accordingly, it was unable to reach a firm conclusion as to the status of the wetland.³⁴

[34] However, the Court concluded that, in any case, it was able to rely on the specific infrastructure exception in cl 3.22 of the Policy Statement:³⁵

We agree with the submissions of counsel that the Project fits within sub-clause (1)(b) of the policy in clause 3.22. We consider it is both a lifeline utility, as defined in the Civil Defence Emergency Management Act 2002, and specified infrastructure providing significant national and regional benefits. There is a functional need for the Project to occur in the identified location, identified after consideration of options in the route designation process. Further, we are satisfied that the adverse effects of the Project can be managed through the effects management hierarchy as we had previously identified in our interim decision.

³² Second interim decision, above n 13, at [36].

³³ At [36].

³⁴ At [39].

³⁵ At [41].

[35] In short, the Environment Court took a view of the status of the area in issue most favourable to the appellants and its analysis proceeded on the assumption that the lower Mangapepeke Valley *could* constitute a natural inland wetland.

[36] There was no error of law in this approach. Whether the lower Mangapepeke Valley constitutes a natural inland wetland is immaterial if the specified infrastructure exception in cl 3.22(1)(b) would apply anyway. As the Court found that it did, there was no need to finally determine the status of the land.

[37] The appellant's first criticism of the second interim decision therefore falls away.

Was there a functional need?

[38] The relevant functional need exception is contained in cl 3.22(1)(b) of the Policy Statement, as noted at [26] above. For the exception to apply, the Environment Court had to be satisfied that the four limbs contained in cl 3.22(1)(b)(i)–(iv) were met. The appellants did not challenge the first two requirements at (i) and (ii). Their focus was on (iii) and (iv), relating to the functional need for the specified infrastructure “in that location”, and management of the effects of the activity through the “effects management hierarchy”.

[39] The appellants submit that the Environment Court failed to apply the definition, intent and purpose of the Policy Statement, including ‘functional need’ in relation to the Mangapepeke Wetland.

[40] Next they contend a functional road already exists in the form of the current Mt Messenger section of State Highway 3. They also claim there is an ‘online’ route option that would cost \$150m and is “more convenient, cheaper and shorter, and reduces the environmental damages by 90%”. They say this demonstrates there is no functional need for the project to traverse the lower Mangapepeke Valley.

[41] Waka Kotahi’s submissions regarding the functional need for the project are set out in full in the second interim decision and were expressly adopted by the Court.³⁶

There is a functional need for the Project to occur in this location. “Functional need” is defined in the [Policy Statement] as meaning “*the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment.*” This is the case for this Project, for the following reasons:

- (a) The Project comprises large-scale, linear infrastructure. There cannot be gaps in the road – the whole route must fit together safely and efficiently.
- (b) The constraints on the design of the Project included reducing cultural, ecological, and landscape (by keeping the road low in the landscape) effects while ensuring the road could be appropriately designed and constructed and its geometric design will deliver a safe fit for purpose modern section of state highway.
- (c) The Project route was the subject of a “*detailed*” alternatives process; Waka Kotahi carefully selected the route as explained in the evidence of Mr Roan. As the Court noted “*the Agency as the requiring authority undertook a thorough and detailed evaluation of the route options before deciding on the preferred route along the Mangapepeke valley.*”
- (d) The route design was refined at several points to avoid impacts on the ecologically significant Mimi wetland. These refinements included the addition of a bridge to the route across a tributary valley to the Mimi Wetland area, and shifting the southern end of the route further west away from the Mimi Wetland.
- (e) As explained in the evidence of Mr Roan and Mr MacGibbon, and noted by the Court in its decision, the alignment though the Mangapepeke valley was shifted off the valley floor and moved to the eastern valley flanks, avoiding poorer soil conditions on the valley floor and an area that is a potential restoration target (for kahikatea swamp forest planting).

[42] In submissions, Waka Kotahi noted that an “online” option was considered and shortlisted, but ultimately rejected as it would have cost \$180m *more* than the selected route option (due to significant engineering and geotechnical challenges) and pose significant traffic management challenges during construction. Further, Waka Kotahi notes that the lower Mangapepeke Valley floor has the lowest ecological values of any area within the project footprint.

³⁶ Second interim decision, above n 13, at [42].

[43] The Policy Statement defines “functional need” as:³⁷

...the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment.

[44] This is the same definition as that appearing in the National Planning Standards.³⁸

[45] The difficulty with the first of the appellants’ challenges — that the Environment Court failed to apply the Policy Statement’s definition of “functional need” — is that it did.³⁹ So this asserted error of law simply fails to reflect the decision under appeal.

[46] Beyond this, the criticisms of the Environment Court’s decision based on the presence of the existing highway or the asserted merits of the online route are not errors of law but an impermissible challenge to the Court’s factual assessment.

[47] I accept, as submitted by Waka Kotahi, that the test is whether the project (being the specific infrastructure) itself meets the “functional need” threshold — namely that the project needs to traverse, locate or operate in a particular environment because the activity can only occur in that environment. The functionality of the existing road is a question of fact that is not relevant to this assessment, and in any case the issue was the subject of a finding in the first interim decision that the existing portion of State Highway 3 is not fit for purpose.⁴⁰ This finding is not open to challenge.

[48] The strict language of “can only” employs a high threshold to satisfy the functional need definition. Waka Kotahi referred me to a report issued by the Ministry for the Environment on the draft first set of National Planning Standards in which the

³⁷ Policy Statement, above n 28, cl 3.21(1).

³⁸ Ministry for the Environment | Manatū Mō Te Taiao *National Planning Standards* (Wellington, November 2019) at 58.

³⁹ The Environment Court’s consideration of the Policy Statement is at [25]–[48] of the second interim decision, above n 13. At [30], the Court found the project is consistent with the objective and policy framework of the Policy Statement. And at [41]–[43], the Court accepted Waka Kotahi’s submissions, identifying the definition of “functional need”, and considering that definition against the facts.

⁴⁰ First interim decision, above n 4, at [4]–[5] and [427]–[436].

definition of “functional need” is discussed. The report identified a concern raised by submitters that the definition may be too restrictive:⁴¹

Functional need is often a key consideration when an activity can only locate within the coastal marine area (such as a port) and we consider it appropriate to retain the stricter requirement that the activity can locate within that environment. However, we recognise that there can be good reasons why an activity should be enabled to occur in a location even when the activity can occur elsewhere, or the activity must locate there for technical reasons. For example, this is often applicable to linear infrastructure that often has to traverse identified earthquake fault lines or flood hazard areas or has a valid reason to locate in the coastal marine area as in the oil companies’ example above.

[49] The Ministry appeared to endorse the strict definition of functional need and went on to propose the addition of a new term — “operational need” — to cover activities that need to traverse, locate, or operate in a particular environment because of technical, logistical or operational characteristics or constraints:

We consider that the term ‘operational need’ can be used to cover situations where there are valid reasons why an activity should be enabled to occur in a particular location. We recommend including the term ‘operational need’ in the Definitions Standard for those provisions where this is the desired approach.

[50] This recommendation was ultimately implemented in the National Planning Standards in November 2019.⁴² Despite the existence and implementation of the new term in the National Planning Standards, it was not carried into the Policy Statement, published nine months later.⁴³

[51] Waka Kotahi also referred me to *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* as indicating that ‘functional need’ does not require the proposed location for a development to be the only possible location. The case concerned the variation of land use consent conditions relating to the taking of groundwater as part of the expansion of a water bottling operation. It was argued that water extraction did not fulfil the definition of “rural processing activity” under the relevant plan. To fulfil

⁴¹ Ministry for the Environment | Manatū Mō Te Taiao *21 Definitions Standard – Recommendations on Submissions Report for the first set of National Planning Standards* (Wellington, April 2019) at [3.43].

⁴² Ministry for the Environment, above n 38, at 62.

⁴³ I note here that national planning standards fall lower on the planning documents hierarchy than a national policy statement, of which they are required to give effect: see Resource Management Act 1991, s 58C(1)(a).

this definition a rural land use activity was required to have a “functional need” for a rural location. Gault J agreed with the majority finding of the Environment Court that there was a functional need for the activity, notwithstanding that it might have been able to occur in other locations as “finding suitable supplies of water is not a certainty”.⁴⁴

[52] In both the Ministry for the Environment recommendations report and *Te Rūnanga o Ngāti Awa*, the focus was on the *location* of a particular activity. In the case of cl 3.22(1)(b)(iii) of the Policy Statement, it is of course correct that the functional need for the specified infrastructure can only be “in that location”. But what is meant by “that location”?

[53] One answer might be to say that the “location” contemplated by cl 3.22(1)(b)(iii) is the “natural inland wetland”, reflecting the opening words of cl 3.22(1). But this view overlooks the broader focus in the definition of “functional need”. That focus is not on a particular location, but the need for an activity to locate in a “particular environment”.

[54] The term “environment” is broadly defined in s 2 of the Resource Management Act. It includes:

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) all natural and physical resources; and
- (c) amenity values; and
- (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters.

[55] The RMA’s definition of an “environment” is a much broader concept than a “location”.

⁴⁴ *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2020] NZHC 3388, [2021] NZRMA 76 at [223] and [235], citing *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2019] NZEnvC 196, (2019) 21 ELRNZ 539 at [225]–[226].

[56] In the present case, the project aims to improve existing linear infrastructure. It involves the creation of a new stretch of road approximately six kilometres in length which is required to join with two existing and fixed points on the highway.

[57] In order to connect these two points, it is necessary for the road to traverse the environment(s) between them. In this case, one of the environments is the lower Mangapepeke Valley. In theory, there could be an infinite number of route possibilities, or locations, connecting the relevant points of the highway. But these potential routes are constrained by practicalities, including distance, cost terrain, and constructability, as well as environmental considerations. With any linear infrastructure, alternative locations or routes will always exist. And the existence of any conceivable alternative would make the specified infrastructure exception in cl 3.22(1)(b) otiose. Such redundancy could not have been intended.

[58] I consider the Environment Court was correct to find that the project *can only* occur in the relevant *environment*, namely the lower Mangapepeke Valley. This is a context and fact specific inquiry, in which the Environment Court considered the comparatively short distance the project traverses, the nature of linear infrastructure, the environment it is proposed to traverse, as well as the alternatives considered by Waka Kotahi. There was no error of law in its consideration of these issues.

[59] Finally, the current section of State Highway 3 to be replaced already traverses in and out of the lower Mangapepeke Valley. While the project would intrude further into the Valley, the presence of both the existing and planned sections in the same environment is indicative of the need for the proposal to traverse it.

[60] Overall, not only do I consider the appellants have failed to identify an error of law in the Environment Court's approach, I also consider the Court's assessment of functional need was correct.

Second ground of appeal: is the absence of a lapse date in the NoR an error of law?

[61] Section 184(1) of the RMA provides that a designation lapses on the expiry of five years after the date on which it is included in a district plan unless it is given effect to before the end of that period.

[62] The appellants consider the Environment Court erred in failing to impose a lapse period on land subject to the newly amended NoR. They urged a five year lapse period before the Environment Court, submitting that without it, the Pascoes will be subjected to unreasonable uncertainty for an indefinite period of time.⁴⁵

[63] Waka Kotahi's position is that imposition of a lapse date on a NoR to alter a designation is not permitted under the RMA. It refers to s 181 of the Act:

181 Alteration of designation

- (1) A requiring authority that is responsible for a designation may at any time give notice to the territorial authority of its requirement to alter the designation.
- (2) Subject to subsection (3), sections 168 to 179 and 198AA to 198AD shall, with all necessary modifications, apply to a requirement referred to in subsection (1) as if it were a requirement for a new designation.

[64] Waka Kotahi notes that the range of designation provisions explicitly set out in s 181(2) of the Act does not include the five year lapse period prescribed in s 184 for a designation. There is an obvious logic to this. The lapse period in s 184 is intended to operate as a sunset provision in relation to land affected by a designation but where no steps are taken to implement it within the five year period. Section 181(2) of the RMA, however, appears to contemplate that the original designation — as with the present case — has been implemented. In such circumstances, a lapse date on a variation makes no sense because the land affected is already subject to an implemented designation.

[65] When considering this question the Environment Court concluded:⁴⁶

⁴⁵ Second interim decision, above n 13, at [64].

⁴⁶ At [66].

The Court did not hear full argument on the matter of the lapse of the designation and is therefore reluctant to determine the matter. We will not impose a lapse date on the amended designation but in so doing are not endorsing the position of either party. We note however that the project has a de facto lapse period given that a lapse date of 10 years has been imposed on the resource consents.

[66] I accept the submission of Waka Kotahi. Section 181(2) prescribes the sections of the Act relevant to an alteration of a designation. The lapse provision requirement is explicitly excluded. Accordingly, the Environment Court did not err in failing to impose a lapse date on the NoR.

[67] In any case, while there may be no lapse date imposed in the amendment to the NoR, as the Environment Court noted, the project has a de facto lapse period given the resource consents will expire after 10 years. It follows that the appellants' concern of unreasonable uncertainty for an indeterminate period is not warranted.

Remaining grounds of appeal

[68] Decisions of the Environment Court are final unless reheard under s 294 or appealed under s 299.⁴⁷ As counsel for Te Rūnanga o Ngāti Tama Trust submitted, this statutory bar recognises the significant public interest in finality of litigation and reflects the Environment Court's expertise as a specialist tribunal. The statutory bar fits well with the law of res judicata.⁴⁸

[69] The bulk of the appellants' remaining challenges cannot succeed because they are either collateral attacks on final and binding judicial determinations in the Environment Court's first interim decision, or the decision of this Court on appeal, or the decision of the Supreme Court declining leave to appeal.

[70] Most of these challenges are, in effect, an attempt to relitigate factual findings made by the Environment Court.

[71] In addition, some bald allegations were made by the appellants in written submissions that essentially appear to be a repetition of grounds articulated in their

⁴⁷ Resource Management Act 1991, s 295.

⁴⁸ *André v Auckland Regional Council* [2003] NZRMA 42 (EnvC) at [25].

amended notice of appeal, which are not further addressed or addressed with any clarity in the written submissions, and cannot be considered further.

[72] For the reasons noted in the schedule attached to this judgment, all of them must be dismissed. Their number, and in many instances complete lack of merit, added unnecessarily to the complexity of the appeal.

Conclusion and result

[73] The appeal is dismissed.

[74] Costs should follow the event. If the parties are unable to resolve the issue memoranda may be filed. The respondents should file their memoranda within 10 working days of the date of this judgment. Any memorandum in reply for the appellants must be filed 10 working days thereafter.

Isac J

Solicitors:

Buddle Findlay, Wellington for Waka Kotahi

Atkins Holm Majurey, Auckland for Te Rūnanga o Ngāti Tama Trust

Schedule – Reasons for dismissing the balance of the appellants’ claims

GROUND A: The Environment Court failed to act in the interests of justice by relying on untruths and omissions from Waka Kotahi, including:	
Sub-ground of Appeal	Answer
<p>Ground A(1)(i) Omissions regarding the withdrawal of the primary spoil offsite disposal site: appellants’ submissions at [89]</p>	<p>The consent application as lodged identified the construction would generate 145,000m³ of spoil disposal. This has been refined over the course of the project. The Environment Court heard evidence that the total volume of surplus fill would be 95,000m³, to be accommodated in disposal sites within the designation. The Court in its first interim decision found these disposal sites and temporary stockpiling areas would be “contoured, landscaped and vegetated in accordance with the [ecology and landscape management plan]”.⁴⁹ Therefore, this matter has been finally determined and is barred from being raised on appeal (res judicata).</p>
<p>Ground A(1)(ii) Accepting untrue statements from Waka Kotahi, notwithstanding countervailing sworn evidence that Waka Kotahi contractors carried out unconsented draining in the Mangapepeke wetland prior to the ecological assessments: appellants’ submissions at [51]–[58] and [90]</p>	<p>The Environment Court in its second interim decision accepted the respondent’s explanation that neither Waka Kotahi nor its contractors created the drains present on the Valley floor but, more importantly, noted that the matter is in any event irrelevant to the Court’s assessment of the NoR and application for regional resource consents.⁵⁰</p> <p>A matter of fact. The allegation has been dealt with and dismissed as irrelevant. There is no error of law in relation to this matter.</p>
<p>Ground A(1)(iii) Waka Kotahi’s omission that it was colluding with Heritage New Zealand to not comply with statutory conditions in regard to Poutama: appellants’ submissions at [91]</p>	<p>There is no evidence which can support this allegation. Waka Kotahi obtained a project-wide archaeological authority under s 44(a) of the Heritage New Zealand Pouhere Taonga Act 2014, on a precautionary basis, to address impacts on any as-yet unknown archaeological sites. It followed the normal statutory process in seeking and obtaining the authority. The Environment Court in its first interim decision recorded the authority as an “approval required under other legislation”.⁵¹</p>
<p>Ground A(1)(iv) Omissions regarding the treatment of kiwis and their eggs and chicks monitored by the project: appellants’ submissions at [92]</p>	<p>Questions regarding kiwi relocation were put to a witness for Waka Kotahi, Mr MacGibben, by Ms Gibbs for the appellants, addressed by Mr MacGibben and referred to in the first interim decision.⁵²</p>

⁴⁹ First interim decision, above n 4, at [135].

⁵⁰ Second interim decision, above n 13, at [60]–[61].

⁵¹ First interim decision, above n 4, at [64].

⁵² At [188]–[190].

	<p>The Environment Court concluded that, on the basis that the project is constructed and operated in accordance with Waka Kotahi’s proposed conditions of consent for ecology, the immediate and long-term ecological effects of the project will be appropriately addressed.⁵³ Therefore, this issue was the subject of a final factual determination by the Environment Court and is not amenable to appeal.</p>
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GROUND B: Errors of law	
Sub-ground of Appeal	Answer
<p>Ground B(1) The Court failed to limit the designation area to the land required for the project: appellants’ submissions at [68]–[72]</p>	<p>Pursuant to ss 168 and 171 of the RMA, the designation includes all land required directly for the construction and operation of the highway, and includes additional land intended to be used for construction related activities or ecological, mitigation, offset, or compensation activities, subject to agreement being reached with the Pascoes.</p> <p>The Environment Court was aware the designation included some land that Waka Kotahi hoped to acquire on a willing buyer/seller basis. This matter was addressed in the hearing and closing submissions and in the first interim decision:⁵⁴</p> <p>The area of Pascoes’ land which the Agency proposes to be permanently acquired for the new highway is a little over 11 ha with a further 13.5 ha required for temporary occupation during its construction.</p> <p>In addition to these areas, on a willing buyer/willing seller basis the Agency would like to acquire:</p> <ul style="list-style-type: none"> - The Pascoes’ dwelling and outbuildings so that the underlying land can be used for construction storage and related activities; - A number of tongues of land extending up the side valleys off the new alignment to provide for core ecological mitigation/offset compensation activities, the [pest management area] and restoration and mitigation planting; - The largest of these tongues which would be used for temporary storage during construction. <p>It was open to the Court, and not an error of law, to accept the position on the area that should be confirmed as subject to the designation. The issue was resolved by the Environment Court as a matter of fact and is not amenable to appeal.</p>

⁵³ At [214].

⁵⁴ At [447]–[448].

<p>Ground B(2) The Court failed to impose a lapse date or lapse period on the land subject to the newly amended designation: appellants’ submissions at [73]–[77]</p>	<p>This point is addressed in this judgment at [61]–[67].</p>
<p>Ground B(3) The Court failed to provide any resource consent conditions to address effects of the proposed project, including stewardship, on Poutama and the Pascoes: appellants’ submissions at [78]–[81]</p>	<p>The Environment Court in its first interim decision determined there were no Māori cultural effects on the appellants that needed to be addressed via conditions.⁵⁵ It found they were not kaitiaki of the land but that their relationship with the land was better characterised as stewardship.</p> <p>The Court also found that the effects on the Pascoes would be significant but would be addressed by proposed consent conditions, including designation Condition 5A.⁵⁶ It noted that condition 5A is an “extensive package” which addresses effects on the Pascoes during pre-construction engagement, construction and operation of the project. It outlined the considerable obligations imposed on Waka Kotahi, including an explicit requirement to have regard to the Pascoes’ stewardship over their land.</p> <p>The High Court did not disturb the conditions on appeal, noting that the proposed conditions explicitly recognised the Pascoes’ stewardship over the land.⁵⁷ This issue has been finally determined and is not open to appeal.</p> <p>See also the discussion at Ground E (iii)–(v) below.</p>

GROUND C: Irrationality	
Sub-ground of Appeal	Answer
<p>Ground C The Court made findings so irrational that no reasonable authority could have come to them (or came to a conclusion without evidence)</p>	<p>The appellant’s submissions did not develop this ground. There is no basis on which to consider that the Environment Court’s findings were so irrational that no rational decision-maker could have made them. The appellant has failed to establish the very high hurdle that “the true and only reasonable conclusion contradicts the determination”.⁵⁸</p>

⁵⁵ First interim decision, above n 4, at [318]–[320], [326], [330], [339], [463]–[464] and [467].

⁵⁶ At [117]–[119], [157]–[160] and [468].

⁵⁷ At [207]–[217].

⁵⁸ *Bryson v Three Foot Six Ltd*, above n 21, at [27].

GROUND D: Irrelevant matters	
Sub-ground of Appeal	Answer
<p>Ground D The Court took into account irrelevant matters, namely that the Court erred in carrying out its own investigations, entered selected parts of those investigations into evidence, ignored requests to disclose those investigations to the parties, and failed to limit its consideration to the evidence from the parties in front of the Court</p>	<p>The appellant did not develop this ground and its nature is unclear. In the absence of further particulars, it is incapable of determination. Nevertheless, it is noted that the RMA grants the Environment Court wide discretion in how it regulates proceedings (s 269) and receives evidence (s 276). Further, the Court is a specialist court, comprising of experts in environmental issues who are entitled to apply their collective experience and relevant expertise in exercising their statutory power.⁵⁹</p>

GROUND E: The Court failed to have regard for relevant matters or failed to determine a materially contested matter.	
Sub-ground of Appeal	Answer
<p>Ground E(1) The Court failed to address the issue that Waka Kotahi unlawfully obtained project information and evidence by way of unlawful entry onto land owned by the Pascoes, breached LINZ Licenses to Occupy, and failed to obtain permits to catch or kill protected wildlife: appellants' submissions at [82]–[86]</p>	<p>These allegations are not relevant matters to the Environment Court's assessment of the NoR and application for resource consents and, therefore, there cannot be any error of law in respect of them.</p> <p>In any event, the Environment Court was aware of the appellants' allegations of unlawful entry having received submissions and evidence on that issue.</p> <p>In relation to the wildlife permit allegation, the ecological effects of the project were addressed in detail, and finally, in the Environment Court's first interim decision⁶⁰ and by the High Court.⁶¹ Those issues are not open on appeal.</p>
<p>Ground E(2) The Court failed to consider that flood modelling provided by Waka Kotahi was limited to post construction only: appellants' submissions at [87]</p>	<p>The Environment Court considered the potential for any flood risk to the Pascoes' property during construction. It concluded that in the event that the Pascoes elect to stay in their home during construction, the construction yard would need to be designed to forestall the increased flooding risk. The Court accepted that a Specific Construction Water Management Plan submitted to the Regional Council for certification would be a suitable mechanism</p>

⁵⁹ *Friends of Pakiri Beach v Auckland Regional Council* [2009] NZRMA 285 (HC) at [28]; *Te Maru O Ngati Rangiwewehi v Bay of Plenty Regional Council* [2008] NZRMA 395 (EnvC) at [26].

⁶⁰ First interim decision, above n 4, at [212]–[214].

⁶¹ High Court decision, above n 1, at [238]–[242].

	<p>for ensuring that the construction yard is sited and designed to manage the risk of increased flooding around the home.⁶²</p> <p>The High Court considered the Environment Court’s assessment of the construction effects, noting its engagement with the conditions relating to forestalling increased flooding risks and Specific Construction Water Management Plan,⁶³ and concluded it made no errors of law in respect of those matters.⁶⁴</p>
<p>Ground E(3) The Environment Court failed to give effect to the Policy Statement, including by:</p>	
<p>(i) Failing to reach a conclusion as to the status of the Mangapepeke Wetland pursuant to the Policy Statement definition of natural inland wetland: appellants’ submissions at [7] and [64]–[65]</p>	<p>This point is addressed in this judgment at [23]–[37].</p>
<p>(ii) Failing to apply the definition, intent, and purpose of the Policy Statement, including “functional need” in relation to the Mangapepeke wetland: appellants’ submissions at [9]–[18]</p>	<p>This point is addressed in this judgment at [39]–[59].</p>
<p>(iii) Failing to address the health and wellbeing of waterbodies in the Mangapepeke Valley: applicants’ submissions at [38]–[42]</p>	<p>The Environment Court addressed these concerns in its first interim decision and found that the project’s design would have negligible effects on the existing groundwater and springs regime in the Mangapepeke Valley.⁶⁵ Therefore, this issue has been finally determined and is not amenable to appeal.</p>
<p>(iv) Failing to address the health needs of Poutama, including drinking water, Mangapepeke puna waiora and mahinga kai: appellants’ submissions at [33]–[45]</p>	<p>The Environment Court considered in detail the effects of the project on ecology, including stream and wetland ecology.⁶⁶ In making those findings, the Environment Court had submissions from Waka Kotahi and the appellants on the health and wellbeing of waterbodies in the Mangapepeke Valley, and on the health needs of Poutama, including Pascoe whānau drinking water, the Mangapepeke puna waiora and mahinga kai.</p>

⁶² First interim decision, above n 4, at [129] and [157].

⁶³ High Court decision, above n 1, at [203]–[204].

⁶⁴ At [254]–[256].

⁶⁵ First interim decision, above n 4, at [153]–[157].

⁶⁶ At [168]–[214] and [469].

	<p>The Court concluded that, on the basis that the project is constructed and operated in accordance with Waka Kotahi’s proposed conditions of consent for ecology, the immediate and long-term ecological effects of the project will be appropriately addressed.⁶⁷</p> <p>While there is no specific mention of the terms “puna waiora”, or “drinking water” in the first interim decision, the Court does specifically refer to the protection and enhancement of mahinga kai within the region’s waterbodies as a key policy element under the Regional Policy Statement.⁶⁸</p> <p>In its second interim decision the Environment Court concluded that the proposed consent conditions to protect water quality and hydrology would enable a successful hydrological rehabilitation of the Valley floor.⁶⁹</p> <p>The Environment Court’s findings on ecological effects were upheld in the High Court and are not amenable to appeal.⁷⁰</p>
<p>(v) Failing to address the ability of Poutama and the Pascoes to provide for their social, economic and cultural wellbeing: appellants’ submissions at [28], [78]–[79]</p>	<p>Regarding cultural effects, the Environment Court concluded that neither Poutama nor the Pascoes are tangata whenua exercising mana whenua over the project area.⁷¹</p> <p>Regarding social effects, the Environment Court accepted that the project will have significantly adverse social effects on the Pascoes, who face losing their home and part of their land and their remaining land will be forever changed”.⁷²</p> <p>The Environment Court refers to an extensive package of measures to address the potential effects of the project on the Pascoes, including measures to address the social and economic effects on them.⁷³ The Court concluded that:⁷⁴</p> <p style="padding-left: 40px;">There is no doubt that the Project will have significant adverse effects on the Pascoes and their lands. The adverse social impact of the Project on the Pascoes is severe. We consider, however, that proposed condition 5A will mitigate those effects to the extent possible if the Project is approved and proceeds and the Pascoes accept the Agency’s offer to buy their house, the land on which it sits, and the other land that is required for the Project.</p>

⁶⁷ At [214].

⁶⁸ At [408].

⁶⁹ Second interim decision, above n 13, at [40].

⁷⁰ High Court decision, above n 1, at [242].

⁷¹ First interim decision, above n 4, at [339], [463]–[464] and [467].

⁷² At [160] and [397].

⁷³ At [449]–[454].

⁷⁴ At [468].

	<p>These findings were upheld by the High Court and are not open on appeal.⁷⁵</p>
<p>(vi) Failing to address that Waka Kotahi degraded the Valley, including the wetland, prior to the Waka Kotahi environmental assessments, including vegetation and hydrology: appellants’ submissions at [7(f)]</p>	<p>The appellant asserted in written submissions that “[t]he degradation included unconsented drainage, impact of stock disturbance by the project, and multiple conflicting work fronts”, though did not provide further particulars.</p> <p>The concern relating to unconsented drainage is addressed above in relation to Ground A.</p> <p>In relation to the concerns around vegetation and hydrology, these ecological matters (and why they are not amenable to appeal) are addressed above at Ground E (iii) and (iv).</p> <p>The claims relating to stock disturbance and conflicting work fronts lack sufficient particulars and are accordingly incapable of determination. In any event, the points do not seem to raise any errors of law relevant to this appeal.</p>
<p>(vii) Failing to consider the implications on the proposed project if the Mangapepeke Valley is not used for restoration plantings and/or pest control: appellants’ submissions at [7(g)]</p>	<p>One of the ways in which Waka Kotahi propose to mitigate, offset and compensate for ecological effects of the project is through a comprehensive restoration package. The package includes an intensive pest management over a 3,650 ha area surrounding the project area as well as extensive replanting of effected indigenous and significant species.⁷⁶ The Environment Court was satisfied that the restoration package was sufficient to provide for on-site/near-site ecological benefits in the short term and ecological benefits over the whole pest management area in the long term.⁷⁷</p> <p>The High Court upheld the Environment Court’s findings in relation to its consideration of ecological effects.⁷⁸ Those findings are not amenable to further appeal.</p>

⁷⁵ High Court decision, above n 1, at [243]–[245].

⁷⁶ First interim decision, above n 4, at [170].

⁷⁷ At [208].

⁷⁸ High Court decision, above n 1, at [240]–[242].

**BEFORE THE ENVIRONMENT COURT
I MUA I TE KOOTI TAIAO O AOTEAROA**

Decision No [2019] NZEnvC 196

IN THE MATTER of the Resource Management Act 1991
AND of three appeals under section 120 of the Act
AND an application for declarations under s 310 of the Act

BETWEEN TE RŪNANGA O NGĀTI AWA
(ENV-2018-AKL-000133)
NGĀTI TŪWHARETOA (BOP)
SETTLEMENT TRUST
(ENV-2018-AKL-000134)
SUSTAINABLE OTAKIRI
INCORPORATED
(ENV-2018-AKL-000135)
Appellants

AND SUSTAINABLE OTAKIRI
INCORPORATED
(ENV-2018-AKL-000166)
Applicant for declarations

AND BAY OF PLENTY REGIONAL COUNCIL
WHAKATĀNE DISTRICT COUNCIL
Respondents

AND CRESWELL NZ LIMITED
Applicant for consents

AND TE RŪNANGA O NGĀI TE RANGI IWI
TRUST
NGĀTI PIKIAO ENVIRONMENTAL
SOCIETY
TUWHAKAIRIORA O'BRIEN and NGĀI
TAMAWERA HAPŪ
KIWIRAIL LIMITED
RIHI VERCOE
s274 Parties |



Court: Environment Judge D A Kirkpatrick
Environment Commissioner I Buchanan
Environment Commissioner D Kernohan

Hearing: at Whakatāne on 20 – 24 May 2019

Appearances: H Irwin-Easthope for Te Rūnanga o Ngāti Awa
R Enright and R Haazen for Sustainable Otakiri Inc. and Ngāti
Pikiao Environmental Soc.
M Hill and R Boyte for Bay of Plenty Regional Council
A Green and R Abraham for Whakatāne District Council
D Randall, E Bennett and A Garland-Duignan for Creswell NZ
Ltd
J Gear for Te Rūnanga o Ngāi Te Rangi Iwi Trust
T O'Brien in person and on behalf of Ngāi Tamawera Hapū
R Vercoe in person

Date of Decision: 10 December 2019
Date of Issue: 10 December 2019

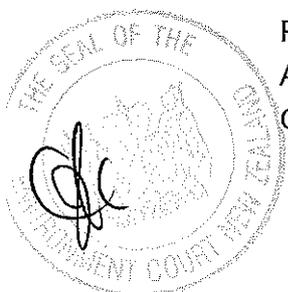
INTERIM DECISION OF THE ENVIRONMENT COURT

- A:** The appeal by Te Rūnanga o Ngāti Awa against the grant of consent by the Bay of Plenty Regional Council is dismissed in part.
- B:** The appeal by Sustainable Otakiri Inc against the change or cancellation of consent conditions and the grant of consents by the Whakatāne District Council is dismissed in part.
- C:** The parties are directed to confer on the draft conditions attached to the closing submissions of counsel for Creswell NZ Ltd and, by 31 January 2020, either to lodge an agreed set of conditions or to file and serve (jointly or severally) a set of conditions that the party considers to be appropriate in light of this decision.
- D:** The application Sustainable Otakiri Inc for declarations is refused.
- E:** Costs are reserved.



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REASONS

Judge Kirkpatrick and Commissioner Buchanan

Introduction

[1] Creswell NZ Limited (**Creswell**) applied to the Bay of Plenty Regional Council (the **Regional Council**) and Whakatāne District Council (the **District Council**) for various consents to enable the expansion of an existing water extraction and bottling operation currently operating at 57 Johnson Road, Otakiri and trading as Otakiri Springs.

[2] Creswell is a wholly-owned subsidiary of Nongfu Spring Company Limited, a company incorporated according to the laws of the People's Republic of China which operates a large-scale water bottling and distribution business in that country. In 2016 Creswell entered into an agreement to purchase the land and the water extraction and bottling operation at 57 Johnson Road, Otakiri, subject to consents being obtained to allow for the expansion of the existing operation.

[3] The applications to the Regional Council are to take groundwater for the water bottling operation,¹ undertake earthworks,² discharge stormwater and treated process wastewater,³ and discharge treated sanitary wastewater to land.⁴

[4] The application to the District Council is to vary the conditions applying to an existing land use consent⁵ to allow the expansion of the water bottling plant. New land use consents are also sought for earthworks adjacent to the Tarawera River stopbank and for soil disturbance on an identified contaminated site.

[5] The applications were heard and considered jointly in the first instance by a panel of two independent Commissioners on behalf of both consent authorities who delivered their decision on 11 June 2018.

[6] The Commissioners granted the applications for consent to take groundwater and other associated consents. That part of the decision was appealed by Te Rūnanga o Ngāti Awa (**the Rūnanga**), Ngāti Tūwharetoa (BOP) Settlement Trust

1 RM17-0424-WT.01
 2 RM17-424-LC.01
 3 RM17-0424-DC.02 and RM17-424-DC.03
 4 RM17-0424-DC.01
 5 Consent ref. 61/4/817



(NTST) and Sustainable Otakiri Incorporated (**Sustainable Otakiri**). NTST and Sustainable Otakiri subsequently withdrew their appeals against the regional consents. NTST remains a s 274 party to the Rūnanga's appeal, which only continues to challenge the groundwater take.

[7] The Rūnanga is the Post-Settlement Governance Entity, the mandated iwi organisation for the purposes of the Māori Fisheries Act 2004 and the iwi authority for the purposes of the Resource Management Act 1991 for Ngāti Awa. The Rūnanga is made up of 22 hapū representatives elected through their hapū together with other groups and entities. Prior to the hearing the Rūnanga confirmed⁶ its appeal has been narrowed to seeking refusal of the Regional Council groundwater take consent because of its adverse effects and in particular:

- (a) effects on te mauri o te wai (the metaphysical spiritual essence of the water); and
- (b) effects on the ability of Ngāti Awa through the Rūnanga to be kaitiaki (guardians) of the water resource.

[8] The Commissioners also granted the applications for the changes to consent conditions for the existing land use consent and for the new land use consents. That part of the decision was appealed by Sustainable Otakiri. Sustainable Otakiri was formed in July 2018 by residents living near the Otakiri Springs water bottling plant following the release of the Commissioner's decision to grant consents for the expansion of the plant. Members of the Society include submitters at the first instance Council hearings and continue their opposition to the expansion of the bottling plant through this appeal by the Society as their successors.⁷

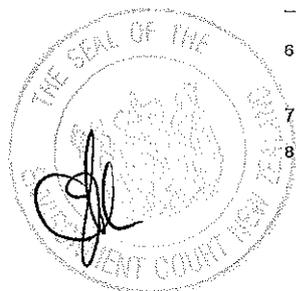
[9] Prior to the hearing before us Sustainable Otakiri refined the outstanding issues from those in the Notice of Appeal to:⁸

- (a) The Court's jurisdiction to grant the application under s 104(3)(d) and s 127 RMA;
- (b) The definition and status of the proposal under the Whakatāne District

⁶ Joint Memorandum of Counsel 25 January 2015 and Memorandum of Counsel for the Rūnanga dated 22 March 2019.

⁷ *Sustainable Otakiri Inc v Bay of Plenty Regional Council* [2018] NZEnvC 207.

⁸ Joint Memorandum of Counsel, 1 February 2019.



Plan;

- (c) The consistency of the proposal with the relevant planning instruments;
- (d) The proposal's effects on rural character and amenity, the general wellbeing of the community, and the loss of productive land; and
- (e) The extent to which the District Plan identifies alternative locations and zonings for the proposed site.

Section 274 parties

[10] Te Rūnanga o Ngāi Te Rangi Iwi Trust supported the Ngāti Awa appeal. Ngāi Te Rangi are members of the Mataatua Assembly and a party to the Mataatua Declaration on Water.

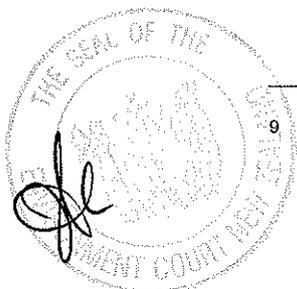
[11] Ngāti Pūkiao Environmental Society supported the Ngāti Awa appeal. Ngāti Pūkiao is part of the Te Arawa confederation and the Society represents them on environmental matters.

[12] Mr Tuwhakairiora O'Brien supported the Ngāti Awa appeal. Mr O'Brien represents Te Pahipoto hapū on Te Rūnanga o Ngāti Awa and is currently its deputy chairperson. Te Pahipoto holds the status of kaitiaki in relation to the location of the proposed Creswell operation.

[13] Ms Rihi Vercoe supported the application. Ms Vercoe is Trustee-Secretary of Kokohinau Papakainga Trust.

The Proposal

[14] The property at 57 Johnson Road, Otakiri, is a 6.27 ha site previously owned by James and Donald Robertson. A groundwater water right (number 20595) was granted in 1979 for kiwifruit irrigation from a 230 m deep bore established at that time (ref. BN-932). The water right was modified in 1991 by the Bay of Plenty Regional Council to allow for a water take for horticulture irrigation (158m³/day), frost protection (1580m³/day), and commercial bottling of water (1200m³/day). The current total allowable take of water is 327,000m³/year. The Robertsons were also granted land use consent in 1991 to establish a water bottling plant at the site.⁹



[15] A business called Kiwi Organics started bottling water on the site in 1994. The business was sold in 1996 to Robertson Industries Limited and on-sold in 2000 to Otakiri Springs Limited, the current operators of the business. James and Donald Robertson are directors and shareholders of Otakiri Springs Limited.

[16] As noted earlier, Creswell has entered into an agreement to purchase the land and water bottling and distribution business at 57 Johnson Road subject to the necessary consents being obtained for expansion of the business. Creswell proposes to expand the existing water bottling plant with the construction of a new purpose-built production plant alongside the existing plant, which is to be retained.

[17] Full details of the construction programme are included in the resource consent application and its accompanying assessment of effects on the environment (AEE) and were summarised in the evidence-in-chief of Mr Hamish Joyce, Consultant Project Manager engaged by Creswell to manage the design and development of the project. A new 16,800 square metre building with a 12.9 m high gabled roof running down to a maximum height of 9.4 m is to be constructed. A truck unloading canopy and container loading area are to be established on the southern side of the new building.

[18] The existing bottling line is to be upgraded from its current maximum capacity of 8,000 bottles per hour to a maximum capacity of 10,000 bottles per hour. The new building will contain a plastic bottle manufacturing plant and two new high-speed bottling lines, each producing 72,000 bottles per hour.

[19] A 30-month construction programme is proposed, including upgrading of Johnson and Hallett Roads, site earthworks and equipment installation.

[20] Internal bottle blow moulding, water bottling and warehousing activity will operate 24 hours per day, seven days per week. No outside activity other than staff car movements is to take place between 10 pm and 7 am.

[21] Outdoor lighting will be required within the site. This will generally be left off with motion sensor activation outside of normal operational hours.

[22] The existing shelter belt that surrounds the site is to be retained and upgraded with replacement and additional planting to provide screening of the buildings. A 2.4 m high noise fence is to be erected in the southern and eastern side of the site and part of the western side.



[23] A peak daily take of 5,000m³ of groundwater per day has been applied for, reflecting the capacity of the bottling operation. Daily water take is expected to fluctuate between 1,000m³ and 5,000m³ per day, with an average daily take of 3,000m³ per day. The maximum annual volume of water sought is 1.1 million cubic metres.

[24] The water will be extracted from a new bore drilled in 2017 (ref. BN17-0056, referred to as PW2 in the application documents) which is 228 metres deep. The existing bore established in 1979 (BN-932) is to be retained as a backup supply for the plant. The two bores at the site draw water from the Otakiri aquifer in the Awaiti Canal groundwater catchment, which is in the Tarawera Water Management Area.

Surrounding Environment

[25] The site is located approximately 3 km southwest of Otakiri and 8 km southwest of Edgecumbe in the Whakatāne district of the Bay of Plenty region. The 6.27 ha site comprises a kiwifruit orchard, the two consented bores and the Otakiri Springs water bottling plant. The Tarawera River is on the western boundary of the site and the Hallett Drain is located along the eastern boundary. The local landscape character is characterised by both pastoral and horticultural land uses, as well as several smaller rural-residential lifestyle properties. There is a relatively high level of domestication in this location compared to the western side of Tarawera River.

The Planning Framework

[26] The Bay of Plenty Regional Policy Statement (**RPS**) and the Bay of Plenty Regional Natural Resources Plan (**RNRP**) provide the relevant regional policy and planning framework for the assessment of the applications for regional consent. The RPS became operative in 2014.

[27] The RNRP was made in 2017 from amalgamation of Regional Plans, including the Regional Water and Land Plan (2008). The RNRP also incorporates the Regional Plan for the Tarawera River Catchment 2004 as Chapter 13. This is proposed to be superseded by the Regional Council's Water Management Areas (**WMA**) process to give effect to the National Water Policy Statement on Freshwater Management 2014 (amended 2017)(**NPSFM**). Chapter 3 - Kaitiakitanga and Chapter 7 - Water Quality and Allocation of the RNRP are also relevant to these appeals.

[28] Proposed Plan Change 9 (**PPC9**) amends Chapter 7 of the RNRP as the first step in a two-stage approach to give effect to the NPSFM in the Bay of Plenty. PPC9



does not amend the Kaitiakitanga Chapter that provides guidance on addressing matters under ss 6(e), 7(a) and 8 RMA.

[29] Three expert planners presented planning evidence for the hearing in relation to the Regional consents: Ms Mallory Osmond for Creswell, Mr Dillon Makgill for the Regional Council and Ms Bridget Robson for the Rūnanga. The expert planners agreed that, as PPC9 is a long way through its Schedule 1 process (being now at the appeals stage) and is intended to give effect to the NPSFM, PPC9 should be given significant weight in this case.

[30] The site is zoned Rural Plains in the Whakatāne District Plan (**WDP**). This zone has a primary production focus with emphasis in Chapters 2, 3 and 7 of the District Plan on the promotion of activities aimed at increasing employment, income and investment. Chapters 2 and 7 also provide relevant objectives related to minimising environmental effects, retaining rural characteristics and amenity values, and providing for activities that have a functional need to be located in the zone.

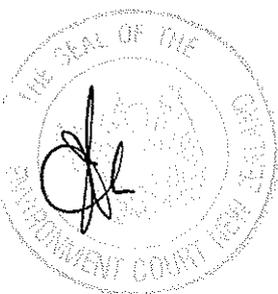
[31] Three expert planners were called to give evidence for the parties, Mr Keith Frenz for Creswell, Mr Craig Batchelor for the District Council and Mr Greg Carlyon for Sustainable Otakiri.

Jurisdictional Overview

[32] In these appeals the Court is considering whether the applications made by Creswell for resource consent and changes of consent conditions should be granted or refused. The scope of the Court's jurisdiction over these appeals is within the ambit of the RMA: it does not have a general jurisdiction. The Court must accordingly confine its reasoning and its decision to the relevant considerations in the RMA and in the statutory planning documents made under the RMA.

[33] The overall framework for those considerations is set out in s 104 RMA. For present purposes we are most concerned with the matters listed in s 104(1) to which, subject to Part 2 RMA, regard must be had:

- (a) any actual and potential effects on the environment of allowing the activity; and
- (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and
- (b) any relevant provisions of—
 - (i) a national environmental standard;
 - (ii) other regulations;
 - (iii) a national policy statement;



- (iv) a New Zealand coastal policy statement;
 - (v) a regional policy statement or proposed regional policy statement;
 - (vi) a plan or proposed plan; and
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

[34] An issue arises in this case as to the scope of the consideration required or allowed under s 104(1)(a) RMA in regard to any actual and potential effects on the environment of allowing the activities for which resource consents have been sought. The issue is whether, and if so to what extent, a consent authority or, on appeal, the Court, should or may consider matters beyond the particular activity for which consent is sought and take into consideration the end use of whatever may be produced by that activity or the effects of other activities for which consent is not required.

[35] Put simply by Counsel for the Rūnanga,¹⁰ the case against the water take is that the application is “for too much water to be sold too far away”. In making this submission Counsel accepted that the Rūnanga’s case was not about the ownership of water or any broader constitutional issues. The focus of the Rūnanga, in her submission, was on the tikanga effects of the proposal in the context of the Mataatua Declaration.

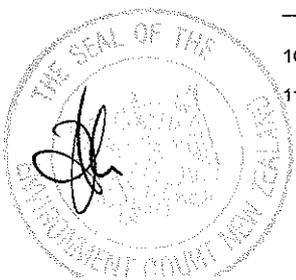
[36] On the issue of control over the end use of something produced by a consented activity, counsel referred to *Gilmore v National Water and Soil Conservation Authority*¹¹ (the Clyde Dam case) where Casey J held that the end use of electricity from the dam for a proposed aluminium smelter could be relevant to the Planning Tribunal’s assessment.

[37] As described by Ms Leonie Simpson, Chief Executive of the Rūnanga, the Mataatua Declaration is an iwi planning document agreed and approved by the tribes of Mataatua in the Bay of Plenty region. The Declaration guides Ngāti Awa’s approach to policy development around a holistic view of freshwater. It affirms Ngāti Awa’s rights and responsibilities within its own constitutional framework to advocate for mana over water in its rohe. Counsel for the Rūnanga submitted that it is within the context of this declaration that the broad opposition to the Creswell proposal has developed.

[38] On those bases we were urged by the Rūnanga to consider the total nature of the consents applied for, including the take from the aquifer, the bottling of the water

¹⁰ Opening submissions at paragraph 8

¹¹ *Gilmore v National Water and Soil Conservation Authority* (1982) 8 NZTPA 298.



and its export overseas.

[39] None of the other parties raised the issue of end use in their opening arguments. In reply, counsel for the Regional Council submitted that the export of bottled water for profit, without charge, is a political issue at a national level and not a matter for this Court to determine. Counsel for Creswell submitted in reply that both the adverse environmental effects of plastic waste and the foreign ownership of Creswell were not matters for the Court to consider.

[40] The Court is aware that there is growing public concern and increasing political debate about the issues relating to commercial interests, particularly foreign-owned companies, exporting high quality freshwater from New Zealand without having to pay royalties or other charges to do so. There is also increasing concern about the use of plastics in packaging and containers, especially where such plastic products are designed to be for a single use and not recyclable, or where opportunities for and the practice of recycling are limited, leading to significant volumes of long-lasting waste. There is also an ongoing public discussion about the rights and interests of Māori in water separate from or beyond the issues that arise from consideration of Part 2 RMA although, as noted, counsel for the Rūnanga did not advance such matters in presenting her client's case before us. These matters all raise important issues, but the undoubted importance of these issues does not, by itself, confer jurisdiction on the Court.

[41] In considering whether the end use of exporting water in plastic bottles results in relevant effects on the environment to which regard should be had in these proceedings, we start with the definitions of the terms *environment* and *effect*. Both are broadly and inclusively defined in ss 2 and 3, respectively, of the RMA:

2 Interpretation

(1) In this Act, unless the context otherwise requires, — ...

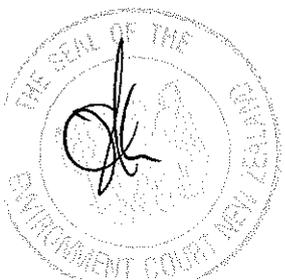
environment includes—

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) all natural and physical resources; and
- (c) amenity values; and
- (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters

3 Meaning of effect

In this Act, unless the context otherwise requires, the term **effect** includes—

- (a) any positive or adverse effect; and
- (b) any temporary or permanent effect; and
- (c) any past, present, or future effect; and



- (d) any cumulative effect which arises over time or in combination with other effects—
regardless of the scale, intensity, duration, or frequency of the effect, and also includes—
- (e) any potential effect of high probability; and
- (f) any potential effect of low probability which has a high potential impact.

[42] Within the definition of *environment*, the term *amenity values* is also defined in s 2 RMA as follows:

amenity values means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes

[43] As noted above, the relevance of the end use of something resulting from a activity to the consideration of whether to grant consent to that activity was addressed in the Clyde Dam case. There the Planning Tribunal had held that the end use of the electricity to be generated by water rights was not a matter they were entitled to consider.¹² On appeal against that conclusion, Casey J was considering the scope of s 14(4)(1) of the Water and Soil Conservation Act 1967 which included among the Authority's powers and functions:

To take into account the present and future needs of primary and secondary industry, water supplies of local authorities, and all forms of recreation, and to have due regard to scenic and natural features and to fisheries and wildlife habitats when planning and advising on the allocation of natural water:

[44] Referring to the broad balancing operation in respect of competing interests and the advantages and disadvantages of the use of water identified and described in *Metekingi v Regional Water Board*¹³ and *Keam v Minister of Works and Development*,¹⁴ Casey J held that evidence about the end use could be highly relevant to the decision. He accordingly remitted the matter back to the Tribunal for further consideration.¹⁵

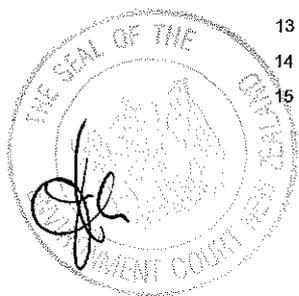
[45] That consideration never occurred as the proceeding became moot on the enactment of the Clutha Development (Clyde Dam) Empowering Act 1982. Respectfully, that outcome, as well as the case being considered under legislation

¹² *Annan v National Water and Soil Conservation Authority* (1980) 7 NZTPA 417 (PT).

¹³ *Metekingi v Regional Water Board* [1975] 2 NZLR 150 (Sup Ct).

¹⁴ *Keam v Minister of Works and Development* (1980) 8 NZTPA 240 (CA).

¹⁵ *Gilmore*, fn 11.



which was quite different to the RMA, renders the decision of reduced value as guidance for the decision we now have to make.

[46] The leading case on the consideration of end use under the RMA in this Court is *Beadle and Wihongi v Minister of Corrections*¹⁶ (the Ngawha Prison case), where the Court reviewed the case law to that point and concluded:

[88] From reviewing all those cases, we discern a general thrust towards having regard to the consequential effects of granting resource consents, particularly if they are environmental effects for which there is no other forum, but with limits of nexus and remoteness. Of course the weight to be placed on them has to be case-specific. *Lee's case*¹⁷ is a reminder that a decision-maker should not have regard to matters extraneous to the Act; *Ngāti Rauhoto*¹⁸ that an appeal on one topic cannot be turned into an appeal on another; and *Cayford*¹⁹ that consequential effects may be too slightly connected to the consent sought, and too remote.

...

[90] ... the Minister expects the Court, in deciding the resource consent applications, to have regard to the purpose of the earthworks and streamworks to create a site for what he urges is a necessary public facility and one that will provide public benefits in Northland. The submitters must be entitled to challenge those claims. But their rights are not limited to direct denial. They must also be entitled to try and prove that the facility would have adverse effects on the environment that should be offset against its positive benefits, and indeed to prevail over them. To preclude submissions and evidence along those lines would be to deprive the Court of the opportunity to make a judgement based on a more complete understanding of the proposal.

[91] So, for what difference it may turn out to make, we hold that in deciding the resource consent applications we are able to have regard to the intended end-use of a corrections facility, and any consequential effects on the environment that might have, if not too uncertain or remote. But we will also need to bear in mind the nature of the consents sought, to avoid turning proceedings about earthworks and streamworks into appeals about use of land for the facility.

[47] Turning to the case law which was reviewed in this decision, the decision in *Cayford v Waikato Regional Council*²⁰ is, on its facts, of particular relevance to the present case. There the Environment Court was considering appeals against a decision granting resource consent to take and treat water from the Waikato River and deliver it through a pipeline to augment the municipal water supply of metropolitan Auckland. The issues on appeal included whether the application for resource

¹⁶ *Beadle and Wihongi v Minister of Corrections* Decision No A 74/2002.

¹⁷ *Lee v Auckland City Council* [1995] NZRMA 241, 262.

¹⁸ *Ngāti Rauhoto Land Rights Committee v Waikato Regional Council* Decision No. A65/97.

¹⁹ *Cayford v Waikato Regional Council* Decision No. A127/98.

²⁰ Fn 19.



consent stated that further resource consent would be required for the discharge of this water to the Manukau Harbour and whether the terms of an agreement between Watercare Services Ltd and the Manukau City Council relating to the treatment of the water should be incorporated in the conditions of resource consent.

[48] The Court considered these issues in the context of three questions of law:

- (a) whether the Court had jurisdiction to consider these issues;
- (b) whether it had power to impose the additional conditions; and
- (c) whether, if it had power, it should refrain from doing so to avoid conflict with the exercise of powers under the Health Act 1956.

[49] The Court noted that the language of s 104(10)(a) RMA indicates that it is the effects on the environment of *allowing the activity* which are to be had in regard. After reviewing several decisions, the Court held:

... it may be discerned that regard is to be had to direct effects of exercising the resource consent which are inevitable or reasonably foreseeable, and also to effects of other activities that would inevitably follow from the granting of consent, but that regard is not to be had to effects which are independent of the activity authorised by the resource consent.

[50] Applying that to the issues in appeals before it, the Court held that the quality of the treated water and its suitability for various purposes was independent from the activity of taking the water, so that the potential effects of the use of the water would not be adverse effects on the environment of allowing the activity, so that regard to such effects was not required under s 104(1)(a) RMA.

[51] In the context of whether such effects would be other matters to which regard must be had under what is now s 104(1)(c) RMA, and the consideration of Part 2 RMA to assist in deciding what is relevant or reasonably necessary, the Court held that the extent to which the water was to be treated and its suitability were not matters that were relevant or reasonably necessary to determining the application to take the water from the river.

[52] Another particularly relevant case considered in the Ngawha Prison decision was *Aquamarine Ltd v Southland Regional Council*.²¹ The applicant proposed

²¹ *Aquamarine Ltd v Southland Regional Council* Decision No C 79/96.



exporting freshwater (coming from the tailrace of the Manapouri power station) from the surface of Deep Cove at Doubtful Sound. The effects in contention did not relate to that export: the concern was about the effects of the passage of the tankers along Doubtful Sound and the potential for discharges, including of ballast water, into the Coastal Marine Area. The Court held that these were reasonably foreseeable effects of allowing the activities for which consent was sought and so were relevant considerations.

[53] Also relevant are the *Buller Coal* cases where the issue of end use was addressed in the context of applications for resource consents. It is important to keep in mind that these cases were decided by the High Court and the Supreme Court in the context of s 104E RMA which prevents a consent authority from having regard to the effects of a discharge into air of greenhouse gases on climate change, and which is not a relevant provision in these appeals. That is obviously a distinguishing feature. Nonetheless, both decisions contain discussions of the issue of end use which are, respectfully, of assistance in the present case.

[54] In the High Court,²² Whata J addressed the particular issue about the interpretation of s 104(1)(a) as follows:

[39] I do not consider that the assessment of effects under s 104(1)(a) in this case includes consideration of the effects on climate change of the discharge of greenhouse gases from the end use of coal. My reasons follow.

...

[42] Third, as I have said, jurisdiction under s 104(1)(a) is expressed to be limited to assessing the actual and potential effects of "allowing the activity", in this case coal extraction. Taken literally, industrial discharges of contaminants, including greenhouse gases to air caused by the end use of coal, will not be allowed by the grant of the land use consent. Those discharges will either need to be allowed by an environmental standard, a regional plan rule or by separate air discharge resource consent. The effects of those discharges in New Zealand therefore are presumptively irrelevant to the s 104(1)(a) assessment of the application to extract coal, unless that extraction involves a discharge. (I examine extra-territorial discharges below at [50]-[54]).

[43] I accept that it is common for consent authorities to take into account the effects of downstream activities, for example increased vehicle traffic and associated pollution arising from allowing a development. This type of diffuse or non point pollution is not normally amenable to regulation by way of air discharge consenting. Regional and district policies and rules will often contemplate district level management of diffuse emissions, through urban form planning strategies. This overlapping jurisdiction is

concordant with the Act's promotion of integrated management, with the result that the reach of s 104(1)(a) is extended by the policy framework to consider such effects. ...

[55] This reason focuses on the consenting exercise rather than the activity by itself and may mean that things for which consent is not required do not form part of the assessment of something for which consent is required. Where consent is required to mine the coal but not to export it (where it will almost certainly be burnt), then the question follows as to the extent to which the effects of the burning amounts to an effect of allowing the mining.

[56] In the Supreme Court,²³ William Young J, for the majority, said:

[117] As Whata J noted in his judgment [at [43]], the effects on which West Coast ENT and Forest and Bird wish to rely are direct consequences of burning coal, rather than mining it. So there would always have been scope for argument that the climate change effects relied on by the appellant were too remote from the activities for which consents were sought to fall within the scope of s 104(1)(a). Indeed what was effectively this argument succeeded in one case in the Environment Court.

[118] The indirectness argument can be taken a little further. For reasons already given, the climate change effects of burning coal are irrelevant to the applications to the extent to which they seek permission to mine coal. The issue only arises because aspects of the projects which are ancillary to the proposed mining are discretionary, controlled or non-complying under the relevant plans. To put this in more specific terms – and to give an example – BCL requires consent to put in roading associated with its mining proposal. West Coast ENT's argument is that such consent should be refused because of, inter alia, the climate change effects of the burning of the coal, the mining and export of which will be facilitated by the roading in question. It might be thought a little odd if climate change consequences which are irrelevant to the application for consent to mine the coal are relevant to an ancillary element of the mining proposal. As well, the eventual burning of the coal overseas is not closely associated with the construction of roading on the West Coast. And finally on this point, allowing climate change arguments to be advanced in relation to roading might be thought to be antithetical to the concept of a restricted discretionary activity and the rules in the District Plan.

[119] We accept that effects on the environment of activities which are consequential on allowing the activity for which consent is sought have sometimes been taken into account by consent authorities. This is particularly so in respect of consequential activities which are not directly the subject of control under the RMA. But questions of fact and degree are likely to arise as is apparent from the judgment of the Environment Court in *Beadle v Minister of Corrections*. In issue in that case was an application for consent for earthworks and streamworks associated with a proposed prison. Those objecting to the proposal wished to raise arguments directed to the detrimental effects on the environment likely to result from the development of the site for a prison facility. This attracted the following comment from the Court: *[quoting from*

²³

West Coast ENT Inc v Buller Coal Ltd [2013] NZSC 87.



paragraphs [90] and [91] which are set out above.]

[57] William Young J, for the majority, concluded²⁴ that a literal interpretation of s 104(1)(a) would produce anomalous outcomes because it would allow outcomes which are off limits in relation to the issues to which they are most closely related (in that case, discharges to air) to come in, by the backdoor, in respect of ancillary issues (such as land use, roading and the like). In light of that analysis, the majority held that:

[172] ... in s 104(1)(a), the words "actual or potential effects on the environment" in relation to an activity which is under consideration by a local authority do not extend to the impact on climate change of the discharge into air of greenhouse gases that result indirectly from that activity.

[58] In her dissenting judgment, Elias CJ considered that there was nothing in s 104(1)(a) RMA to exclude the effect of the end use of coal,²⁵ that the effects were not too remote²⁶ and that the issue of weight was a matter for the decision-maker.²⁷

Analysis

[59] Applying the guidance from those decisions, we must have regard to the consequential effects of granting the resource consents sought, or the amendments sought to conditions, within the ambit of the RMA and subject to limits of nexus and remoteness.

[60] The ambit of the RMA in the context of considering an application for resource consent under s 104(1)(a) requires consideration of an effect of allowing the activity. It does not extend as far as considering any effect on the environment which, given the broad inclusive definitions of those words, might be anything at all. There must be a causal relationship between allowing the activity and the effect: if an effect would occur unchanged regardless of whether the activity was allowed or not, then such an effect would not be within the scope of s 104(1)(a) RMA. If the extent or degree of such an effect would be altered by allowing or refusing the activity, then that effect would be relevant at least in terms of that change but its nexus and remoteness would need to be assessed.

[61] Nexus here refers to the degree of connection between the activity and the

²⁴ *West Coast ENT*, fn 23 at [168] – [176].

²⁵ *West Coast ENT*, fn 23 at [72].

²⁶ *West Coast ENT*, fn 23 at [87].

²⁷ *West Coast ENT*, fn 23 at [94].



effect, while remoteness refers to the proximity of such connection, both being considered in terms of causal legal relationships rather than simply in physical terms. Experience indicates that these assessments are likely to be in terms of factors of degree rather than of absolute criteria and so be matters of weight rather than intrinsically dispositive of any decision. Matters that are *de minimis* are of course excluded.²⁸

[62] The purpose and principles set out in Part 2 RMA are matters to which any consideration under s 104 is subject. The effect of being subject to Part 2 is that any conflict between that consideration and a provision in Part 2 must be resolved in favour of the latter provision.²⁹ That does not make Part 2 a law unto itself: s 5 is not intended to be an operative provision under which particular planning decisions are made and the specific jurisdictional framework of the rest of the RMA and the policy framework of the planning documents under it are not to be circumvented by resort to Part 2 generally.³⁰ In considering an application under s 104 RMA, there must be a fair appraisal of the relevant objectives and policies read as a whole. Reference to Part 2 should not result in the policy statement or plan provisions being considered only for the purpose of putting them on one side or otherwise subverted. If a plan has been competently prepared under the RMA, then there may be no need to refer to Part 2 because doing so will not add anything to the evaluative exercise, but if in doubt then such reference will be appropriate and necessary.³¹

[63] In this case, a principal activity for which resource consent is required is the taking of water from the aquifer. The regional plan addresses the issues relating to the taking of water from aquifers comprehensively. There is no assertion that the plan has been prepared other than competently in relation to this particular activity.

[64] The end uses of the water, once taken, involve putting the water in plastic bottles, exporting the bottled water and consumption of it by people outside New Zealand. The end uses are ancillary activities which are not controlled under the regional plan. There is no suggestion that control of such activities comes within the

²⁸ *Bayley v Manukau City Council* [1999] 1 NZLR 568, 576; [1998] NZRMA 513, 521; *Westfield (NZ) Ltd and Northcote Mainstreet Inc v North Shore City Council and Discount Brands Ltd* [2005] NZSC 17; [2005] NZRMA 337.

²⁹ *Environmental Defence Society v Mangonui County Council* [1989] NZCA 17; [1989] 3 NZLR 257; (1989) 13 NZTPA 197.

³⁰ *Environmental Defence Society v New Zealand King Salmon Ltd* [2014] NZSC 38 at [21] – [30], [84] – [91], [130] and [150] – [151].

³¹ *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316 at [71] – [76].



ambit of the functions of the regional council under s 30 RMA. We are not aware of any direct control of such activities by other legislation and accordingly proceed on the basis that such activities are lawful. While such end uses are foreseeable, and while the effects on the environment of using plastic bottles and exporting water may well be adverse, refusing consent to the taking of water in this case will have no effect on all other instances where plastic bottles are used in New Zealand or where water is exported, whether in its natural form or as a component of other exports. We do not have specific evidence on the relative quantities involved, but as far as we understand the position, the scale of the proposed operation in this case would be a small component of the total bottling and export activities in New Zealand.

[65] For the purposes of our analysis we accept that the water would not be taken if it could not be bottled, and the proposed volume would not be taken if it could not be exported. Even on that basis, we do not think that on an appeal in relation to a particular proposal to take water we can, by our decision, effectively prohibit either using plastic bottles or exporting bottled water. Such controls would require direct legislative intervention at a national level.

[66] We therefore consider that, in this case, the end uses of putting the water in plastic bottles and exporting the bottled water are matters which go beyond the scope of consideration of an application for resource consent to take water from the aquifer under s 104(1)(a) RMA.

Regional Consents

Groundwater Effects

[67] The physical effects on the groundwater resource from the proposed take was the subject of expert conferencing by five hydrogeologists engaged by the primary parties, including the Rūnanga. Their joint witness statement dated 1 November 2018 noted agreement that any adverse effects on shallow groundwater, surface water including wetlands, other groundwater users, saline intrusion and groundwater subsidence are expected to be no more than minor. These expert witnesses also agreed that there is some uncertainty about the prediction of the small drawdown effects on the deep aquifer, but that any potential long-term effects can be addressed by requiring appropriate long-term groundwater monitoring and adaptive responses. Conditions to this effect are included in draft conditions before the Court.

[68] Detailed groundwater investigation reports relied on by the experts in



caucusing were provided in the evidence-in-chief of Mr Michael Goff, a hydrogeologist engaged by Creswell. No other hydrogeological evidence was called by the parties. His conclusions were unchallenged that:

- (a) The Awaite Canal Catchment is conservatively allocated;
- (b) The applied for take is within this available allocation; and
- (c) The biophysical effects of the proposed take will be negligible.

[69] The approach to allocation under PPC9 to the RNRP is to set an interim allocation limit of 35% of the long-term residual average annual recharge: see Policy WQ P5 of, and Schedule 15 to, PPC9. The Regional Council maintains an indicative groundwater availability and consented allocation GIS mapping tool to assist readers of the plan and others to find out what water has been allocated and what, if any, water remains available for allocation.³² In respect of the Awaite Canal aquifer the mapping tool provides the following information:

Groundwater Flow	24,093,504 m ³ /y
Available Allocation	8,432,726 m ³ /y
Allocated Groundwater	6,710,180 m ³ /y
Allocated Groundwater	79.6 %
Allocation Remaining	1,722,546 m ³ /y

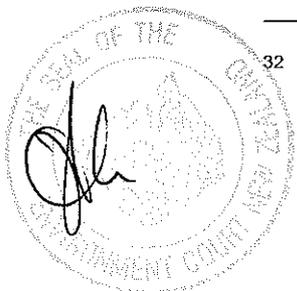
In terms of these figures, this application for 1.1 million m³/y is 13% of the available allocation and 64% of the allocation remaining, without allowing for any deduction in respect of the portion of the existing take which may be replaced by this application.

[70] We accept the conclusions of Mr Goff. In doing so, we acknowledge, as does Mr Goff, that these conclusions do not include consideration of matauranga Māori (ancestral knowledge), tikanga or te mauri o te wai.

Tikanga Effects

[71] The Rūnanga's opposition to the proposal centred on the tikanga effects of

³² The mapping tool can be accessed at <https://www.boprc.govt.nz/environment/fresh-water/water-use/>.



taking a large amount of water from the aquifer for bottling and sale overseas. These effects were characterised as “metaphysical” by counsel for the Rūnanga³³ and focused on the diminution and/or loss of te mauri o te wai and Ngāti Awa's ability to be kaitiaki of the water. The Rūnanga's position is that the tikanga effects are of a nature and significance that warrant declining the application. This position was supported in submissions from Te Rūnanga o Ngāi te Rangī Iwi Trust and Ngāti Pīkiao Environmental Society.

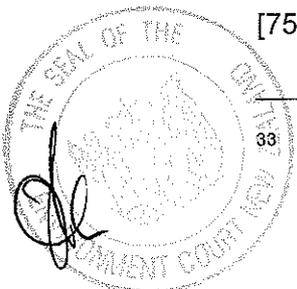
[72] Creswell relies on the evidence of Mr Hemama Eruera of Te Pahipoto hapū, a Ngāti Awa kaumatua and tikanga advisor, who considers that any effects on te mauri o te wai can be restored through tikanga practices and that provision can be made in conditions for an ongoing role for Ngāti Awa as kaitiaki of the water resource. This position is supported by the Regional Council.

[73] Mr Eruera was engaged by Creswell to provide expert evidence on relevant tikanga matters associated with the proposal. A central element of this was the issue of adverse effects on te mauri o te wai, where mauri is considered as the definitive living essence and character of everything. Mr Eruera noted that while mauri can be degraded, depleted or removed by activities, it can also be restored.

[74] In considering the taking of water from the Otakiri aquifer, Mr Eruera expressed no concerns about the potential for adverse effects on te mauri o te wai. Important in this was his understanding that the resource would not be depleted by the Creswell extraction. In his view, when water is extracted it carries mauri with it, but as it is replenished by rainfall the mauri is restored as it returns to its original source. For water that moves away from its source, in this case through bottling and export, the mauri of the water moves within it. Where the water is consumed by a living person the mauri of that person is enriched by te mauri o te wai, irrespective of whether that consumption is local, outside the region or anywhere overseas. Mauri wai and mauri tangata (mankind) are linked and when all things return to Papatuanuku the cycle of mauri continues. It is from this understanding of tikanga that Mr Eruera advised that there will be no adverse effects on te mauri o te wai from the Creswell proposal, either from the extraction from the aquifer or from the subsequent bottling and export of that water.

[75] Mr Eruera went on to express his belief that the beneficial effects of the

³³ Opening at paragraph 7.



proposal from the employment of local people would have a positive influence on the mauri of those people and Ngāti Awa generally. This was considered by Mr Eruera as a very significant positive effect on mauri tangata.

[76] Mr Eruera did not envisage any diminution on the ability of those with mana whenua, including his hapū and wider Ngāti Awa, to practice kaitiakitanga over the waterbody that remains, particularly as that waterbody is naturally replenished. In the unlikely (in his view) event that any negative effects on mauri or kaitiakitanga are identified, Mr Eruera identified cultural practices that could be employed to address and restore any loss of mauri.

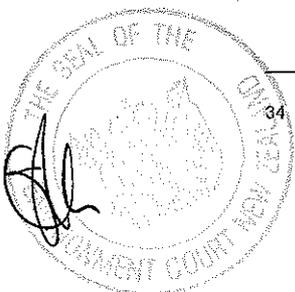
[77] Te Rūnanga relied on the evidence of Dr Hohepa Mason and Mr Te Kei Wirihana Merito, both members of the Rūnanga Tikanga Advisory Group Te Kahui Kaumatua o Ngāti Awa ropu. Dr Mason is of Ngāti Pukeko hapū and represents that hapū on the Rūnanga. He is currently chairman. Mr Merito traces his ancestry through a number of Ngāti Awa hapū, representing Ngāti Rangataua on the Rūnanga.

[78] Dr Mason and Mr Merito prepared a joint statement of evidence for the hearing, but only Dr Mason appeared as Mr Merito was unable to attend due to ill health. Our references here to Dr Mason and his evidence includes the contribution of Mr Merito.

[79] Dr Mason's evidence was that the removal of water from New Zealand as a bottled commodity would erode te mauri o te wai. He linked this to the amount of water being taken from the system and sold, with insufficient opportunity for that water to re-enter the system. The loss of mauri is not able to be avoided. Once lost from the system through the export of the water, the mauri cannot be restored. Only by retaining the water within the water cycle in Ngāti Awa's rohe can the mauri be retained as it would be staying within Papatuanuku.

[80] Dr Mason linked the loss of te mauri o te wai with the export of water from the aquifer with a negative effect on the ability of the hapū to be kaitiaki, saying in evidence: "If the mauri is diminished or gone the kaitiaki are not fulfilling their responsibilities".³⁴ Dr Mason did not accept that the proposal by Creswell to establish a Kaitiaki Liaison Group would address the issue of adverse effects on te mauri o te wai or the exercise of kaitiakitanga by Ngāti Awa.

³⁴ Mason/Merito EIC at paragraph 68.



[81] Dr Mason acknowledged the Mataatua Declaration as confirming the principle that water is a taonga that can be shared with others provided it is looked after, and that Ngāti Awa have this responsibility within their rohe. He considered the amount of water proposed to be sold outside New Zealand by Creswell commodified a large amount of water in a way that is not supported by the tikanga of Ngāti Awa.

[82] Dr Mason concluded that while there may be positive benefits in an economic sense from the proposal these do not offset the negative effects on te mauri o te wai.

[83] Mr Tuwhakairiora O'Brien provided a brief statement of evidence fully supporting the evidence of Dr Mason and Mr Merito.

[84] We record our understanding that Mr Eruera, Dr Mason and Mr Merito agree that all water is a taonga for Ngāti Awa and that no special distinction is made between water in its different contexts and forms, whether in an aquifer, a surface waterbody, river or lake.

[85] These witnesses also acknowledged that:

- (a) The explanation of mauri is generally agreed as being "the concept of mauri refers to the definitive living essence and character of everything".
- (b) It is the respective hapū who are kaitiaki within the Rūnanga or Ngāti Awa.
- (c) The description of kaitiakitanga is agreed as the concept of guardianship.

[86] This evidence highlights two significant issues: the tension between the metaphysical and the physical effects of the proposal and the conflicting tikanga evidence from three acknowledged tikanga experts from Ngāti Awa.

Consultation

[87] Ms Simpson provided extensive detail on the nature and structure of the Rūnanga as the Post-Settlement Governance Entity for Ngāti Awa. Ms Simpson also outlined the Mataatua Declaration as the driving policy for the Rūnanga on freshwater management and responsibilities.

[88] Ms Simpson described the engagement between the Rūnanga and its hapū with Creswell over the project and the involvement of the Rūnanga in the consent process to date. While being critical of some aspects of the engagement with Creswell, including the reliance on dealings with Mr Eruera rather than with the Rūnanga itself, Ms Simpson did not pursue this as an important element of the



Rūnanga's opposition to the project.

[89] We note the extent of the engagement process undertaken by Creswell with all interested parties as set out in the evidence-in-chief of Mr Michael Gleissner, Director of Creswell NZ Limited, and accept that this was a genuine and meaningful attempt to involve the immediate community, hapū and iwi in the development of the project.

Beneficial Effects

[90] Mr Gleissner and Mr Mark Cox, consultant economist engaged by Creswell, described in evidence the nature of the proposed investment in plant and supporting infrastructure including upgrading of a local road, intersections and footpaths. Employment opportunities are forecast to increase from the current 8 fulltime equivalent staff (FTE) to 60, with flow-on effects increasing this to 145 FTEs.

[91] Mr Cox's conclusion that "*in light of the considerable socio-economic deprivation of the area surrounding Otakiri Springs (apart from Otakiri itself) the increase in employment and the potential supply opportunities that the project will bring will have a significant impact on the wellbeing of the local community*"³⁵ was unchallenged.

[92] Mr Eruera acknowledged that the main reason for his support for the project was the potential for "*creating employment opportunities for the local people of Te Teko and surrounding areas*" and notes that "*through these employment opportunities our people, our children and our mokopuna will be mobilised, empowered and self-sufficient*".³⁶

[93] Mr Eruera and Dr Mason agreed that te mauri o te wai and te mauri o te tangata (mauri of the people) are intertwined. Mr Eruera saw the project's contribution in providing employment for Ngāti Awa people as a positive influence on the mauri of the people.³⁷ He considered that the opportunity provided within the project to protect te mauri o te wai and honour Ngāti Awa's kaitiaki role sits well with the uplifting of the mauri of the people through employment.

³⁵ Cox, EIC at paragraph 65.

³⁶ Eruera EIC, at paragraph 71.

³⁷ Eruera EIC, at paragraph 51.



[94] Dr Mason and Mr Merito acknowledged that there “*may well be economic benefits of the proposal*”,³⁸ but did not see these as negating the adverse effects they believe will accrue to te mauri o te wai. This was supported by Ms Simpson³⁹ as representing the Rūnanga’s position. During cross-examination Dr Mason was reluctant to engage with the issue of potential benefits of the project to the mauri of the people.⁴⁰

[95] We accept the evidence of Mr Cox that considerable benefit will extend to the local and regional community and make a significant contribution to economic and social wellbeing. Whether the employment opportunities created for tangata whenua at a local level can be categorised as a cultural benefit was of some dispute between tikanga experts for Creswell and Te Rūnanga. We see no need to address these different views here. Our decision does not turn on any potential offsetting of the asserted effects on te mauri o te wai and any uplifting of te mauri o te tangata. We simply acknowledge the differing interpretations of tikanga experts in this regard, while accepting that the economic and social benefits of the project will be significant.

Evaluation of Evidence of Cultural Effects

[96] Dr Mason and Mr Merito have expressed their honestly held belief that taking too much water for bottling and export overseas would result in the un-restorable loss of the mauri of that water. No explanation was provided as to what constitutes “too much” in this context and what differentiates the proposed take from other existing or potential takes, such as for local water supply or horticultural/agricultural support. In answer to questions, Dr Mason said that the main concern was about sending the water away to people whose tikanga are different.⁴¹

[97] No evidence was adduced to reconcile the asserted requirement for the return of the bottled water to Papatuanuku, at least within Aotearoa, in order for its mauri to be retained, with circumstances where other commodities heavily reliant on water from within the rohe, such as milk, meat and horticultural commodities are exported to all parts of the world. We understand that Ngāti Awa commercial enterprises hold consents for greater volumes and rates of take of water than that proposed by Creswell, taken from highly sensitive and culturally significant surface water resources

³⁸ Mason and Merito EIC at paragraph 74.

³⁹ Simpson EIC, at paragraph 80.

⁴⁰ Transcript, p 311.

⁴¹ Transcript, pages 315 and 316.



such as the Tarawera and Rangitikei Rivers. We were not provided with any explanation as to the nature of any loss of mauri in these circumstances or how kaitiakitanga is exercised.

[98] Ms Simpson's evidence was that the Rūnanga's position was based on advice from Ngāti Awa Kaumatua and professional advisors.⁴² As noted earlier the Rūnanga has a group, Te Kahui Kaumatua o Ngāti Awa (TKK), established to advise the Rūnanga of matters of tikanga and the protection of mauri. The kaumatua providing expert evidence on tikanga matters are all members of TKK.

[99] In response to questioning, Ms Simpson confirmed that TKK advice was not specifically sought in this instance and TKK have not formally endorsed the appeal. She was uncertain as to whether there was agreement within TKK on the issue of water bottling.⁴³

[100] Customary practices and traditional knowledge are not directly applicable to the export of bottled water. This is a modern-day question in which TKK has a role in applying traditional values and principles. It may have been useful for the Court to have had the benefit of the collective wisdom of TKK applying traditional values and knowledge to this modern issue. In the absence of this we have no evidence of a coherent widely held belief within Ngāti Awa regarding the adverse metaphysical effects of taking water for bottling and export.

[101] Evidence on cultural topics of this kind can present challenges to the traditional approach of common law courts, of which this Court is one, to the assessment of such evidence. Nonetheless, the requirements of ss 6(e), 7(a) and 8 of the Act require this Court to undertake such assessments in a way that is consistent with the interests of justice. In *Ngāti Hokopū ki Hokowhitu v Whakatāne District Council*⁴⁴ the Court proceeded according to what was there described as a "rule of reason"⁴⁵ to test the evidence on issues raising beliefs about values and traditions by listening to, reading

⁴² EIC at paragraphs 10 and 56A.

⁴³ Transcript, pages 353 and 354.

⁴⁴ *Ngāti Hokopū ki Hokowhitu v Whakatāne District Council* [2002] NZEnvC 421.

⁴⁵ In the sense used generally in philosophy rather than the specialised sense used in competition and anti-trust law. In *TV3 Network Services Ltd v Waikato District Council* [1998] NZLR 360; [1997] NZRMA 539, Hammond J used the term to distinguish an objective approach from a *per se* objection or veto which is unlawful under the RMA: see *Minhinnick v Watercare Services Ltd* [1998] 1 NZLR 63; [1997] NZRMA 553.



and examining:⁴⁶

- whether the values correlate with physical features of the world (places, people);
- people's explanations of their values and their traditions;
- whether there is external evidence (e.g. Māori Land Court Minutes) or corroborating information (e.g. waiata, or whakatauki) about the values. By 'external' we mean before they became important for a particular issue and (potentially) changed by the value-holders;
- the internal consistency of people's explanations (whether there are contradictions);
- the coherence of those values with others;
- how widely the beliefs are expressed and held.

[102] Dr Mason and Mr Merito believe that in the absence of any opportunity for return to Papatuanuku in the narrow context of the original source of the water, the mauri of the water is lost. The view of Mr Eruera that the cycle of water and the mauri of that water operates at a much broader scale is consistent with the biophysical western science understanding of all water as part of a constant replenishing global cycle as described by Mr Goff.⁴⁷

[103] The evidence of Dr Mason and Mr Merito on the nature and scale of the adverse metaphysical effects was that these effects are so great as to warrant declining consent. We accept these beliefs are honestly held and perhaps are shared by many members of the iwi, but we prefer the evidence of Mr Eruera that te mauri o te wai is retained as water passes through its many forms before returning to Papatuanuku to begin its journey again within the earth's water cycle.

[104] In our view, the water should be considered in the context of the resource rather than simply as any volume of water. Water is essential to life on earth, whether approached in terms of general science or of te ao Māori and according to principles of ecological responsibility or to tikanga Māori and te mana o te wai: it is a universal concept. The essence extends from the immediate needs of each living thing to the entire water cycle which connects the earth and the sky or Papatūānuku and Ranginui. The health or hauora of the environment, the water and the people are connected and inter-dependent.

[105] Using that approach, a taking of water would be too much if it threatened the

⁴⁶ *Ngāti Hokopū ki Hokowhitu*, fn 44 at [53].

⁴⁷ Gough Rebuttal, paragraphs 9 and 11.



sustainable management of its source, so that even local taking and use for domestic purposes and stock could be too much if the source of water were very limited. Both the protection of the water and enabling the use of the water are part of the sustainability of the water resource. We think that such an approach would demonstrate consistency between the purpose of the RMA and tikanga Māori.

[106] We think this approach is also consistent with the approach taken in the Regional Plan and by the Regional Council in assessing the availability and allocation of groundwater. As explained above, we are satisfied on the evidence and in the absence of any disagreement among the expert witnesses that the groundwater resource in the Awaiti Canal aquifer is sufficient to enable the taking of the amount of water sought by Creswell, as well as the existing takings of other entities engaged in the same activity and, perhaps, future takings by anyone for the same or a similar purpose.

[107] Considering the export of this water, we do not find any reason why, if the take is sustainable, the export would not be. Any use of the water, particularly a consumptive use, will have generally similar physical effects. For this aquifer, uses include a range of products, many of which are likely to be taken and consumed or otherwise used outside the district and the region. As noted in our jurisdictional overview, while there is public debate about export of water from New Zealand, there is no legal basis on which we can restrict that activity. In terms of the evidential basis on which we might refuse consent to the increased take because of its intended purpose for export, we do not see any sufficient connection in this case, either in terms of physical or metaphysical effects of export, for basically the same reasons as our assessment of the physical and metaphysical effects of the take.

[108] Creswell presented a set of monitoring conditions for the aquifer to manage any effect on the physical resource and offer linkage to a Kaitiaki Liaison Group to be established to ensure kaitiaki principles are incorporated into the long-term management of the resource. We consider such conditions to be appropriate to help protect the sustainability of the resource and its mauri and mana.

[109] While acknowledging the role of the local hapū as kaitiaki, the Rūnanga have suggested that the extensive nature of the Otakiri aquifer warrants involvement of wider iwi interests through Rūnanga representation alongside the hapū on the proposed Kaitiaki Liaison Group. We see no reason for the conditions not to provide for this.



Planning Evaluation

[110] Ms Osmond provided the only comprehensive examination of the proposal against the relevant national and regional planning instruments. Mr Makgill was in general agreement with Ms Osmond's planning evaluation of the proposal and provided some additional commentary. Ms Robson did not prepare any alternative evaluation against the relevant plan provisions, relying on a critique of the inadequacies of these provisions to present an evaluation of the proposal against the provisions of Part 2 RMA on the basis of first principles. We address this separately below.

[111] The National Policy Statement for Freshwater Management 2014 (**NPSFM**) and its August 2017 amendments set out objectives and policies that direct local authorities to manage water in an integrated and sustainable way within quality and quantity limits set in their regional plans, while providing for economic growth. Ms Osmond described the two-step process being undertaken by Bay of Plenty Regional Council to achieve compliant implementation of the NPSFM. This process will set limits for water quantity and quality for each of the regions nine identified Water Management Areas (**WMAs**).

[112] Proposed Plan Change 9 (**PPC9**) focuses on region-wide quantity issues. Future plan changes will focus on water quality and catchment specific water quantity. Work in the Tarawera WMA, where the application site is located, is scheduled to commence in 2021/2022.

[113] A key element of the NPSFM, set out in Objective AA1 and Policy AA1, requires Councils to recognise Te Mana o te Wai in freshwater management:

Objective AA1

To consider and recognise Te Mana o te Wai in the management of fresh water.

Policy AA1

By every regional council making or changing regional policy statements and plans to consider and recognise Te Mana o te Wai, noting that:

- a) te Mana o te Wai recognises the connection between water and the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people); and
- b) values identified through engagement and discussion with the community, including tangata whenua, must inform the setting of



freshwater objectives and limits.

[114] The terms used in this objective and policy are not defined in the NPSFM. There is a statement at the beginning of the NPSFM entitled *National significance of fresh water and Te Mana o te Wai* which says:

The matter of national significance to which this national policy statement applies is the management of fresh water through a framework that considers and recognises Te Mana o te Wai as an integral part of freshwater management.

The health and well-being of our freshwater bodies is vital for the health and well-being of our land, our resources (including fisheries, flora and fauna) and our communities.

Te Mana o te Wai is the integrated and holistic well-being of a freshwater body.

Upholding Te Mana o te Wai acknowledges and protects the mauri of the water. This requires that in using water you must also provide for Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people).

Te Mana o te Wai incorporates the values of tangata whenua and the wider community in relation to each water body.

The engagement promoted by Te Mana o te Wai will help the community, including tangata whenua, and regional councils develop tailored responses to freshwater management that work within their region.

By recognising Te Mana o te Wai as an integral part of the freshwater management framework it is intended that the health and well-being of freshwater bodies is at the forefront of all discussions and decisions about fresh water, including the identification of freshwater values and objectives, setting limits and the development of policies and rules. This is intended to ensure that water is available for the use and enjoyment of all New Zealanders, including tangata whenua, now and for future generations.

[115] We note that the Rūnanga framed their appeal as being about te mauri o te wai. The RPS interprets *mauri* as:

The essential life force, energy or principle that tangata whenua believe exists in all things in the natural world, including people. Tangata whenua believe it is the vital essence or life force by which all things cohere in nature. When Mauri is absent there is no life. When Mauri is degraded or absent, Tangata whenua believe this can mean that they have been remiss in their kaitiakitanga responsibilities and this effects their relationship with the atua (Māori gods). Mauri can also be imbued within manmade or physical objects.

[116] The RNRP does not purport to define *mauri*, but refers to the following explanation in Chapter 3 in relation to kaitiakitanga:

Mauri is the life force present in all animate and inanimate objects. The mauri binds one resource to every other element in a natural order, both physical and spiritual. It



provides Maori a series of formal relationships, which, when recognised in practice and prayer ensures physical and spiritual integrity of the environment for future generations. Mauri may be described as the cornerstone of Maori cosmology. Maori believe it is the vital essence or life force by which all things cohere in nature. When mauri is absent there is no life. Of all taonga tuku iho, mauri is the most precious. Mauri provides unity between the natural order and the spirituality of the gods, and also by providing a series of formal relationships to ensure the physical and spiritual integrity of the environment for future generations. While mauri has a spiritual basis, it also leads to practical application of traditional resource management (kaitiakitanga) by ensuring that the environment is maintained in its natural condition. Kaitiaki are responsible for the mauri of their rohe. Failure of the iwi or hapu to protect, restore, maintain and enhance mauri through the practice of kaitiakitanga has the potential to adversely affect the relationship of the iwi or hapu with their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, and the mana of the iwi or hapu in general.

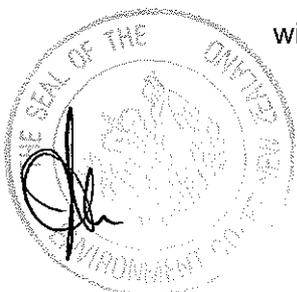
Practices or tikanga were developed and observed to maintain the mauri of parts of the natural world. Observing these tikanga evolved into the ethic and exercise of kaitiakitanga.

[117] In the Court's understanding of these matters, mana and mauri are closely linked, so that for the purposes of our assessment and decision-making in terms of the RMA, if the mauri of a resource is adversely affected, then its mana must also be adversely affected. We also understand that the three healths referred to in the extract from the NPSFM quoted above are not to be read only as aspects of physical health, but, in the context of mana, include metaphysical or spiritual health: *anima sana in corpore sano*.

[118] In Ms Osmond's opinion, supported by Mr Makgill, the approach being undertaken by Bay of Plenty Regional Council is consistent with the direction of the NPSFM and will uphold the concept and principles of Te Mana o te Wai.

[119] Relying on the agreed evidence of Mr Goff and the tikanga evidence of Mr Eruera, Ms Osmond's opinion was that no adverse effects were anticipated on the three healths of te mana o te wai – te hauora o te taiao (health of the environment), te hauora o te wai (health of the waterbody) and te hauora o te tangata (health of the people).

[120] The economic and social benefits of the project, as described in the evidence of Mr Cox, Mr Gleissner and Mr Eruera, the absence of biophysical effects on the aquifer, and the consultation and ongoing commitment of collaborative engagement with tangata whenua led Ms Osmond to conclude that the application to take and use



groundwater was consistent with the NPSFM. Mr Makgill agreed.⁴⁸

[121] Ms Osmond's evidence was that the Resource Management (National Environmental Standards for Sources of Drinking Water) Regulations 2007 and Resource Management (Measurement and Reporting of Watertakes) Regulations 2010 were relevant and the application complied with these Regulations. Mr Makgill agreed and this was unchallenged at the hearing.

Regional Planning Documents

[122] As noted earlier, PPC9 sets interim groundwater allocation limits for the Awaiki Catchment of which the Otakiri aquifer is part. The regional planning experts agreed⁴⁹ that PPC9 in general should be given considerable weight, particularly where it provides more guidance than the operative plans on matters such as allocation limits.

[123] Ms Osmond, relying on the evidence of Mr Goff, advised that the proposed groundwater take is within the interim allocation limit for the Waikiki Canal Catchment set by Policy WQ P5 in PPC9. She also noted that the application is consistent with Policy WQ P11 which seeks to generally grant applications to take and use groundwater where the rate of consented take will not exceed the interim limits identified in Policy WQ P5. On this basis, it was Ms Osmond's opinion that the application for groundwater take is sustainable and consistent with Regional Plan Objectives and Policies regarding allocation. This was agreed by the expert witnesses in respect of the regional planning issues.⁵⁰

[124] Policy 73 in Chapter 7 - *Water Quantity and Allocation* - of the RNRP requires the efficient use of water where the efficiency is assessed as defined in Method 168 which, in respect of commercial, trade and industrial purposes, means *sufficient to meet the needs of the use with minimal waste of water*.

[125] Policy WQ P13 of PPC9 requires promotion of the efficient use of freshwater resources by, among other things:

- (a) Requiring the quantity of water granted to be no more than that required for the intended use of water and applying the reasonable and efficient use criteria in Schedule 7.

⁴⁸ Makgill EIC at paragraph 64.

⁴⁹ Joint Statement of Regional Planning Experts 14 March 2019.

⁵⁰ Joint Statement of Regional Planning Experts 14 May 2019.



[126] Schedule 7 to PPC9 states that *the amount of water taken pursuant to any provision in the plan must be reasonable and justifiable with regard to the intended use and, where appropriate, comply with this schedule.* In respect of uses other than irrigation, municipal water supplies, dairy farms and stock drinking water, the relevant criterion is:

The amount calculated in accordance with good management practices for efficient use of water in relation to that use or by demonstrating that water is not being wasted, such as by means of a water use audit by an independent party to identify any wastage and any opportunities for reuse for conservation.

[127] It is clear from these provisions that pursuing *efficiency* in the plan in relation to water allocation essentially means minimising waste in the chosen use rather than identifying any higher or better use.

[128] Ms Osmond relied on the unchallenged evidence of Mr Joyce on how the proposed take is an efficient use of water for its intended commercial use with minimal waste of water. It was Ms Osmond's opinion that the project was consistent with Regional Objectives and Policies regarding water use demand and efficient use.

[129] Turning to the effects of the project on the aquifer and other bores, Ms Osmond noted the recorded views of the groundwater experts engaged by the parties that "the effects on shallow groundwater surface water, including wetlands, other groundwater users, saline intrusion and ground subsidence is expected to be less than minor". Relying on this statement and the detailed evidence of Mr Goff, Ms Osmond concluded that the project is consistent with regional objectives and policies regarding the recharge of the aquifer, quality of the groundwater, effects on other users, effects on surface water features, potential saline intrusion and land subsidence. This conclusion was unchallenged.

[130] Provisions in the RPS, the RNRP, and PPC9 direct applicants and the Regional Council to recognise, have regard to and take into account kaitiakitanga and the principles of the Treaty of Waitangi. Consultation with tangata whenua on resource management issues of concern to them is an essential element of this and tangata whenua are encouraged to recommend appropriate measures to avoid, remedy or mitigate adverse effects in relation to such issues. As noted earlier from the evidence of Mr Gleissner and Mr Eruera and acknowledged by Ms Simpson for the Rūnanga , Creswell has attempted throughout the application process to involve tangata whenua having an interest in the Otakiri aquifer, starting at marae/hapū level and extending to the Rūnanga and associated tribes of Mataatua.



[131] Consent conditions are proposed for the establishment of a Kaitiaki Liaison Group (KLG) to provide ongoing engagement with iwi during the development and operation of the plant. This is offered as one mechanism through which hapū and iwi members can exercise kaitiaki responsibilities for the aquifer and its waters according to Ngāti Awa tikanga, in collaboration with Creswell. Ms Osmond's opinion was that the consultation and engagement undertaken by Creswell and the proposed KLG conditions are consistent with the direction of the regional planning documents with regards to recognising kaitiakitanga.

[132] Objective KT 06 of the RNRP seeks to maintain biological and physical aspects of the mauri of the water. As noted, earlier technical evidence, presented by Mr Goff and supported by the other hydrogeologists engaged by the parties, concluded that the biophysical effects of the take on the aquifer will be minimal and that the life supporting qualities of the aquifer and any surface waterbodies will not be compromised in any physical way by the proposed take. Ms Osmond relied on this evidence, and that of Mr Eruera confirming that the take would not adversely affect the mauri of the aquifer, to conclude that Objective KT 06 is being achieved.

[133] In Ms Osmond's opinion the proposed conditions related to the KLG and its ongoing involvement with the monitoring of the aquifer and any management adjustments that may arise, recognises and provides for tangata whenua values and interests, including the mauri of the groundwater resource and the relationship of tangata whenua with that resource as directed by Policy WQ 04(e) of PPC9.

[134] We note here that the Rūnanga did not contest the conclusions of the groundwater experts regarding the biophysical effects of the take, nor did it advance any evidence as to the nature of any adverse metaphysical effects, such as effects on the mauri of the aquifer. The evidence of Dr Mason and Mr Merito focused on the irrevocable loss of mauri from the water resulting from its bottling and export overseas.

[135] Objective IM 07 and Policy IM P8 of the RNRP provide for consideration to be given to the beneficial effects of the use and development of natural resources on the social, cultural and economic wellbeing of people and communities. Recognition of social economic and cultural benefits from the take and use of water is also directed by Objective W8 08 of PPC9.

[136] Ms Osmond relied on the uncontested evidence of Mr Gleissner and Mr Cox on the employment opportunities and economic benefits of the project to the local and



wider community in the Bay of Plenty and on Mr Eruera's evidence on the positive cultural benefits of increased employment in an economically deprived community of largely Māori descent. In her opinion, this evidence supports a conclusion that the project will have benefits in accord with the Regional Planning provisions.

[137] The expert planning evidence of Ms Robson focused largely on the inadequacies of the regional planning framework to provide for the assessment of the efficient use of water, as a matter to which particular regard must be had under s 7(b) RMA, where that water is removed from the area of its source. Ms Robson considered that the reasonable and efficient use criteria of Schedule 7 to PPC9 were designed for the use of water in the location from which it is drawn, such as pastoral, horticultural or municipal use. She asserted that the efficiency tests required under Schedule 7 cannot be applied in a meaningful way to water bottling so any conclusions on the efficiency of that activity are meaningless.

[138] A more meaningful test, in Ms Robson's opinion, would be to assess *whether the scale of water bottling activity at that location will effect te mauri o te wai and whether it would significantly limit the potential for water use for activities that are location dependent, such as horticultural irrigation.*⁵¹ As neither of these tests are required by regional planning provisions, she opined that it is necessary to revert directly to Part 2 RMA and, in particular, s 7(b) RMA.

[139] Ms Robson relied on the evidence of Dr Mason and Mr Merito that removal of water from the local water cycle is different from taking it from and returning it to the same area. As a result, there would be a loss of mauri and subsequently a diminution of the ability of Ngāti Awa to be kaitiaki of that water. The activity must therefore be avoided and the application declined.

[140] In response Ms Osmond referred to the evidence of Mr Goff on how the global water cycle works, where water takes for any use generally move at least part of the water to another location for that use, whether directly for drinking or by incorporation into something else, and then where it ultimately re-enters the water cycle through evaporation to the atmosphere or drainage to the ocean. Consequently, in Ms Osmond's opinion, from a statutory planning perspective there is little to differentiate the Creswell application from any other application to take water in the region for commercial use. The Regional Plan provisions do not specifically provide for every

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Robson EIC at paragraph 23.



type of water use, relying on an outcomes-based approach for managing environmental effects. As such the provisions do not need to provide for water bottling as an activity for an assessment of that activity to be undertaken, nor do they need to provide for "removal of water" from the area in that regard.

[141] Ms Osmond also responded to Ms Robson's assertion that the planning framework does not provide for assessment of the efficient use of water where it is bottled and exported. Ms Osmond considered the planning framework to be fully adequate in providing for a comprehensive assessment of the environmental effects of the Creswell proposal. This assessment was recorded in the AEE and in her expert evidence before the Court.

[142] The AEE and the evidence of Mr Joyce assess how the amount of water applied for will be efficiently used for its intended commercial use, which in Ms Osmond's view is consistent with the regional planning provisions. In her opinion there were no "gaps" in the planning provisions that prevented full assessment of the efficiency of the take, either as a discretionary activity under RNRP or restricted discretionary activity under Rule WQ R10 in PPC9. On that basis, whether there is complete removal of the water from the local catchment or not is not a relevant consideration in the context of the Regional Plans or the RMA generally.

[143] A further concern of Ms Robson was that the interim allocation limits set in PPC9 do not specifically take into consideration cultural values and these will not be considered until allocations are set for each WMA through the process of PPC 9.

[144] Ms Osmond noted in response that the matters for discretion in WQ R10 allow for assessment of cultural effects, as does the discretionary activity status of the application under both the RNRP and TRCP. Ms Osmond discussed the evidence related to the assessment of the proposal against tangata whenua values, consideration of effects on mauri, and kaitiakitanga in her EIC and we have referred to this earlier.

[145] Ms Osmond noted that the evidence of Mr Goff showed the interim allocation to be very conservative. In her opinion this was likely to provide for cultural values when detailed allocation limits are considered in the second phase of plan changes. No evidence was presented to explain what an allocation limit to provide for cultural values may look like and it was unclear to Ms Osmond how a consideration of cultural values in the allocation limits would address the identified adverse effects on mauri



that arise from the export of the water overseas.

[146] The planning experts identified the following documents as relevant for consideration under s 104(1)(c) RMA:

- (a) Ngāti Rangitihī Iwi Environmental Management Plan (**IEMP**).
- (b) The schedule of Waahi Tapu sites of Ngāti Awa 2000.
- (c) Ngāti Awa and Ngāti Tūwharetoa Statutory Acknowledgements over the Tarawera River, acknowledging their spiritual, historical and tradition association with the River.
- (d) The Mataatua Declaration of Water 2012.

[147] Ms Osmond provided an analysis of each of these documents and Mr Makgill's evidence was consistent with this analysis.

[148] In considering the IEMP, Ms Osmond noted that Ngāti Rangitihī have been recognised by Creswell as having an interest in the project and have been included in the consultation and engagement with iwi groups. The effects on the take of the surface water resources of the Tarawera River have been assessed as negligible by the hydrological experts and a comprehensive assessment of environmental effects in the AEE and expert evidence has been presented. It was Ms Osmond's opinion that the proposed conditions of consent will appropriately manage environmental effects to meet the intent of the objectives set out in the IEMP.

[149] The Ngāti Awa and the Ngāti Tūwharetoa Statutory Acknowledgements have been considered by Creswell in the development of the project. These acknowledgements relate to the surface waters of the Tarawera River. The technical assessment that there was little interaction between the Otakiri aquifer, the water source for the application, and surface water elements of the Tarawera River, together with the engagement of Creswell with both iwi during development of the project, led Ms Osmond and Mr Makgill to advise that due regard had been given to the statutory acknowledgements.

[150] The Waahi Tapu sites of Ngāti Awa 2000 document lists over 100 waahi tapu sites, several of which are water related, including Te Waikoukou spring west of Kawerau and Te Wai u o Tūwharetoa spring near the Tasman pulp and paper mill.



[151] No evidence was presented that indicated any potential adverse effects from the proposed Otakiri take on these waahi tapu sites. Mr Eruera and Dr Mason confirmed in response to questions from the Court that no waahi tapu sites were in the vicinity of the application site.

[152] The Mataatua Declaration on Water is signed by the tribes of Mataatua waka, including Ngāti Awa. It affirms the desire of the tribes to *continue to retain full exclusive and undisturbed possession of our ancestral waters and their rights to possess and use our ancestral water resources wherever they are gathered, rest or flow.*

[153] The Declaration goes on to confirm that any person interacting with or using the ancestral water resources, requires consent from the tribes of Mataatua under mana whenua principles. Three recommendations are made:

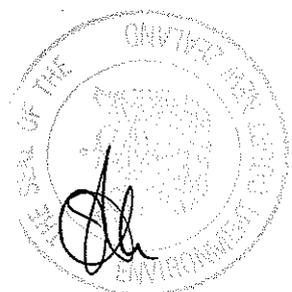
- i. The recognition of traditional practices;
- ii. Provision for the life supported capacity of water;
- iii. Ensuring access to and use of water to Treaty of Waitangi partners.

[154] Ms Osmond and Mr Makgill consider that the Declaration recommendations have been provided for in the Regional Plan documents and the Creswell application is consistent with these provisions.

[155] To the extent that the Declaration includes assertions of proprietary rights and control of consents in relation to the resource, these are not matters that are within the jurisdiction of this Court to declare or confer, as noted earlier.

Overall Evaluation of Regional Planning Issues

[156] In assessing the evidence on the primary issue of the adverse metaphysical effects resulting from the asserted loss of mauri from the water that is bottled and exported, we have accepted Mr Eruera's evidence that there is no loss of mauri from the water as the water remains within the broad global concept of the water cycle and is returned to Papatūānuku irrespective of where it is used. In doing so we respect the honestly-held beliefs of Dr Mason and Mr Merito that for some of the people of Ngāti Awa the export of water in bottle form results in loss of the mauri of the water and that this cannot be restored. There is inherent difficulty in assessing the extent of metaphysical beliefs. In our overall consideration of the evidence on this point, we find that any adverse effect that may be perceived by members of Ngāti Awa has not been shown to be of a nature and scale that warrants refusing consent on this basis alone.



[157] The biophysical evidence supports a conclusion that the proposed take would have negligible effects on the aquifer resource or on any ground or surface water resources in the wider Tarawera Catchment.

[158] No evidence was adduced as to the potential for any metaphysical effects on the aquifer resource itself. The establishment through conditions of consent of the Kaitiaki Liaison Group with direct linkage to monitoring of the resource will, on the evidence of Mr Eruera, ensure the ongoing ability of the hapū and the Rūnanga to exercise kaitiaki according to Ngāti Awa tikanga in the future management of the Otakiri aquifer. We accept this evidence of Mr Eruera. We find that the project will not unreasonably prevent the exercise of kaitiakitanga by Ngāti Awa in its rohe. As we have already found in relation to our jurisdiction, we cannot control the export of water from the rohe.

[159] Ms Robson introduced the view that as the efficiency criteria in Schedule 7 of PPC9 do not contemplate an associated discharge outside of the local environment, the efficiency of the take for water bottling and export is unable to be assessed. Dr Mason and Mr Merito have connected the loss of mauri of the water when exported with the loss of opportunity for the return of that water to *the local water cycle*. Ms Robson also considered that assessment of the efficiency of the proposed use against other competing uses would need to include the extent to which the use *perturbs the natural water cycle*.⁵² Ms Robson appeared to contradict this to some extent by her agreement at conferencing that:

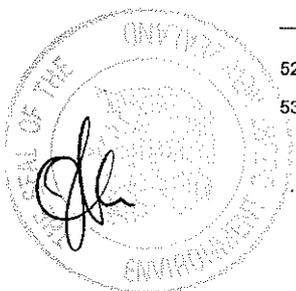
If there is allocation available and water is allocated on a first-in/first-served basis as it is now the comparison assessment of other uses is not relevant. Under the restricted discretionary criteria of EP C9 a comparison of other users is not a matter of discretion.⁵³

[160] Ms Osmond provided a detailed rebuttal to the suggestion that the regional planning provisions did not provide for an assessment of efficiency for the proposed take and we have summarised that response earlier, noting that the uncontested evidence of Mr Joyce established that the amount of water applied for will be efficiently used for the intended commercial purpose.

[161] We find no indication in Schedule 7 of PPC9 or the RNRP that a take of water in this region must be associated with a local discharge to be more efficient than a

⁵² Robson EIC at [24]

⁵³ Joint statement of regional planning experts, 14 May 2019, p 6



take without an associated local discharge. We are satisfied that both the RNRP and PPC9 require efficiency to be assessed in terms of minimising wastage of water rather than by comparing uses. We accept the evidence that a water bottling operation is efficient at least insofar as there is minimal waste of water. Accordingly, we have placed little weight on this aspect of Ms Robson's evidence and find that there is no "gap" in the regional planning provisions that prevents assessment of efficiency of a water take proposal regardless of the end use of that water. Such an assessment has been prepared by the expert witnesses retained by Creswell and we accept their conclusions that the proposed take represents a highly efficient use of the resource, well within the allocation limits for that resource which were agreed by the hydrologists to be conservative.

[162] The concerns raised by the Rūnanga that tikanga matters have not been considered in the setting of interim limits⁵⁴ is elaborated in the evidence of Ms Robson and responded to by Ms Osmond in rebuttal evidence. We note Ms Osmond's evidence that the interim allocations are conservative in relation to the total resource and that tikanga and cultural matters generally have been addressed through assessment against the provisions of the regional planning instruments as directed by those Plans. We have accepted the planning assessment of Ms Osmond in this regard as being thorough and comprehensive and agree with her conclusions that the interim allocation provided by PPC9 is valid and the provisions of PPC9 support the grant of consent.

[163] Like Ms Osmond, we have some difficulty in understanding how any future provision for tikanga Māori in allocation limits would assist in addressing the adverse effects on mauri arising from the export of water, the primary issue advanced by Te Rūnanga for seeking refusal of the application. If that is indeed the principal issue for tikanga, then it appears to us that this must be addressed in the context of future controls on export, which is a matter beyond the Court's jurisdiction.

[164] Ms Osmond's assessment of the proposed take of the water from the Otakiri aquifer against the relevant provisions of the NPSFM, RPS, RNRP, PPC9 and TRCP are thorough and comprehensive. Her conclusions of the consistency of the application of these documents, as summarised earlier in this decision, were supported by Mr Makgill as expert planning witness for the Regional Council.

54

Te Rūnanga opening submissions, para 20



[165] We accept Ms Osmond's assessment of the proposal against the relevant national and regional planning instruments and find that the application is consistent with these.

Part 2 RMA

[166] Ms Robson attested in evidence that as the regional planning instruments did not adequately provide for an assessment of the efficient use of water that has no associated discharge back into the local system, it is necessary to revert to Part 2 RMA to assess the effects of water bottling.

[167] Ms Osmond and Mr Makgill expressed a contrary view, and we have dealt with this in our evaluation. In accepting the evidence of Ms Osmond and Mr Makgill in this regard, we find that the matters in s 7(b) relating to the efficient use and development of natural and physical resources are fully provided for in the regional planning instruments.

[168] Ms Robson also attested in evidence to the need to give direct consideration to Part 2 and in particular ss 5, 6(e), 7(a) and 8 as the tikanga aspects of the proposed take had not yet been incorporated into the allocation framework for the Tarawera WMA in which the Otakiri aquifer is located. At the expert conference, however, Ms Robson agreed with the others that the regional plans provided adequate coverage of s 6(e), 7(a) and 8.⁵⁵

[169] Again, we have considered the matter of adequacy of the regional plans in providing for tangata whenua values and tikanga to be assessed, finding that such consideration is fully provided for. There is no need for recourse to Part 2 matters to address tikanga concerns.

[170] We find that any recourse to assessing this application directly under Part 2 RMA would not add any value to our decision-making in these proceedings. This is consistent with the approach taken by the Court of Appeal in *R J Davidson*.⁵⁶

Conditions of Regional Consents

[171] Counsel for Creswell addressed the proposed conditions of consent in some detail in closing submissions, outlining a number of amendments to earlier circulated

⁵⁵ Joint statement of regional planning experts, 14 May 2019 at p 40.

⁵⁶ *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316.



draft conditions following consideration of matters raised in expert evidence and at the hearing. We will not address these draft conditions in detail here but make the observation that the conditions set out in Appendix 1 to closing submissions from counsel for Creswell closely align to the Court's view on conditions required to manage the environmental effects of the proposed take as addressed in this decision.

[172] We direct the parties, following issue of this interim decision, to submit an agreed final set of conditions for the regional consents. If any matters within these conditions remain in contention between the parties, these are to be addressed in submissions for consideration by the Court prior to issue of a final decision.

Land Use Consent Variations

[173] We now address the appeal by Sustainable Otakiri in relation to the application by Creswell under s 127 RMA to change or cancel the conditions of the existing land use consent authorising the Otakiri Springs water bottling plant.

[174] In tandem with its appeal on the merits of the District Council decision to grant the variation, Sustainable Otakiri also sought declarations from the Court in relation to the validity of the decision to approve a change of conditions as follows:

1. The activity that was the subject of the s127 RMA decision was:
 - (a) materially or fundamentally different to the activity approved under the 1991 consent; or
 - (b) involved materially different adverse effects to the activity contended under the 1991 consent; or
 - (c) outside the scope of s127(1) RMA because it was in effect a fresh proposal.
2. Council acted outside scope, jurisdiction or otherwise unlawfully in granting the s127 RMA consent. The wrong legal test was applied and the consent authority did not consider all relevant effects in its decision to grant approval.
3. The Environment Court has the same limits on scope and jurisdiction as the original decision-maker. As a consequence of the first two declarations sought, the Environment Court has no jurisdiction to grant the s127 RMA application which is the subject of the appeal.



4. The activity for which consent was granted under s127 RMA is an industrial activity under Rule 3.4.1(25) of the District Plan and therefore non-complying under s 104D RMA. There was no jurisdiction to grant consent under s127 RMA.

[175] Counsel for Sustainable Otakiri, Mr Enright, referred to the following statement by the Hearing Commissioners in their decision:

There was debate regarding whether the primary activity (the expansion of the existing water bottling operation) should be considered a consent change application under s127 of the RMA or as a new activity. We do not find that to be a matter requiring our assessment. An application was made under s127. The WDC accepted the application and proceeded to process it on that basis and that is what is now before us to determine.⁵⁷

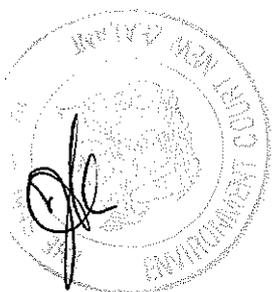
Counsel submitted that this was wrong and that the Commissioners should have addressed the issue raised by the submitters. He sought to establish that a legal error by the Commissioners in assessing the application as a variation of conditions under s127 RMA, as opposed to a new activity under s88 RMA, gave advantage to Creswell. The interlinking issues relate to:

- (a) the treatment of the existing plant when assessing effects;
- (b) the nature, scale and intensity of the project;
- (c) the activity status of the application under the WDP;
- (d) The extent of notification of the application.

[176] Counsel for Sustainable Otakiri accepted that substance should generally prevail over form. He submitted that substantial prejudice could result from proceeding under s 127 when a new application should have been made under s 88 RMA. He listed as examples:

- a) Where the effects would be more than minor and so require public notification beyond those who made a submission on the original application;
- b) Where the condition to be changed is integral to the original consent and was deliberately restrictive;
- c) Where the changed activity is fundamentally different or has materially

⁵⁷ Commissioner's decision at [21].



different adverse effects;

- d) Where the change would allow “consent creep” which should be assessed as if there were a “clean slate”;
- e) Where the activity is non-complying and should be subject to the thresholds of s 104D RMA; or
- f) Where relying on substance over form may result in unfairness or inconsistent treatment.

[177] The issues raised in the application for declarations substantially overlap with the issues arising in the appeal against the grant of changes to conditions and other consents, including issues of jurisdiction, scope and the assessment of effects. An issue for the Court is whether it is necessary to exercise our discretion under s 313 RMA to make declarations or whether our decision on the appeal, made under s 290 RMA with the same power, duty and discretion as the consent authority had, is sufficient to deal with the issues in respect of which declarations are sought.

[178] We will examine each of the aspects raised in the appeal and the application in turn before returning to a broader consideration of the matters requiring decision.

The Existing Environment

[179] Counsel for Sustainable Otakiri submitted that s 127(3) RMA plays a deeming function, with effects of the consented activity deemed to form part of the existing environment and therefore disregarded. Similarly, consideration of who may be adversely affected for notification purposes is directed in particular to those people who made a submission on the original application and may be affected by the change.⁵⁸ This submission was pursued in questions of Mr Batchelor based on the proposition that Creswell had benefitted from the application under s 127 as the existing consent established the character of the water bottling facility in a rural zone. Mr Batchelor was firm in his view that the assessment of effects reflected not only the greater level of effects but also a greater degree of proposed mitigation.

[180] We are satisfied that the existing water bottling plant is part of the existing environment: it is lawfully consented and has been in operation for many years. The effects of the continued operation of this plant are not in question in these proceedings



and must form part of any assessment of what is now proposed.

[181] Section 127(3)(b) RMA provides that the consideration of the matters listed in s 104 apply *as if the references to a resource consent and to the activity were references only to the change or cancellation of a condition and the effects of the change or cancellation respectively*. We accept that the phrase *as if* indicates that a deeming approach is to be taken, but we do not understand that to mean that the existing environment, including the existing consented activity, is irrelevant to our consideration. There must be an assessment of the effects of the change of condition on the existing environment. What is excluded is the possibility that the existing consent may be amended beyond the scope of the application for change or cancelled.

[182] It is true that if this proposal had been applied for as a new activity under s 88 RMA, then it could be declined in its entirety, so to that extent there is a difference between what can occur in relation to applications under s 88 and those under s 127. The difference is however more apparent than real: if this proposal had been made under s 88 and declined, the applicant would still hold the original consent, so its position would be no different to having an application under s 127 RMA declined. For practical purposes, therefore, the real assessment must be of the effects of expanding the water bottling operation whether the application is made under s 127 or s 88.

Comparison of Nature and Scale of Existing and Proposed Activities

[183] Responding to questions from the Court, Mr Frentz as the co-ordinating author of the AEE confirmed that nothing had been put aside in preparing the AEE on the basis it was an application under s 127 as opposed to under s 88.⁵⁹ He said that the AEE was an evaluation of the application as a whole, notwithstanding that consideration of the effects of the existing consented activity was not required. This full evaluation of effects had been done due to the substantial nature of the expansion proposed and the age of the existing consent, which was granted in 1991.⁶⁰

[184] We are satisfied by the evidence of Mr Frentz that, as a discretionary activity, a full evaluation of all the adverse effects of the proposed new bottling plant, including the consented existing plant, has been prepared.

⁵⁹ Transcript p 188 – 189.

⁶⁰ Transcript p 189 – 190.



[185] Mr Carlyon, the expert planning witness called by Sustainable Otakiri, presented a useful comparison table of the existing and proposed elements of the activity, setting out the following information drawn from several sources:

	Existing	Creswell proposal
Land use	5.5 ha kiwi fruit orchard plus bottling plant	Bottling plant only (removal of kiwifruit orchard)
Water take (consented volume)	1200 m ³ /day, 13.9 l/s Actual use (range): 8-26 m ³ /day at 0.41-0.94 l/s	Max: 5000 m ³ /day at 58 l/s Max: 1,100,000m ³ /year
Production capacity	8000 bottles/hr	154,000 bottles/hr
Water bottled (L/yr)	2014/15 1.9 million L 2015/16 1.7 million L	580 million L/yr
Building footprint	1340 m ²	16,800 m ² plus existing building
Building height	8.4m	12.9 m Chimney stack to 16 m
Impermeable surface	0.27 ha	3.55 ha
Area of versatile soil available for production	5.5 ha	0
Truck movements/day	4	202 (monthly average)
Truck movements/hour	N/A	20/hr (10 hr/day)
Staff	8	60 (30 on-site at any one time, plus contractors)
Containers stored on site	0	234
Container movements	0	462/day, 35/hr (13 hr/day)
Hours of operation	Consented: Mon-Sat: 6 am-10 pm Sat: 7 am-1 pm Actual: Mon-Fri: 7am- 4:30 pm Sat: sometimes.	Manufacturing - continuous Container operations: Mon-Fri: 7 am-8 pm Sat: 7 am-5 pm Sun: 9 am-5 pm (no more than 12 times per year) Truck movements: Mon-Fri 9 am-7 pm Sat 9 am-2 pm



[186] The other expert planning witnesses, Ms Nicholas, Mr Batchelor and Mr Frentz, agreed that this table was generally correct.

[187] Mr Carlyon considered that the nature, scale, intensity and effects of the proposed water bottling plant, as set out in his comparison table, were so markedly different from those provided for in the original consent as to be inconsistent with the concept of expansion. In his opinion this made the proposal a new activity requiring a fresh examination of its activity status under the WDP rather than as a variation of conditions to the existing consent under s 127 RMA.

[188] Ms Anne Nicholas, the reporting officer for the District Council at the first instance hearing, was called by Sustainable Otakiri. In examination by counsel for Sustainable Otakiri Ms Nicholas confirmed that she had considered the application under provisions of s127 RMA as a discretionary activity. Her evidence to the Commissioners was that if they concluded that it would be more appropriate to consider the application as a new activity, then the proposed expansion of the water bottling plant would fall into the category of an activity not provided for (sometimes called an innominate activity) under the plan, which is a discretionary activity under Rule 3.4.1.1 of that Plan.

[189] Ms Nicholas considered that the footprint and scale of the proposed expansion was not anticipated in the existing consent despite condition (d):

- (d) That the applicant undertake regular monitoring of the activity and inform Council when the following factors are carried out or exceeded:
- Any major expansion or updating of plant and machinery, or;
 - Introduction of a second shift within the bottling plant, or;
 - Number of staff employed within the bottling plant exceeding eight at any one time, or;
 - Regularly more than four truck movements in any one day.

[190] Creswell relied on the planning evidence of Mr Keith Frentz to address these issues. Mr Frentz noted that the application for variation to an existing lawful activity under s 127 RMA was a discretionary activity and therefore subject to all aspects of scrutiny as any other application with the same activity status in relation to the effects of the changes proposed. In this case, these effects are wide-reaching and in his opinion had been fully considered in the AEE.

[191] Mr Frentz confirmed in response to questioning that he considered the



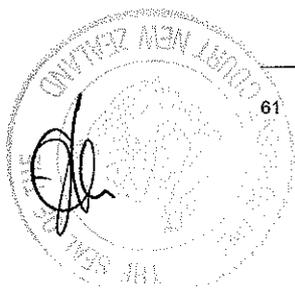
proposal involved a substantial expansion in scale and intensity over what is presently consented, and that the comparison table prepared by Mr Carlyon was an accurate reflection of this.⁶¹ Mr Frentz accepted that the effects of the proposal were consequently substantially greater, but considered that mitigation proposed by way of conditions would result in these effects being no more than minor.

[192] In Mr Frentz's view, little should turn on the distinction between a variation and a new consent in this case. The expert evidence for Creswell established, in his opinion, that a thorough assessment had been undertaken, supporting a conclusion that adverse effects can be appropriately mitigated through an entirely new set of conditions. Mr Frentz's evidence in this regard was supported by Mr Batchelor, the expert planning witness called by the District Council.

[193] The key point of difference between the planners was that Mr Batchelor and Mr Frentz considered that the potential for greater adverse effects of a similar nature to the original operation had been fully assessed in the AEE and conditions of consent developed to mitigate those effects to a level that was considered by the technical experts and planners as acceptable. In contrast, Mr Carlyon considered that the increase in scale and intensity of the proposed activity was so great that it went beyond "expansion" of the existing activity.

[194] In our judgment, the proposal is for the expansion of an existing activity. It involves the continuation of use of the existing building but with the addition of a substantially larger building, extraction of water from the same source but using a new well and at a substantially greater rate, bottling that water in a similar manner to the present operation and then packing, loading and transporting the bottled water with a much greater number of truck movements.

[195] In considering the change in the effects from the existing to the proposed operation, it is helpful to consider that effects may differ in character, intensity and scale. Character generally refers to the nature of the effect, while intensity refers to how often it occurs, and scale refers to the degree of the effect. Changes in the character of an effect clearly have the potential to mean that the activity is different in nature, while changes in the intensity and scale of an effect mean that the activity, whatever its nature, operates in a manner that has greater or lesser effects.



[196] There was no dispute among the expert witnesses that the character of the adverse effects of the expanded activity would be the same as for the existing activity, being the noise of both on-site operations and traffic movements, traffic on Johnson and the local portion of Hallett Roads, visual impacts and general effects on amenity values. There was also no dispute that the intensity and scale of the adverse effects would change, in some respects to a great degree.

Activity Status

[197] Central to the case for Sustainable Otakiri and the opinion of Mr Carlyon was the proposition that the Creswell proposal is in the activity class of "industrial including manufacturing activities" as found at item 25 in the Activity Status Table that is Rule 3.4.1 in Chapter 3 of the WDP.⁶² On that basis it therefore should be assessed as a non-complying activity in the Rural Plains zone. This, counsel for Sustainable Otakiri submits, would require a new application that would be fully publicly notified and subject to the gateway tests under s 104D RMA.

[198] Counsel further submitted that, under this scenario, as a type of business activity the proposal would have much more difficulty demonstrating consistency with the objectives and policies of the WDP in a rural zone than if it were considered as a rural activity.

[199] The planners' joint witness statement identified four categories of activity in the Activity Status Table that could apply to the proposed activity:

- 3.4.1.1 All activities not specifically provided for in the Activities Status Table or provided for in a Rule in the Plan - discretionary.
- 3.4.1.1.25 Industrial including manufacturing activities - non-complying.
- 3.4.1.1.37 Rural processing activities - discretionary.
- 3.4.1.1.51 All other activities not specifically provided for in other sections - discretionary.

[200] The relevant definitions in Chapter 21 of the WDP of terms used in the Activity Status Table are:

Industrial activity means;

- a. the production of goods by manufacturing, processing (including the milling or

⁶²

3.4.1 Activity Status Table, Whakatane District Plan, ch 3 Zone Descriptions Activity Status Information Requirements and Criteria for Resource Consents.



- processing of timber), assembling or packaging;
- b. dismantling, servicing, testing, repairing, cleaning, painting, storage, and/or warehousing of any materials, goods or products (whether natural or man-made), vehicles or equipment, and
- c. depots (excluding rural processing activities and rural contractor depots), engineering workshops, panel beaters, spray painters.

Primary productive use means rural land use activities that rely on the productive capacity of land or have a functional need for a rural location such as agriculture, pastoral **farming**, dairying, poultry **farming**, pig **farming**, horticulture, forestry, quarrying and mining.

Rural processing activity means an operation that processes, assembles, packs and stores products from primary productive use. This includes wastewater treatment facilities associated with and within proximity of the Edgewater Dairy Manufacturing Site.

[201] Also relevant because of its use in applicable objectives and policies is the following definition:

Rural production activity means rural land use activities that rely on the productive capacity of land or have a functional need for a rural location such as agriculture, pastoral **farming**, dairying, poultry **farming**, pig **farming**, horticulture, forestry, quarrying and mining. Also included in this definition are processing and research facilities that directly service or support those rural land use activities.

[202] The Council's decision recorded that water bottling was not considered to be a primary productive use because it does not rely on the productive capacity of the land and it can be located anywhere in the district that overlies a productive aquifer.⁶³ The decision went on to record that the activity *does not appear to be otherwise defined in the WDP*, following advice from the s 42A reporting officer that the activity is more appropriately identified as *an activity not specifically provided for*⁶⁴ in Rule 3.4.1.1.51 WDP.

[203] Counsel for Sustainable Otakiri submitted that this proposal could not be a rural processing activity because such an activity necessarily relies on another land use earlier in time. He argued that in this case the taking of water is not a land use under s 9 RMA but an activity controlled under s 14 RMA.

[204] We doubt that the premise that the taking of water is not a land use is a valid

⁶³ Consent authorities' decision at [25].

⁶⁴ Section 42A report, para 7.7.



basis for such an argument. *Use* is broadly defined in s 2 RMA, meaning among other things to place or use a structure in, on or under land or drill land, and the definition concludes with *any other use of land* which appears to be all-encompassing. Walking or standing on land, or wielding a chainsaw, has been held to be sufficient for the purpose of that element of the definition.⁶⁵ In this case, the taking involves the drilling of the bore and the construction and operation of a well-head. Even though those things are done to enable a take of water under s 14, they are nonetheless uses of land under s 9.

[205] The provisions in ss 9 and 14, in Part 3 – Duties and Restrictions under the RMA, do not alter the factual basis for the application of the definitions or activity schedules in a district plan. This submission is linked to further submissions of counsel in relation to the bundling of the land use and the water take, which we address below.

[206] Counsel also submitted that each stage of bottling water corresponded to an element of the definition of *industrial* activity. Mr Carlyon considered that all relevant aspects of the water bottling activity proposed, including processing of the water from a new bore and packaging into plastic bottles manufactured on site, fell into the category of industrial activity. The process would take place on production lines, packaged, stored and finally loaded out. Use of the industrial category was supported, in his opinion, by the large scale of the building, the visual and operational characteristics of the bottling plant, the volume of shipping containers on site (now removed) and the number of heavy truck movements.

[207] In Mr Carlyon's opinion, the definition of *primary productive use* implies that functional needs should apply only to the categories of activities referred to in the definition and that a case-by-case analysis of functional need would undermine the purpose of the zone and integrity of the plan. Mr Carlyon expressed the opinion that Creswell had not demonstrated a functional need to establish the plant in this location as:

- i. A new bore has been established under a new bore permit replacing the existing permit.
- ii. A new factory is being built.
- iii. A much larger volume of water is to be processed and exported to China as opposed to being sold in New Zealand.

⁶⁵

Smith v Auckland City Council [1996] NZRMA 27 (HC); affirmed [1996] NZRMA 276 (CA).



- iv. The water is not ideal for bottling.
- v. The acceptability of water drawn from other locations, including more suitable zones, has not been demonstrated.

[208] In the absence of a definition of *functional need* in the WDP, Mr Frentz proffered the definition from the Draft New Zealand Planning Standard.⁶⁶

Means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment.

[209] Mr Frentz confirmed under cross-examination⁶⁷ that his position on activity status had changed from that set out in his evidence in chief, where he considered “innominate” activity as being the appropriate status, to *rural processing activity* for the reasons set out in his rebuttal evidence. The established cluster of water bottling plants near Otakiri (Orivida Waters Ltd at 157 Hallett Road, Antipodes Water Co Ltd at 106 Lewis Road and the subject site) indicated to Mr Frentz that sound industry drivers existed for locating above this aquifer that do not exist elsewhere in the Whakatāne district, where there are no other water bottling plants. This area includes the municipal supply taken from the bore across road from the subject site.

[210] Mr Frentz expressed the opinion that, as water bottling requires a location in proximity to a targeted water source, it is similar to quarrying and mining which are both listed as *rural production activities* or *primary production use*. The list of activities in both definitions is not exclusive in Mr Frentz’ opinion because they are preceded by *such as*. The primary activity of water bottling is the extraction of water at source making it conceptually similar to mining. As such the defined term *rural production activity* most closely aligns with Creswell’s proposal, in his opinion.

[211] From a planning perspective, Mr Frentz considered that extracting water from a bore is conceptually indistinguishable from mining or quarrying, which are both included as rural land use activities with a functional need for a rural location. The primary activity in the Creswell proposal is to extract water at a rural site. While this is not mining as such, it is sufficiently similar to qualify as a rural production activity.

[212] It was Mr Goff’s evidence that the special conditions needed to access the

⁶⁶

Ministry for the Environment 2019 - 21 *Definitions Standard – Recommendations on Submissions Report for the First Set of National Planning Standards*, Wellington: Ministry for the Environment.

Transcript p 180.

⁶⁷



high-quality artesian water from the aquifer at Otakiri relate to fracturing of the Matahina ignimbrite and that this geological characteristic is not known to occur other than in the vicinity of the site and near Murupara.

[213] Mr Gleissner explained the marketing access reasons for bottling water at source and the investment that had gone into establishing the current plant and the two bores on the site. In his evidence he explained that in order to meet the regulations of the European Union for quality assurance, bottlers of water must identify the source and exact location of bottling operations and demonstrate full control of the bottling process. To be described as spring water, it must be bottled at source and the transport of water those authorised for distribution to the ultimate consumer is prohibited.

[214] Counsel for Sustainable Otakiri submitted that these were operational rather than functional considerations and referred to passages in the statements of Mr Frentz and Mr Batchelor that he submitted supported that contention.

[215] It appears from our review of the evidence that the opinions of those witnesses are that not all cases of water bottling needed a rural location, but they both accept a functional need in this case, given the evidence of Mr Goff and Mr Gleissner. It appears from the evidence that not all water is the same, much as not all rocks are the same.

Evaluation of Activity Status

[216] The main issue in determining the activity status of Creswell's proposal, outside of s 127 RMA, is whether it is for an industrial activity or a rural processing activity.

[217] *Industrial activity*, as defined in the district plan, includes the production of goods by manufacturing, processing, assembling or packaging. This implies taking resources and processing or using them to manufacture or otherwise to produce goods that are different from the resource. The principal element of this kind of industrial activity is the processing or manufacturing.

[218] *Rural processing activity*, as defined in the district plan, is the processing assembling, packaging and storing of products from primary productive use. It can immediately be seen that the elements of processing, assembling, packaging and storage can occur in both industrial activities and rural processing activities. This



implies that those elements are not determinative of the type of activity and therefore of the activity status.

[219] The essential difference between the definitions of the two activities is that an industrial activity can involve any type of material, good or product but a rural processing activity must have as its starting point a product from a *primary productive use*. Such a use, again as defined, must either rely on the productive capacity of land or have a functional need for a rural location. The examples given in the definition indicate that farming and extractive activities are contemplated as being within it.

[220] These definitions appear to be consistent with the conventional three-sector model in economics⁶⁸ in which an economy is divided into primary (extraction of raw materials), secondary (manufacturing) and tertiary (services) sectors. The model is principally used in analyses of economic development, but to the extent that a plan under the RMA should generally reflect the world being planned, the approach may be helpful in dealing with the potential complexity of very broad terms such as "industry" and "primary production".

[221] Statutory plans in New Zealand have typically identified separate rural and industrial areas, but the broad terms may obscure the overlap of the two and so be unhelpful to detailed analysis. In that context, we accept that the purpose of the plan's definitions is to provide a basis for analysis that is consistent with the relevant objectives and policies of the plan. Overall, the provisions do this to sustain the productive potential of rural land and to prevent the expansion of urban activities onto productive rural land while still enabling appropriate processing activities to occur where the resources to be processed are grown or found. The definitions serve to help achieve these objectives and determine what is appropriate by requiring rural processing activities to have a relationship with the land, either in terms of the land's productive capacity or to serve some other functional need. This approach in the plan is not contradicted or reversed by the fact that these processing activities may also be described as industrial activities: the connection with the productive activities on the land puts such processing in a different category of industry, more closely associated with farming and extractive industry than with urban activity.

[222] In this context the planning approach to rural processing activities is based

⁶⁸

See, for example, the works of Allan G.B. Fisher, esp. *The Clash of Progress and Security*, London: Macmillan (1935) and *Economic Progress and Social Security*, London: Macmillan (1946).



less on the segregation of activities due to their effects on amenity values and more on promoting the proximity of activities to promote the efficient use and development of resources. Both are matters to which particular regard must be had under s 7 RMA: the relative weight to be given to such regard will be matters of fact and degree.

[223] The term “functional need” has been included in the proposed Definitions Standard of the draft National Planning Standards.⁶⁹ As the discussion of that proposal indicates,⁷⁰ the term is best understood in contradistinction to its fraternal twin, *operational need*, now also included in those definitions:

The need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints.

[224] The difference, between only being able to occur in a particular environment and having technical or operational characteristics or constraints which require such a location, can be important. It is usually obvious when dealing with infrastructure; it can be more complex when dealing with higher level activities where the nature of the function and the operational requirements may be less sharply defined.

[225] Counsel for Sustainable Otakiri argued that the location of this water bottling plan reflects operational needs rather than a functional one. In the particular circumstances of this case, we do not agree. We find that the extraction of water from an aquifer is a form of primary production akin to mining or quarrying. While it may be possible to take groundwater from many locations, we are aware that one cannot be certain what one may find underground and that the experience of well-drillers is that finding suitable supplies of water is not a certainty. We accept the evidence of Mr Goff, Mr Gleissner and Mr Frentz that there is a demonstrated functional need for the activity applied for to occur at the Otakiri Springs site given the assurance of access to the resource in this area and the requirements for marketing that resource. In terms of consistent treatment of similar activities, the nature of this activity appears to be no different in nature to the Antipodes operation at 106 Lewis Road or the Oravida operation at 157 Hallett Rd, although the proposal may be larger than both of those.

[226] In the Creswell proposal, the primary resource is the water which is unchanged by any process or other form of manufacture. The water taken from the ground is

⁶⁹ Fn 66. It is a term used and defined in the same way in the Auckland Unitary Plan, operative in 2016.

⁷⁰ Fn 66 at 95 – 97.



stored in a container which is then removed from the site. The principal activity is the extraction of the water. Activities within the bottling plant, such as the blow-moulding of plastic bottles as containers for the water and packaging the bottles on pallets for transport, are industrial activities within the range of the definition but they are ancillary to the principal activity: without the production of the water, they would not occur.

[227] We also find that the subsequent packaging of the water into bottles and the transport of it from the site to be within the scope of a rural processing activity. Providing for a processing activity close to an identified resource serves an operational need for that activity consistent with the nature of a rural processing activity. Undertaking such an operation on-site is both efficient and consistent with other rural processing activities, both in terms of the nature of the activity and the scale of buildings associated with such facilities.

[228] On that basis, if the application were to be assessed as a new activity, in our judgment it should be assessed as a rural processing activity and therefore as a discretionary activity on a site in the Rural Plains zone under Rule 3.4.1.1(37.a) in the district plan.

Bundling of Applications

[229] Counsel for Sustainable Otakiri submitted that the oppositional nature of *land* and *water*, as defined in s 2 RMA, precludes consideration of taking water as a land use akin to other extractive uses. It follows, as we understand his argument, that ss 9 and 14 RMA stand separately and so an application for a water permit cannot be bundled with an application for land use consent. While the activities are linked in terms of identifying the overall water bottling activity, they cannot be merged to form a single land use activity. On that basis, counsel argued that Creswell's proposal cannot be considered as a primary productive use or any other kind of rural land use.

[230] Further, counsel argued that as a district council has no statutory function in relation to the taking of water, none of the land use activities identified in the district plan for control under s 9 RMA are applicable to the water take which is controlled under s 14 RMA. As a consequence, the proposal is left to be considered only as a non-complying industrial activity.

[231] As noted above, we do not accept that the taking of water, while certainly controlled under s 14 RMA, may not also be controlled under s 9 RMA to the extent that there may be controls on the location of the bore and the size and operation of



plant on and in the ground. The issue requires consideration of more than the text of those sections. The definitions of *land* and *water* are written to identify, as clearly as can be done by brief definitions, the boundary between the two, but that boundary does not have the consequence of preventing a broader consideration in any case where both resources are involved. The purpose of the legislation, including other relevant provisions, must be considered, and the context of the proposal is also usually relevant. While the duties and restrictions under Part 3 RMA are generally set out in terms that reflect the division of functions and powers in Part 4, the provisions in Part 4 also reflect the importance of achieving integrated management of all resources and of the effects of their use, development and protection.

[232] In this case, the two consent authorities recognised this and provided for it by combining the matters before them and appointing hearing commissioners jointly to make a single decision. While that decision has led to two separate sets of appeals reflecting the original distinction between the consents under the jurisdiction of the district council and those under the jurisdiction of the regional council, the procedural requirements for the appeals do not result in a split in the consideration of the proposal.

[233] As acknowledged by counsel for Sustainable Otakiri, joint consideration of a single proposal, even where consents are required under different plans, is generally required.⁷¹ Bundling the applications together, even where they may be required under different planning documents, is lawful⁷² and appropriate where the effects of the matters requiring different types of consent overlap.⁷³

[234] In more general terms, a proposal of this kind should be assessed in terms of its purpose in order to identify the relevant planning unit or units and to determine whether the various activities involved are incidental or ancillary, or a composite of several components, or separate, distinct and substantially unrelated.⁷⁴ In this case we are satisfied that the proposal is for a single planning unit which primarily involves the taking of water with an ancillary bottling and packaging operation. On that analysis

⁷¹ *Affco NZ Ltd v Far North District Council (No 2)* [1994 NZRMA 224, 233; *Bayley v Manukau City Council* [1999] 1 NZLR 568, 580; *King v Auckland City Council* [2000] NZRMA 145 at [49] – [50].

⁷² *Newbury Holdings Ltd v Auckland Council* [2013] NZHC 1172 at [57] – [62].

⁷³ *Body Corporate 97010 v Auckland City Council* [2000] 3 NZLR 513; [2000] NZRMA 529; at [18] – [22].

⁷⁴ *Burdle v Secretary of State for the Environment* [1972] 3 All ER 240, 244; [1972] 1 WLR 1207, 1212; *Centrepoin Community Growth Trust v Takapuna City Council* [1985] 1 NZLR 702; (1984) 10 NZTPA 340 (CA).



we remain satisfied that the activity, overall, is a rural processing activity.

Notification

[235] Alternatively, counsel for Sustainable Otakiri argues that if the water take forms part of an overall primary productive use, then the regional and district consents should have been bundled together and fully publicly notified, rather than the latter being notified on a limited basis. On that analysis, the land use applications cannot be granted because of the restriction in s 104(3)(d) RMA preventing the grant of a resource consent if the application should have been notified and was not.

[236] Counsel for the District Council and Creswell both submitted that the decision to separately notify the applications was appropriate as there was little overlap in adverse environmental effects between the taking of water from the aquifer and the expansion of the bottling and transport operations.

[237] Counsel for Sustainable Otakiri submitted that the notification test under s 127(4) RMA is directed at submitters on the first consent that remain affected. The notification assessment and decision under ss 95 – 95G RMA would apply to both a new application under s 88 and an application to change conditions under s 127. The identification of the extent of notification in either case would depend on the assessment of the likely adverse effects of the proposal. If those effects were considered more than minor, as Sustainable Otakiri argue they are, then the application should have been publicly notified.

[238] Counsel for Creswell noted that s 127 can be used where there is a material change in the scale of effects requiring the application to be notified to any affected person. Under s 127, a standard notification assessment is required and this must specifically consider whether original submitters may be affected by the change in conditions. Notification of other affected parties is not precluded under s 127. The case for Creswell was that the adverse effects were no more than minor so limited notification was appropriate.

[239] We accept that a full notification assessment was carried out with the result that the application was notified to all identified affected parties and that no person has been identified who may have wished to make a submission on the application but was not notified. There was no evidence before us that there was any factual error with the Council notification decision.



[240] In saying that, we are mindful that our jurisdiction does not extend to include review of a consent authority's decision about notification of an application under ss 95 – 95G RMA. Without going into such a review, we also note that the definition of *notification* in s 2AA RMA means *public notification or limited notification of the application or matter*. We think that the meaning of *notified* in s 104(3)(d) is to be interpreted consistently with that definition. On that basis, the application to the District Council was notified and so s 104(3)(d) RMA is not applicable in this case.

Section 127 Evaluation

[241] Section 127 relevantly states:

1. The holder of a resource consent may apply to a consent authority for a change or cancellation of a condition of the consent, subject to ...
- ...
3. Sections 88 to 121 apply, with all necessary modifications, as if --
 - (a) the application were an application for a resource consent for a discretionary activity; and
 - (b) the references to a resource consent and to the activity were references only to the change or cancellation of a condition and the effects of the change or cancellation respectively.
4. For the purposes of determining who was adversely affected by the change or cancellation, the consent authority must consider, in particular, every person who --
 - (a) made a submission on the original application; and
 - (b) may be affected by the change or cancellation.

[242] This provision has been substantially modified over time. Prior to 2005, an application under s 127 could only be made at a time specified for that purpose in the consent or on the grounds that a change in circumstances had caused the condition to become unnecessary or inappropriate. Those restrictions were repealed by s 70 Resource Management Amendment Act 2005. There are now no boundaries in s 127 RMA on the jurisdiction for its application.

[243] Prior to 2003, s 127(3) and (4) included an exception stating that s 93 (which was the notification provision at that time) did not apply where the consent authority was satisfied that the adverse effects of the change would be minor and the written approval of original submitters and affected persons had been obtained. That exception was repealed by s 53 Resource Management Amendment Act 2003 and



the current provisions were substituted in its place. While s 127(4) now requires particular consideration of every person who made a submission on the original application and may be affected by the change, that provision does not limit the application of ss 95 – 95G RMA and the decision whether and to whom an application under s 127 is to be notified must still be made under those provisions.

[244] Those amendments to s 127 mean that the statutory process to be followed in considering a proposal to change or cancel a consent condition is now essentially the same as that for a new application under ss 88 to 121.

[245] The setting of the activity status as discretionary by s 127(3)(a) RMA (enacted by the 2003 amendment), where the activity might otherwise be a non-complying activity, appears to be the principal benefit to an applicant. Even so, the difference in activity status between discretionary and non-complying may not be of great significance where the activity already exists, because of the role that the existing environment plays in any assessment of effects. The context in which the consent authority must assess the degree of additional adverse effects of the activity on the environment and the extent to which such an activity may be contrary to the objectives and policies of the relevant plan will include consideration of that existing activity. In terms of any proposed change of conditions, the degree to which any adverse effects will increase or to which the proposal may be contrary to any relevant objectives and policies will still have to be considered in terms of s 104(1)(a) and (b)(v) for the purpose of the exercise of the discretion whether to grant consent or not under s 104B RMA.

[246] On the other hand, if the change in the adverse effects is sufficiently great and the relevant objectives and policies are sufficiently specific in identifying what may be contrary to them, then the particular restrictions for non-complying activities in s 104D RMA could have the combined effect of preventing the grant of consent. It should not be generally assumed that all plans are sufficiently specific to give assurance that those restrictions can be rigorously applied.

[247] In considering the assessment of the appropriateness of using s 127 as opposed to making a fresh application under s 88, it is well-established that this is a question of fact and degree to be determined on a case-by-case basis. In *Body*



*Corporate 97010 v Auckland City Council*⁷⁵ the High Court said:

[73] Whether an application is truly one for variation of the condition under s 127 or whether in reality it is seeking consent to an activity which is materially different in nature, is a question of fact and degree to be determined in the circumstances of the case. Relevant considerations to the determination of this issue will include a comparison between the activity for which consent was originally granted and the nature of the activity if the variation were approved. In approaching that question, regard may be had to the form of the original application and the terms of the consent granted. However, I accept Mr Loutit's submission on behalf of the Council that the terms of the resource consent are to be considered as a whole. Artificial distinctions should not be drawn between the activity consented to and the conditions of consent. The scope of the activity is not defined solely by the introductory language of the consent but is also delineated by the conditions which follow.

[74] It is trite that a principal focus of the RMA is the control of adverse effects of activities on the environment. In deciding whether an application for variation is in substance a new application the consent authority should compare any differences in the adverse effects likely to follow from the varied (proposal) with those associated with the activity in its original form. When the variation would result in a fundamentally different activity or one having materially different adverse effects, a consent authority may decide the better course is to treat the application as a new application. That will particularly be the case where application for variation seeks to expand or extend an activity with a consequential increase in adverse effects.

[248] This was upheld by the Court of Appeal,⁷⁶ where Blanchard J said:

[36] In his judgment Randerson J said that whether an application is truly one for a variation or in reality seeks consent to an activity which is materially different in nature is a question of fact and degree to be determined in the circumstances of the case. Relevant considerations include a comparison between the activity for which the consent was originally granted and the nature of the activity if the variation were approved. The terms of the resource consent were to be considered as a whole. Artificial distinctions should not be drawn between the activity consented to and the conditions of consent. "The scope of the activity is not defined solely by the introductory language of the consent but is also delineated by the conditions which follow". ...

[37] Randerson J said that the Consent Authority should compare any differences in the adverse effects likely to follow from the varied purpose with those associated with the activity in its original form. Where there was a fundamentally different activity or one having materially different adverse effects a consent authority may decide the better course is to treat the application as a new application, particularly where it is sought to expand or extend an activity with consequential increases in adverse effects. ...

[249] The consent authority therefore has discretion under s 127 to decide whether

⁷⁵ *Body Corporate 97010 v Auckland City Council* [2000] NZRMA 202 (HC) at [73] – [74].

⁷⁶ *Body Corporate 97010 v Auckland City Council* [2000] 3NZLR 513; [2000] NZRMA 529 (CA) at [36] - [37].



an application for a variation would result in a different activity with different adverse effects that warrant consideration as a completely new application. It must also be borne in mind that the exercise of this discretion must be undertaken in light of the substantial amendments made to s 127 RMA in 2003 and 2005, after these decisions.

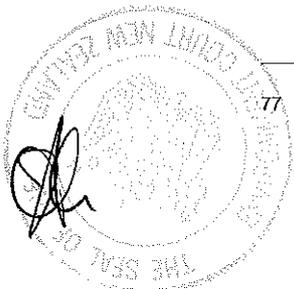
[250] The Council exercised that discretion in accepting Creswell's application under s 127 to vary the conditions of the existing consent. The Commissioners did not consider it appropriate to review that decision and accordingly assessed the application as being for a variation. Sustainable Otakiri considered that the failure of the Commissioners to review the Council decision to accept the application under s 127 was a jurisdictional matter that created a "scope error" that could not be fixed under s 104(5) RMA.

[251] As noted by us during the course of the hearing,⁷⁷ the appeal proceedings are *de novo* with the merits of the application being considered afresh, and not a review of the Commissioners' decision. In its role in place of the consent authority the Court can exercise its own discretion when considering whether the application should be assessed under s 127 or as a fresh application under s 88 RMA.

[252] The evidence before us confirms that the proposed project is for the same type of activity (water bottling) as authorised by the existing consent, with the same types of adverse effects. The substantial expansion of the activity proposed would result in a corresponding increase in the scale of adverse effects. The varied conditions of consent proffered by Creswell and imposed by the Council are designed to manage these adverse effects to acceptable levels. We consider that the application under s 127 was an appropriate pathway for Creswell to pursue, consistent with the provisions of that section and the criteria established by case law.

[253] The second major focus of Sustainable Otakiri's case was the assertion that Creswell gained advantage in applying under s 127 in that:

- (a) this provided a "head start" in how adverse effects would be considered; and
- (b) if a new application had been pursued it would have had to be assessed as an industrial activity, which is a non-complying activity in a rural zone, with adverse effects that are more than minor triggering public



notification.

[254] We have examined the evidence related to both of these matters. In relation to the starting point for adverse effects assessment, s 127(3)(b) is clear that the focus is on the change to the existing conditions and the effects of that change. This is the same starting point for assessment under s 104(1)(a) RMA that would apply to any new applications for consent. In this case, the effects of the existing water bottling plant are part of the existing environment within which any new proposal for expansion of the plant would be assessed. No advantage was gained by Creswell in this regard and a full assessment of the adverse effects of the expanded plant is contained in the AEE accompanying the application.

[255] We have carefully considered the evidence relating to Sustainable Otakiri's position on the activity status of the proposal. Our conclusion is that the proposed activity is a *rural processing activity* in terms of the WDP. As such it would be a discretionary activity requiring assessment under s 104 RMA if applied for as a new activity.

[256] The information requirements for a s 127 application (discretionary activity) are the same as those that would need to be provided under s 104. We are satisfied that Creswell has provided all of the information necessary for assessment under either pathway and that no advantage has been gained by applying under s 127 in this case.

[257] It follows that the notification assessment and decision made by the independent Commissioner engaged to carry this out was appropriate under s 127(4) RMA. No evidence was presented that any person affected by the application had not been notified through the limited notification provisions of s 95(a) RMA.

[258] We are satisfied that all matters that are required to be considered under this application have been put before us and that we have been able to fully consider the substance of the application. This is consistent with the Court of Appeal's approach in *Body Corporate* that the exact form of an application is not determinative, provided the above conditions are met.

[259] For these reasons we decline to make any of the declarations sought by Sustainable Otakiri.



Land Use Consent Changes - Merits

[260] The scope of Sustainable Otakiri's appeal has been narrowed since it was first filed.⁷⁸ The merits appeal is now confined to Creswell's application for variation to consent 61/4/817 under s 127 RMA and within that:

- (a) Effects on rural character and amenity.
- (b) Consistency with planning instruments.
- (c) Effects on the loss of productive land.
- (d) Alternative locations and zonings.

Planning Framework

[261] The site is within the Rural Plains zone in the Whakatāne District Plan.

[262] As an application under s 127 the proposal is to be assessed as a fully discretionary activity. Evaluation under s 104 RMA as directed by s 127(3) requires us to have regard to the relevant statutory instruments, subject to Part 2. It was not in dispute that any matters in Part 2 required consideration on any of the grounds explained by the Court of Appeal in *RJ Davidson Trust*.⁷⁹

[263] The district-wide strategic objectives and associated policies managing the growth and development of the district are in Chapter 2 of the WDP. The objectives provide for the encouragement of sustainable growth in a way that minimises environmental effects and does not compromise rural character (Objective 1). Objective 2 controls incompatible uses by requiring separation from other activities.

[264] Strategic Objective 3 and associated policies provide for the stimulation of economic growth and development in appropriate zones within the district.

[265] Strategic Objective 4 promotes the retention of the rural character of the district and the retention of rural productive capacity. We have accepted the Creswell proposal as a rural processing activity anticipated in the Rural Plains Zone.

[266] Chapter 7 of the WDP sets out objectives and policies for the rural zones, including the Rural Plains Zone. Objective Rur 1 is to sustain the productive potential

⁷⁸ Joint Memorandum of Counsel dated 1 February 2019.

⁷⁹ *RJ Davidson Trust v Marlborough District Council* [2018] NZCA 316.



of rural land and provide for rural productive activities.

[267] Objective Rur 2 relates to managing effects on rural character and amenity.

[268] Objective Rur 3 and associated policies contain enabling provisions for rural development within a context of avoiding significant adverse effects and cumulative effects on the surrounding environment and managing other effects through remediation or mitigation.

[269] Relevant objectives in Chapter 11 (General) and Chapter 17 (Landscape and Coastal Environment) contain similar provisions to those addressed above related to the maintenance of rural character and managing adverse effects of activities on communities.

The Hearing

[270] Creswell presented expert witness evidence related to plant construction and operation, noise, landscape, employment and planning matters. Apart from planning matters, none of the evidence was challenged by expert testimony on behalf of Sustainable Otakiri. Primary evidence on effects on rural character and amenity were represented by members of Sustainable Otakiri. The Whakatāne District Council presented expert witness evidence related to landscape and planning only.

[271] As outlined in submissions by counsel, Creswell had attempted to engage in a meaningful way with the local community during the development of the application⁸⁰ and attempted to incorporate concerns expressed into the proposed project. This continued after the Commissioners' decision in June 2018, resulting in elements being added to proffered conditions to further mitigate effects on neighbours. At the hearing and in closing submissions Creswell responded to specific concerns on a range of matters raised by Sustainable Otakiri, including further modification to the proposal. We detail this below.

Effects on Amenity Values

[272] The RMA defines amenity values as those natural or physical qualities in and characteristics of an area that can contribute to peoples' appreciation of its pleasantness, aesthetic coherence and cultural and recreational attributes.

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Creswell opening submissions at paragraph 45.



[273] Sustainable Otakiri members considered that the expansion of the Otakiri Springs water bottling plant as proposed would markedly reduce the amenity value of the neighbourhood currently experienced by its residents. Of particular concern was construction and operational noise (including truck noise), visual and truck movement effects.

[274] Members of Sustainable Otakiri, being Maureen Fraser, Sarah and Mike van der Boom, Kelvin and Gillian McCartie, Anita Gray, Lee Heappey, Malcolm and Sally Halyar, and Lesley McKeown, presented evidence on the current amenity value of the Johnson Road/Hallett Road neighbourhood in the vicinity of the Otakiri Springs water bottling plant. Without exception, they all expressed the enjoyment of being able to live in a rural landscape subject only to the pleasant and calming sounds of the countryside with good air quality and low traffic volume on their road. Noise from agriculture machinery and trucks servicing the rural area and the existing water bottling plant were intermittent and within their expectations of a rural area. The Otakiri Springs bottling plant as currently operated had minimal effects on the amenity value they associated with their properties.

[275] There was a common theme in the evidence that the adverse effects generated by the proposed expansion to the plant and the truck movements generated by that expansion were of a level that was unacceptable, and that consent should be declined. The effects identified were:

- (a) construction activity and noise over up to a five-year period;
- (b) external operating noise from on-site truck movements, container stacking, truck loading, reversing alarms and roller door movements;
- (c) visual, noise, exhaust fumes, safety and inconvenience effects of 202 truck movements per day along Johnson and Hallett Roads to the intersection with State Highway 32;
- (d) noise effects from the constant hum of internal plant activity operating 24 hours per day, seven days per week;
- (e) visual effects of the plant building and the proposed security fence around the outside edge of the property; and
- (f) the effects of the loss of productive land by the removal of 5.5 hectares of kiwifruit orchard.



Noise Effects

Operational Noise

[276] Creswell engaged acoustic consultant Mr Neville Hegley to undertake a noise assessment of the existing site and of the proposal to expand the bottling plant. Creswell also engaged Dr Stephen Chiles, a second independent acoustic consultant to review and comment on Mr Hegley's assessment.

[277] Mr Hegley supported the adoption of upper limit noise levels consistent with the WDP Standards set out in Rule 11.2.6.1 for the Rural Plains zone. These are:

- 50dB L_{Aeq} Monday to Sunday 7am to 10pm;
- 40dB L_{Aeq} at all other traffic times, including public holidays; and
- 70dB L_{Amax} .

[278] These levels are designed to control noise within reasonable limits at all times for the neighbours. Creswell has proposed a suite of conditions to manage noise generated at the plant that are more restrictive than the WDP Standards. These include:

- (a) restricting truck activity to between 9 am and 7 pm Monday to Friday and 9am and 2pm Saturday;
- (b) constructing a 2.4 metre noise barrier fence around the perimeter of the site;
- (c) no outside activity to occur at night; and
- (d) designing the building to ensure that lower night time noise limits are complied with at all times of day and night.

[279] In closing submissions Counsel for Creswell outlined additional actions to provide mitigation of operational noise concerns raised by Sustainable Otakiri members. These involve:

- (a) Containerisation (putting filled bottles into containers) off-site, allowing removal of the dedicated container yard from the proposal as shown in Creswell's updated site plan (Attachment 3 to the Decision). A limited number of containers will still be allowed on site.
- (b) Containers are not to be stacked on site, removing the need for combi-lifts.



- (c) The use of curtain-sided trucks which will reduce the number of roller doors needed at the plant and reduce the number of trucks servicing the site.

[280] These changes are reflected in the proposed conditions of consent. Creswell have also proposed a new condition that limits truck movements to and from the site to a maximum daily number.

[281] Mr Hegley predicted that, with the noise mitigation measures in place, the noise requirements of the WDP will be achieved with the factor of safety at all times and under all operating conditions. Based on this, it was his opinion that the noise effects of the project will be less than minor. This conclusion was reached before the additional mitigation proposed above was proffered by Creswell.

Construction Noise

[282] Mr Hegley assessed the sound power levels for construction machinery at the site, predicting noise levels at the closest dwellings will be up to 61dBA L_{eq} during the daytime. This level will drop to typically 50 to 55dBA L_{eq} following completion of noise and earthworks activity. These limits are well within the construction noise limits in NZS 6803⁸¹ of 70dBA L_{eq} between 7.30 am and 6 pm, Monday to Saturday. This Standard is adopted for the Rural Plains Zone in Rule 11.2.6.2 of the WDP.

[283] A Construction Noise Management Plan is proposed to direct how these standards are to be achieved during the construction phase of the project.

Traffic Noise

[284] Noise on public roads is not controlled by any rule in the WDP. Mr Hegley's opinion was that the best guidance on what may be considered a reasonable level was NZS 6806:2010⁸² where the design level is 64dB L_{Aeq} measured at the façade of a dwelling. Mr Hegley's assessment predicted a traffic noise level of 49dB L_{Aeq} at the closest dwelling on Johnson Road, which is set back 35 metres from the road. No night-time truck movement is proposed resulting in no potential for sleep disturbance.

Effects on Residents

[285] Mr Hegley compared the existing noise environment to the protected noise

⁸¹ NZS 6803 *Acoustics – Construction noise.*

⁸² NZS 6806 *Acoustics – Road-traffic noise – new and altered roads.*



level from the plant. Existing day-time noise is 46dB L_{Aeq} with background at 38dB L_{A90} . The highest predicted noise volume at 62 Johnson Road of 47dB L_{Aeq} is 1 decibel above the measured environmental noise in the area. For all other notional boundaries, the predicted level is at least 2 decibels below that. Mr Hegley advised that a 1 decibel increase would not be noticeable. In considering effects on rural amenity, Mr Hegley noted that although there will be a change to the existing noise environment from the expansion of the water bottling plant, in his opinion this change will not result in unreasonable noise within this rural environment.

[286] In rebuttal evidence, Mr Hegley addressed the major noise concerns raised by Sustainable Otakiri members:

- (a) Construction timeframe. This is estimated at 30 months by Mr Joyce⁸³ with around 120 days of earthworks programmed (the noisiest activity).
- (b) Traffic noise not assessed in modelling. Mr Hegley responded that plant and traffic noise had been addressed separately as traffic noise is not included in the WDP Noise Standard. For both sources, noise would be well within levels normally used to provide a reasonable noise environment for residents, in Mr Hegley's opinion.
- (c) Sleep disturbance. Night-time noise from the plant at the nearest residence is predicted not to exceed 25dB L_{Aeq} by Mr Hegley. This equates to a level of 10dB inside any dwelling with windows open. In Mr Hegley's opinion this is well within a reasonable level based on WHO recommendations of 30dB in a bedroom to allow undisturbed sleep.
- (d) Noise from container movements. Counsel for Creswell advised in closing submissions that container storage on site is to be significantly reduced and no stacking of containers is to be allowed, eliminating a significant source of daytime noise from the plant. This has been proffered by Creswell in response to residents' concerns.
- (e) Reversing beepers. Mr Hegley suggested that this sound source could be reduced or eliminated using broadband beepers as opposed to tonal beepers without any compromise in safety. This has been included in a



proposed condition that prohibits the use of tonal beepers.

- (f) Mr Hegley also noted that Creswell has offered to double glaze any windows on the sides of dwellings closest to the plant. He predicted that this would reduce the internal noise level of the dwellings by 9dB, nearly twice that achieved by single glazing. This is a further mitigation option available to neighbouring residents, should they choose to take it up.

[287] Dr Chiles' peer review generally supported Mr Hegley's noise assessment, predictions and conclusions. In considering the noise from the proposed increase in truck movements, Dr Chiles focused on how individual truck movements are likely to be perceived. He proposed conditions of consent to manage truck activity by introducing a speed limit of 40 km/h on Johnson and Hallett Roads, avoiding the use of audible engine braking systems and requiring trucks to exercise steady progressive braking and acceleration on Johnson and Hallett Roads.

[288] Creswell have proposed a condition to this effect. We acknowledge that this condition relies on Creswell using "reasonable endeavors" to achieve compliance as the consent condition cannot itself require a third party to limit an activity that is otherwise lawful. This can be achieved by contractual arrangements, driver education and the like.

[289] With these controls, and those already proposed in conditions to manage truck movements, Dr Chiles considered that the sound of trucks would be heard as part of general ambient sound rather than being individually noticed as discrete events. In his opinion, rural amenity would only be affected in a minor way by the noise from truck movements resulting from the expansion of the water bottling plant.

Landscape and Visual Effects

[290] Mr Wade Robertson, consultant landscape architect engaged by Creswell, undertook an assessment of the local landscape, character and visual effects of the proposed expanded plant. Mr Robertson considered that the wide array of built development within the rural landscape of Whakatāne District, while not directly comparable to the Creswell proposal in terms of scale and location, illustrates that the expanded plant will not be entirely out of context in this landscape. In his opinion, the proposed building will not adversely affect the character of the wider or local landscape to any discernible degree.



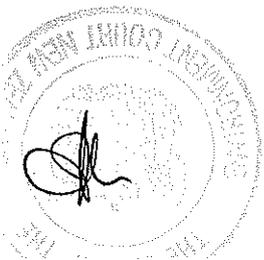
[291] Mr Robertson did acknowledge that the proposed plant represented a significant change in rural character at the site level. Except for the retention of the perimeter shelter belts and the relatively small existing buildings, all other aspects of the site will change. However, the low degree of sensitivity of the site to change would result in a moderate level of adverse effects in his opinion.

[292] The visual effects of the new building will, in Mr Robertson's assessment, be largely mitigated by the retention and strengthening of the perimeter shelter belts as visual screening from neighbouring properties and public viewing points. Views of the proposed buildings will be limited to the entranceway and a small part of the apex of the roof. The timber acoustic fence will also screen ground level views of the plant. In his opinion, based on the detailed assessment in the AEE and in his evidence, the overall visual effects of the plant building and associated site activity will be low.

[293] The other aspect of potential visual effects will come from the increased movement of trucks on Johnson and Hallett Roads. Mr Robertson considered that these visual effects were largely limited to 58 and 58A Johnson Road, directly opposite the entranceway to the plant. In his opinion, without mitigation, the adverse visual effects of the anticipated number of trucks entering and leaving the site each day would be significant. There was little screening vegetation on these properties and the dwellings were only 40 to 50 m from the road. The proposed mitigation planting for 58 and 58A Johnson Road shown on the indicative mitigation planting plan (Attachment 3 to this Decision) would, in Mr Robertson's opinion, effectively mitigate the adverse effects on these properties to a moderate degree.

[294] Ms Rebecca Ryder, landscape architect for the District Council, reviewed the evidence of Mr Robertson, concurring that the adverse effects on the local landscape were moderate, but that from a broader landscape perspective the proposal would introduce a low to moderate adverse effect. Ms Ryder agreed with Mr Robertson that visual effects would be adequately mitigated by the enhancement and maintenance of the screening shelter belts, new onsite large tree planting and building colour controls. She did, however, recommend the shelter belts be managed at a height of 12 metres above the ground to provide complete screening of the new building, not 10 metres as proposed.

[295] Mr Robertson in rebuttal evidence acknowledged that a 12 metre maintenance height was achievable except for the eastern site boundary where onsite stormwater infrastructure limited the space available for machinery access to maintain the hedge



above 10 metres. Creswell in revised conditions proposed to maintain the screen height at 12 metres except for the eastern boundary where the maintenance height is to remain 10 metres.

[296] Ms Ryder concurred with Mr Robertson that 58 and 58A Johnson Road would be adversely affected by the increase in truck movements and that these effects could be mitigated to a moderate degree by the proposed planting. Ms Ryder recommended additional avenue planting along the Johnson Road berm to contribute to rural character and amenity values. While Mr Robertson did not consider this would add much to visual mitigation, Creswell have retained this in conditions as an option, subject to roading authority approval and agreement from adjacent property owners.

[297] We note that a landscape management plan is to be prepared and implemented to give effect to the conditions. This will include consideration of roadside planting where relevant approvals have been obtained.

[298] Mrs McKeown raised the matter of security issues inherent in dense screen planting to mitigate visual truck movements from 58 and 58A Johnson Road. Ms Ryder acknowledged that Crime Prevention through Environmental Design (CPTED) principles should be applied to any final design of this mitigation planting.⁸⁴ In Ms Ryder's opinion, careful design of the mitigation planting would retain adequate passive surveillance opportunities for security purposes while also allowing for an effective screen between the properties and trucks entering the bottling plant site.

[299] We note that the proposed planting plan is labelled as indicative and that any final plan should include CPTED principles in consultation with the residents at 58 and 58A Johnson Road before inclusion in the Landscape Management Plan. A condition to this effect would be appropriate.

Effects on Productive land

[300] The proposed expansion will result in the loss of 5.5 ha of productive soils currently growing kiwifruit. Sustainable Otakiri did not challenge the Creswell evidence as to the unviability of the existing kiwifruit crop due to adverse soil conditions.⁸⁵ Members of Sustainable Otakiri in evidence did, however, suggest that the land was suitable for crops other than kiwifruit and should be protected as high

⁸⁴ Transcript, page 478 and 479.

⁸⁵ Sustainable Otakiri opening submissions, paragraph 29, referencing Joint Memorandum of parties, dated 1 February 2019.



quality rural land.

[301] Mr Batchelor provided a supplementary statement of evidence in this regard and this was explored at the hearing. Counsel for Creswell submitted in closing that the evidence regarding neighbouring sites supported the Creswell evidence that the site itself features inferior quality soil in a frost belt and is therefore not suitable for horticulture. This position was supported by the Council in opening and in the evidence of Mr Batchelor. We note that it was also accepted in the first instance decision where the Commissioners did not place any significant weight on the loss of the existing kiwifruit orchard.⁸⁶

[302] We heard no evidence analysing the relative returns from kiwifruit or other horticultural activities and the sale of water.

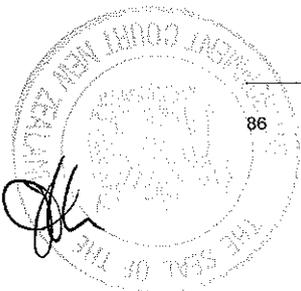
[303] We see no advantage in exploring this issue further than this.

Effects Evaluation

[304] During the hearing, we heard members of Sustainable Otakiri describe how the offsite adverse effects of the proposed expansion of the Otakiri Springs water bottling plant would affect rural amenity and the lifestyle they currently enjoy. We also heard expert description and evaluation of the potential effects of the proposal, together with Creswell's proposals to address these.

[305] Expert evaluation of the efficacy of the proposed operational limitations and actions to avoid, remedy or mitigate noise, visual and traffic effects have concluded that each of these potential offsite effects could be contained within acceptable limits and that there will be no significant adverse effects on the character and amenity value of the area within which the site is located.

[306] Without doubting the sincerity of the concerns held by Sustainable Otakiri members or the significance they attach to these concerns, we place considerable weight on the expert evidence on the level of effects on lifestyle amenity likely to be experienced by local residents from the establishment and operation of the expanded plant. The application includes the establishment of a neighbourhood liaison group to encourage ongoing dialogue between Creswell and interested residents. Properly constituted and operated community groups of this type can assist in identifying



⁸⁶ Commissioners' decision, at paragraph [126].

operational aspects that may be causing nuisance effects from time to time and provide an opportunity for the bottling plant operation to be adjusted where practicable to meet these concerns.

[307] We find that the noise, visual and traffic effects on lifestyle amenity in the Johnson, Hallett and Moody Road area will be managed within acceptable limits and be no more than minor with the construction and operation of the Otakiri Springs expansion.

[308] We also accept the evidence called by Creswell, supported by the supplementary evidence of Mr Batchelor, that the soil type and climate experienced at the site limit its economic use as productive rural land. We find that the loss of 5.5 hectares of marginally economic kiwifruit orchard at this site will have negligible effect on the availability of quality soils for food production in the Rural Plains Zone of the Whakatāne district. The conversion of a small area of rural land to establish this activity does not detract from the primary production focus of the zone.

Planning Evaluation

[309] In approaching our evaluation of the project against the relevant planning provisions in the WDP, we are mindful of the findings already articulated in our discussion on the activity status of the activity if applied for as a "new" activity, including our interpretation of the definition aspects pertinent to these findings and the effects of the activity on the environment. We have largely accepted the expert evidence called by Creswell and the District Council in finding that the activity fits most clearly in the WDP category of a rural processing activity.

[310] We have also largely accepted Mr Gleissner's evidence, supported by Mr Frentz, that there is a clear functional need for this particular proposal to be located above the source of the water in the rural zones.

[311] Neighbours of the proposed plant have identified the potential for the construction and operation of the plant to adversely affect the current amenity value they placed on their local neighbourhood. The uncontested expert evidence supports a finding that these adverse effects can be managed within acceptable limits, with the exception of the properties at 58 and 58A Johnson Road where visual effects from the movement of trucks at the plant entrance are expected to remain moderate after mitigation.



[312] Adverse noise, visual and amenity effects are likely to be low and the project will not substantially detract from the rural character of the area.

[313] The mitigation measures proposed by Creswell, together with visual separation from neighbouring residents, are consistent with the objectives in Chapter 2 of the WDP for managing development to minimise effects by separating incompatible uses.

[314] The project will achieve economic growth and development without compromising the ability of established activities to operate effectively or causing reverse sensitivity effects.

[315] We have accepted the Creswell proposal as a rural processing activity anticipated in the Rural Plains Zone. The proposal is for a type of rural production activity (rural processing) on soil that is of low versatility in comparison to other areas in the zone. It will provide for growth and efficient operation of a rural production activity consistent with the WDP's rural policies. Our findings on effects are that effects on rural character and amenity will be managed appropriately. We have found that there will be no significant adverse effects generated by the proposal and that identified adverse effects can be effectively managed by implementation of a comprehensive suite of consent conditions.

[316] Our evaluation of the proposal against the district planning framework is consistent with the evidence of Mr Frentz and Mr Batchelor. Mr Carlyon approached his evaluation from the starting point that the activities should be categorised as an industrial activity that is not anticipated in the rural zone, with adverse effects on rural character and amenity that were significant. His evaluation consequently concluded that the proposal does not meet relevant WDP provisions.

[317] The WDP has been prepared in accordance with and to give effect to the Bay of Plenty Regional Policy Statement. Our findings on the proposal's consistency with the provisions of the WDP leads us to accept that it will give effect to the RPS. This is again consistent with the evidence from the expert planners for Creswell and the District Council, although both provided further assessment of specific provisions in the RPS in order to reinforce their conclusions in relation to the WDP provisions. Sustainable Otakiri's expert planner did likewise but coming from the different starting point on activity status and adverse effects noted above.



Conditions

[318] Counsel for Creswell attached a revised set of consent decisions to their closing submissions incorporating changes proffered by Creswell since the close of the hearing. Our preliminary view is that the conditions are generally consistent with this decision, but before finalising these we direct the parties to confer and agree a final set of conditions for the land use consent variations. Should agreement in full not be achieved we will receive and review submissions on any differences before issuing a final decision.

Overall Evaluation

[319] We have found that the take of water from the Otakiri aquifer at the volumes and rates applied for by Creswell will have negligible adverse effects on that water source and that any effects on te mauri o te wai can be managed through an appropriate kaitiaki involvement by local hapū and Te Rūnanga o Ngāti Awa.

[320] The application to vary conditions of the existing land use consent to allow for the expansion of the existing water bottling plant at 57 Johnson Road, Otakiri, was appropriately made and assessed as a discretionary activity. We have found that the adverse effects of the proposal can be mitigated to an acceptable level by the implementation of a suite of consent conditions, with the exception of the effect of truck movements to and from the plant on 58 and 58A Johnson Road where effects may remain moderate after mitigation. Adverse effects on rural character and amenity are within appropriate ranges for a rural processing activity in this location.

[321] For these reasons, the majority of the Court decides that the water take application and the variation to land use consent conditions applied for can be granted with conditions. In both cases, we direct the parties to submit an agreed final set of conditions. If any details within these conditions remain in contention between the parties, these are to be addressed in submissions for consideration by the Court prior to issue of a final decision.



Commissioner Kernohan

[322] My decision is different to that of Judge Kirkpatrick and Commissioner Buchanan. I am of the opinion that the water take application and the variation to land use consent conditions applied for should be declined. I recognise that mine is the minority view.

[323] I understand the position taken by my colleagues and support the general tenor of their decision save for those issues identified below.

[324] My concerns are not about the water take per se but about the adverse effects on the environment of the end use of plastic bottles manufactured on site; and that the activity status for the resource consent application should have been considered as an industrial and therefore non-complying activity with wider public notification.

[325] My reasons are as follows.

Plastic Bottle Manufacture

[326] Creswell NZ Limited proposes to expand the existing water bottling plant located at 57 Johnson Road, to:

- Upgrade the existing bottling line from current maximum capacity of 8,000 bottles per hour, to a maximum capacity of 10,000 bottles per hour; and
- Install two new high-speed bottling lines, each producing 72,000 bottles per hour.

[327] Current production is 8000 bottles of water per hour. The new total will be 154000 bottles per hour. This equates to 3.7 million bottles per day and 1.35 billion bottles per year for the next 25 years.

[328] I set out the purpose of the Act in s 5:

- (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
- (2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while —
 - (a) sustaining the potential of natural and physical resources (excluding



minerals) to meet the reasonably foreseeable needs of future generations; and

- (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

[329] The planners are agreed that if the Court considers it useful to resort to Part 2 of the Act in order to address a perceived gap in relation to s7(b) matters, that it would be appropriate to consider all relevant Part 2 matters. This includes how the project, considered overall, would meet the sustainable management purposes of the Act.

[330] In addition to s7(b), the efficient use and development of natural and physical resources, I consider s7(aa) the ethic of Stewardship; s7(c) the maintenance and enhancement of amenity values; and s7(f) maintenance and enhancement of the quality of the environment are also relevant.

[331] The adverse effects on the sustainable management purposes of the Act of the manufacture, use, and specifically the disposal of plastic bottles is pollution with widespread environmental damage to fauna and flora. Plastic bottles among other plastic products are almost entirely not bio-degradable and while on occasion they are suitable for re-cycling and re-use, ultimately do not break down beyond micro-plastics. They end up at best in various states in landfills and at worst in eco-systems where they have considerable ongoing adverse effects on those systems.

[332] The Court heard very little evidence from both appellants and respondents about the consequences for the environment of creating 1.35 billion new plastic bottles per year over each of the next 25 years or of any proposed actions to avoid, remedy or mitigate any of the pollution effects on the environment of the production of such numbers of plastic bottles. There appeared to be a general view that as water bottling is a legal activity there was no more to be said about the environmental impact of such production.

[333] Creswell expressed little concern for the life cycle of the new plastic bottles they are creating nor of the final destination of their disposal. When asked, Mr Gleissner made general remarks about re-cycling and the life-cycle of plastic bottles prior to going to landfill or wherever. No information was provided about responsibilities for re-cycling plastic bottles or the potential of bio-degradable or



compostable water containers and any possible future development or use of such. No comment was passed on other methods of delivering water. Apparently Creswell accepts no responsibility for the disposal (or apparently even the re-cycling) of the plastic bottles manufactured by them, once used for carrying their water.

[334] It was remarkable that such a major adverse environmental effect (the pollution caused by plastic bottles) was not considered in Mr Frentz's AEE and was not addressed in any significant way by any one of the parties.

[335] It has been argued that concerns about the production of plastic water bottles is beyond the scope of the Court in determining whether to grant an extension of the resource consent to allow the expansion of the water bottling plant (ref *RJ Davidson Family Trust v Marlborough DC*). In my opinion the Court is responsible for interpreting and determining questions of environmental law as directed by the RMA. Clearly the sustainable management purposes of the Act especially under s7 are under challenge from this proposal.

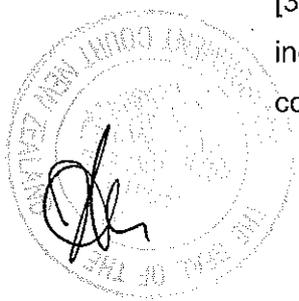
[336] I accept that trillions of plastic bottles are manufactured world-wide on a daily basis. However, the purpose of the Act is to promote the sustainable management of natural and physical resources. Allowing the creation of products that will clearly add to current pollution in the environment without any commitment to avoid, remedy or mitigate the pollution is against the purpose of the Act.

Activity Status

[337] The manufacturing plant proposed for Otakiri is wholly assigned to the industrial manufacture of new plastic bottles. Although petro-chemicals are used in the manufacture of plastic bottles, my concern is not in this instance with climate change or the carbon emissions created by waste. It is about environmental pollution.

[338] The purpose of the original resource consent of 1979 to take water was changed in 1991 to add the words "and commercial bottling of water for export and domestic sale". It read "For the purpose of orchard and shelter belt irrigation and frost protection and commercial bottling of water for export and domestic sale on the property Robertson Farms, Johnson Road, Otakiri".

[339] The bottling activity was begun in 1994 and the water take for bottling was increased in 2011 through a change in the resource consent. An additional resource consent to drill a new bore was granted in 2016.



[340] The requested variation to the current resource consent will increase the output from the current water bottling activity from 8000 bottles per day (185000 bottles per permitted sixteen-hour day) to 3.7 million bottles per 24-hour day, an increase factor of 20.

[341] In my view it is highly unlikely that the initial granting of the resource consent in 1991 to take water for orchard and shelter belt irrigation and frost protection and commercial bottling of water could or would have anticipated as stated in condition 1(d) of the consent the extent of "a major expansion of the plant or updating of plant machinery" by a factor of twenty (20).

[342] There is no remaining use of water for horticultural activity on site. The kiwifruit orchard, the principal purpose of the original resource consent is now completely gone as has the need for irrigation and frost protection.

[343] Therefore, in my opinion the proposal is not a minor variation of an existing resource consent, it is a substantial change and expansion of one part of the original consent well beyond the scope or reasons for that original consent. A new resource consent is required.

[344] It is only in the last decade that drinking bottled water has become such a ubiquitous and apparently fashionable activity worldwide. It is clear this application to vary the resource consent is a response to this apparently escalating new market opportunity.

[345] Finally, in my opinion, water bottling is not a rural production activity or use per se, nor is mining, or any other extractive activity, rural production per se. The use of manufacturing equipment, pumps and production lines is all industrial. There are no rural productivity benefits from drawing water, bottling it directly and transferring it elsewhere. Water can be available from many locations (as can coal or gold). It is not exclusively a rural production activity.

Conclusion

[346] I find that the pollution created from the production and specifically end use disposal of plastic water bottles does not meet the objectives and policies of the RMA. Creswell has not provided any evidence as to how the pollution effects of their production and disposal of plastic bottles can be avoided, remedied or mitigated.

[347] I find the proposed water bottling plant is a new industrial use and therefore a



non-complying activity. Any new resource consent application for this proposal should be applied for under this activity status and be publicly notified.

By the Court:



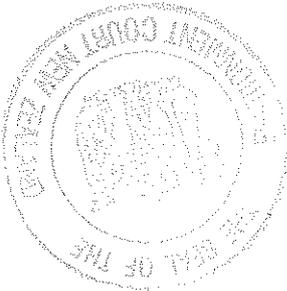
D A Kirkpatrick
Environment Judge



I Buchanan
Environment
Commissioner



D Kernohan
Environment
Commissioner



**BEFORE THE WEST COAST REGIONAL COUNCIL & GREY DISTRICT
COUNCIL OPERATING AS JOINT DECISION-MAKERS THROUGH THEIR
APPOINTED COMMISSIONER PANEL**

IN THE MATTER OF An application under Part 6 of the Resource
Management Act 1991

AND

IN THE MATTER OF An application by TiGa Minerals and Metals
Limited for resource consents. Reference WCRC:
RC-2023-0046 and GDC: LUN-3154/23.

AND

IN THE MATTER OF An application at a Site on Barrytown Flats, State
Highway 6, approximately 9 km south of the
Punakaiki Township and 36 km north of
Greymouth, to establish and operate a mineral sand
mine in an area of roughly 63 ha over 12 years,
including the construction of associated
infrastructure, such as a processing plant and
associated facilities of an area of about 2.0 ha up to
15 m in height and for a minimum average of 50
truck movements per day.

**INDEPENDENT COMMISSIONERS' DECISION
ON APPLICATION BY TIGA MINERALS AND METALS LIMITED TO MINE AT
BARRYTOWN**

Dated 29 April 2024

The **outcome** the Panel arrived at unanimously on the joint applications is:

- (a) **Grant** the consents that TiGa Minerals and Metals Limited sought from Grey District Council.
- (b) **Grant** the consents that TiGa Minerals and Metals Limited sought from the West Coast Regional Council.
- (c) **Impose** the composite set of conditions in **Appendix 1** and **Appendix 2** on all consents granted.

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Attachment 1: List of application items, materials, reports and evidence received by the Panel excluding individual lay submitter items presented on the day of the hearing

Attachment 2: – Index of items provided as part of the planning bundle for the hearing

Appendix 1: Consent Conditions – Provided as a separate document

Appendix 2: Consent Condition Schedules provided as a separate document

- **Schedule 1: Tai Poutini Resources, TiGA Consent Application Plan, 18 January 2024**
- **Schedule 2: IHC Mining, Site Layout, Structure Layout, and General Process Infrastructure Plans**
- **Schedule 3: Novo Group Limited, Barrytown Mine, Indicative Access Arrangement**
- **Schedule 4: National Light Pollution Guidelines for Wildlife (Australian Government, 2023), Appendix G - Seabirds**

- **Schedule 5: Glasson Huxtable Landscape Architects, Barrytown Mineral Sands Mining Project, Landscape Mitigation Planting Plans**
- **Schedule 6: Tai Poutini Resources, Clean Water Facility, Planting Covenant Area**
- **Schedule 7: Tai Poutini Resources, Barrytown ESCP Overview Concept Plan**
- **Schedule 8: Kōmanawa Solutions Ltd, Water Management**

Section 1 – Terminology and summary of context, the main issues and the Panel’s assessment

Appointments

- [1] Commissioners John Maassen (Chair), Rob van Voorthuysen, and Tim Vial, acting under delegated authority from the Grey District Council (*GDC*) and West Coast Regional Council (*WCRC*), were jointly appointed to hear and decide the resource consent applications lodged by TiGa Minerals and Metals Ltd. to undertake an open-cast sand mineral mine on the Barrytown Flats.

Terminology

- [2] We, the Commissioners, refer to ourselves as “the Panel” and by the associated pronouns “we” and “our”.
- [3] We refer to the Applicant as the “Applicant” or simply as “TiGa”.
- [4] We have used the usual RMA acronyms where acronyms are familiar for national policy statements, national environmental standards or other legal or planning instruments.
- [5] We have developed other terms within the decision, including generic descriptions of resources such as the *Coastal Lagoons* and the *Langridge Wetlands*.
- [6] We define other terms using the jargon of the mining industry.
- [7] The *Offered Conditions* refer to the final suite of conditions TiGa presented as part of its final reply. These form the foundation for **Appendix 1 and Appendix 2** sent with this decision as separate documents.
- [8] Variations in terminology and style reflect the fact all the Panel members contributed to writing the decision.

Evidence and planning instruments

- [9] A table of the evidence we received is in **Attachment 1**, which excludes lay submitter statements presented to us at the hearing from a range of submitters. The evidence in **Attachment 1** is on the WCRC website [here](#).

- [10] TiGa and the Councils provided the Panel with a hyper-linked planning bundle of the key instruments. **Attachment 2** is an index from that planning bundle. The planning bundle can be found on the WCRC website [here](#).
- [11] We have considered those planning provisions in our assessment of the applications and any other provisions brought to our attention.

Decision format

- [12] This is a combined decision containing the Panel's reasoning to approve applications for consents to both local authorities.
- [13] This section (Section 1) provides a summary and overview of our decision. Section 2 addresses the context and matters more or less relevant to the applications to both Councils, including legal matters. In Section 3, we deal with the GDC consents, and in Section 4, we deal with the WCRC consents.
- [14] Where we have assessed adverse or positive effects in assessing the application for GDC consents, and they are relevant to WCRC consents, for example, cultural or economic effects, we have not repeated our findings in Section 4.

Summary

Overview

- [15] This section summarises the Panel's lengthy decision about TiGa's proposed mineral sand mining operation. The operation incorporates an innovative water management system and operates on the coast in a delicate ecological setting. The Site is centrally located on the Barrytown Flats and is currently used as a run-off block by the owner, Nikau Farm Limited (the *Site*).
- [16] A summary risks detracting from our more detailed reasoning. However, some readers will undoubtedly benefit from an overview of the context, the main issues, and the Panel's assessment. The summary provides a valuable entrée into the denser reasoning that follows in Section 2 onwards and forms part of the decision with complementary and in-depth analysis in later sections.

- [17] TiGa is a private company with Australian and New Zealand shareholders. The New Zealand shareholders are minority shareholders, but before that occurred, they were shareholders of another company that made an earlier application to mine the Site. Another Commissioner Panel declined that application because of inadequate information. They are different proposals with a family resemblance. Mr Berry, TiGa's Project Manager, outlined the changes made to the earlier application in his evidence.
- [18] TiGa targets the minerals ilmenite (titanium dioxide) and garnet. It may also seek to recover from the sand ore metals, such as titanium. Hence, the company name TiGa. These minerals and metals are providentially found within coastal sand strandlines on the Site.¹ About 4.8 m tonnes of recoverable sand ore are within the mining Site.
- [19] Barrytown Flats is a coastal strip of flat land bounded by Pakiroa Beach and the Tasman Sea, a long stretch of open coastline to the west and Paparoa National Park, a majestic forested range to the east. The Barrytown Flats extend latitudinally between the mouth of the Punakaiki River to the north and 17 Mile Bluff to the south.
- [20] The Barrytown Flats are a mosaic of natural and cultural resources and activities, including:
- (a) Pastoral farms.
 - (b) Small lot holdings and rural residential development patterns centred on State Highway 6 (*SH6*).
 - (c) A primary school and a cluster of residential lots.
 - (d) Swamps and reserves.
 - (e) A complex network of waterways from catchments of varying sizes that emerge from the Paparoa foothills before travelling a short distance to the Tasman Sea.
- [21] The plan below, helpfully provided by the Coastal Road Resilience Group Inc. (*CRRG*), a submitter, illustrates the elements of the Barrytown Flats under a protection management ethic following various statutes and planning instruments.

¹ SOE Robert Brand at [18].

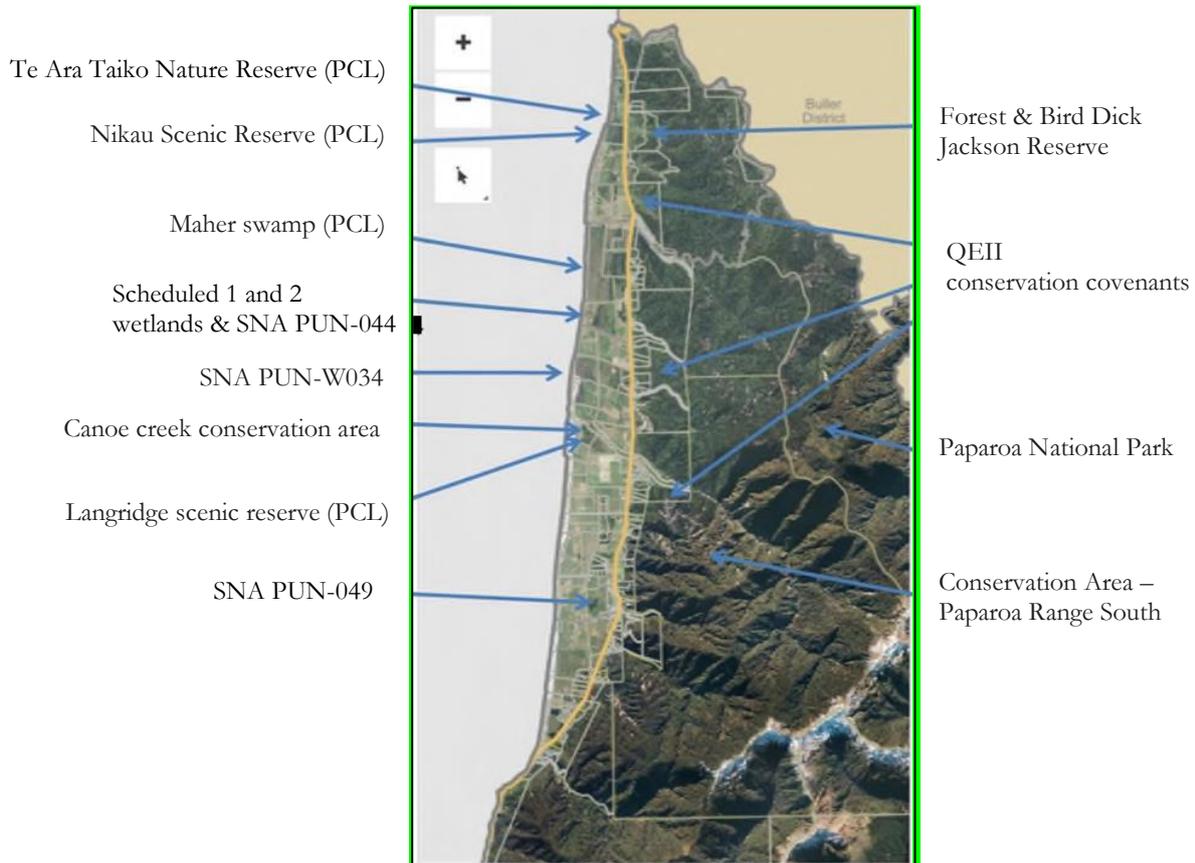


Figure 1-some of the protected areas of the Barrytown Flats

- [22] The Barrytown Flats area was once mined, and mining artefacts, such as Rusty Pond, on land owned by the Langridge family interests adjacent to and north of the Site, formed by dredging, remain.
- [23] At a Site-specific scale, the mine development area (*MDA*) of 64 ha is bounded to the east by SH6 (also called the *Coast Road*), the main road servicing the settlements of the coastal margin of the West Coast region. To the south is Canoe Creek, and to the north is Deverys Creek. To the west, within a dynamic coastal environment, are two coastal lagoons called Canoe Creek Lagoon and Deverys Lagoon, fed by Collins Creek and Deverys Creek, respectively (the *Coastal Lagoons*). While discrete, these Coastal Lagoons discharge at a mid-point in the littoral zone. The ecologists agreed the Coastal Lagoons are significant natural areas even though the proposed Te Tai Poutini Plan has not identified much of the Canoe Creek Lagoon as an SNA.
- [24] The Langridge family owns land to the north and south of the Site and the northern block includes Rusty Pond and possibly other swamps (the *Langridge Wetlands*).

- [25] TiGa has not studied or delineated the *Langridge Wetlands* because, as Mr Freeman and other Langridge family members confirmed, the Langridges unhelpfully refused to give TiGa’s representatives access to their land for research purposes.
- [26] During the hearing, the Langridge family interests consented to and indeed invited access to their land to delineate any wetlands. They said the previous non-engagement with TiGa arose from misunderstandings. That invitation was impractically late.²
- [27] Without access, TiGa’s approach was to regard Langridge’s northern block as possessing “natural inland wetlands”, including Rusty Pond and potentially other wetlands further northeast and hence within 100 m of the MDA. Therefore, TiGa argued its case on the basis that the Proposal engaged Resource Management (National Environmental Standards for Freshwater) Regulations 2020, Regulation 45D (*NES-FW*) for the Langridge Wetlands.
- [28] TiGa applied the effects management hierarchy to manage hydrological interactions using that worst-case scenario i.e., that the *Langridge Wetlands* were natural inland wetlands. In that way, TiGa answered the argument of some submitters, including the Langridge family, that TiGa did not provide adequate information about the potential effects on wetlands on the Langridge property like its predecessor since, for reasons already given, TiGa’s experts had neither delineated the wetlands nor assessed them.
- [29] The drone photograph below orientated to the south, obtained from Dr Bramley’s evidence, captures well the Coastal Lagoons in the foreground and Rusty Pond to the left hand side.³ Dr Bramley is TiGa’s lead terrestrial ecologist.

² See email From Langridge family to Dr Durand and the Panel dated 23 February 2023.

³ SOE Dr Bramley, Figure 17.



Figure 17: Collins Creek Lagoon in January 2024 showing raupō flaxland in the foreground and partially drowned rushes and sedges on the coastal edge of the lagoon (from Gary Tear)

- [30] Our brief resource descriptions show that the Site is surrounded by significant natural heritage that supports a complex array of ecological relationships operating within and around the human activities on the Barrytown Flats.
- [31] The Barrytown Flats are also notable for being close to the colonies and within the flight path of New Zealand’s only remaining mainland Petrel, the Westland Petrel or Tāiko. This large, black, burrowing, boisterous bird has colonies in the forested foothills of the Paparoa Range about 3.6 km north of the Site. The breeding colonies are designated as a scientific reserve called “The Westland Petrel Specially Protected Area”. The protected habitat also includes the Te Ara Tāiko Nature Reserve, administered by the Department of Conservation, and the Dick Jackson Memorial Reserve, which is owned and managed by Royal Forest & Bird.
- [32] The Site has an MDA of 64 ha with a pit mining area of approximately 34 ha between the Coastal Lagoons and a construction bund to be formed through the Site. The bund will be approximately 80 m wide and located 326 m from SH6. TiGa’s proposal includes a process plant with two major elements: the Mining Unit Plant (*MUP*) and the Wet Concentrate Plant (*WCP*). The MUP is adjacent to the mine pit and sizes the sand ore for processing. The sized sand is then processed in a clad WCP building to obtain Heavy Mineral Concentrate (*HMC*). The processing components were set out by Mr Lawson for TiGa in evidence containing many helpful illustrations.

- [33] TiGa proposes to mine in ten 100 m wide strips in the sequence shown in the Concept Plan. Mining will progress at 5 m/day or 35 m/week.⁴ At any time, an area not exceeding 3 ha will be mined, i.e., 100 x 300 m for any strip. The Concept Plan is shown below.

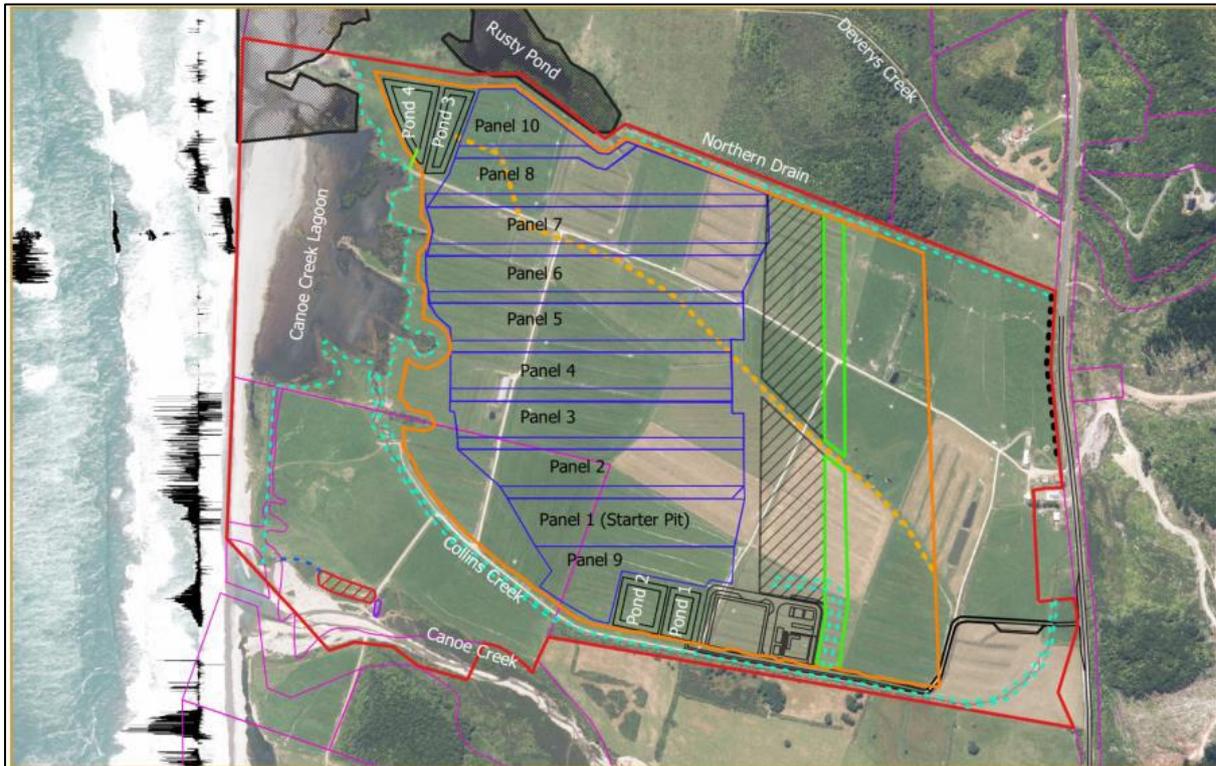


Figure1: General Site layout

- [34] The geology of the Site is well-summarised in the Kōmanawa Report “Barrytown Mineral Sands Hydrological Impact Assessment” (Attachment I) to the application where at section 2.4.2, Mr Rekker for Kōmanawa noted:

The mineral sands that are the focus of mining proposals comprise post-glacial coastal sand and gravel deposits grouped stratigraphically within the Nine Mile Formation (Suggate, 1989, see Figure 6). The mineral sands are considered to have been set down in a series of north-south trending pro-grading strand lines. The sediment supply for deposition of the sands is inferred to have been marine long-shore drift originating from the south. The proposed sand extraction area comprises a series of post-glacial strand lines extending from the foot of a Late Pleistocene sea cliff (coincident with SH6) and a staircase of up to four terraces that have prograded westward to the present-day coastline. During the formation of strand lines, heavy minerals were concentrated within the surf-washed

⁴ SOE Kate McKenzie at [2.14].

zone into lenticular black sand leads. These terraces and coastal gravelly sands are stratigraphically grouped within the Nine Mile Formation of Holocene to Late Pleistocene age (i.e. Recent to 14,000 years Before Present). The Nine Mile Formation contains marine placer mineral concentrations of ilmenite, gold and associated heavy minerals (epidote, garnet, titanomagnetite, zircon and trace monazite). The heavy minerals contain fractions with high magnetic susceptibility that were revealed in the Total Magnetic Intensity (TMI) channel of a recent airborne geophysical survey (Vidanovich, 2008).

- [35] The indurated black sand strandlines that TiGa targets were quantified for their resource value by H&S Consultants Pty Limited as part of a Mineral Resource Estimate (*MRE*).
- [36] TiGa aims to uncover the mineralised material, extract it and rehabilitate the mined area using excavators and trucks comprising the following steps⁵:
- (a) Topsoil, approximately 0.2-0.6 m thick, and overburden will be removed and preserved (stockpiled) for rehabilitation using an 85-tonne excavator, and 40-tonne articulated trucks. This area will be approximately 0.5 ha. Once in mining sequence, topsoil will be removed ahead of mining and placed straight onto rehabilitated ground behind the mining pit.
 - (b) The sand ore will be mined via excavator and deposited onto a mining bench of approximately 1 ha in area. The ore will then be picked up by front end loader directly to the in-pit mining hopper. The slurry will pass through a trommel and desliming circuit before being pumped to the Wet Concentrator Plant (Processing Plant).
 - (c) Reject large material from the trommel and slimes (small particles such as clay, mixed with water) will be returned to the mine pit.
 - (d) Mining will occur at a faster rate (approximately 350 tonnes per hour of sand ore) than processing (approximately 165 tonnes per hour), and the excess ore will be stored at the processing plant and used overnight to ensure the processing plant can run 24/7.
 - (e) Excavated material will be processed at the Processing Plant to extract the HMC. Heavy minerals will be separated from the ore using a water and gravity circuit,

⁵ This list is taken from Mr Rekker's evidence, TiGa's hydrologist.

drained of excess moisture, and stored at the Processing Plant in a farm implement building with a concrete floor.

- (f) Un-mineralised sands will be pumped back to the pit cavity, which will be progressively filled as the mine pit progresses. Pumped tailings will be spread across an approximate 1 ha area of the mining void. Tailings are dewatered and discharged to the mining void via cyclone. The tailings will be allowed to naturally beach out (spread out). The cyclone will be moved as required to distribute the tailings as necessary. Tailings will be levelled and contoured with the use of excavators and bulldozers ready to receive the pre-stripped overburden and soil. The mining void will be progressively rehabilitated as the mining void advances. Once vegetative cover (sowing of grass) is established, these areas are removed from the disturbed area.⁶

[37] The Site's hydrological setting is complex, involving interconnected groundwater, surface water, and wetland systems. The groundwater and surface water systems are highly responsive to rainfall because of the presence of very vertical catchments and the short distance from the foothills across the coastal margin to the sea.

[38] The presence of saturated sands below the topsoil and the sensitivity of the water bodies and wetland complex on the coastal flat demand a sophisticated water management system. The water management system was explained to the Panel by Mr Rekker of Kōmanawa Solutions Limited, with more detail contained in the updated Water Management Monitoring and Mitigation Plan Rev 3 dated 14 December 2023 Report No. Z22004_2.⁷

[39] The goals of the water management system, in the Water Management Plan (and translated into offered conditions), are in summary:

- (i) The flows from the springs on RS 4884 (Langridge property to the south) used for domestic and stock water supply are not reduced by mining.
- (ii) The water levels in the wetlands on Lot 1 DP 3424, including 'Rustys Pond' (Langridge property to the north) are not altered by mining.

⁶ This summary is from the Draft Water Management Plan prepared by Kōmanawa Solutions Limited for TiGa, and the Rehabilitation Management Plan attached to the evidence of Stephen Miller.

⁷ An earlier version was in TiGa's application.

- (iii) The rate of surface water inflow to Canoe Creek Lagoon from Collins Creek is not reduced by more than 10% of the Collins Creek Mean Annual Low Flow (MALF).
- (iv) The flow in Collins Creek is not reduced by more than 10% of the MALF as the creek approaches low flow condition.
- (v) Flow consistent with the drain's intermittent hydrological function and with dry weather flows is maintained in Northern Boundary Drain downstream of piezometer PZ-10 during periods when Collins Creek approaches within 120% of its MALF, i.e., dry spells.
- (vi) The quality of water discharged to receiving waters will not cause adverse impacts on stream ecology and visual clarity.
- (vii) The rate of take of water from Canoe Creek is not greater than 10% of the MALF.
- (viii) Potential adverse ecological impacts associated with discharge of naturally present toxic metals and phosphorus in downgradient surface waters are avoided.
- (ix) The pre-mining surface drainage patterns are restored such that the catchment areas for the Northern Boundary Drain and Canoe Creek Lagoon are not changed significantly.
- (x) The soil profile restoration, land contouring and surface drainage installed during mine rehabilitation does not increase the rate of groundwater drainage at the site.

[40] The Panel conducted a hearing on TiGa's application in Greymouth over seven days in early February 2024. There were further audio-visual hearings on two days, giving an effective hearing period of about nine days. During that process, the Panel heard extensive evidence from experts and lay submitters and extensively questioned expert witnesses and lay submitters on all key matters.

[41] In her written legal submissions for TiGa's reply, Ms Booker, TiGa's lawyer, accurately characterised the hearing process as leaving "no stone unturned". The process was iterative to the extent that TiGa provided many versions of conditions to respond to particular issues or clarify matters that remained. Further, TiGa provided a mine lighting plan, which the Director-General of Conservation reasonably requested. That arrived mid-way through the process. We then permitted Westland Petrel experts more time to comment on that lighting plan.

[42] At the end of the hearing, TiGa provided a final set of conditions in their reply, setting the parameters that they offer to manage the activity's effects (the *Offered Conditions*). These

parameters formed the basis for our assessment of the degree of effects that is likely to remain when applying those Offered Conditions.

[43] The Panel heard from many submitters and Council experts. Notable for the depth of participation were the following individuals and groups:

- (a) The CRRG is a community -group whose members placed a close ruler over the application and provided extensive and mostly lay evidence on a range of topics, including ecology, radiation, transport, indigenous biodiversity, dust, and noise. CRRG's chair, Katherine Crick, led that local group. As that group's name suggests, SH6 is the lifeline for West Coast communities and a key concern related to the transport-related effects of TiGa's proposed mining operation. Undoubtedly, CRRG's contribution to the process prompted many of the Proposal's design adjustments reflected in the Offered Conditions.
- (b) The Director-General of Conservation provided evidence from Ms Simister, an expert on the Westland Petrel, supporting the Director-General's submission on the application. The submission focused on protecting the Westland Petrel from artificial light during darkness when the Westland Petrel leaves and returns to its colony. Ms Simister manages the only monitoring programme for the species in New Zealand, leads several National Scientific Research Priorities, and manages the recovery response and rehabilitation of grounded Westland Petrel in the Western South Island. In 2019, Ms Simister co-authored a paper on the current Westland Petrel population estimates and trends in the international scientific journal, *Marine Ornithology*. Ms Simister gave evidence on the potential for artificial lighting to disorientate the Petrel, causing it to be grounded and die if it is not rescued because the Westland Petrel needs an elevated runway to get airborne. The Director-General's case was supported by legal submissions from Ms Warnock on that issue. Ms Warnock also gave submissions on whether the activity adjacent to the wetlands within the 100 m setback met the "functional need" requirement under Regulation 45D of the NES-FW and other topics within the issues identified in the Director-General's submission.
- (c) West Coast Penguins Trust is interested in protecting Blue Penguins (Kororā) and made a full submission on that topic.

- (d) Royal Forest & Bird has a special interest in the Westland Petrel and other at-risk avifauna using the Coastal Lagoons.
- (e) The Langridge family interests in land on either side of the Site. The family's large adjoining blocks are managed with a mostly conservation ethic with a Scenic Reserve within the boundaries of the family's southern block.
- (f) The Barrytown School Board of Trustees was concerned with ensuring student safety was not compromised by mining traffic and that TiGA controlled dust from the mine appropriately.
- (g) The WCRC appointed Dr Durand to provide planning evidence. His section 42A report was accompanied by a detailed hydrological peer review by Brett Sinclair of Wallbridge Gilbert Aztec.
- (h) The GDC appointed Mr Geddes as its planner. His assessment was also supported by technical experts undertaking peer review assessments. Mr Harding, an ecologist, provided a detailed statement of evidence and supplementary evidence on the potential ecological effects of the Proposal. Towards the end of the hearing, Mr Geddes proposed a further review of TiGa's transport assessment by Mr Fuller, which we allowed.

[44] Except for Mr Harding, there was a high degree of agreement amongst the Council's technical experts that the Proposal's effects could be managed appropriately by conditions as proposed by TiGa with the refinements now reflected in the Offered Conditions. However, neither Dr Durand nor Mr Geddes supported mining activity within 100 m of the Coastal Lagoons and the Langridge Wetlands. Consequently, their advice to us was to decline TiGa's applications because, in its current form, the mine design relied on mining and ancillary activities in that 100 m setback established by NES FW, Regulation 45D.

[45] Dr Durand considered there was no "functional need" for the Proposal's activities to be located within the 100 m setback of inland natural wetlands, and that created a jurisdictional bar under NES FW, Regulation 45D(6). Mr Geddes considered that the 100 m setback was necessary to reduce the effects of mining activity on the occupancy levels by at-risk avifauna in the Coastal Lagoons relying on Mr Harding's advice.

- [46] But for the ‘deal-breaker’ setback issue above, the Council’s planners substantially supported the Offered Conditions and considered the Proposal acceptable.
- [47] Submitters raised a wide range of potential effects and issues arising from TiGa’s proposal, all of which are addressed in detail in this decision.
- [48] The Panel assessed that there were seven key matters in contention. Four of these were of intense ecological importance, reflecting the many significant natural areas and delicate ecological relationships on the Barrytown Flats. Two of these matters ((a) and (e) below) are related to the wetland set-back issue and the reasons the local authority planners opposed consent as outlined above. The last two matters concerned effects on the Coast Road and its users and the measurement of economic benefits.
- [49] These key matters in contention were the following:
- (a) Whether there was a “functional need” under Regulation 45D of the NES-FW for the proposed mine to operate within the 100 m setback of Coastal Lagoons and Langridge Wetlands treated as “inland natural wetlands”. That is a jurisdictional requirement before there is a pathway to giving consent as a discretionary activity under NES-FW for activities within the setback.
 - (b) The impact of mine lighting on the Westland Petrel given that Westland Petrel has the potential to be disorientated by light while entering and leaving the colony during darkness causing individual birds to be grounded. This is a phenomenon called ‘fallout’.
 - (c) Impacts on blue penguins (Kororā).
 - (d) Hydrological impacts on surface water bodies and groundwater systems.
 - (e) Impacts on levels of occupancy of avifauna in the coastal lagoon.
 - (f) Impacts from vehicle movements on SH6 associated with TiGa’s mine operations, including impacts on pedestrians and cyclists.
 - (g) The economic and employment benefits of the proposed mine.
- [50] The Panel summarises these issues and its views on them below.

“Functional need”

- [51] We consider that the arguments that TiGa’s proposal did not have a functional need to encroach into the 100 m setback were misguided. The arguments did not reflect the words used in NES-FW, Regulation 45D, the regulation’s purpose, and the proper application of the evidence on the Proposal’s design which required encroachment within the 100m setback to deliver an appropriate viable mine. We consider the constraints and characteristics influencing TiGa’s mine design created a “functional need” to operate within the 100 m setback of the Coastal Lagoons and the Langridge Wetlands. The reasons are convincingly set out in the evidence of Mr Miller, TiGa’s mine designer, and given more substance by the technical evidence of other experts that show how the design fulfils a range of unavoidable needs in one integrated system.
- [52] We have addressed the issue of ‘functional need’ in considerable detail in this decision because it was widely acknowledged to be a problematic requirement to interpret and apply.

Lighting impacts on the Westland Petrel

- [53] This submitter issue was led by the Director-General of Conservation, CRRG, Forest & Bird and Stuart Menteth.
- [54] CRRG relied on the expert evidence of Dr Waugh, who had field-based experience of Westland Petrel colonies and the Petrels’ behaviour over many years.
- [55] The Director-General of Conservation submission dated 13 October 2023, amongst other things, was concerned that the application did not contain sufficient controls on artificial lighting to avoid effects on Westland Petrel from night-time mining and night-time truck movements. The Director-General submitted that if consent was granted, then there should be conditions that:
- (a) Prevent mining and truck movements during the hours of darkness.
 - (b) Compensate for the wildlife management imposed on the Department of Conservation due to mining activities.

- (c) Required consultation with the Department of Conservation if the avian management is varied.

[56] Stuart Menteach owns land where a Petrel colony is present in the Paparoa foothills and is deeply interested in the Westland Petrel. He also sought consent conditions that in particular:

- (a) Specified the conditions of colour temperature of no more than 2000k.
- (b) Limited truck movements to daylight hours.

[57] The Applicant's Offered Conditions on the Westland Petrel issue are the culmination of TiGa's lengthy consideration of that issue during and after the hearing by a group of TiGa's experts. These conditions include the following:

- (a) HMC will only be trucked during daylight hours, which are defined as 30 minutes before sunrise and 30 minutes after sunset and will vary seasonally.
- (b) Mining will only occur during the same daylight hours.
- (c) Trucking of HMC to the south, away from the Westland Petrel colony.
- (d) Where a shift change occurs during hours of darkness, the company will require all staff to use minivan transport.
- (e) The processing plant will be fully housed within a building with no windows.
- (f) Exterior lights will comply with the Australian Light Pollution Guidelines for Wildlife to be shielded, pointed downward, filtered to reduce blue light, with a colour temperature of no more than 2000k, and equipped with switches and motion sensors as appropriate to minimise light at all times.
- (g) TiGa's Avian Management Plan (AMP) was updated with a procedure to address interactions (which include sightings) with Westland Petrel on Site. The occurrence of one interaction (which includes a sighting or interaction on a wildlife camera) will prompt a review of the AMP. Two interactions within four weeks of each other, or a grounding, will result in operations being suspended at the Site during the hours of darkness until the AMP has been reviewed and any actions necessary to protect

Westland Petrel incorporated into mining operations. Live birds seen on the road at any time of day/night will be reported to 0800 DOC HOT as soon as possible and encouraged off the road if it is safe to do so. There are requirements for reporting and independent oversight.

- (h) Wildlife cameras will be installed around the processing plant, access road and the Coastal Lagoons to detect Westland Petrel (and Little Blue Penguin - Kororā) should they be present on Site.
- (i) Predator control is required for the duration of the consent, which will contribute to the survival of any grounded birds..

[58] Despite offering conditions to meet or exceed the requirements of the Director-General identified in the Director's submission, the Director-General contended in legal submissions that the risk represented by TiGa's Proposal to Westland Petrel from light disorientation *militates against consent*. That was a strong submission considering the content of the Director-General's original submission which opposed the mine without estimable night-time mining restrictions.

[59] The Director-General argued that although TiGa significantly mitigated the risk, the risk was not eliminated. Because Westland Petrel mortalities are already above what is necessary to sustain the population, the Director-General considered there is a real risk that the TiGa mine would cause an adverse population-level effect on Westland Petrel. Therefore, applying relevant policy direction and case law, Ms Warnock, for the Director-General, argued that residual risk is heavily weighted against granting consent.

[60] In her primary statement of evidence, Ms Simister stated that "any artificial lighting associated with the mining proposal must follow the National Light Pollution Guidelines for Wildlife (Commonwealth Australia, 2023)."

[61] However, in legal submissions, the Director-General said there was uncertainty about whether those Guidelines were effective for the Westland Petrel because they are generic. That is so even though the Convention on the Conservation of Migratory Species of Wild Animals (*CMSWA*) endorsed the Wildlife Light Pollution Guidelines in February 2020. The Wildlife Light Pollution Guidelines explicitly address the risk to *Procellariiformes*, i.e., the Petrel genus.

[62] There is no evidence to suggest that these Guidelines are not fit for purpose, and we doubt that Ms Simister is a sufficiently qualified expert to conclude that there is any material risk that the Guidelines are insufficient to address the Westland Petrel's potential response to light stimulation. We note that Ms Simister did not offer such a view. Instead, Ms Warnock suggested that TiGa needed to provide the Panel with evidence that the Wildlife Light Pollution Guidelines are fit for purpose for the Westland Petrel. We found that submission perplexing for the following reasons:

- (a) The Director-General claimed to have the greatest expertise on this lighting risk for Westland Petrel but argued its experts could not say whether the Guidelines were appropriate.
- (b) We doubt from the evidence and our review of some of the literature cited by Ms Simister on the 'fallout' phenomenon that there is any witness on the planet who has sufficient knowledge of the mechanisms by which lighting interactions occur such that they could say, without observational fieldwork, that the Wildlife Light Pollution Guidelines are sure to provide adequate protection for the Westland Petrel from the proposed mine safety lighting. The Guidelines have been developed for Petrel species. There is no comprehensive, robust data held by the Department of Conservation or any other person that would enable an expert to conclude the Westland Petrel species' light sensitivity was different from the Petrel genus in a way that made the Guidelines inappropriate. Therefore, the Director-General put forward an insuperable and, in our view, unreasonable argument against TiGa's application, resting on a potential and unresolvable uncertainty, mixed with a reverse onus on TiGa to disprove the precautionary principle should not apply.
- (c) Despite the above, situations that raise fallout issues, such as Waka Kotahi's lighting system at Punakaiki, are managed in a more pragmatic way.

[63] We accept that the law and common sense demand that special care is taken to ensure that the Westland Petrel is protected from light-generated interactions potentially caused by the Proposal. We must take all reasonable steps to avoid those effects and manage uncertainties cautiously. That does not require the Panel to take wholly disproportionate steps to avoid the risk, recognising the overall risk to Westland Petrel from existing threats and potentially unregulated changes to the existing environment.

- [64] Put another way; the Panel does not see how any further measures beyond the Offered Conditions, such as declining consent, will meaningfully contribute to protecting the Westland Petrel from population-level cumulative effects arising from existing threats and those that foreseeably could arise in the existing environment.
- [65] Ms Simister told the Panel that if the lighting was installed in accordance with the Wildlife Light Pollution Guidelines, it would be a “fairly easy adjustment” to mitigate risk on Westland Petrel in the event an interaction arose. Hence, the adaptive management regime in Offered Conditions can manage any residual risks.
- [66] A more helpful and meaningful course than declining TiGa’s Proposal was to use the applications as an opportunity for the parties to engage and crystallise further community-led efforts to better understand the threats to the Westland Petrel and reduce known and more significant threats where practicable, a concept raised in the Director-General’s submission.
- [67] TiGa and Ngāti Waewae made proposals of that nature to the Director-General. Ms Booker, TiGa’s lawyer, in reply at [13], noted the following in that regard:

For completeness, it is recorded that engagement with DoC was not forthcoming, and the Applicant’s offer (via Dr Bramley to DoC) prior to lodgement of this resource consent application to provide funding for a population monitoring programme was rebuffed - resulting in the Applicant committing to willing stakeholders and mana whenua Te Runanga o Ngāti Waewae to seek to improve biodiversity through predator control - a terrestrial threat to Westland Petrel. The commitment includes activities that will improve the understanding of the Westland Petrel through further research, with Mātauranga Māori central to this work, and working with other stakeholders such as DoC and WCPT.

Impacts on Blue Penguins

- [68] There are no Little Blue Penguins (Kororā) currently occupying the Site. Further, it is common ground amongst the relevant experts and witnesses that Kororā are unlikely to burrow in the currently farmed MDA. The Applicant proposed a comprehensive suite of mitigation measures developed under the leadership of Dr Bramley, TiGa’s lead terrestrial ecologist. Potential effects on Kororā outside the MDA, including disturbance from noise, were addressed by evidence that Kororā are not susceptible to noise disturbance. Of course, they live naturally in a noisy environment on the coastal margin.

Hydrological impacts on surface water bodies and groundwater systems

- [69] The potential for the Proposal to impact the groundwater system of the Site was a key topic because the hydrological conditions supporting the Coastal Lagoons and Langridge Wetlands are important, and adverse effects should be avoided.
- [70] Mr Rekker, the hydrologist for TiGa, undertook a detailed assessment with his Kōmanawa Solutions Limited colleagues concerning the potential impacts of mining activity on the Coastal Lagoons and Langridge Wetlands. He demonstrated to the Panel a thorough knowledge of the stratigraphic complexity of the Site derived from a detailed assessment of geological conditions supplemented by onsite hydrological assessments, including using datasets from a comprehensive network of monitoring bores. Mr Rekker explained how the proposal would employ a water management system using innovative methods to maintain median water levels in the Coastal Lagoons and Langridge Wetlands until mining was complete. Testing these methods by a trial system led to further revisions of the model that Mr Rekker used to assess the Proposal's potential impacts.⁸
- [71] Professor McGlynn is a hydrologist and bio-geoscientist with e3Scientific, Arrowtown, New Zealand. He provided evidence for the Langridge family opposing TiGa's mine. Professor McGlynn described the general hydrological setting as a mountain-front valley system where groundwater conditions were critical to sustaining inland natural wetlands and surface water bodies. Professor McGlynn considered the Proposal to extract about 4.8 m tonnes of subsurface material within a 34 ha area within the larger 63 ha MDA as inevitably having significant potential impacts on water flow amounts and pathways in unpredictable ways. Professor McGlynn considered the conceptual model used by Kōmanawa Solutions lacked sophistication or sufficient calibration for uncertainties.
- [72] Mr Sinclair was the hydrology peer reviewer commissioned by WCRC. Mr Sinclair impressed the Panel as an experienced and convincing witness who did not share Professor McGlynn's concerns and considered that the water management system proposed by Kōmanawa Solutions was feasible. We received several helpful joint witness statements to that effect.

⁸ This further was a detailed in "Barrytown, Coates Block Hydrological Revision: Injection and Infiltration Trials, IT Conceptual & Groundwater Model Re – Model, KSL Report No. Z2204-4-REV0".

[73] The Panel accepts that in the short term, the active pit area will disturb natural groundwater transmission to small parts of the Coastal Lagoons, but this is not a large area at any one time, and the proposed water management system would manage the temporary hydrological effects on wetlands of that activity comfortably. In the longer term, the question is whether the disturbance of the substrate by removal and replacement would disturb groundwater flows in a way that could adversely affect the wetlands. The materials to be extracted are largely homogenous sand deposits from common geological processes and are not substantially altered by mining, albeit re-layered. The forces that drive the groundwater system will remain the same because of the recharging conditions from gravitational forces. Therefore, we consider the present hydrological processes will largely remain the same after mining. Even if the mining process creates different groundwater transmission pathways, this will imperceptibly affect wetland hydrology.

Impacts on levels of occupancy of avifauna in the coastal lagoon

[74] Several submitters were concerned about the potential impact on the occupancy of at-risk avifauna in the Coastal Lagoons. The thesis was that the mine machinery and the level of mining activity would cause effects such as dust and noise affecting occupancy and thereby fail to avoid effects as required by Policy 13 of the New Zealand Coastal Policy Statement (NZCPS).

[75] Dr Bramley, TiGa's ecologist, monitored avifauna in the Coastal Lagoons. Sixteen threatened species were confirmed as present within or near the mine site. These species include Pacific Reef Heron (threatened - nationally endangered, c. 300 to 400 birds left), Caspian Tern (threatened - nationally vulnerable), Grey Duck (threatened - nationally vulnerable), and White Heron (threatened - nationally critical, c. 150 to 200 birds left).

[76] Dr Susan Waugh noted that the Barrytown Flats are classified as an Important Bird Area. In oral evidence, Dr Waugh described the environment surrounding the mine site as a "biodiversity hotspot".

[77] It is notable, for example, that the Coastal Lagoons provide suitable habitat for Australian bittern (Matukū) (threatened - nationally critical – estimated population of 900 in the 1980s with steep population decline since then).⁹

⁹ SOE Mike Harding, 12 December 2023 at [104].

- [78] The Director-General of Conservation supported a 100 m setback from the Coastal Lagoons because Mr Harding concluded that a 100 m setback was efficacious in sustaining current levels of occupancy by threatened and at-risk avifauna frequenting the Coastal Lagoons. However, under questioning, that was not Mr Harding's opinion, for good reasons. It certainly was Mr Harding's initial view in his section 42A report; however, like everyone else, his understanding of mining operations developed during the hearing.
- [79] In response to a question from the Panel, Mr Harding confirmed that he did not understand the small temporal and spatial extent of activity within the 100 m setback caused by TiGa's Proposal. Mr Miller, TiGa's mining design expert, told the Panel the total time spent inside the 100 m area of the lagoons is approximately between 8 to 11 months. This is not one consecutive period. It involves 5-7 weeks in each of mining panels 4-8 and 10. No other evidence, such as hydrology or noise evidence, supported Mr Harding's initial views. There will be no mining occurring at night in the pit, which would address any lighting concerns.
- [80] When the Panel questioned Mr Harding, he acknowledged that the 100 m setback in the NES Freshwater was not established to manage the effects on avifauna in the adjacent lagoon. Mr Harding accepted that establishing whether the effects of mining operations within the 100 m setback were materially different than those effects that would arise from mining operations outside the setback, was not feasible. Mr Harding did not challenge the evidence that the Coastal Lagoons are in a relatively noisy environment from natural processes. A point covered by TiGa's acoustician, Mr Farren. Mr Harding began to have reservations about a setback based control as a tool to manage impacts on avifauna and to maintain occupancy. He merely raised a more general question as to whether the activity was appropriate in that environment assessed in a more general way.
- [81] We have not considered how the environment could be modified by any other permitted rural activities. However, if one were to do so, it would underscore the Panel's conclusion on this topic.
- [82] Dr Bramley's evidence included a recommended condition requiring a setback of mining activity during the breeding season as part of a suite of controls to enhance and maintain the Coastal Lagoon habitat.

- [83] The Panel considered Dr Bramley's recommended conditions a sufficient response to the 'occupancy issue' in combination with all the other mitigation measures in the Offered Conditions, including improving the habitat of the Coastal Lagoons' margins by native planting.
- [84] The Panel considers the mining activities will not reduce occupancy by at-risk species. Also, given the narrow strips in which mining is occurring, there will be more than enough habitat in the remaining part of the Site for species that are more distant from the mining activity than a 100m separation would provide in any event. Species that might be disturbed have flexibility about where they locate themselves within or around the Coastal Lagoons. Less flexibility exists if breeding pairs make a suboptimal choice of breeding location, but that potential effect is remedied by TiGa's Offered Conditions.

Impacts from vehicle movements on State Highway 6 associated with TiGa's mine operations

- [85] The mining activity will involve hauling heavy mineral concentrate (HMC) on SH6. The Grey District Plan classifies SH6 as a Strategic Route, which is defined as "roads and motorways which form part of a network of national strategic importance, which are a significant element in the national economy, for which a high level of user service must be provided at all times and are a significant element in the regional economy."
- [86] About 50 truck movements a day are anticipated, comprising 25 arriving at the Site and 25 leaving the Site. At the commencement of the hearing, the Applicant had yet to decide if the HMC would be hauled north to Westport or south towards Greymouth. However, during the hearing, they advised that the HMC would be hauled south towards Greymouth either to a rail siding site located at Rapahoe or Stillwater. From there, the HMC would most likely be taken by rail to the Port of Timaru for export. This southern route selection was confirmed by Ms McKenzie.
- [87] The selection of the southern HMC haulage route greatly assisted the Panel's consideration of traffic and road safety issues because many submitters were justifiably concerned about the traffic safety risks that would occur should the HMC be trucked north towards Westport over a tortuous section of SH6.
- [88] The Panel acknowledges that there is an existing high level of risk to the safety of pedestrians and cyclists who choose to use the section of SH6 between the proposed mine

site and Greymouth. However, we do not consider that the maximum of five additional HMC haulage truck movements per hour, six days a week, coupled with the daily morning and evening minibus movements for shift workers, will exacerbate that risk to such a degree that would warrant consent being declined. In saying that we are mindful of the statement in the Regional Land Transport Plan (RLTP) that sections of SH6 are currently “...not fit for purpose for cyclists”. We also agree with Ms Booker that it is not the Applicant’s responsibility to resolve existing concerns for cyclist safety on SH6.

- [89] The Panel is satisfied that the combination of proposed consent conditions and the implementation of the Traffic Management Plan (TMP) will reduce the level of additional risk posed by the Applicant’s maximum five additional truck movements per hour to the extent practicable for pedestrians and cyclists who choose to venture onto SH6.

Regional economic and employment benefits

- [90] The West Coast region has a history of mining; mining is part of the West Coasts identity. Many agencies promote mining as a source of economic development for the West Coast.

- [91] We received evidence from Mr John Ballingall, an economist for TiGa, about the Proposal's economic benefits.

- [92] The economic impact on regional GDP is large. At [28] Mr Ballingall said:

To give a sense of significance, this 3.8% boost for the Grey District would be equivalent to adding the combined GDP of the Meat and Meat Product Manufacturing, Seafood Processing, Dairy Product Manufacturing, Fruit, Oil, Cereal and Other Food Product Manufacturing, Beverage and Tobacco Product Manufacturing, and Wood Product Manufacturing to the national economy (their combined share of national GDP is 3.7%).

- [93] Concerning employment Mr Ballingall said at [48]:

Given total employment in the Grey District was 6,900 at February 2023, the mining operation would directly increase the total number of jobs available in the District by 0.8% to 6,957. Total employment in the West Coast Region would increase by 0.4% to 14,957.

[94] Mr Ballingall concluded at [59] the following:

In my opinion, the proposed operation will deliver a range of significant benefits to the regional economy:

- (a) It will support 57 high-paying direct jobs and a further 80 indirect jobs in the wider economy, boosting Grey District employment by 2.0% and West Coast regional employment by 0.9%.
- (b) The wages paid to the 57 direct employees total around \$6.6 million per year.
- (c) Export revenue averaging \$63 million per year, equivalent to 37.8% of the Grey District's total exports of goods and services and 7.1% of the West Coast region's total exports.
- (d) regional GDP contribution of around \$33.7 million per year, equivalent to 3.8% of GDP in the Grey District and 1.5% of GDP for the West Coast region.
- (e) Spending on intermediate inputs of around \$27.4 million per year, much of which will go to local businesses.
- (f) A contribution to government tax revenue of around \$33.0 million over the mine's lifetime, comprising royalties, employees' income, and business taxes.

[95] Unsurprisingly, the opportunity cost of the temporary loss of the farmland because of mining pales into insignificance.

[96] Mr Ballingall's assessment was supported by a peer review assessment commissioned by the WCRC and GDC dated December 2023 by Mr Heath. Mr Heath largely endorsed the conclusions of Mr Ballingall.

[97] Ms Bradley, a submitter living on the Coast Road with experience at New Zealand's Treasury office, considered that the TiGa economic assessments were deficient. For example, she considered that an assessment of the social and environmental costs had not been undertaken in assessing the regional benefits. Ms Bradley also considered there was an inadequate assessment of the cost of the displacement of employment and adverse effects on other economic generators including tourism.

- [98] We do not consider that a Treasury cost-benefit analysis involving an assessment of social and environmental costs is required to assess regional economic and employment benefits under NES-FW Regulation 45D(6)(a). Such a tool may be appropriate for economic development decisions where the Crown funds major projects. In this case, we have a range of experts covering all relevant environmental effects, and these are to be weighed as part of the process in which economics is just part of the RMA, s 104 assessment.
- [99] We received several unwelcome arguments that we should discount any regional benefits because the majority shareholders of the Applicant are Australian. New Zealand has international commitments governing close economic relations with Australia that demand free commerce between the countries, and any such assessment would run against those important obligations. Furthermore, the degree of foreign ownership of investors is not a useful yardstick to dilute the value of regional benefits. The regional benefits will ensue even if significant profits are repatriated to a foreign country.

Conclusion

- [100] The West Coast's available mining areas are small, given the levels of public ownership of natural resources in the region. The high incidence of special natural resources on the West Coast means any mining operation likely to receive consent must work within carefully framed and robust parameters to achieve directive policy in national, regional, and district plan requirements. We consider that if a proposal can achieve these ideals and significantly support regional development, then it should be approved. This is also the kaupapa Ngāti Waewae encouraged the Panel to adopt.
- [101] That approach is supported by the following scene-setting passage from the Rural Zone chapter of the Grey District Plan, although the Applicant and the Panel took a sterner approach to condition-setting than this text suggests:

The rural environments of the Grey District contain extensive resources, which on a per capita basis must be as great as anywhere else in New Zealand. These resources include indigenous forest, exotic forest, farmland, minerals, rivers, lakes, buildings and infrastructure. They are all used to a greater or lesser extent to provide social, economic and cultural well being of the community. ...

In addition to those industries above, the rural area has traditionally supported a diverse range of rural service industries, such as contractors' depots or trucking companies among other things. These are typically situated within or adjoining rural settlements. ...

The principal activities associated with mineral resources are coal mining, gold mining, and gravel and limestone. There are also ilmenite mining and petroleum resources that have potential for future development. There are several coalmines presently operating, both State and private, and other projects are being progressed. Much of the gold and bituminous coal resources of the West Coast are contained in the Grey District.

Underground hydromining and open cast mining are the most commonly used methods of extraction, with mines having crushing and screening facilities onsite.

Extraction of gold from alluvial fans and terraces is the principal means of gold recovery in the Grey District. ...

The size of operations varies, from the large dredging operations to recreational or hobby mining using cradles, sluice boxes and other handheld equipment. The majority of operators mining alluvial deposits use hydraulic diggers and rotary screens that either float in a pond or are skid mounted. ...

While many activities in the rural environment such as farming, mining and forestry enable people to provide for their economic, social and cultural well being, potential adverse effects may be generated.

Given the area of the District, the abundance of resources (many of which are protected or sustainably managed) and a relatively low population, sustainable management can be approached in a manner differing from that in areas of the country where resources are severely depleted or under pressure. In particular, less restrictive measures may be adopted and non-regulatory methods implemented.

[102] We are satisfied that the mining operation proposed in the application has been suitably refined and polished by the consent process and Offered Conditions into a Proposal of appropriate scale and intensity with robust environmental protection measures. At the end of the mining activity, Nikau Farms Limited will have an improved farming platform.

[103] The Panel considered TiGa's approach cooperative and sensitive to the environmental issues arising from the Proposal. We have no reason to doubt that TiGa would manage a consent appropriately in accordance with its requirements. There sufficient legislative sanctions if they do not, and we did not accept some submitters' assertions that we could

not have confidence that the conditions in **Appendix 1 and schedules in Appendix 2** would be appropriately monitored or enforced.

- [104] In achieving an appropriate mining proposal controlled by conditions in **Appendix 1 and schedules in Appendix 2** the Panel acknowledges the enormous contribution that submitters have made to the Panel's process. Their responsible participation has illuminated many areas where improvements were required to the character, scale and intensity of the proposed mining operations to ensure that effects were managed appropriately. Where relevant policy has directed avoidance, the conditions aim to achieve that in a rational and sensible manner without taking the extreme view that 'avoidance' means no interference or no effect, however small or inconsequential.

Section 2 – Background, context, process and legal matters

Description of the proposal

- [105] The Applicant's proposal was described in the Applicant's AEE¹⁰, the two Section 42A Reports, and the evidence of TiGa representatives John Barry, Stephen Miller, and planner Katherine McKenzie in particular.¹¹ We adopt those descriptions, but some of the more salient points are:

- (a) The Site is located on the Barrytown Flats on the South Island's West Coast, approximately 9 km south of Punakaiki and 36 km north of Greymouth. The property is owned by Nikau Deer Farm and is a dairy support farm that is humped and hollowed.
- (b) There are lagoons and wetlands bordering the Site to the north and west, a small modified drainage channel on the northern boundary and Collins Creek on the southern boundary. There are springs on the property to the south of the Site. The Site contains several individual kahikatea trees and scattered flax bushes;
- (c) The proposed mine area is around 64 ha and falls within Mining Permit 60785. Mining will progress in strips, or panels, with dimensions of 100 m wide (strip width) and 300 m long (3 ha in total). The panel sequence is shown in Figure 1 below.

¹⁰ TiGa Minerals and Metals Ltd, Application for Resource Consent to Grey District Council and West Coast Regional Council Mineral Sand Mining Activities at Barrytown, Tai Poutini Resources, April 2023. Section3 'The Proposal'.

¹¹ Appendix 1 in her evidence statement of 19 January 2024.

Overburden thickness varies from 0.5 m along the western edge of the Site up to 8 m in the east.

- (d) The mine area has setbacks of 20 m from the Coastal Lagoons and internal property boundaries. A processing plant area will be 3.5 ha in size, including the mine access road and a Mine Water Facility (treatment Ponds 1 and 2) adjacent to the processing plant. Around 6.5 ha will be disturbed during mining, however a total disturbed area of 8 ha is sought to allow progressive rehabilitation to take into account weather and seasonal impacts on vegetation establishment. The maximum mining depth will be 9 m below the ground surface.
- (e) Screening bunds on the eastern boundary of the Site adjacent to SH6 will be constructed prior to mining commencing. A central drain will be installed (following the contour of an existing drain running through the Site) with limestone weirs and rip rap.
- (f) The Mine Water Facility will require removing approximately 135,000 m³ of material. Topsoil and waste from it will be carted to the southern end of the eastern bund. That bund will be no more than 4.5 m high and will be progressively re-grassed as it is constructed.
- (g) A Clean Water Facility (additional treatment ponds 3 and 4 in the northwest corner of the Site) will require removing approximately 150,000 m³ of material. Waste and topsoil from that will be carted to the northern end of the eastern bund.
- (h) Mineralised sand from the Mine Water Facility and Clean Water Facility excavations will be carted by truck to an ore stockpile located inside the eastern bund at the northern end of the active mine area, which will be around 4.5 ha in area.
- (i) The mine starter pit area (100 m x 300 m) in Panel 1 will have its topsoil and waste carted to the southern end of the eastern bund and ore will be stockpiled at the ore stockpile. This involves the removal of around 180,000 m³ of material.
- (j) Approximately 150 m of the length of a single mining void will be in various stages of excavation, with ore pre-stripped for mining commencement. Mining will progress in this sequence at a rate of approximately 5 m per day, or 35 m per week. The sequence is as follows:

- (i) Topsoil, approximately 0.2 to 0.6 m thick, and overburden will be removed and stockpiled for rehabilitation. This area will be approximately 0.5 ha.
 - (ii) The sand ore will be mined via excavator and deposited onto a mining bench of approximately 1 ha in area. The ore will then be picked up by front end loader and placed in the in-pit mining hopper. The slurry will pass through a trommel and desliming circuit before being pumped to the Wet Concentrator Plant (Processing Plant).
 - (iii) Reject large material from the trommel and slimes (small particles such as clay, mixed with water) will be returned to the mine pit.
 - (iv) Excavated material will be processed at the Processing Plant to extract the HMC and stored at the Processing Plant in a farm implement building with a concrete floor.
 - (v) Un-mineralised sands will be pumped back to the mining pit, which will be progressively filled as mining progresses. Pumped tailings will be spread across an approximate 1ha area of the mining pit.
 - (vi) The backfilled pit area will drain water into the mining void which is recovered and pumped back to the Mine Water Facility. The drained returned sands, plus the oversize material and slimes, will be shaped prior to being covered with the waste and topsoil carted directly from the front of the mining path; and
 - (vii) The mining void will be progressively rehabilitated with grass as it advances.
- (k) There are approximately 4,800,000 tonnes of recoverable sand ore within the mining area, with a yearly extraction rate of 1,100,000 tonnes, yielding approximately 250,000 tonnes of HMC per year. Actual mining is expected to take approximately 5-7 years to complete.
- (l) Each mining panel will take between 4 and 6 months to mine and rehabilitate. Topsoil and overburden will be recovered from the eastern bund and used in the rehabilitation and final contour of panels 8, 9, and 10.

- (m) The mine will utilise a range of standard earthmoving machines, together with a variety of pumps (including land based, floating and submersible).
- (n) The Processing Plant (3,800 m² gross floor area) and associated facilities will cover an area of approximately 2 ha. Buildings and structures will be painted in recessive colours and will not exceed 15 m in height. All buildings and plant will be removed from the Site at the completion of mining operations, with the exception of the HMC storage and loading building which will be retained on Site and used for farming purposes.
- (o) All lighting on Site will adhere to the Australian Government's National Light Pollution Guidelines for Wildlife January 2020 (or subsequent revision). Lighting design and installation will be audited by a suitably qualified professional.
- (p) The Processing Plant will run 24 hours a day, 7 days a week. There will be no mining activities or trucking of HMC during the hours of darkness, defined as being 30 minutes after sunset and 30 mins before sunrise.
- (q) Once the plant has been commissioned, the Site will generate approximately 50 heavy vehicle (HV) movements a day. The Applicant intends to run passenger min-vans to provide staff transport to the mine.
- (r) Processed materials (HMC) will be trucked from the Site southwards towards Greymouth and there will be a maximum of 5 HV movements an hour. HV movements will be restricted to no more than 3 per hour between 5am and 7am for noise mitigation purposes.
- (s) Operational noise will comply with Grey District Plan permitted activity standards, except on Sundays.
- (t) The Processing Plant may require an initial water take from Canoe Creek. Water from Canoe Creek may also be required sporadically during mining to top up the Processing Plant water circuit, however generally the Processing Plant will use water recovered from pit dewatering or mechanically from the HMC product.
- (u) Any excess water from the Processing Plant together with stormwater generated from the Processing Plant area will be directed to the Mine Water Facility (Ponds 1

and 2). Flocculent may be used in the Mine Water Facility to enhance the settlement of sediments.

- (v) The central drain will carry discharged water from the Mine Water Facility (Pond 2) overland to the Clean Water Facility. Alternatively, where it is required for water clarity reasons, the discharged water will come directly from the WCP Process Water Tanks and be discharged via a clarifier to the central drain. The central drain will have rip rap and limestone rock weirs installed to slow water velocity and increase water hardness. At the Clean Water Facility Pond 4 will be partially planted in wetland species at the commencement of mining. Excess water from Pond 4 will discharge into Collins Creek Lagoon.
- (w) Infiltration trenches and/or injection wells around the perimeter of the mine area will be used to recharge groundwater and avoid surface water depletion.
- (x) In extreme weather events the mine pit can be flooded to provide significant additional containment and settling capacity and allow groundwater levels and stream flows to recover.
- (y) Routine dust management measures will be employed at the Site to avoid dust emissions beyond the property boundary. Dust and radiation monitors on the perimeter of the Site will remain in place for the duration of mining activities.
- (z) Machinery will be refuelled on Site using a mobile fuel tanker, and a centralised fuel store will be located at the Processing Plant which will contain up to 40,000 Litres of diesel.
- (aa) Landscape planting is proposed to reduce potential visual effects on surrounding properties and public viewpoints, as well as improve ecological outcomes for the Site. All planting will remain at the completion of mining, except on the bunds that will be removed.
- (bb) Rehabilitation works will occur on a progressive basis to minimise the area disturbed at any one time as operations move through the mining area. Rehabilitated land will be returned into the farmed area as soon as possible to allow for the landowner to have input into the continued redevelopment of the land and to regain soil fertility; and

- (cc) The removal of HMC from the Site will result in an overall reduction in ground levels with an average reduction of 0.8 m over the mine disturbance area, however the Site will be rehabilitated to ensure that the lower lying western paddock's ground levels are not reduced.

[106] The general mine layout is shown below.

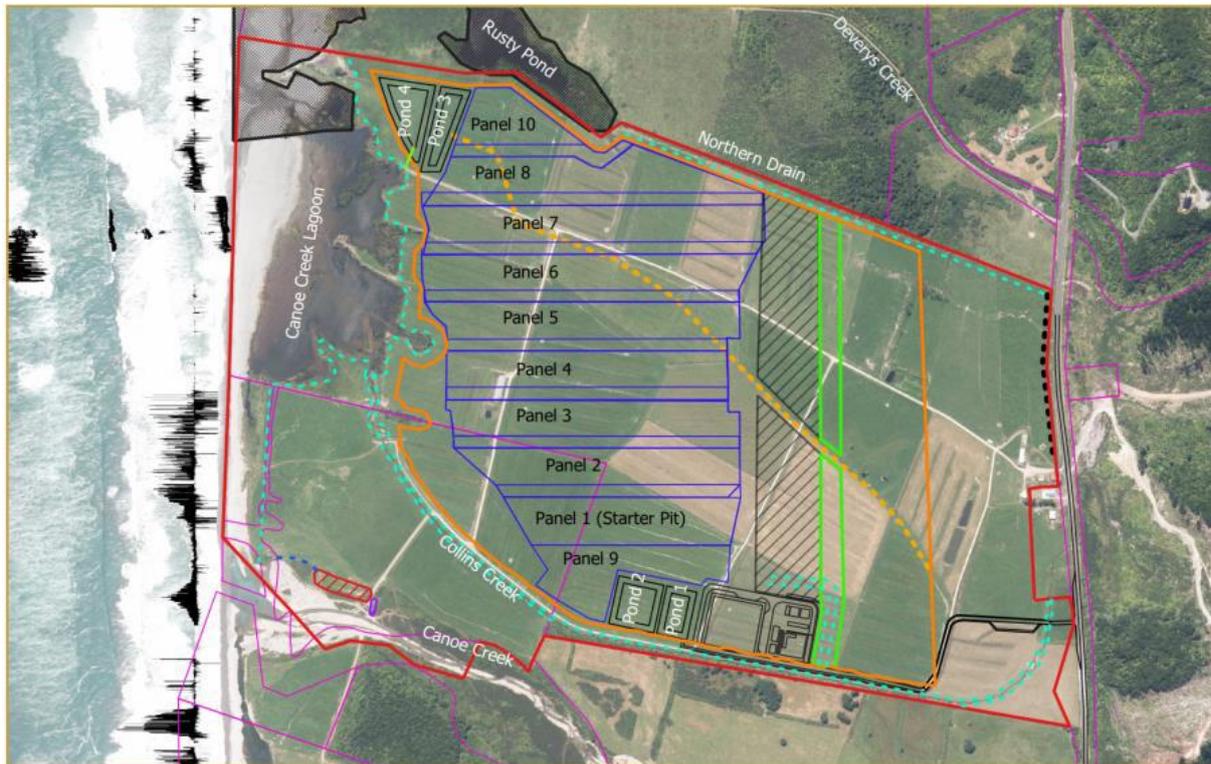


Figure 1: General site layout

[107] Further details of the proposal (including amendments by the Applicant before and during the hearing) are set out in the effects assessment sections of this decision.

[108] The Applicant sought a consent duration of 12 years.

Preliminary matters

Written approvals, notification and submissions

[109] Written approvals were obtained from:

- (a) The owners and occupiers of 3261 Coast Road.

[110] The applications to both councils were publicly notified at the Applicant's request. A total of 357¹² submissions were received, with 153 submissions in support, 194 in opposition and 9 either neutral or did not state a position.

[111] The Councils provided us with complete copies of all of the submissions. We record that we have read and had regard to all the submissions that were lodged, regardless of whether or not the submitter appeared before us at the hearing.

Site visit

[112] Commissioners Maassen and Vial undertook an escorted Site visit on Friday, 2 February 2024. Commissioner van Voorthuysen undertook an escorted site visit on Tuesday, 6 February 2024.

Hearing

[113] We conducted a hearing in Greymouth on February 5, 7, 8, 9, 10, 12 and 13, 2024.

[114] We held an audio-visual hearing on 26 February 2024 to hear the submission of the Director-General of Conservation. We held an audio-visual hearing on 20 March 2024 addressing the end of hearing section 42A Reports from Mr Harding¹³ (the ecologist engaged by the councils), Mr Geddes and Dr Durand. At that hearing, we also posed questions to the Applicant regarding the conditions circulated by Ms Mackenzie on 19 March 2024. Finally, the scheduled audio-visual hearing on 28 March 2024 to address the Applicant's Reply submissions was vacated, as the material filed in reply did not raise questions of a degree or nature that would justify a hearing.¹⁴ On 3 April 2024, we concluded that we required no further information from any of the participants and began formulating our decision.

[115] We heard from the Applicant's experts, the councils' experts, and many submitters. Copies of the evidence and legal submissions that all parties presented are held by the respective councils (See Attachment 1). We do not itemise or summarise that material here but refer

¹² By way of the Panel's Minute 1 we accepted twelve late submissions.

¹³ Michael Harding who came down with COVID during the hearing and so could not appear at that time.

¹⁴ We received those submissions on Wednesday 27 March although they were provided to WCRC on 26 March 2024.

to it in the remainder of this decision where appropriate. We took notes of any verbal answers to questions we posed.

Key legal and jurisdictional matters

Precautionary approach

[116] The precautionary principle, or precautionary approach, is an international environmental law principle adopted in various national directions in New Zealand, such as the NZCPS and NPS-IB.

[117] The precautionary principle is often invoked by opponents to a project as justification to decline consent when there exists some uncertainty or residual risks with serious consequences. For example, where species have an unfavourable conservation status. That happened in this case, and the following are examples:

- (a) CRRG argued that the precautionary principle applied to potential effects on all indigenous biodiversity, citing Policy 3 NPS-IB Policy 3A. CRRG argued the application of that principle meant that consent should be declined. CRRG also argued that the principle applied to public health risks from radiation
- (b) The Director-General of Conservation invoked the precautionary approach concerning the residual risk of mine lighting on Westland Petrel by applying the NZCPS, Policy 3.

[118] We disagree with the view that any uncertainties or residual risk must incline a decision-maker to prefer the option of declining consent following the precautionary approach.

[119] The precautionary principle is a broad epistemological, philosophical, and legal approach to actions or innovations with the potential to cause harm when extensive scientific knowledge is lacking. It emphasises caution, pausing and reviewing before leaping.

[120] There are many formulations of the principle. Principle 15 of the Rio Declaration Notes:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

- [121] There are many shades of the precautionary policy in literature, and these shades are considered by the New Zealand Treasury in a Policy Perspectives Paper in 2006 entitled “Environmental Risk Management in New Zealand - Is There Scope to Apply a More Generic Framework?”¹⁵.
- [122] There are many options when implementing a cautious approach in the face of uncertainty. Since the nature of the uncertainties and potential hazards vary case-by-case, the appropriate response will also vary depending on the circumstances. The range of possible precautionary measures includes:
- (a) Research to reduce uncertainties and improve information for decision-making.
 - (b) Incorporating ‘safety margins’ or ‘uncertainty factors’ in risk assessments.
 - (c) Adopting measures that are robust to a range of possible circumstances based on sensitivity analysis.
 - (d) Adaptive management to respond to new information.
 - (e) Declining consent.
- [123] Options may be combined, such as temporary prohibition while conducting research. The course of action will depend on the circumstances of each case, which include:
- (a) The extent and significance of the information gaps and uncertainties.
 - (b) The prospects and potential costs and benefits of obtaining better information in the future.
- [124] In many of the areas where the precautionary principle was urged upon us, there was no real uncertainty. For example, concerning radiation risk we were satisfied that there was no health risk arising from the Proposal based on the technical evidence and applying the Offered Conditions.

¹⁵ Linda Cameron: Environmental Risk Management in New Zealand - Is There Scope to Apply a More Generic Framework, New Zealand Treasury Policy Perspectives Paper 06/06 July 2006.

- [125] The Supreme Court decision *Sustain Our Sounds*¹⁶ considered the precautionary approach under the Zealand Coastal Policy Statement, Policy 3 and the decision undertakes an extensive comparative law assessment.
- [126] We regard, of course, the *Sustain Our Sounds* decision as authoritative. The decision recognises an enormous variety of circumstances in which the precautionary principle must be considered, and a precautionary risk assessment and management needs to respond to that context. In *Sustain our Sounds*, the principal cause of a potential impact on an existing sensitive benthic environment, where no other threats or stressors applied, was the proposed salmon farm. Therefore, the cause of the potential threat was somewhat linear (a clear cause-and-effect relationship from a single activity) even if the scale and extent of the potential effects on the sensitive receiving environment, including synergistic effects, were uncertain.
- [127] In the present case, more significant non-linear stressors in the existing environment significantly impact the Western Petrel, and any residual risk must be assessed (preferably statistically) within that context to assess its significance.
- [128] A summary of our application of the precautionary principle to the issue of night-time lighting impacts on Westland Petrel is useful here.
- [129] Unfortunately, the Westland Petrel mortality dataset is relatively poor and not resolved sufficiently to attribute mortality to identified major threats.
- [130] A threat matrix was recorded in Waugh and Wilson (2017).¹⁷ The paper identified serious threats to fishing methods controlled under the Fisheries Act and damage to the colonies from natural events such as landslides and predators. Interactions from lighting are better understood now than in Waugh and Wilson (2017), but these interactions occur along the entire length of the West Coast. Further, mortalities from fallout can arise from various causes, not just lighting interaction and the data does not assist in understanding the percentage of birds grounded because of ‘fallout’.
- [131] The threat assessment matrix by Waugh and Wilson 2017 is set out below.

¹⁶ *Sustain Our Sounds Incorporated v. The New Zealand King Salmon Company Limited & Ors* - [2014] NZSC 40.

¹⁷ WAUGH, S.M. & WILSON, K-J. 2017. Threats and threat status of the Westland Petrel *Procellaria westlandica*. *Marine Ornithology* 45: 195–203.

TABLE 2
Assessment of terrestrial threats to Westland Petrels considered to be at such a level to affect the survival of individuals, colonies, or to influence breeding habitat or feeding opportunities^a

Terrestrial threat	Severity	Scope	Notes and references
Predators (feral pigs)	High potential	High potential	Pigs have the ability to extirpate whole colonies or, at worst, the whole population. Feral populations currently occur about 20 km north of the Petrel Colonies, they may arrive at any time, and they have been released by hunters close to the petrel colonies on occasions during the last 20 years.
Predators (vagrant dogs)	High potential	High potential	Dogs have entered the petrel colonies infrequently over the last 20 years and killed petrels, but could invade at any time, with Punakaiki village only 2.5 km from the colonies.
Landslide and windfalls leading to erosion of nesting substrate	High	High	Likelihood increased by storm damage in 2014, with erosion fronts currently at the periphery of major colonies leading to ongoing erosion of nesting areas (Waugh <i>et al.</i> 2015b).
Habitat damage by introduced mammals	Low	High	Possums and goats are always present, degrading breeding habitat and destroying burrows.
Predators (weka, possums, stoats, rats)	Low	High	Weka, possums, stoats, and rats are all present at breeding colonies but do not appear to be affecting the colony dynamics in measurable ways.
Land development (mining, farming, housing)	Low	High potential	Currently, no land development is planned adjacent to the colonies, but development and changes in land use on and adjacent to flight paths remains possible. There is some housing intensification on the margins of the Specially Protected area.
Attraction to lights (fallout)	Low	Not quantified	Each year, some young petrels are found grounded near lights in Punakaiki and other West Coast settlements. Mitigation, low light levels, and recovery and release of grounded birds may assist in reducing numbers of birds affected. There are restrictions on lighting in nearby Punakaiki village and developed areas near some flyways. The frequency is moderate, with birds recovered most years, but with high uncertainty around the numbers of individuals affected.
Powerline strikes	Low	Low	Mitigated by underground wires across the major flight path, but wires remain across all secondary flight paths.
Harvest (human take)	Low	Low	Mitigated by restricted access, but occasionally appears to affect >20% of chicks in monitored colonies. If unchecked, this could lead to a >10% reduction in population growth over 10 years, but is unlikely to be carried out at this severe level without being reported.
Tree captures	Low	Low	A natural threat affecting adults of breeding age, but ongoing at a low level annually.
Pathogens, parasites	Low	Low	Not identified for Westland petrels, although the potential exists.
Soil loss through burrowing	Low	Low	Ongoing natural process resulting from the birds' nest-building activity.
Human disturbance and trampling	Low	Low	Mitigated by restricted access.

^a All threats are discussed in Wilson (2016) or Waugh *et al.* (2015a or b), except where otherwise noted. Threat levels are aligned to those described in Table 1, and are listed as High, High potential, Unquantified, Low, or Negligible for severity and scope.

Marine Ornithology 45: 195–203 (2017)

[132] New Zealand is a signatory of the Agreement on the Conservation of Albatrosses and Petrels 2018. That Agreement applies a similar precautionary principle to the Rio Declaration.

[133] Agreement on the Conservation of Albatrosses and Petrels 2018, Article II contains the following Objective and Fundamental Principles:

- (a) The objective of this Agreement is to achieve and maintain a favourable conservation status for albatrosses and petrels.
- (b) The Parties shall take measures, both individually and together, to achieve this objective.

(c) In implementing such measures, the Parties shall widely apply the precautionary approach. In particular, where there are threats of serious or irreversible adverse impacts or damage, lack of full scientific certainty shall not be used as a reason for postponing measures to enhance the conservation status of albatrosses and petrels.

[134] Annex 2 at [2.1] of the Agreement requires “[s]o far as is appropriate and necessary, the Parties shall take such management action, and introduce such legislative and other controls, as will maintain populations of albatrosses and petrels at, or restore them to, favourable conservation status, and prevent the degradation of habitats.”

[135] The Panel accepts that any uncontrolled lighting from the mining activity would pose a risk of the phenomenon called ‘fallout’ by the Westland Petrel. We acknowledge the risk from the literature and from observations but note that there is limited understanding of how lighting causes this behaviour.

[136] The Panel accepts that because of the unfavourable conservation status of the Westland Petrel and because of New Zealand’s international obligations and relevant national directions, significant constraints should be placed on the mining operation to a degree that substantially achieves avoidance of adverse effects. That involves preventing night operation in the pits, preventing light from emanating from the processing plant, and, limiting truck movements during the hours of darkness. For the residual outdoor lighting required to safely operate the mine, the Australian Light Pollution Guidelines for Wildlife will be applied to manage that lighting system.

[137] Even with these measures, there is a small but unquantifiable residual risk that the measures are insufficient to prevent any interactions with the Westland Petrel. To cover that risk, TiGa devised an adaptive management regime that adjusts the lighting management system appropriately if light interactions with the Westland Petrel occur in circumstances that meet the criteria at [129] of *Sustain our Sounds*.

[138] Despite these measures, Ms Warnock, submitting for the Director-General, said that the remaining residual risk did not achieve Policy 13 of the Zealand Coastal Policy Statement, and any risk of death of even one bird was an unacceptable population-level effect that should be avoided by applying the precautionary principle.

- [139] The Panel had difficulty with that submission by the Director-General because it struck the Panel as beyond the boundaries of sensible, prudent precautionary analysis and required the Panel to unreasonably decline consent for no practical or helpful purpose and, arguably, because any risk was not quantified, the risk could not be regarded as significantly affecting populations outcomes for the Westland Petrel.
- [140] We know that the significant impacts on population health relate to fishing methods and colony disturbance by natural causes and predators. In addition, there is already pre-existing fallout from lighting across the West Coast. The District Plan does not control lighting for the purposes of avoiding ‘fallout’, nor does it seek to require lighting controls for any land use activities within the Barrytown Flats except to a limited degree and not for the purpose of protecting the Westland Petrel. Changes in lighting patterns associated with changes in permitted activities on the Barrytown Flats or increases in night-time traffic could all significantly increase the potential for fallout to occur within the Site.
- [141] When the Panel asked Ms Simister for the reason why so much attention was being paid to the residual risk of mine lighting in the face of the estimable conditions offered by the Applicant and in the face of other serious threats, Ms Simister described the approach as paying attention to a threat the Department of Conservation could control. It seems the Director-General has not sought a planning regime to control light through any RMA, Schedule 1 process. Mr Geddes confirmed this in a separate report on lighting controls in the operative and proposed District Plans. Also, the argument for the Director-General went beyond careful control and was an invitation to weigh any residual effect as sufficient to decline consent on the basis that residual risk would be, to borrow an idiom, an unacceptable straw on the Westland Petrel population camel. Without a proper statistical assessment of the multiple stressors and their relative contribution to risk in a dynamic existing environment, we do not know what the additional risk is and how it makes any statistical difference, given the fluctuating nature of those stressors. Further, in such a case the question is not only whether one should avoid the straw or feather but whether it is more sensible to take steps to, continuing the metaphor, make a stronger ‘population camel’ using more certain and efficacious measures.
- [142] Those sorts of statistical assessments can be done although we suspect Ms Simister is unfamiliar with those tools. It would require better datasets than are currently available and therein lies a key point. Better monitoring and better datasets of the type promoted by

TiGa are likely to enable more intelligent interventions to protect Westland Petrel than a clumsy decision to decline consent made ignorantly based on a very small and uncertain cumulative risk known to be addressed by strict adaptive measures.

[143] Agency and community cooperation to support better monitoring and collaborative efforts to address more serious threats in combination with the estimable conditions offered by TiGa would, in all likelihood, better advance Westland Petrel population sustainability rather than simply declining consent. As noted in the summary of this decision, Ngāti Waewae and the Applicant tried to promote these practical ideas to the Director-General, but to no avail.

[144] The Director-General did not present statistical analysis that would demonstrate our assessment as described above is wrong. A methodology that simply says, irrespective of any other real-world context of what can and does affect Westland Petrel, a very small residual risk of death of one or two birds is unacceptable, and hence any light-generating activity, however modest and controlled to avoid effects, should be declined is not a precautionary approach that we can in good conscience follow. Better tools and solutions exist.

Are the Coastal Lagoons and Langridge Wetlands “natural inland wetlands” governed by the Resource Management (National Environmental Standards for Freshwater) (NES-FW)?

[145] The Panel heard arguments as to whether Canoe Creek Lagoon and Deverys Lagoon fell within the Coastal Marine Area (CMA). If the lagoons are within the CMA, then they would not be subject to the NES-FW¹⁸ because they are not natural inland wetlands.

[146] If Rusty Pond was artificially constructed from former dredge mining, it is not a natural inland wetland.

[147] The Site is located within 100 m of the Coastal Lagoons and Rusty Pond. There are potentially other wetlands on the Langridge property to the north of the Site adjacent to the northern drain, although these have not been delineated because access was precluded.

¹⁸ The NES-FW defers to the NPSFM regarding the definition of ‘natural inland wetland’. Clause 3.21 of the NPSFM states that “natural inland wetland means a natural wetland that is not in the coastal marine area.”

If there is an additional wetland system east of Rusty Pond, only a small part of the MDA would be within 100 m of that wetland.

- [148] If the situation described above was not complex enough, there are other elements of complexity. Notably, the perimeters of the wetland of the Coastal Lagoons may be outside the CMA, and parts of the perimeter of Rusty Pond that are not formed by dredging may be natural inland wetlands. In such cases, those perimeter areas are natural inland wetlands and not coastal wetlands. The whole area was once a bog or swamp, and differentiating natural from unnatural parts is difficult.
- [149] The complexity of this situation and its consideration by TiGa's principal terrestrial ecologist, Dr Bramley, is described in paragraph [151] of his primary statement of evidence. It is worthwhile setting out that paragraph in full :

When contributing to the design of this project and assessing the effects, I have considered the national policy statements for coastal areas (2010), freshwater management (2020), and indigenous biodiversity (2023) and assessed the effects against these policies in the first instance. For the purposes of my assessment relating to the SNA, and effects on that SNA, I note that I am referring to the area proposed in the TTPP and shown in Figure 15 of Attachment D to my evidence. Figure 15 also shows my best estimate of the location of the Coastal Marine Area ('the CMA'). The Regional Coastal Plan for the West Coast ('the Regional Coastal Plan') does not include maps showing the entire CMA boundary. Instead, Table 1.1.2 of Schedule 1 provides cross river reference points. The location of the CMA boundary between these points remains unknown. These points are the only detail given in the Regional Coastal Plan, so I have drawn the line to connect them in Figure 15. I accept that this might not represent the true CMA boundary. As shown in Figure 16 of Attachment D, this line bisects Deverys Lagoon, meaning that the largest part would be within the CMA and a smaller part (and all of Rusty Pond) would be considered inland. From an ecological perspective, my view is that the sensible interpretation is that Devery's Lagoon is a coastal wetland and the CMA applies to all of it and the immediately adjoining vegetation. Figure 17 of Attachment D to this evidence shows the wetlands in relation to the Application Site as well as the indicative location of the CMA boundary and a 100 m setback from the wetland areas and the SNA. Given the location of the CMA boundary and my opinion that the lagoons should be included within the CMA, rather than bisected by it, the natural inland wetlands would include those to the north and south of the Site. The wetland vegetation surrounding Collins Creek and Deverys Creek Lagoon are therefore also coastal in my view, whilst Rusty Pond is inland with the CMA boundary

sensibly falling somewhere between Deverys lagoon and Rusty Pond. On the basis of Figure 17 of Attachment D, Panel 9 is within 100 m of potential natural inland wetlands to the south. Parts of Panels 3-8 are within 100 m of the coastal wetland (Collins Creek Lagoon, which is part of the larger Canoe Creek Lagoon) and Panels 7, 8 and 10 are within 100 m of the natural inland wetland to the north. This wetland surrounds Rusty Pond, which I understand was constructed as I have set out in Paragraph 33.

[150] Dr Bramley's Figure 16 is also helpful, and it is included below.



Figure 16 – Location of 100 m setbacks from the wetlands Application Site, Barrytown

[151] Ms McKenzie provided more detail on how the Regional Coastal Plan (*RCP*) marked the CMA boundary. The Operative Coastal Plan states:

The boundaries in this Schedule show the landward extent of the coastal marine area, where the line of mean high water springs crosses a river. These boundaries were agreed and set between the Minister of Conservation, the regional council, and the appropriate territorial authority, in accordance with the RMA 1991.

For all rivers not shown, and that enter the coastal marine area, the landward extent of the coastal marine area boundary is five times the width of the river at the point where the river crosses the line of mean high water springs.

[152] The Proposed Regional Coastal Plan (*PRCP*) has better maps, although they have not been changed from those in the Operative Plan.

[153] As we understand it, the reason the Coastal Lagoons fall within the CMA under the Regional Plans is because each of them is fed by a surface water body that has a mouth, and therefore, the extent of the CMA requires delineation by virtue of the definition of coastal marine area in the RMA as follows:

coastal marine area means the foreshore, seabed, and coastal water, and the air space above the water—

- (a) of which the seaward boundary is the outer limits of the territorial sea:
- (b) of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of—
 - (i) 1 kilometre upstream from the mouth of the river; or
 - (ii) the point upstream that is calculated by multiplying the width of the river mouth by 5.

[154] Because of their interactions with coastal processes, we accept Dr. Bramley’s evidence that, in an ecological sense, the Coastal Lagoons are coastal wetland ecosystems rather than inland wetlands.

[155] The Panel also considers that the delineation of the CMA in the Regional Plans is a pragmatic assessment of its location, even if it does not completely establish the Coastal Lagoons as wholly within the CMA.

[156] Ms McKenzie correctly pointed out that in the end, the management approach towards mining close to the Coastal Lagoons is no different, even if they are outside the definition of “natural inland wetland”. The NZCPS dictates the avoidance of effects on Coastal Lagoons in the same way as the effects management hierarchy required under NES-FW and NES-FM. We agree, and in terms of effects management, the hierarchy of values would be applied irrespective of the classification of lagoons. The main difference is whether or not the other requirements in Regulation 45D(6)(a) and (b) are met for activities within 100 m of the Coastal Lagoons.

- [157] Concerning Rusty Pond, members of the Langridge family acknowledged that this lagoon was probably artificial, being established by past dredge mining. However, the Langridge property is being managed to sustain its natural values and is in a state of recovery towards its more natural state, which tends towards swamp or wetland conditions. It is conceivable that the perimeters of Rusty Pond are inland natural wetlands and that there are other inland natural wetlands beyond the northern drain.
- [158] The Langridges did not provide access for wetland delineation on their property. A situation that we described as unhelpful in the hearing in that it did not sit comfortably with the Panel that; on the one hand, the Langridges were seeking to preserve these natural values but, on the other hand, preventing a scientific assessment of the extent of those values. The Langridges later described their refusal as arising from a misunderstanding and proposed providing access to enable wetland delineation during the course of the hearing. The Panel was not attracted to that course of action because it was impractical and would have unreasonably delayed the proceedings.
- [159] Dr Bramley did have some information about the presence of wetlands on the Langridge property other than Rusty Lagoon. That was obtained from the previous application where Mr Nichol, a respected ecologist in the West Coast region, had undertaken plots and identified and reported relevant flora values on the Langridge property near the Site. The material provided a useful but incomplete picture, and as we understand, it was not a delineation method of the type commonly applied under the NPS-FM using the Clarkson method. Added to that incomplete picture is the fact that the Court of Appeal has recently addressed wetland delineation methods in *Page v. Greater Wellington Regional Council*.¹⁹ In that case, the Court took an approach - argued for by some parties in *Greater Wellington Regional Council v. Adams*²⁰ - that the definition of wetland and natural inland wetland suggested a requirement for a level of ecological complexity sufficient to sustain a wetland ecosystem comprising flora and fauna. Thus, a wetland determination and delineation assessment has not occurred on the Langridge property on the northern boundary. Given the Court of Appeal's decision, we tend to agree with Dr Bramley that it is unlikely that there are wetlands further to the north of the Langridge property if Mr Nichol concluded, based on

¹⁹ *Page v. Greater Wellington Regional Council* [2024] NZCA 51.

²⁰ *Greater Wellington Regional Council v. Adams* [2022] EnvC 25.

his plots and digest of flora, that there were no such wetlands. We also note the existence of grazing to the north.

[160] TiGa presented its case on the basis that the Proposal would avoid adverse hydrological impacts on any water bodies or substrate supporting hydrophytic flora that may be classified as within a “natural inland wetland”. That is so, TiGa argued, whether the natural wetland was within the 100m setback or beyond it. That outcome would be achieved through the water management system designed by Kōmanawa Solutions Limited. Therefore, any delineated wetland on the Langridge property would not alter the design of the mining system or the methods employed to achieve the required effects hierarchy. The matrix of monitoring networks provided excellent information about subsisting hydrological conditions at the boundary and enabled an assessment of how to maintain those conditions with the natural consequence that these would sustain groundwater conditions, potentially mitigating any impact on wetlands on the northern boundary.

[161] Some doubt remains in the Panel members’ minds as to whether the Coastal Lagoons, in whole or in part, fall outside the definition of “natural inland wetlands.” Similarly, we were not convinced that parts of Rusty Pond did not meet this definition.

[162] The Panel proceeded on the basis that the Coastal Lagoons and Rusty Lagoon are natural inland wetlands under NES-FW. We have also proceeded on the basis there may be natural inland wetlands on the Langridge property adjacent to the northern drain within 100 m of the MDA, although within the 100 m setback. That conservative approach was endorsed by the Director-General of Conservation.

The Director-General of Conservation’s ultra vires argument about conditions controlling mine lighting

[163] Ms Warnock, for the Director-General, argued that any Offered Condition that we imposed controlling mine lighting to prevent impacts on the Westland Petrel is *ultra vires* if those conditions could not meet minimum mine safety guidelines. Further, Ms Warnock argued that TiGa did not satisfy the Panel that the proposed lighting design would meet minimum safety standards.

[164] The Panel does not accept that when imposing conditions under the RMA that it considers appropriate, the Panel must also satisfy itself that those conditions can meet all other statutory requirements. If conditions are required to fulfil the Act’s purpose and otherwise

meet the requirements of conditions under RMA, s 108 and s 108A, then they are *intra vires*.

[165] We received information from Mr Lawson at IAC Mining for TiGa, who confirmed the proposed lighting design system attached to his memorandum dated 17 March 2024 was prepared with input from a multi-disciplinary team including David Pollock, Project Manager, Kevin Price, Senior Electrical Engineer, Dr Gary Bramley, Ecologist and Mr Gordon Skinner, Senior Designer. Mr Lawson also stated that he was confident it would meet both health & safety requirements and the National Pollution Guidelines for Wildlife dated May 2023. Therefore, the factual predicate of Ms Warnock's legal submission did not exist.

Enforceability and efficacy of conditions

[166] Some submitters argued that the mechanisms available for enforcement were insufficient for such a complex project subject to numerous conditions.

[167] The Panel does not agree with these submissions. The armoury available for enforcement under the RMA is extensive, widely available, and not burdensome to institute. It is an effective and transparent accountability system that strongly disincentivises non-compliance or attempts to fashion a consent that is hopeless. Additionally, the following is noted:

- (a) The maximum penalties under the RMA, s 399, were substantially increased as part of the package of reform in 2009 (Phase ii) by the Resource Management (Simplify and Streamlining) Amendment Act 2009. This was implemented to streamline the RMA to ensure consent requirements were met.
- (b) As part of an enforcement order the Court can review conditions where information provided to secure consent is not fulfilled under RMA, s 129(1)(c).

Applicant's autonomy to set the parameters of consent that, in turn, define the scope of activity and the assessment of its effects

[168] A central question and the starting point for any assessment under RMA, s 104, must be the actual and potential adverse effects of allowing the activity under RMA, s 104(1)(a).

Only after that assessment can a meaningful evaluation of the proposal be undertaken, considering other RMA, s 104 matters.

[169] The scope of the application constrains the effects of the activity. It is established RMA practice that the Applicant may offer or agree to conditions through the consent process before a decision is made. RMA, s 108AA(1)(a) expressly acknowledges that. Such conditions must, in turn, limit the scope of the activity (which is shorthand for the activity's character, scale and intensity of effects) because they are agreed upon by the Applicant.

[170] To support these propositions we note the following:

- (a) The decision of the High Court in *88 The Strand Limited v. Auckland City Council*²¹ at [19] below. That observation applies with greater force to conditions agreed to by the Applicant. In *88 The Strand* conditions were offered as part of its application, so the Court's observations were made in that context.

“First, a consent authority, when it imposes conditions, is entitled to assume that the Applicant and its successors will act legally and adhere to the rules and conditions: see *Barrie v. Auckland City Corporation* [1975] 2 NZLR 646 (CA) 651. That is obvious. Nothing could ever be approved if consent authorities had to work on the contrary assumption, namely that its rules and conditions would not be observed. There is no suggestion in this case that the noise conditions cannot be observed.”²²

- (b) The High Court has confirmed that the conditions affect the scope of the activity. The Court is referred to *Marlborough District Council v. Zindia Limited* at [91] onwards.²³

[171] The statutory scheme recognises an applicant's autonomy in setting the activity and agreed conditions of consent that the applicant seeks because:

- (a) It is for an applicant to assess the appropriate character, scale, and intensity of the activity necessary to operate the business and secure consent.

²¹ *88 The Strand Limited v. Auckland City Council* [2002] NZRMA 473.

²² Note the word “cannot” suggests impossibility rather than challenging to achieve.

²³ *Marlborough District Council v. Zindia Limited* [2019] NZHC 2765 at paras 91-104.

- (b) It is for an applicant to pitch what scale and intensity (parameters) appropriately conforms the activity (and hence application) to the objectives and policies of the relative planning instruments.

[172] The scheme of the RMA supports the proposition above. See, for example:

- (a) RMA, s 88.
- (b) RMA, s 108AA referring to conditions agreed to by an applicant.
- (c) RMA, Schedule 4, clause 6(1)(a) and clause 6(1)(e), conditions being methods and measures to control how the activity is undertaken.
- (d) The well-recognised liberalising underpinnings of the RMA. It is not based on a wise use assessment. Instead, the RMA allows the market participants to provide for community needs while meeting environmental parameters and managing externalities using their skills and innovation.²⁴

[173] It is also the long-standing RMA practice to consider the conditions the decision-maker may impose. For example, in *Bethwaite v. Christchurch City Council*²⁵ at p 5, Skelton J said:

Then too, we think it is permissible to consider this question having regard to any mitigation of effects that might be achieved by the imposition of conditions. Put another way, it is permissible to have regard to the effects of the activity, controlled by conditions that would limit or proscribe that activity and its effects. This has been done before - see, for example, *Shell Oil NZ Ltd v Rodney District Council* Decision No: C19/93. We did not have the benefit of any submissions about that in this case but we think it must follow from the way sections 104 and 105 are structured. It would not be sensible to have to rule out a proposed activity on the ground that it failed to comply with both the pre-conditions in section 105(2)(b) of the Act if it was clear that by the imposition of conditions on the granting of consent, such a result could be avoided. We remind ourselves too however, that even though a proposal might be found to satisfy one or other of the preconditions, it does not follow that consent has to be granted.”²⁶

²⁴ See, for example, Whata J in *Attorney-General v. The Trustees of the Motiti Robe Moana Trust and NZMC* [2017] NZHC 1 at [11] citing “Externalities are those consequences, both beneficial and adverse, which flow from the use of the resources.” *Meridian Energy Ltd v. Central Otago District Council*.

[2010] NZRMA 477 (HC) at [113], per Chisholm and Fogarty JJ.

²⁵ *Bethwaite v. Christchurch City Council* C085C/93 (PT).

²⁶ At [20], paragraph 5.

[174] That passage was cited with approval in *Turner v. Grey DC*²⁷ W089/94 (PT) and *Calbeley v. Kaipara*²⁸ at [139]:

We have considered the activities' adverse effects as a whole, in light of the mitigating influence of the proposed consent conditions (and in this case, also of the proposal's subdivision design).

Approach to formulating conditions

[175] The Panel has considered the Offered Conditions and made amendments. The Panel has approached that task in a manner consistent with *Port of Tauranga Ltd v. Bay of Plenty Regional Council*²⁹, at [26] where the Environment Court stated:

We consider the time has passed when conditions of consent can be based on statements of intent as to what will be done at some time in the future. We will require greater certainty of what will occur, by when, what outcomes are to be achieved, who will be responsible and what enforcement mechanisms will be available.

Management plans

[176] In addition to a range of conditions setting out environmental constraints on the proposed sand mineral mine, the Applicant proposed a suite of management plans that will manage the detailed effects of the mine's construction, operation, and monitoring. Each management plan has a separate condition relating to it.

[177] Management plans are commonly used for large-scale projects. We understand management plans to be a suitable mechanism for ensuring that conditions are complied with, and detailed environmental effects are managed appropriately. Management plans avoid cluttering the conditions with excessive detail, particularly with regard to how certain construction activities or mitigation actions will occur. The caveat is that each management plan condition must specify the purpose or objective of the plan, ideally which conditions it is designed to assist with implementing, the minimum contents of the plan, who is to prepare it, and who else should be consulted or involved in that process.

²⁷ *Turner v. Grey DC* W089/94 (PT).

²⁸ *Calbeley v. Kaipara DC* [2014] NZEnvC 182.

²⁹ *Port of Tauranga Ltd v. Bay of Plenty Regional Council*²⁹ [2023] NZEnvC 270.

[178] Therefore, a management plan implements the objectives and outcomes of the consent and are servants of the consent, not its master.

[179] The High Court³⁰ has cited *Wood v. West Coast Regional Council*³¹ with approval observing that:

...In *Wood v West Coast Regional Council*, the Court acknowledged the difficulties that can be faced in specifying a management plan as a condition of consent, particularly where it might benefit from future amendments to keep pace with developments in technology. The Court accepted that a management plan can be required to be prepared pursuant to s 108(3) of the Act, and that its purpose should be to provide the consent authority and anybody else who might be interested with information about the way in which the consent holder intends to comply with the more specific controls or parameters laid down by the other conditions of a consent.

[180] Ms Warnock, for the Director-General, asked us to entrench the draft Avian Management Plan into the consents so that it could not be varied even to the extent that it could not be varied under the RMA, s 127 process. We do not agree with that approach. We have set out in the consent conditions an avoidance ethic to protect the Westland Petrel including by setting clear outcomes that must be achieved by the Avian Management Plan. Management plans must retain scope for adjustment to meet those goals and we consider there is value in the certification process that creates a dialogue amongst experts about how these goals are best achieved by management measures. In the end the certification process provides the Council with the ultimate control to ensure the prescribed outcomes are met. We agree there is value in consultation with the Department of Conservation about the finalisation of, or changes to, the Avian Management Plan.

[181] Mr Geddes asked us to entrench some management plans to limit the management ‘overhead’ carried by the local authorities. Again, we do not think that is an appropriate course and the ability to charge for administering the consent is a sufficient protection against an unreasonable financial burden on Councils to administer consents. Regulatory oversight of the implementation of these consents cannot be avoided and the flexibility of

³⁰ *Guardians of Paku Bay Association Inc v. Waikato Regional Council* 16 ELRNZ 544 at [133].

³¹ *Wood v. West Coast Regional Council* [2000] NZRMA 193 (EnvC).

management plans is an appropriate tool to manage the exigencies of a dynamic environment while meeting the requirements of consent conditions.

[182] As noted conditions will specify that a management plan is to be submitted to the appropriate council and thereafter ‘certified’, which for all intents and purposes is an approval process. Ideally, the condition should set out a process for reviewing or amending the management plan as a project proceeds.

[183] We have reviewed the management plan conditions recommended to us by the Applicant. We are satisfied that they meet the above requirements.

Other issues raised by submitters and their legal relevance

[184] Submitters raised two other issues:

- (a) The impact on property values.
- (b) The prospect of a Minerals Separation plant or further mining activity within or beyond the Site.

[185] Concerning property values, these values are a proxy for negative environmental externalities affecting a property. Most of the externalities that we have identified beyond the Site are minor and none materially affect properties in the neighbourhood. Therefore, we do not expect any material impact on property values from approving the Proposal and, in any case, we do not consider it would be appropriate to assess any change to these values as that would be double counting.

[186] Concerning future activities not in the application, the Councils have determined under RMA, s 91 that no other consents are reasonably required to determine whether the Proposal should be consented. We are bound by those decisions. It is beyond the scope of RMA, s 104 for us to look at any other activities that might arise or be facilitated by approving this Proposal. We have no information that would enable us to assess the likelihood of other mining approvals beyond the Site. The Panel understands that some members of the community are anxious that this Proposal is a gateway to more extensive mining activity on the Barrytown Flats. However, every proposal for mining must be assessed on its own merits.

Interpreting planning instruments

[187] We have had to interpret some Plans for their application to certain activities. An example is whether the greenhouse gases from mining activity meet permitted activity standards in the Regional Air Quality Plan.

[188] We, therefore, set out our interpretation method.

[189] The interpretation or construction task of planning instruments was described in *J Rattray & Son Limited & Son Limited v. Christchurch City Council*³² by the Court of Appeal. It was reaffirmed in *Centrepoint Community Growth Trust v. Takapuna City Council*³³ on page 706, line 45 and by *Powell v. Dunedin City Council*.³⁴ The approach is to consider the definition of a Plan in the context of the *scheme as a whole and to the policies emerging from it when examined as an entity*.

[190] Importantly, the High Court also said in *Nanden v. Wellington City Council*³⁵ that the following principles are important:

- (a) The desirability of an interpretation that avoids absurdity or anomalous outcomes.
- (b) The desirability of an interpretation that is likely to be consistent with the expectations of property owners.
- (c) The importance of practicality in administration.

NES Freshwater – functional need

Introduction to the question of whether Regulation 45D of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 apply

[191] A key legal jurisdictional issue was whether the Proposal met the “functional need” requirement in the NES-FW, clause 45D(6)(b) by proposing activities within the 100 m setback envelope established for the listed activities in Regulation 45D.

³² *J Rattray & Son Limited & Son Limited v. Christchurch City Council* (1984) 10 NZTPA 59.

³³ *Centrepoint Community Growth Trust v. Takapuna City Council* [1985] 1 NZLR 702.

³⁴ *Powell v. Dunedin City Council* [2004] 3 NZLR 721.

³⁵ *Nanden v. Wellington City Council* [2000] NZRMA 562 (HC).

- [192] The Resource Management (National Environmental Standards for Freshwater) Amendment Regulations (No 2) 2022 from 5 January 2023 provided a discretionary pathway for mining within wetland setbacks if three jurisdictional requirements in subclause (6) of Regulation 45 requirements are met.
- [193] If the Proposal or any of its parts do not meet that “functional need” requirement (or ‘gateway’ as it is sometimes referred to), the pathway to consent as a discretionary activity under Resource Management (National Environmental Standards for Freshwater) Regulations 2020, clause 45D is not open to the Proposal.
- [194] Regulation 45D only applies to setbacks from a “natural inland wetland.” If the Coastal Lagoons and the Langridge wetlands are not natural inland wetlands, then Regulation 45D does not apply.
- [195] The Panel considers it should proceed on the basis that all the adjacent wetlands are “natural inland wetlands” because the legal and factual picture is too opaque to conclude they are not “natural inland wetlands”.
- [196] Therefore, we have assessed the activities on the basis that Regulation 45D applies.

Regulation 45D and its components

- [197] It is worthwhile to set out Regulation 45D of the NES-FW, Subpart 1, as follows:

45D Discretionary activities

- (1) Vegetation clearance within, or within a 10m setback from, a natural inland wetland is a discretionary activity if it is for the purpose of the extraction of minerals and ancillary activities.
- (2) Earthworks or land disturbance within, or within a 10m setback from, a natural inland wetland is a discretionary activity if it is for the purpose of the extraction of minerals and ancillary activities.
- (3) Earthworks or land disturbance outside a 10m, but within a 100 m, setback from a natural inland wetland is a discretionary activity if it—
 - (a) is for the purpose of the extraction of minerals and ancillary activities;
and

- (b) results, or is likely to result, in the complete or partial drainage of all or part of the wetland.
- (4) The taking, use, damming, or diversion of water within, or within a 100 m setback from, a natural inland wetland is a discretionary activity if—
 - (a) the activity is for the purpose of the extraction of minerals and ancillary activities; and
 - (b) there is a hydrological connection between the taking, use, damming, or diversion and the wetland; and
 - (c) the taking, use, damming, or diversion will change, or is likely to change, the water level range or hydrological function of the wetland.
- (5) The discharge of water into water within, or within a 100 m setback from, a natural inland wetland is a discretionary activity if—
 - (a) the discharge is for the purpose of the extraction of minerals and ancillary activities; and
 - (b) there is a hydrological connection between the discharge and the wetland; and
 - (c) the discharge will enter the wetland; and
 - (d) the discharge will change, or is likely to change, the water level range or hydrological function of the wetland.
- (6) A resource consent for a discretionary activity under this regulation must not be granted unless the consent authority has first—
 - (a) satisfied itself that the extraction of the minerals will provide significant national or regional benefits; and
 - (b) satisfied itself that there is a functional need for the extraction of minerals and ancillary activities in that location; and
 - (c) applied the effects management hierarchy.
- (7) In relation to the extraction of coal and ancillary activities, no person may apply for a consent to carry out any activity under subclauses (1) to (5) unless the activity

is for the purpose of the extraction of coal or ancillary activities as part of operating or extending a coal mine that was lawfully established before 5 January 2023.

- (8) At the close of 31 December 2030, the extraction of coal (other than coking coal) is excluded from the purposes for which consent may be obtained under this regulation.

[198] Regulation 45D catches five listed activities, and of those, the first two only relate to activities within a 10 m setback of a “natural inland wetland”. The Proposal does not seek consent for activities within a 10 m setback; therefore, those two activity classes do not apply.

[199] The remaining three activities in subclauses (3)-(5) apply to the activity. In particular:

- (a) The Proposal is for earthworks and land disturbance within 100 m of the Coastal Lagoons and the Langridge wetlands to extract minerals and undertake ancillary activities. But for the successful operation of the hydrology system in the Proposal the activities would result in complete or partial drainage of those wetlands (Reg 45D(3) applies).
- (b) There are components of the Proposal involving the taking, use and diversion of groundwater within the 100 m setback for the purpose of subclause (4), where hydrological connections between the wetland and groundwater system are disturbed with the potential for changes in water level ranges even though the aim is to minimise the change (Reg 45D(4) applies).
- (c) The Proposal’s hydrological system discharges water into water within the 100 m setback and through groundwater systems with a hydrological connection so that water will enter the wetland and is designed to achieve that outcome (Reg 45D(5) applies).

[200] Regulation 45D(6) precludes granting consent to activities governed by the regulation as a discretionary activity unless three prerequisites are met.

[201] The parties principally debated whether Regulation 45(6)(b) was met. That is, whether there is *a functional need for the extraction of minerals and ancillary activities in that location*.

[202] Except for the evidence by Mr Colin Robertson and Ms Jill Bradley, there was no substantial contest that the Proposal provides significant national or regional benefits under Regulation 45D(6)(a). We address the economic benefits elsewhere and are satisfied that the Proposal will provide significant regional benefits.

[203] No party challenged that the Proposal applying the Offered Conditions of consent would not meet the effects management hierarchy under Regulation 45D(6)(c) except the debate on the occupancy issue. For the reasons given in assessing the effects of the activity, we are satisfied that we have applied the effects management hierarchy.

[204] ‘Functional need’ is defined in NES-FW, Regulation 3 as follows:

Functional need has the meaning given by the National Policy Statement for Freshwater Management.

[205] “Functional need” is defined in Subpart 3 of the National Policy Statement for Freshwater Management 2020 (*NPSFM*), clause 3.21, as follows:

Functional need means the need for a proposal or activity to traverse, locate or operate in the particular environment because the activity can only occur in that environment.

[206] That NPSFM definition is the same as the National Planning Standards in November 2019.

The parties’ positions on ‘functional need.’

[207] The Applicant argued that the Proposal had a functional need to be within the 100 m setback using Mr Miller as the key witness because he oversaw the mine design’s development through a type of charrette process.

[208] On the other hand, Dr Durand, the reporting planner for the West Coast Regional Council, initially considered none of the activities in the 100 m setback met the functional need requirement and hence, the Proposal should be declined. The legal submissions from the Director-General of Conservation supported his initial analysis. The CRRG also argued that the “functional need” test was unmet.

[209] Ms McKenzie, TiGa’s planner, in her primary statement of evidence at [52], considered the “functional need” requirement was met by a straightforward analysis that the requisite minerals were found in the 100 m setback envelope. Ms McKenzie stated:

Mineral extraction, by nature, has a functional need to locate where the targeted minerals are located, and demonstrating that the resource exists in the location proposed to be mined is sufficient to demonstrate a functional need in that location. The evidence of Mr Berry confirms that the company has completed a JORC compliant resource consent within the application area. The minerals are found within 100 m of the wetland, and Mr Miller's evidence demonstrates at paragraph 51 a clear functional need to extract minerals and carry out those ancillary activities immediately required within that environment. The hydrological evidence of Mr Rekker also confirms the functional need for the water management activities (ancillary activities) to locate within 100 m of the wetland due to the geometry of the mine panels, i.e. Ponds 3 and 4 which must be downstream of the mine area to catch the water flows. In my view, the relevant context to have a discussion about appropriateness of the activity operating within 100 m of a wetland is not within the functional need part of this test, but within the effects management hierarchy test – i.e. has the Applicant, despite the functional need to be within this environment, avoided effects in the first instance, and if not, applied the cascading hierarchy. This hierarchy concludes with avoidance, if compensation isn't appropriate.

[the emphasis was within the evidence]

- [210] Therefore, Ms McKenzie contended that the presence of winnable material, which the mining activity aimed at, was sufficient to meet the *functional need* test. As shown later, some *extra-statutory*³⁶ material from MfE supports that view.
- [211] Dr Durand, in his section 42A report, addressed the question similarly narrowly but reached the opposite conclusion. He approached the question of “functional need” as if the question turned on the presence or absence of winnable minerals inside the 100 m setback even though “functional need” as defined does not refer to that matter.
- [212] Dr Durand considered that if winnable material could be obtained outside the 100 m envelope, then it could not be said that the mining activity can *only* be located within that envelope as required by the “functional need” definition. Following that logic, Dr Durand said that because there was demonstrably winnable material outside the 100 m envelope, the “functional need” test could not be satisfied. Again, Dr Durand refined his position in a supplementary statement.

³⁶ This term means in this context outside the four corners of the NES-FW as secondary legislation.

[213] Following a similar approach to Dr Durand’s argument in his section 42A report, the CRRG said at [21]:

The application therefore, fails the functional need test, as the NZ Petroleum and Minerals recommendation report demonstrates there are other mineral sand deposits on the Barrytown Flats covered by the Applicant’s mining permit. There are also other mineral and deposits elsewhere on the West Coast (some of which Westland Mineral Sands is pursuing). Alternative locations can be identified that are not within 100 m of a natural inland wetland. Therefore, under regulation 45D(6) of the National Environmental Standards for Freshwater, consent cannot be granted.

[214] Therefore, the CRRG argued one must consider the potential for extractable minerals beyond the Site when assessing whether the activity can *only* be located within that envelope.

[215] The Director-General of Conservation, through Ms Warnock, only made legal submissions on why the “functional need” test was not met. Ms Warnock did so by arguing against the competing positions framed above. The submissions involved a detailed legal argument with a conclusion buttressing the opinion expressed by Dr Durand in his section 42A report.

[216] We emphasise the purely legal nature of the Director-General of Conservation’s argument viewed through the lens of the competing arguments above because the Panel saw the question assessment as a mixed question of law and fact encompassing consideration of the characteristics of the Proposal in its entirety and not simply based on the presence and distribution of extractable minerals on the Site or nearby. The assessment required a decision-maker to have a good appreciation of all the expert evidence about the mine’s design.

[217] At [62] Ms Warnock stated:

The three limbs of reg 45D(6) are disjunctive. This test is described as a ‘gateway’ test, meaning once the test has been satisfied, the activity can be considered under s 104. Reg 45D(6)(b) requires the consent authority to satisfy itself that there is a functional need for the extraction of minerals and ancillary activities in that location. ‘Satisfied itself’ is indicative of a robust assessment or an adequate degree of certainty.

[218] At [65], Ms Warnock stated:

‘Functional need’ is defined in opposition to ‘operational need’ in the Planning Standards:

“Operational need” means the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints.

[219] At [76] supporting Dr Durand’s assessment, Ms Warnock stated:

- (a) Kate McKenzie’s proposition appears tautological. Reg 45D(6) is concerned with the extraction of minerals.⁷⁹ The extraction of minerals always takes place where the minerals are deposited because it is not possible to extract minerals unless they are there. Mining permits under the CMA are only granted if the Minister is satisfied that, ‘the permit applicant has identified and delineated at least an indicated mineable mineral resource or exploitable mineral deposit.’ If this interpretation was accepted, there would never be a proposal to mine crown minerals that failed reg 45D(6)(b) and the text would become redundant.
- (b) It is important to test the converse argument. Does the meaning adopted by Dr Durand inevitably frustrate a consenting pathway? This does not appear to be the case. Dr Durand has set out factual considerations that would result in a mining proposal satisfying the functional need test to mine within 100 meters of wetlands. Accordingly, if Dr Durand’s interpretation was accepted there would be some mining proposals (albeit not this one) that met the test.
- (c) If there are two ways to interpret a legislative provision and one interpretation renders the provision meaningless, then the other interpretation is to be preferred.
- (d) Kate McKenzie’s proposition does not accord with the drafting history set out above and the acknowledgement by MfE that ‘functional need’ sets a high test.
- (e) The ratio of *Poutama Kaitiaki Charitable Trust and D & T Pascoe v Taranaki Regional Council* supports Dr Durand’s analysis in paragraphs [153]-[154] of the s 42A Report. The High Court found that the particular or relevant (wider) environment also had to be considered, not just the chosen location. So, there are two (spatial) considerations: if the *location* is near to wetlands, can this activity *only occur* in this particular (or relevant) *environment* that you are concerned with (i.e. the Barrytown Flats adjacent to the Canoe Creek wetlands)? And that requires a ‘context and fact

specific inquiry’... [that considers] ‘alternatives’.⁸⁵ If not, it needs to take place somewhere else that is not near to wetlands. This multi-layered approach aligns with Dr Durand’s analysis but not with Kate McKensie’s simple approach that focuses only on one aspect i.e. the location of minerals and ignores the wider environment. [Footnotes omitted]

[220] In a supplementary statement, Dr Durand renounced the analysis in his section 42A report that Ms Warnock relied on. Dr Durand distanced himself from Ms Warnock’s analysis relying on his earlier assessment, saying under questioning that he disagreed with Ms Warnock’s assessment as too narrow.

[221] Dr Durand, in his supplementary statement, shifted his focus somewhat from the issue of whether there were winnable minerals outside the 100 m setback and acknowledged that some components of the Proposal not associated with mining *per se* could meet the functional need test as they were inextricably linked to achieving the avoidance of effects on adjacent “inland natural wetlands” which was essential. That included the infiltration trenches that form an important part of the hydrological system. However, Dr Durand remained of the view that some design components, including the winning of materials within the 100 m envelope, could not meet the functional need test, and he included Pond 4 and pit mining within the 100 m envelope in that assessment.

[222] While Dr Durand said he was deconstructing these components of the mine design to also reflect the activity classes in Regulation 45D, he was actually allocating the design components in a less – on his approach- rigorous way because these components were themselves incorporated several discrete activity classes in Regulation 45D. That is one example of the flaws of attempting an unduly atomised assessment.

The Panel’s textual and internal context analysis of Regulation 45D(6)(b) concerning ‘functional need’ and a consideration of the various arguments by the parties

[223] The first point we would make is that Ms Warnock’s submission at [62] that the three limbs of Regulation 45D(6)(b) are disjunctive is incorrect. The three limbs have a relationship with each other because they must be individually and collectively satisfied for there to be jurisdiction to use the discretionary activity pathway. The limbs would be disjunctive if they were separated by an either/or and hence were truly mutually exclusive alternatives and individually sufficient.

- [224] We consider that Ms Warnock has confused the term ‘disjunctive’ with ‘discrete’.
- [225] The first two limbs of Regulation 45D require the decision-maker, before approving a discretionary activity, to be persuaded to the degree of being *satisfied* that the specified requirements are met. We agree with Ms Warnock that this requires us to be adequately convinced that the requirements are met. The phrase connotes through that decisional verb – as the Supreme Court described “satisfied” in another context³⁷ - a requirement for rigour by the Panel. The phrase also indicates the assessment exercise is an intensely factual inquiry and may not be a straightforward ‘jurisdictional fact’ assessment.³⁸
- [226] The third limb requires the decision-maker to apply the “effects management hierarchy” as described in NPS FM. That can be done by approving or refusing all or part of the consent or setting parameters for the activity through conditions.
- [227] The first two jurisdictional pre-requisites in regulation 45D(6) aim to limit the qualifying cohort of mineral extraction and ancillary activities that benefit from the discretionary activity pathway by directing attention to two qualities of the Proposal:
- (a) The scope of the benefits; and
 - (b) The nature and degree of the Proposal’s need to be in that location.
- [228] The third limb functions to ensure that any mineral extraction and ancillary activities meeting the first two limbs are managed according to the effects management hierarchy.
- [229] The term “functional need” points to a need that arises from the requisite elements of a mining system to make the mine functional.
- [230] Operational need in the Planning Standards is defined in this way:

Operational need means the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints.

- [231] As noted, Ms Warnock suggested that terms “functional need” and “operational need” are defined deliberately *in opposition* to each other such that there was a clear distinction

³⁷ *Discount Brands Ltd v Westfield (New Zealand) Ltd* [2005] NZSC 17, [2005] 2 NZLR 597.

³⁸ We use that term in the Administrative Law sense as facts that must be established to confer jurisdiction.

between the two. By that, we understood Ms Warnock to mean that technical, logistical or operational characteristics of a proposal required to extract minerals within the 100 m envelope could never be considered in assessing the requirement for functional need. Indeed, at [67], Ms Warnock made that point as follows:

Counsel for the Applicant relies upon Stephen Miller’s evidence to justify the functional need for mining within 100 meters of wetlands. But Mr Miller’s analysis falls squarely within the definition of operational need – i.e. premised on technical, logistical, or operational choices and in particular, profit maximisation.

- [232] We disagree. We do not consider that the term “functional need” in Regulation 45D is to be interpreted in opposition to the term “operational need” found in the Planning Standards in the way Ms Warnock suggested.
- [233] It is helpful as part of the semantic assessment of Regulation 45D(6)(b) to consider the differences between the two terms (“operational need” and “functional need”) because we accept the two types of need are differentiated for a purpose. However, we consider it an unsound leap of logic to say that the absence of use of the words “technical, logistical or operational characteristics” in the definition of “functional need” means that “functional need” must exclude those characteristics or constraints from the assessment of “functional need” simply because those words are not used in the definition of “functional need” but are in the “operational need”. Worse “operational need” is not defined in the NES-FW and so Ms Warnock argues that terms defined elsewhere govern the meaning of “functional need”.
- [234] The definition of “functional need” does not attempt, like “operational need”, to relate the need to a particular cause such as technical, logistical, or operational causes. The definition of “functional need” focuses attention on the strength of the need as it relates to the functioning of the Proposal.
- [235] In other words, the key difference between the two definitions lies in the framing of the subordinate clause commencing with *because*. In the case of “operational need”, the definition refers to characteristics or constraints by type. In the case of “functional need”, the reference is not to the characteristics, but to the activity’s ability to *only occur* in that environment.

- [236] For completeness, the definition of functional need treats the “proposal” and “activity” as alternatives in the main clause so that either the Proposal or the defined activities may have the characteristics for there to be a “functional need” allowing an integrated assessment that will often be necessary for a complex facility.
- [237] The word “only” in the definition of *functional need* is not an adjective but is an adverb modifying the verb “occur”. The use of the modal “can” in front of “only” is significant and suggests the phrase’s purpose is to require the Applicant to demonstrate that the activity or proposal traverses, locates or operates in that particular environment as an inevitable but undesirable outcome of that location’s characteristics and constraints.
- [238] Therefore, the distinguishing feature between “functional need” and “operational need” is that the former may arise when the Applicant demonstrates that the need is an inevitable if undesirable result of the Proposal. Whereas “operational need” can arise due to technical, logical, operational characteristics or constraints irrespective of whether or not the needs are, in a practical sense inevitable.
- [239] The question then becomes: “What can contribute to the conclusion that extraction of minerals and ancillary activities within 100 m of a wetland are inevitably required in that particular environment”?
- [240] It is reasonable to assume the Executive, when making Regulation 45D, understood that mining proposals that are likely to benefit from the discretionary pathway because they are nationally or regionally significant will often be sizeable, complex mining operations with auxiliary components. The mines will be an engineered system conceived to practicably mine the winnable minerals in that location.
- [241] The Panel’s view is that a “functional need” arises when the mining system’s design inevitably encroaches into the 100 m envelope for that mining system to operate practically. In such a case, the encroachment is practically unavoidable. That is not merely a “reasonably practicable” test dressed up in another way. It requires a higher level of need to be demonstrated.
- [242] The imperatives the Applicant must address and trade-offs it must manage that inform a design that delivers an achievable mining platform can all contribute to meeting the “functional need” standard. These can include logistical, technical, and operational

characteristics as long as they are collectively sufficient to achieve the requisite standard. Mr Miller for TiGa explained that well and the water management system shows the complexity of the design.

[243] We disagree with Ms Warnock’s criticism of a “tautology” concerning Ms McKenzie’s contention that the presence of winnable minerals in the 100 m setback could justify a functional need. A tautology is a claim that must always be true on its own terms or by virtue of its logical form. It is not true all mining proposals aim to mine minerals that are found adjacent to a wetland. Therefore, Ms McKenzie was not making a claim that logically meant all mines have a “functional need” because all mines need access to minerals near a wetland. For completeness, we disagree with Ms McKenzie that the presence of the winnable materials is sufficient in every case to create a functional need.

[244] when questioned, Ms Warnock, echoing Dr Durand’s initial assessment, said any mineral availability – even a sliver - beyond the 100 m setback disqualified us from finding there is a “functional need” within the setback. We find that to be a rather unreasonable interpretation. There is no literature we were made aware of that shows that the mischief that was being addressed in the 2022 amendments to NES-FW was the inability of miners to obtain minerals found only in wetland setbacks.

[245] We find that minerals within the 100 m setback can contribute to a “functional need” for mining in that location. That will depend on the constraints on available minerals and the viability of mining without encroaching into the 100 m setback as part of the assessment of the Proposal.³⁹

[246] We do not accept the Coastal Road Resilience Group’s contention that when assessing the mineral resource constraints, we should consider the potential presence of minerals in other locations on the Barrytown Flats because of TiGa’s broader mining permits. We must consider whether there is a “functional need” *in that location* under Regulation 45D(6)(b), i.e., at the Site. That does not entitle us to consider - or worse, speculate - about available alternative potential mining sites in the general locality of the proposed mine.

[247] Finally, under questioning, Dr Durand briefly mentioned an effects-based assessment of “functional need” that we did not consider helpful or meaningful since the aim of the

³⁹ That is also consistent with the Ministry for the Environment entitled “Essential Freshwater 2022 - Amendments to the NES-F and NPSFM: Section 32 Report” at section 4.3.0 page 29 quoted later.

“functional need” requirement is not to address the effects of mining extraction or ancillary activities but instead to limit the activities that would qualify to use the pathway under Regulation 45D. Effects are addressed by the third pre-requisite.

External context, including published materials by the Minister for the Environment

[248] The parties relied on various extraneous contextual materials to support their interpretations. For completeness, we have set out the relevant components of those materials. We consider this extraneous contextual material to support our textual and internal contextual analysis and does not tend to support the arguments we heard that the “functional need” test was not met.

[249] The first document is the section 32 report published by the Ministry for the Environment entitled “Essential Freshwater 2022 - Amendments to the NES-F and NPSFM: Section 32 Report”. Concerning quarrying and mining and the functional need gateway test, the section 32 report said in section 4.3.0, page 29, the following:

Gateway tests and application of the effects management hierarchy

The proposed new purposes (eg, urban development) provided with a consent pathway will be subject to the same framework and requirements as the current pathways under the regulations (eg, for specified infrastructure). This involves a series of gateway tests that must be met before consent can be accepted for consideration by the consent authority. The consideration of the consent is then undertaken through the lens of the effects management hierarchy, including the offsetting and compensation requirements, to ensure that there is no net loss (and preferably a net gain) of wetland extent and values.

The consent pathways for quarrying and mining recognise that these activities are constrained to the locations of the resource, and that these locations may be at times within, or within the 100-metre setback of (as set out in the NES-F), a natural inland wetland. The consent pathways require that applications demonstrate a functional need as a gateway test for the expansion of an existing, or for new quarrying or mining activities. The functional need gateway test will be applied at the site scale. The other gateway test of significant regional or national benefit will ensure that only appropriate activities are considered and, may be granted on a case-by-case basis.

[250] The Ministry for the Environment published a proposal for changes to wetland regulations entitled “Report, recommendations and summary of submissions: Managing our wetlands: Proposed changes to wetlands regulations”.⁴⁰

[251] In summarising the Proposal, the document states:

Proposal

Consent pathways were proposed for quarrying; clean, managed, and landfills; mining; and ‘plan-enabled’ urban development. Submitters were asked whether a discretionary activity status²⁴ was appropriate. It was proposed that these new activities be subject to the existing gateway tests already provided for specified infrastructure in the NPS-FM, which include the following requirements:

- (a) the activity must be of significant national or regional benefit
- (b) there must be a functional need for that activity in that location
- (c) adverse effects must be managed through the effects management hierarchy, which requires initial consideration of how to avoid adverse effects where practicable, then how to minimise, remedy, offset and compensate, in that order.

Applications for a resource consent would have to demonstrate to the council how each sequential step of the effects management hierarchy (set out in the NPS-FM) would be applied, before the consent could be granted, with requisite offsetting under the effects management hierarchy to ensure no further loss of natural inland wetland extent or values.

[252] In discussing the “functional need gateway test”, notably as it relates to mining and quarrying said the following:

Functional need gateway test

Anecdotal evidence from councils reveals that the functional need gateway test is having the desired effect. Councils report consent applications for specified infrastructure have subsequently been modified to specifically avoid natural inland wetlands, whereas prior to this they would have been overlooked and/or in-filled.

⁴⁰ Ministry for the Environment. 2022. *Essential Freshwater Amendments: Report recommendations and summary of submissions: Managing our wetlands: Proposed changes to the wetlands regulations*. Wellington: Ministry for the Environment.

The functional need test is a critical aspect of balancing land use activity with the protection of natural inland wetlands. Without the test, we consider that the policy may no longer be consistent with section 5 or 6 of the RMA. Requiring an activity to be undertaken elsewhere, if it can be done so, is consistent with the RMA definition of sustainable management and ensures that natural inland wetlands are only disturbed where an activity must locate or operate in a natural inland wetland area.

The National Planning Standards definition of functional need as currently applied as a gateway test for specified infrastructure is:

Functional need means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment.

We consider that there is a clear need for specified infrastructure, quarries and mines to locate and operate in particular environments. We therefore do not agree with submitters who proposed that the test be altered, or removed, for all consent pathways and consider that the functional need test should be retained for specified infrastructure and applied to quarrying and mining (see recommendations 14 and 28). [Footnotes omitted]

[253] Following that analysis under Recommendation 28 the authors recommended the following:

Apply the same provisions to mineral mining as in the NPS-FM at 3.22(b)(i), including the gateway test of national or regional benefit in 3.22(b)(ii) and functional need in (iii); and the effects management hierarchy as per 3.22(b)(iv).

[254] Ms Warnock referred to us the Ministry for the Environment “21 Definitions Standard - Recommendations on Submissions Report for the first set of National Planning Standards. Wellington: Ministry for the Environment”.⁴¹

[255] The relevant passages from the discussion on functional and operational needs in section 3.4.3 are as follows:

Functional need is often a key consideration when an activity can only locate within the coastal marine area (such as a port) and we consider it appropriate to retain the strict requirement that the activity can only locate within that environment. However, we

⁴¹ This document may be cited as: Ministry for the Environment. 2019. 21 Definitions Standard - Recommendations on Submissions Report for the first set of National Planning Standards. Wellington: Ministry for the Environment.

recognise that there can be good reasons why an activity should be enabled to occur in a location even when the activity can occur elsewhere or the activity must locate there for technical reasons. For example, this is often applicable to linear infrastructure that often has to traverse identified earthquake fault lines or flood hazard areas or has a valid reason to locate in the coastal marine area as in the oil companies' example above.

We consider that the term 'operational need' can be used to cover situations where there are valid reasons why an activity should be enabled to occur in a particular location. We recommend including the term 'operational need' in the Definitions Standard for those provisions where this is the desired approach.

[256] Dr Durand referred in his supplementary 42A report to the following Cabinet Minutes:

- (a) Cabinet Paper "Essential Freshwater 2022 Amendments - seeking final agreement on wetland, technical, and stock exclusion amendments" (November 2022)
- (b) Cabinet Minute ENV-22-MIN-0051 "Essential Freshwater 2022 Amendments - Wetland, Technical, and Stock Exclusion Amendments"- Cabinet Environment, Energy and Climate Committee

[257] The relevant text we referred to was the following:

16. I now seek Cabinet's final agreement to the policy decisions outlined in this paper and authorisation to recommend the amended regulations to the Governor-General in Council for approval.
19. The wetland provisions provide consent pathways to undertake the following activities: vegetation clearance; earthworks or land disturbance; and the discharge, take, use, damming, and diversion of water, in, or near to, natural inland wetlands for certain purposes.
20. Without a consent pathway, these activities are either non-complying or prohibited. This has had a wider than anticipated effect, particularly on activities required to support the Government's goals in respect of housing supply and infrastructure upgrades. I therefore propose to provide additional consent pathways for:
 - 20.1 quarrying activities
 - 20.2 landfills and dean fill areas

- 20.3 the extraction of minerals and ancillary activities, and
- 20.4 urban development on land identified for development in operative provisions of a regional or district plan.
21. The additional consent pathways will be subject to the existing gateway tests, including the offsetting requirements, in the NPS-FM.
22. These gateway tests address impacts that arise from activities for the purposes currently provided, eg constructing specified infrastructure, to ensure that
- 22.1 the activity is of significant national or regional benefit
- 22.2 there is a ‘functional need’ for the activity to occur in that location, and
- 22.3 the impacts of that activity are managed, through application of the ‘effects management hierarchy’, which requires that first, the impact is avoided where practicable, then minimised, remedied, offset, or compensation provided, in that order.
24. Through feedback, I now consider that additional activities are likely to be required to enable extraction to occur, eg to install machinery required for extraction or to provide access to extraction sites.
25. I therefore propose that the quarrying and mining consent pathways should provide for the full scope of activities required to undertake or support extraction of aggregate and minerals.

[258] And the Cabinet Minute relevantly at [12] said:

- [12] noted that these gateway tests address impacts arising from activities for the purposes currently provided for, for example constructing specified infrastructure, to ensure that:
- 12.1 the activity is of significant national or regional benefit;
- 12.2 there is a functional need for the activity to occur in that location;
- 12.3 the impacts of that activity are managed, through application of the ‘effects management hierarchy’, which requires that first, the impact is

avoided where practicable, then minimised, remedied, offset, or compensated, in that order.

The Panel's assessment of whether the 'functional need' requirement is met.

[259] The totality of the Applicant's evidence satisfies the Panel that there is a functional need for the extraction of minerals and ancillary activities forming the Proposal within the 100 m setback envelope from the Coastal Lagoons and Langridge wetlands.

[260] Below, we set out some reasons why the evidence persuaded us that there is a functional need.

[261] The recoverable mineral envelope in *that location* is the area within the Site bounded by the Coastal Lagoons to the west, the Site boundary to the north and natural inland wetlands on that boundary and the proposed bund separating the Site from State Highway 6 to the east.

[262] Therefore, the winnable mineral apron is small in that location. Further, the mining method must involve a complex water management system to ensure:

- a) Minimal change in surface water levels in Collins Creek that feeds the Coastal Lagoons.
- b) Minimal changes in water levels of all the surrounding natural inland wetlands that are potentially impacted by changes in hydrology from land disturbance by the mining activity resulting from the underlying geological condition of sand saturated by groundwater. That impact may even occur from land disturbance outside the 100 m envelope, given the characteristics of groundwater hydrology on the Site.

[263] A major component of the Proposal's water management system is the infiltration trenches that must be located within the 100 m envelope to operate effectively. Further, other elements, including Pond 4, need to be sufficiently close and 'armed' to enable an effective response to changes in the groundwater monitoring piezometers and to all changes from mining by discharging water directly to the Coastal Lagoons or through the infiltration trench system.

- [264] Continuing the military metaphor above, the Proposal's water management system is a 'front line' management system within a hydrologically dynamic theatre of mining action, given that complex groundwater and surface water systems interact with natural features, including inland natural wetlands. WCRC's hydrology expert closely analysed and supported the efficacy of that water management system.
- [265] There was no detailed evidence that these elements of the Proposal's water management system would not effectively manage the mining operation in a hydrologically appropriate manner, given the characteristics and constraints of the existing environment.
- [266] All the arguments we heard on "functional need" (except Dr Durand's supplementary statement in part) ignored the undisputed evidence of the need for these water management measures to perform effectively.
- [267] As noted earlier, Dr Durand, in his supplementary statement, addressed these matters but in a way that attempted to isolate elements of the system based on his assessment of how the activities could be disaggregated and then assessed for the "functional need" without expert support and on the basis he considered alternative or substituting methods of water management were possible. For example, where Pond 4 was located. That assessment was unconvincing to us and against WCRC's hydrology assessment of the workability of the system as an integrated unit. An integrated system cannot be treated as a 'pick and mix' without completely understanding the design and its underlying imperatives. We do not consider that a planner is well placed to hypothesise about the workability of alternatives and the costs and benefits associated with changes to an engineered design. The Proposal should be assessed as an integrated system that is authorised by the definition of "functional need". The risk of an atomised activity by activity analysis is to lose sight of how the design responds to various needs to deliver a viable mining platform.
- [268] We were also impressed by the very small apron of minerals available to mine. The strandlines are a limited resource wholly contained within a small apron, including under and around the wetlands. We can readily see from the evidence why it is necessary to maximise the mineable area within the 100 m setback to achieve a viable mine. As noted, even if mining did not occur in the setback but beyond it the "water management system" elements of the Proposal are critical within the setback. There are compelling operational,

logistical and management needs that are met by authorising mining in that location as part of the Proposal.

Section 3 – Grey District Council Consent

[269] The application to GDC seeks land use consent for a Site on Barrytown Flats, State Highway 6, approximately 9 km south of the Punakaiki Township and 36 km north of Greymouth, to establish and operate a mineral sand mine in an area of roughly 64 ha over 12 years, including the construction of associated infrastructure, such as a processing plant and associated facilities of an area of about 2.0 ha up to 15 m in height and for a minimum average of 50 truck movements per day.

Consents required and consent category - Grey District Plan

[270] It was common ground that land use consent is required from the GDC's Grey District Plan (GDP) as follows:

Rule	Reason	Activity Status
19.7.8(iii)	Buildings (15 m) exceed the 10m height limit by Rule 19.7.8(i)(a).	Discretionary
19.7.12(iii)	The volume of diesel proposed to be stored on Site (40,000 L) exceeds the 5,000 L limit in Appendix 3 of the GDP	Discretionary
9.7.13(iii)	Car parking (49 spaces) does not meet the minimum numbers required under Rule 24.2.1, being 2 spaces per 100 m ² gross floor area for industrial buildings equating to 74 spaces required. The proposed car park will not be laid out in accordance with Rule 24.2.3, that specifies minimum parking space dimensions. The proposed access design does not comply with Rule 24.3.1, that includes diagrams that vehicle crossings must comply with. The proposed vehicle movements (390 per day) onto a Strategic Route exceed the maximum (100 per day) outlined in Rule 24.	Discretionary
19.7.16(iii)	The Non-Rural Activity will breach the maximum standards specified in Rule 19.7.16(i) for floor area, vehicle movements and noise.	Discretionary

Consent required and consent category - Te Tai o Poutini Plan

[271] The Te Tai O Poutini Proposed Plan (TTPP) was publicly notified on 14 July 2022. Mr Geddes advised that a number of the TTPP rules have immediate legal effect, and so consent is required under it as follows:

Rule	Reason	Activity Status
ECO-R2 ECO-R5	Clearance of indigenous vegetation in the coastal environment	Restricted Discretionary
NC-R3	Clearance of indigenous vegetation and earthworks within riparian margins.	Discretionary
NC-R4	Buildings and structures within riparian margins.	Discretionary

[272] Mr Geddes considered that consent was also required under rule SASM-R7 for mineral extraction activities in the Pounamu Management Area. Ms McKenzie disagreed, stating that the Site was not within a Site of Significance to Māori and the Pounamu Management Area related not to historical heritage but to recognition of Te Runanga o Ngai Tahu's ownership of Pounamu as provided by the Pounamu Vesting Act arising from the Ngai Tahu Treaty Claims Settlement Act.

[273] We accept Ms McKenzie's advice and find that consent is not required under rule SASM-R7. We observe that this has little material effect given Te Rūnanga o Ngāti Waewae's written support for the Applicant's applications.

Overall consent category

[274] Under the 'bundling principle', the Applicant's proposal is to be assessed as a discretionary activity.

Effects assessment

The existing environment and permitted baseline

[275] When forming an opinion for the purposes of section 104(1)(a) of the RMA, we may disregard an adverse effect of an activity on the environment if a national environmental

standard or a plan permits an activity with that effect.⁴² We had regard to such effects where it is reasonable to do so.

Māori cultural values and interests

[276] The Site is located within the rohe of Te Rūnanga o Ngāti Waewae. Canoe Creek is identified in the Regional Land and Water Plan as having waahi taonga, cultural materials and traditional campsite cultural values.

[277] Te Rūnanga o Ngāti Waewae submitted in support of the TiGa applications. The submission highlighted that TiGa had adopted mitigation measures to address the concerns of Ngāti Waewae. Specifically, Ngāti Waewae had requested that TiGa avoid over-reliance on the transfer of water from Canoe Creek into the Collins Creek and Deverys Creek catchments, resulting in the mixing of waters, and confirmation of the effects of the mine operation on receiving environments.⁴³

[278] The Site is located within the Pounamu Management Overlay in the Proposed Te Tai o Poutini Plan. The ownership of pounamu is vested in Te Runanga o Ngai Tahu by the Pounamu Vesting Act 1997. Mr Miller for TiGa confirmed that the Mining Unit Plant (MUP) separates out the ore sand from oversize material which is left in the mining void.⁴⁴ Accordingly, we accept the advice of Ms McKenzie that the proposal will not involve the extraction of pounamu which will be returned to the mine void with other oversized material.⁴⁵

[279] The Ngai Tahu Claims Settlement Act 1998 acknowledges the association of Ngai Tahu with taonga species.⁴⁶ Taonga bird species potentially affected by the proposal include Kōau (Black Shag), Kororā (Blue Penguin), Kōtuku (White Heron), Mātā (Fernbird), Matuku moana (Pacific Reef Heron), Pārera (Grey Duck), Pīhoihoi (New Zealand Pipit), Tara (Caspian Tern and White Fronted Tern), and Tītī (Tāiko / Westland Petrel). Taonga plant species potentially affected by the proposal or proposed as mitigation planting

⁴² Section 104(2) of the RMA.

⁴³ SOE Jens Rekker, paragraph 87.

⁴⁴ SOE Stephen Miller, paragraph 44.

⁴⁵ TiGa Resource Consent Application, Assessment of Environmental Effects, paragraph 5.69.

⁴⁶ Ngai Tahu Claims Settlement Act 1998, s 288.

include Harakeke (Flax), Kahikatea (White Pine), Karamū (Coprosma), Raupō (Bulrush), Tarata (Lemonwood), Tī rākau/Tī Kōuka (Cabbage Tree), and Wīwī (Rushes).⁴⁷

[280] Overall, Mr Bramley was of the opinion that any adverse effects on threatened or at-risk bird species, including the taonga species of significance to Ngai Tahu, using Canoe Creek Lagoon, Rusty Pond and surrounding vegetation, or making use of the pasture and bare soil within the MDA, can be managed so that they were either avoided, or were very low.⁴⁸ The use of taonga plant species is proposed for visual screening of the mine operation and mitigation planting.⁴⁹

[281] At the hearing Francois Tumahai, Chairman of Ngāti Waewae, briefly outlined their support for the proposal, noting in particular the employment opportunities that would be provided which would greatly assist with retaining Ngāti Waewae whānau and rangatahi in the district.

[282] While the application site has no known historical sites of features, we note that TiGa has offered a standard koiwi discovery protocol consent condition.

Finding

[283] In light of Ngāti Waewae's support for the proposal and the mitigation of adverse effects on taonga species of significance to Ngai Tahu, we find that potential adverse effects on Māori cultural values will be no more than minor.

Traffic and road safety

[284] The mining activity will involve the haulage of HMC along SH6. The Grey District Plan classifies SH6 as a Strategic Route, which is defined as: "*roads and motorways which form part of a network of national strategic importance, which are a significant element in the national economy, for which a high level of user service must be provided at all times and are a significant element in the regional economy.*"⁵⁰

[285] For the haulage of HMC, up to 50 truck movements a day are anticipated, comprising 25 arriving at the Site and 25 leaving the Site. At the commencement of the hearing, the

⁴⁷ Ngai Tahu Claims Settlement Act 1998, Schedule 97.

⁴⁸ SOE Gary Bramley, paragraph 18.

⁴⁹ Katherine McKenzie, Reply Statement, Annexure 3 Landscape Mitigation Planting Plans.

⁵⁰ Supplementary Statement of Katherine McKenzie (Reply), 19 March 2024, paragraph 30.

Applicant had yet to decide if the HMC would be hauled north to Westport or south towards Greymouth. However, during the hearing, they advised that the HMC would be hauled south towards Greymouth either to a rail siding site located at Rapahoe or Stillwater. From there the HMC would most likely be taken by rail to the Port of Timaru for export. Ms McKenzie confirmed the selection of this southern route⁵¹.

[286] The selection of the southern HMC haulage route greatly assisted our consideration of traffic and road safety issues because many submitters were justifiably concerned about the traffic safety risks that would occur should the HMC be trucked north towards Westport over a tortuous section of SH6.

[287] The Applicant has also proposed that there be no haulage of HMC from the Site on Sundays so as to provide some relief to roadside residents. We find that to be appropriate. However, Mr Fuller advised that the removal of Sunday trucking will extend the overall timeframe for trucking by approximately 14%. That means that the five-to-seven-year mining timeframe originally proposed by the Applicant would necessarily be extended to six to eight years⁵². We are satisfied that this is a reasonable trade-off.

[288] Evidence for the Applicant on traffic matters was provided by Nicholas Fuller. He noted that SH6 was identified as a Strategic Route in the GDP. It accommodated two-way traffic flow and had a speed limit of 100 km/h in the vicinity of the mine site. Mr Fuller advised that the existing traffic volumes on SH6 were in the order of 1,156 vehicles per day and 96 vehicles per hour at peak times.

[289] As we detail later in this decision, in order to avoid potential adverse effects on the Westland Petrel, the Applicant has proposed that truck movements will not occur during the hours of darkness, which are to be taken as the period from 30 minutes after sunset to 30 minutes before sunrise. Consequently, the shortest day for trucking is ten hours, which leads to a maximum of five truck movements per hour on average at that time. We understand that the level of truck movements will be readily accommodated on SH6 with no loss of network efficiency because Mr Fuller had previously concluded that up to 24

⁵¹ Supplementary Statement of Katherine McKenzie (Reply), 19 March 2024, paragraph 29(a).

⁵² Supplementary Statement of Nicholas Peter Fuller, 19 March 2024, paragraph 6.

additional vehicles per hour would be a low volume that would not lead to any notable effects on the efficient operation of SH6⁵³.

[290] As well as the HMC haulage trucks, we also need to consider the arrival and departure of workers to the Site. Initially, it was envisaged that the Site's shift workers would primarily travel to the Site using their own vehicles. In that regard, the shift roster for staff that is now proposed⁵⁴ is:

- (a) WCP processing plant:
 - (i) 19 staff working a dayshift from 7:00 am to 7:00 pm; and
 - (ii) 8 staff working a night shift from 7:00 pm to 7:00 am.
- (b) Mine: 18 staff working from 7:00 am to 5:00 pm.

[291] Importantly, the Applicant has committed to requiring the staff residing either to the south or north of the Site to travel to and from the Site in a 'transport service' (which we understand to be a company mini-bus) during the hours of darkness⁵⁵. At worst, that would involve up to four mini-buses arriving at the Site prior to 7 am. We do not understand that to be an issue in terms of the capacity of SH6 or risk to other road users.

[292] As is routine for these types of projects involving heavy vehicle movements, the Applicant has proposed a Transport Management Plan (TMP), which will be subject to certification by the GDC. The TMP will contain what we consider to be robust requirements, including, amongst other things:

- (a) Hours of operation, including no nighttime trucking and avoiding Barrytown School bus travel times between 8:00 am to 9:00 am and 2.45 pm to 4.00 pm⁵⁶;

⁵³ SOE Fuller, paragraph 27. His view was based on 24 vehicles per hour because at that stage TiGa's mini-bus proposal had not been formalised.

⁵⁴ Supplementary Statement of Nicholas Peter Fuller, 7 March 2024, paragraph 5.

⁵⁵ Proffered Condition 15.3 requires TiGa to provide passenger transport for the shift workers. If there are less than 5 staff who arrive at Site from either direction on any given shift, a passenger transport service is not required, provided that all staff arriving from that direction arrive and leave in the same vehicle.

⁵⁶ Condition 15.7. We heard from the Board of Trustees who were concerned about the possible interaction of haulage trucks with the school bus.

- (b) Truck movements would be limited to no more than three movements per hour between 5:00 am and 7:00 am⁵⁷;
- (c) Reinforcement of the Road Code (such as interactions with cyclists and school buses);
- (d) Identification of locations where additional care is required because there is likely to be higher numbers of pedestrians and cyclists and a tight road geometry;
- (e) Communication between truck drivers to alert each other to road hazards and the presence of cyclists and pedestrians;
- (f) Consideration of areas where air brakes should be avoided in order to avoid annoying roadside residents;
- (g) Reporting of pavement defects and interactions with wildlife; and
- (h) Circumstances where the TMP must be reviewed to ensure that it remains fit for purpose.

[293] Some submitters, including representatives of the CRRG, raised the issue of the Greymouth High School bus. The High School did not submit on the Proposal, but Marie Elder⁵⁸ advised us that the High School bus leaves Greymouth, drives north along Barrytown Flats, collects students at Punakaiki, turns south and collects students on the way back to Greymouth⁵⁹. In the afternoon, the bus leaves Greymouth, drives north, drops off students, arrives in Punakaiki and drops off the last students⁶⁰. There is no need for HMC haulage restrictions when the bus is empty or when it is north of the Site. Based on Ms Elder's information and estimated travel times between the various locations, we see no need to amend Condition 15.7 setting HMC haulage restrictions, noting that between 7.30 am and 8.00 am when the High School bus is heading to Greymouth, there would only be one or two HMC trucks heading in the same direction and needing to pass the stationary bus as it picked up pupils⁶¹.

⁵⁷ Condition 15.2.

⁵⁸ A supplementary note to the panel around a transport question asked on 20 March 2024, Marie Elder, for CRRG, 20 March 2024.

⁵⁹ The bus has pupils in it when south of Site from 7.25am to 8.25am.

⁶⁰ Bus has pupils south of Site 3.10 to 3.40pm.

⁶¹ Condition 15.1 limits truck movements to five per hour, or two to three in each direction.

- [294] Some submitters understandably expressed concern about other heavy vehicles that might access the Site from time to time. Mr Fuller advised that it would entail one fuel delivery every two weeks and one sewage truck every three weeks to pump out the proposed sewage holding tanks⁶². We do not consider that a low level of additional heavy vehicle movements necessitates the need for additional restrictions or conditions of consent.
- [295] In terms of access to the Site from SH6, Mr Fuller advised that a concept site access arrangement has been designed to accommodate traffic turning to and from the Site. It includes a right-turn bay to accommodate traffic waiting to enter the Site, as well as a left-turn deceleration lane. That access configuration has been agreed upon with NZTA as acceptable, and we are satisfied that it will provide safe and efficient access to and from the Site.⁶³
- [296] At the hearing, some submitters⁶⁴ expressed concerns regarding the danger that the HMC trucks would pose to cyclists and pedestrians. Mr Fuller advised that NZTA had already undertaken works to provide safe pedestrian and cycling facilities where there is an elevated demand for those modes. He considered that the remainder of the SH6 was arguably not conducive to walking and cycling. Having driven SH6 from the mine site to Greymouth several times, we concur with that view. In particular, we agree with Suzanne Hill⁶⁵ that *“there is an extremely dangerous section of SH6 to the north of the Grey River bridge outside Greymouth. It is dangerous in both directions with steep cliffs, bluffs, no road shoulders, blind corners and narrow over-bridges.”*
- [297] In that regard, we note that the West Coast Regional Land Transport Plan 2021 – 2031 states⁶⁶ there is ongoing concern about the movement of vulnerable road users, particularly cyclists, along the region’s State Highways, particularly as they travel within a high-speed environment. It states there are sections *“... that are not fit for purpose for cyclists”*.
- [298] Pedestrian and cyclist road safety matters were peer-reviewed by Mat Collins⁶⁷. His focus was on the stretch between the SH6 / Golden Sands Road intersection and Rapahoe,

⁶² Supplementary Statement of Nicholas Peter Fuller, 7 March 2024, paragraph 9.

⁶³ EIC Fuller, paragraph 7.

⁶⁴ Including Suzanne Hill, Christopher Cromley, Andrew Beaumont, Lisa Johson, James Bradley, David Morre and Trevor Hayes.

⁶⁵ EIC Hills, ‘Cycling the Coast’, 6 February 2024, paragraph 19.

⁶⁶ Page 10.

⁶⁷ Associate Transport Planner at Abley Limited.

where the geometry of SH6 is particularly challenging. The main area of concern involves the HMC haulage trucks. Mr Collins advised that there were currently around 90 to 130 heavy vehicle movements per day on the proposed HMC haulage route.

[299] Unsurprisingly, Mr Collins considered that the existing environment of SH6 created an inherent risk for pedestrians and cyclists because:

- (a) There was limited forward visibility in some locations due to vertical and horizontal geometry and vegetation;
- (b) There was limited or no sealed or gravel hard shoulder in some locations, which, combined with the limited forward visibility, could encourage some drivers to pass cyclists dangerously;
- (c) Noise from the surf could limit pedestrians' and cyclists' ability to hear approaching traffic and
- (d) Some submitters experienced "near miss" encounters with vehicles while walking or cycling along SH6.

[300] Tellingly, Mr Collins stated,⁶⁸ *"I consider myself to be a relatively confident cyclist; however, having driven the route, I would not be comfortable with cycling in this type of environment."* Mr Collin's opinion mirrors our own.

[301] Mr Collins considered that static and/or active warning signage and markings at eight 'pinch points' would mitigate some effects of the Applicant's truck movements on cyclists in those locations. He recommended a consent condition requiring the Applicant to investigate and implement signage and/or markings in those locations in consultation with NZTA.

[302] Mr Fuller did not consider static or active warning signage and markings appropriate⁶⁹. Having considered the conflicting evidence, we find that it would be inappropriate to impose such a requirement on the Applicant because:

- (a) The Applicant has agreed to there being no HMC haulage on Sundays.

⁶⁸ SOE Collins, paragraph 17.

⁶⁹ Supplementary Statement of Nicholas Peter Fuller, 7 March 2024, paragraphs 22 to 28.

- (b) Any signage would remedy an existing road safety issue rather than mitigate the effects of the HMC haulage trucks. The mitigation of existing road safety issues on State Highways is the responsibility of NZTA.⁷⁰
- (c) Static signage would be unlikely to lead to enduring safety improvements because as cycle and pedestrian volumes on SH6 are low, truck drivers would not typically encounter cyclists or pedestrians, and so the drivers would become desensitised to the signage.
- (d) The Applicant's proposed truck driver radio communication will be more effective than active warning signs (triggered by an actual cyclist on the road) as it allows truck drivers in both directions to be aware of the cyclists on the whole of the route.
- (e) The truck driver radio communication includes ensuring northbound trucks pull over and wait at the passing bay north of Nine Mile Creek for southbound trucks to clear the tight road geometry section of SH6 from Twelve Mile Bluff to the south side of Ten Mile Creek.

[303] Mr Collins concluded that the Applicant's proposal would negatively affect cyclists, given the existing constraints and pinch points along the corridor⁷¹. However, he did not consider that warranted the application being declined. His reasons were⁷²:

- (a) Truck drivers are professionals, and the TMP would ensure they were educated about the risks and constraints of the haulage route.
- (b) Amendments to the TMP would increase the accountability of both the consent holder and truck drivers, resulting in greater care and empathy for other road users and adherence to the road rules.
- (c) Warning signage and markings would improve driver and cyclist awareness at the eight key 'pinch points' and would result in a minor improvement compared to the existing environment.

⁷⁰ In an email from NZTA to Mr Geddes (dated 23 February 2024) NZTA advised that they had been installing signage having been "in the network when funding is available in areas where widening cannot occur". Attachment 1 to Mr Fuller's 7 March 2024 Statement.

⁷¹ SOE Collins, paragraph 13.

⁷² SOE Collins, paragraph 48.

- [304] Having carefully considered the evidence, we are satisfied that the effects of the Applicant's proposal on the efficient operation of SH6 will be no more than minor.
- [305] We acknowledge an existing high level of risk to the safety of pedestrians and cyclists who choose to use the section of SH6 between the proposed mine site and Greymouth. However, we do not consider that the maximum of five additional HMC haulage truck movements per hour six days a week, coupled with the daily morning and evening mini-bus movements for shift workers, will exacerbate that risk to such a degree that would warrant consent being declined. In saying that, we are mindful of the statement in the RLTP that sections of SH6 are currently "*...not fit for purpose for cyclists*". We also agree with Ms Booker⁷³ that it is not the Applicant's responsibility to resolve existing concerns for cyclist safety on SH6.
- [306] While not being determinative, we observe that NZTA is the Road Controlling Authority for SH6, and they have not raised any concerns concerning the safety or efficiency effects of the proposal on their road network.
- [307] In overall terms, we are satisfied that the combination of proposed consent conditions and the implementation of the TMP will reduce the level of additional risk posed by the Applicant's maximum five additional truck movements per hour to the extent practicable for pedestrians and cyclists who choose to venture onto SH6.

Finding

- [308] In light of our preceding assessment, we find that the likely adverse effects of the Applicant's proposal on the safe and efficient operation of SH6 are not of a scale that would warrant the consent application being declined.

Landscape character, natural character and visual amenity

- [309] Effects on landscape character, natural character and visual amenity were matters of contention between the parties, with numerous opposing submitters raising concerns about the effects on landscape and visual amenity.

⁷³ Reply Submissions, paragraph 56.

Effects on landscape character, natural character and visual amenity

- [310] The TiGa application was supported by an assessment of the potential landscape and visual effects arising from the Applicant's Proposal prepared by Mrs Crawford in accordance with the concepts and principles outlined within *Te Tangi a te Manu: Aotearoa Landscape Assessment Guidelines*. This assessment was revised in July 2023 to include further project detail and visualisations.⁷⁴ The revised assessment was peer reviewed for GDC by Mr Girvan, who prepared a further addendum to assess landscape and visual effects issues raised by submitters.
- [311] The landform of the Barrytown Flats is wider and more open in comparison to the coastal landscape to the north and south and includes the 17-kilometre stretch of coastline from the Punakaiki River in the north to Seventeen Mile Bluff in the south. This narrow coastal plain is located between the high and steep forested hills of the Paparoa Ranges and the Barrytown Hills to the east of SH6 and Pakiroa Beach and the Tasman Sea to the west.⁷⁵ The coastal plain to the west of SH6 is characterised by pasture, with smaller remnant stands of vegetation and swampland.⁷⁶
- [312] Landscape and conservation features on the coastal plain are set out in the plan provided by the CRRG.
- [313] The Site is bordered to the east by SH6 and to the west by Canoe Creek Lagoon, Pakiroa Beach and the Tasman Sea. There is a gradual change in height of approximately 23 metres from SH6 to the coast. Remnant sand ridges from old shorelines run in a north to south direction across the site, and there are constructed drainage channels and small farm ponds. The site has been modified through humping and hollowing of pasture to improve drainage and is currently used to support dairy operations and graze cattle.⁷⁷
- [314] Landscape features on the site include the deeply incised Collins Creek running along the southern boundary of the site, and the northern drain. Collins Creek flows into Canoe Creek Lagoon at the bottom of the site which contains areas of peripheral marsh habitat. The flow of the creeks is impeded at the coast by a northward longshore drift which causes

⁷⁴ Barrytown Mineral Sands Mining Project (2023) *Landscape and Visual Assessment of Effects*.

⁷⁵ Ibid, Section 4.2.

⁷⁶ Ibid, Section 4.2

⁷⁷ Ibid, Section 4.3

the creeks to be displaced parallel to the coast, with creek mouths being closed by narrow shingle ridges.⁷⁸

[315] The landcover of the site is dominated by exotic pasture species with the addition of sedges following drainage channels. There are isolated pockets of native vegetation, including flax planted around a feed pad, and three kahikatea trees. The riparian margin on the southern boundary of the site alongside Collins Creek, contains species such as ferns, rata, kahikatea, ngaio, harakeke, kiekie, mingimingi and tī kouka. Canoe Creek Lagoon has species such as flax, sedge and rush along its edges. The shoreline itself is sparsely vegetated and includes oioi, shore bindweed, muehlenbeckia, flax and Raupō.⁷⁹

[316] The issues raised by submitters that are relevant to landscape character, natural character and visual amenity are summarised in an addendum prepared by Mr Girvan⁸⁰ and include:

- a) Landscape character effects, encompassing effects on relevant amenity values, aesthetic values, aesthetic coherence, and natural beauty.
- b) Adverse effects on the natural character of the coastal environment including the natural and wilderness values of Pakiroa Beach.
- c) Visual effects from adjoining dwellings, Pakiroa Beach, SH6, and parts of the Paparua and Croesus Tracks. Concerns include effects on scenery and scenic values including visual pollution and night-time lighting effects.
- d) Appropriateness and effectiveness of the proposed roadside bund as mitigation.
- e) Effectiveness of Rehabilitation.

[317] These issues were addressed by Mrs Crawford and Mr Girvan, who issued a Joint Witness Statement that outlines the following matters of agreement between the witnesses:

- a) The entire site is in the coastal environment.
- b) The site is not an outstanding natural feature or landscape. Adverse effects on outstanding natural features or landscapes beyond the site will be low (less than minor).
- c) The site is not an area of Outstanding Natural Character.
- d) The MDA does not contain high natural character. Beyond the MDA, parts of the site have higher natural character, including Canoe Creek Lagoon and Canoe Creek.

⁷⁸ Ibid, Section 4.3

⁷⁹ Ibid, Section 4.3.

⁸⁰ Barrytown Mineral Sands Mining Project: Landscape Peer Review Addendum – Submissions

- e) The nature and level of landscape character and visual effects which result from the project during operation and following project completion are largely agreed as per Figures 2 and 3 of Mrs Crawford's statement of evidence.
- f) There are adverse effects on landform and natural character which will occur during the mining operation. While Mrs Crawford and Mr Girvan agree that these effects are not significant, the level at which these effects occur is slightly different in the opinion of each expert.
- g) In the long term, following completion of the Proposal, Mrs Crawford and Mr Girvan agree that there is potential for low positive (beneficial) effects on natural character.

[318] The potential adverse visual effects of the mining operation will be mitigated by the adoption of setbacks from all landscape features and neighbouring properties, the use of recessive colours for buildings, construction of bunds, and through implementation of a comprehensive landscape mitigation planting plan. Following cessation of mining there will be further wetland planting around the clean-water ponds secured by covenant.

Finding

[319] We find that the potential adverse effects on landscape character, natural character, and visual amenity will be no more than minor.

Historic heritage

[320] The AEE assessed the effects of the mining operation on historic heritage and concluded that there were no recorded archaeological sites within the MDA.⁸¹ The recorded archaeological sites within the vicinity of the Site are well removed from the MDA.⁸² The adoption of an Accidental Discovery Protocol is proposed as a condition of consent to avoid adverse effects on unknown archaeological sites within the MDA.

[321] Mr Freeman for the Langridge Family referred us to a Significant Natural Areas report⁸³ and to a map from 1916 as evidence that the Canoe Creek lagoon had been partially modified by early 20th Century gold sluicing, and that Rusty Pond was created through

⁸¹ TiGa Assessment of Environmental Effects, Section 5.32 and Attachment C.

⁸² TiGa Attachment C – Archaeological Site Records.

⁸³ Grey District Significant Natural Area assessment. (2006). Punakaiki Ecological District, PUN-W034. Boffa Miskell.

mining. We note for completeness that historic heritage associated with 20th Century gold mining is located beyond the Site and is not impacted by the mining operation.

Finding

[322] We find that potential adverse effects on historic heritage will be no more than minor.

Noise and vibration

[323] The proposed mining activity will produce construction and operational noise. This was understandably a matter of concern to submitters, especially those who reside close to the site or SH6⁸⁴. John Farren provided evidence of noise for the Applicant. He advised that the existing daytime noise environment at the site was dominated by traffic noise from SH6 and surf noise. That was evident to us during our site visits. When vehicle numbers decreased at night, surf noise became the dominant source.

[324] The Applicant has offered to prepare a Noise Management Plan (NMP) to be certified by the GDC, which we find appropriate and routine for a proposal of this magnitude.

[325] Mr Farren modelled noise emissions associated with the proposed mining activities and HMC processing operations based on measurements of similar mining equipment around New Zealand, including an operating mineral sand mine near Westport⁸⁵. He assumed a conservative worst case with all mining plant and equipment operating at the same time at the closest practical points to existing dwellings. In practice, actual noise levels would be lower than those modelling results because mobile mining machinery would generally operate inside the mining void, and the 7 m to 9 m high pit wall would act as a noise barrier. The proposed 4.5 m high Eastern Bund would also be an effective noise barrier for mining activities.⁸⁶

[326] We note that to minimise noise emissions, particularly at night when there will be no mining and no heavy vehicle movements, the Applicant has proposed enclosing the HMC processing plant in a building and has positioned that building as far as practical from noise-sensitive locations.

⁸⁴ Including the Langridge submitters, Rosemary Mirza, Bevan Chignell, the Barrytown School Board of Trustees and Shelly Lock.

⁸⁵ The Westland Mineral Sands what operation.

⁸⁶ SOE Farren, paragraphs 13 to 17.

- [327] Mr Farren observed that noise on public roads is exempt from compliance with the GDP permitted activity noise limits⁸⁷. However, he assessed that HMC haulage truck movements between 5 am and 7 am would result in a just perceptible change in the noise level of 3dB. Later in the day, the relative increase in noise from the HMC haulage trucks would reduce, with a corresponding diminishing noise effect. Significantly, Mr Fuller advised⁸⁸ that the Applicant has now proposed that there will be no haulage of HMC on Sundays⁸⁹, which will mitigate the impacts of road noise from the proposal.
- [328] Mr Farren advised that once operational, the proposal would comfortably comply with the permitted activity noise levels within the proposed TTPP, which reflected the current best practice noise criteria set out in New Zealand Standard NZS 6802:20081 and the World Health Organisation published guidance. The mining and HMC processing activities were also predicted to comply with the GDP daytime and night-time permitted activity noise limits of 55 and 45 dB LA₁₀, respectively, except on Sundays when a 45 dB LA₁₀ daytime limit applied⁹⁰.
- [329] While forming the various bunds, ponds and HMC buildings, we understand that the applicable noise limits in NZS 6803:1999 Acoustics – Construction Noise will likely be comfortably complied with⁹¹.
- [330] Regarding effects on wildlife, Mr Farren advised that, depending on the surf activity at the time, surf noise will be in the order of 55 dB LAeq or greater within approximately 200 m of the mean high-water line, which would act to mask noise from the mining activities.
- [331] In overall terms, Mr Farren concluded that noise effects would be less than minor.
- [332] Mr Farren's noise assessment was peer-reviewed by Darran Humpheson. He concluded that, based on the magnitude of noise predicted by Mr Farren and the Applicant's suite of proposed controls (namely the offered consent conditions and NMP), in overall terms, noise effects would be reasonable and no more than minor⁹². In particular, regarding Sunday noise, he advised Mr Geddes that provided noise levels remained in the order of

⁸⁷ Daytime (0700-2200): 55 dB LAeq (15 min) and Night-time (2200-0700): 45 dB LAeq (15 min) and 75 dB LAFma.

⁸⁸ Supplementary Statement of Nicholas Peter Fuller, 19 March 2024, paragraph 5.

⁸⁹ Condition 12.3.

⁹⁰ SOE Farren, paragraphs 30 and 31.

⁹¹ AEE Attachment H, Acoustic Assessment, Summary.

⁹² Consultant's Advice Note dated 15 November 2023.

50 dB, then those effects would also be no more than minor. He considered that the Sunday 45 dB LA₁₀ noise limit contained in the GDP was very quiet and inappropriate given that it would be frequently exceeded by wind and other natural sounds⁹³.

[333] Mr Farren and Mr Humpheson agreed that the predicted noise levels from the mining operation would have no adverse effects on livestock. Effects on avifauna in adjacent wetland habitats near the coast will be mitigated by the naturally noisy environment dominated by the sound of surf.

[334] Regarding the effect of the haulage trucks causing nuisance vibration for residents along SH6, Mr Humpheson advised that general road traffic vibration is not perceptible at distances greater than 20 m from the active carriageway, even with minor defects in the road surface. It was improbable that minor building damage, such as cracking of plaster linings, would occur due to vibration caused by vehicles. That accords with our experience with State Highway upgrading consent applications in other regions.

Finding

[335] Based on the evidence, we find that the potential adverse effects of noise and vibration are no more than minor and do not weigh against a grant of consent.

Dust

[336] We address the issue of dust in section 4.2.7 of this decision.

General terrestrial ecology

[337] We discuss the Westland Petrel and the Little Blue Penguin (Kororā) in subsequent sections of this decision because those two bird species were of particular concern to the hearing participants. We discuss potential hydrological effects on the relevant surface water bodies in the WCRC section of this decision.

[338] The proposed mining site is located on privately owned farmland that has been 'humped and hollowed'. We understand it to be common ground that the terrestrial ecological values of the MDA are low to negligible. The site contains three kahikatea trees and some planted harakeke/flaxes beside an old feed pad and around some farm drains. Given the highly

⁹³ GDC Section 42A Report, paragraphs 191 and 192.

modified nature of the vegetation within the Site and the lack of suitable lizard habitat within the MDA, the presence of lizards is highly unlikely. However, the adjacent Canoe Creek Lagoon and its margins have high ecological value, particularly for avifauna.

[339] To the north and west, the site is bordered by an area identified in the Draft Proposed Te Tai o Poutini District Plan as a SNA (Site PUN-W034)⁹⁴. However, that draft SNA will not be directly affected by the Applicant's Proposal.

[340] Fourteen species of conservation concern have been recorded at the site⁹⁵, including South Island pied oystercatcher, variable oystercatcher, red-billed and/or black-billed gull, black shag, and little shag⁹⁶. Many of the birds present have been recorded once or a few times, suggesting they are visitors rather than residents. None are likely to rely on the grazed pasture habitat within the MDA, but several may visit for feeding, loafing, or nesting. Dr Bramley advised that species using the existing pasture for feeding, loafing or nesting (which could include gulls, banded dotterel, pied stilt, oystercatchers, white-faced herons, paradise shelducks, New Zealand pipit and the like) might be affected by the removal of a small proportion of pasture habitat for at least the length of time it takes to replace the vegetation, and perhaps longer depending on their tolerance to disturbance and the proximity of the mining activities. However, all of those species are relatively hardy to human activities and would be unlikely to be affected to even a minor degree.

[341] To avoid adverse effects on avifauna inhabiting Canoe Creek Lagoon and its margins, the Applicant has proposed a 20 m setback (buffer) from mining activities and a conservative 100 m buffer during the August to December bird breeding season. With these buffers in place, Dr Bramley considered that habitat displacement due to mining activities would affect only a very small subset of the bird species present and, even then, only a small number of individual birds. He concluded that the proposed mitigation in the form of spatial separation (buffers), seasonal avoidance (bird breeding season) and riparian planting to reduce visual cues, combined with the location of the mining activities below the existing ground level, would result in potential adverse effects that were "low."⁹⁷

⁹⁴ Described in Schedule 4 of the TTPP as "Punakaiki Lagoon and Coastal Wetland sequence. A lagoon and series of small lakes bordered by flax wetlands and coastal forest. Significant vegetation and ecosystem sequence.

⁹⁵ By way of a combination of seasonal bird surveys with acoustic recorders and five-minute bird counts, walk through surveys and incidental observations to identify species using the habitats adjoining the Site on six occasions.

⁹⁶ Dr Bramley was confident that no Australasian bittern have been recorded in any of the Site surveys to date.

⁹⁷ SOE Bramley, paragraph 119.

- [342] The GDC's ecology peer reviewer, Mike Harding, had a different opinion. He thought it was unclear whether the presence or visibility of machinery, vehicles and people would discourage birds from using adjacent habitats or disturb birds in those habitats. Mr Harding noted that some bird species were tolerant of such disturbance while others were not. Species likely to be intolerant of disturbance included fernbird, bittern and the grey duck⁹⁸.
- [343] Mr Harding recommended a minimum 100 m buffer from all adjoining habitats (which we understood to include the northern drain, Canoe Creek Lagoon and the coastal margin between that lagoon and Canoe Creek) to apply 365 days of the year, to avoid adverse effects on avifauna⁹⁹. In the Summary in Section 1 of this decision, we discussed how Mr Harding's opinion evolved when he gave oral evidence.
- [344] We consider that a 100 m setback would be unduly onerous and unjustified. Outside of the breeding season, any birds disturbed by mining activity have ample nearby suitable habitat to relocate to. We find the Applicant's proposed 100 m buffer during the five-month-long bird breeding season to be suitably cautionary, acknowledging that during the breeding season, the displacement of any birds could lead to mortality of their chicks.
- [345] The Applicant intends to encourage birds to nest away from planned activities in the pasture areas to be mined. The Applicant has proposed that in the unlikely event that a nest of a threatened or at-risk bird species is detected within an area to be mined (noting that only 8ha of the site will be mined at any one time, leaving over 100ha intact), the nest must be protected by establishing, physically marking and maintaining a 50 m buffer between the nest and any mining works to minimise the risk of nest abandonment¹⁰⁰. The Applicant will also establish a ring of traps and/or bait stations targeting rats and mustelids around the property's perimeter and Canoe Creek Lagoon¹⁰¹.
- [346] In overall terms, Dr Bramley thought that any adverse effects on threatened or at-risk bird species using Canoe Creek Lagoon, Rusty Pond and surrounding vegetation, or making use of the pasture and bare soil within the MDA, could be managed so that they were either avoided or were very low. The management (or mitigation) actions included not

⁹⁸ Supplementary Statement of Mike Harding on behalf of Perspective Consulting/Grey District Council Terrestrial Ecology. Dated: 18 March 2024. Paragraph 33.

⁹⁹ Ibid paragraph 38 and 39.

¹⁰⁰ Condition 18.2

¹⁰¹ Condition 18.4.

mining or trucking at night, physical separation (buffers) between important bird habitats and the MDA, timing of mining activities works to avoid the August to December bird breeding season, landscape and riparian planting to act as a buffer between the MDA and the Canoe Creek Lagoon and Collins Creek in particular, pest control, and monitoring to inform the ongoing refinement of those management actions (such as the location of the buffers)¹⁰².

- [347] We note that the Applicant will transform the Clean Water Facility into a wetland upon the cessation of mining, as indicated in Schedule 6 of the offered conditions. This 'new' 2.95ha wetland will be subject to a covenant and provide a permanent contiguous link between SNA PUN-W034 and Rusty Pond to the north and Canoe Creek Lagoon. In our view that would go quite some way to compensating for (or remedying) any temporary displacement of birds from Canoe Creek Lagoon and its margins during the mining operation.
- [348] The Applicant has proffered conditions¹⁰³ requiring the preparation and certification of an Avian Management Plan (AMP). Dr Bramley prepared numerous iterations of a Draft Avian Management Plan for our benefit. The AMP includes a description of the Site and surrounding avian habitats, a description of the threatened and at-risk birds likely to be present in those habitats and which species require specific management, a description of the management and mitigation measures that are required to be implemented to avoid effects on these species monitoring of habitats and species, protection of nesting birds or species that are directly in the path of mining operations, monitoring decision making and consultation about management interventions. We find the draft AMP to be comprehensive and fit for purpose.
- [349] The Applicant will also furnish an annual bird management report the GDC, Te Runanga o Ngāti Waewae, Department of Conservation, the West Coast Penguin Trust, Papanoa Wildlife Trust, the Community Liaison Group and NZTA. The report will cover a wide range of avian monitoring and management matters¹⁰⁴. That will enable the effectiveness of the proposed mitigation measures to be evaluated as mining occurs.

¹⁰² EIC Bramley, paragraph18.

¹⁰³ Conditions 18.12 and 18.13.

¹⁰⁴ Condition 18.15.

[350] Having carefully considered the evidence on avian matters, we are satisfied that the Applicant has adequately quantified the habitats and bird species that might potentially be affected by the proposed mining activities. We are also satisfied that the mitigation, monitoring and reporting measures proposed (as summarised in our discussion above) are both comprehensive and robust. We agree with Dr Bramley that, in combination, those measures will result in no more than low (or minor) adverse effects on avifauna. If adverse effects do occur on that highly mobile fauna, they will be transitory and reversible.

Finding

[351] On the evidence, we are satisfied that subject to the extensive mitigation measures proposed by the Applicant, potential adverse effects on terrestrial ecology (namely avifauna and noting we address the Westland Petrel and Little Blue Penguin elsewhere) are no more than minor and do not weigh against a grant of consent.

Lighting and the Westland Petrel

[352] We received helpful and informative evidence on the Westland Petrel (*Procellaria westlandica* or Tāiko) from several expert witnesses¹⁰⁵ and lay submitters¹⁰⁶. It was common ground that the Westland Petrel is a naturally rare and endangered seabird species that is endemic to New Zealand. It is known to breed at only one location in the world in the foothills behind the Barrytown flats near Punakaiki. The NZ Classification System's most recent assessment (2021) classified Westland Petrel as "At Risk, Naturally Uncommon" ("naturally uncommon" means that the species is already naturally rare). Research published by the Ministry for Primary Industries in October 2023 showed that the current level of Westland Petrel mortality (as by-catch in fisheries) is already above the threshold of population sustainability, meaning that any additional loss (from whatever cause) is considered a population level adverse effect¹⁰⁷.

[353] We received a copy of an informative 2017 article by Susan Waugh and Kerry-Jane Wilson titled "Threats and Threat Status of the Westland Petrel *Procellaria Westlandica*". That article stated that there were numerous threats to the Westland Petrel, including those posed by storms and resulting erosion of the ground upon which the breeding colony resides,

¹⁰⁵ Dr Bramley (for TiGa), Dr Susan Waugh (on behalf of the West Coast Road Resilience Group), Kate Simister (on behalf of the Director-General of Conservation), and Bruce Stuart-Montearth.

¹⁰⁶ Including Anne Inwood, Suzanne Hills, Marie Elder, Michael Spruce and Trevor Hayes.

¹⁰⁷ SOE Simister, paragraphs 12 to 20.

predation by pigs and vagrant dogs, trampling and grazing of the breeding ground by goats, human harvesting of the birds, entrapment of the birds in trees and power lines, pathogens in the soil in which the birds burrow, fisheries by-catch and groundings (or fallout) caused by the bird's attraction to artificial lights at night.

- [354] It is the last of these risks that is of relevance to us. The article stated that predation by pigs and dogs was the most pervasive and potentially destructive threat that the authors had documented. Fishing mortality threats were considered high risk. Conversely, the article stated that being attracted to lights at night was assessed as low risk.
- [355] At a national level, the species is absolutely protected under the Wildlife Act 1953 and was identified as a taonga in the Ngai Tahu Claims Settlement Act 1998. It is evident that potential adverse effects on the Westland Petrel should be avoided to the fullest extent practicable.
- [356] The Applicant's site is located 3.6 km south of the Westland Petrel breeding colony and is situated under a flight path for the birds as they travel to and from the colony. Westland Petrels are nocturnal on land and do not fly between the sea and the colony during daylight hours. They congregate in large groups before sunset, ready to take flight. They do not always fly in a direct path between the sea and the colony and tend to follow the coastline when flying to and from the colony depending on the direction of the wind.
- [357] Westland Petrels are heavy birds with large wingspans of up to 1.2 m. If they become artificially grounded (a phenomenon commonly referred to as 'fallout' or 'grounding'), they struggle to regain flight because they cannot take off from a flat surface. A reasonable percentage of birds grounded each year are found dead or die later from injuries caused by colliding with the ground, buildings, or cars, with the remainder requiring assistance to re-take flight¹⁰⁸. The majority of groundings involve fledging juveniles and occur between October and February.
- [358] The Applicant's proposal poses two potential risks to the Westland Petrel. The first is the risk of grounded birds being run over on SH6 by vehicles associated with the mining operation. We consider that risk has been avoided to the extent practicable by the Applicant deciding to haul the HMC south towards Greymouth (and hence not past the

¹⁰⁸ EIC Simister, paragraphs 22.

bird's breeding colony), avoiding HMC haulage during the hours of darkness, and the proposed use of mini-vans to transport the mining shift workers to and from the site.

[359] In that regard, the Applicant has agreed to amend the mining shift times from 6 am to 6 pm to 7am to 7pm, resulting in no vehicle movements during the hours of darkness between October and February. There will only be two to eight vehicle movements to and from the mine site during the hours of darkness between March and September. Consequently, there will be no vehicle movements to or from the site in the hours of darkness during the high-risk period for groundings and very few vehicle movements during the hours of darkness at other times of the year.

[360] The second and potentially more significant risk is associated with artificial lighting, albeit we understand from Waugh and Wilson 2017 that risk is low compared to other threats to the birds. The disorientation caused by the Westland Petrel's attraction to artificial lights can force them to become grounded as they fly to and from the breeding colony. The birds are known to be more sensitive to short wavelengths in blue and green light.

[361] The Applicant has acknowledged the risk that artificial lights at the mine site could pose to the Westland Petrel. They have consequently developed a lighting plan intended to avoid the adverse effects of artificial lighting on the birds. Dr Bramley¹⁰⁹ summarised the essence of the lighting plan:

- (a) The WCP will operate 24 hours a day but will be fully enclosed within a building that has no windows, but it will have personal access doors and roller doors;
- (b) All exterior lighting will be selected, designed, and installed following the Australian Government's National Light Pollution Guidelines for Wildlife January 2020. In particular, all fixed lighting will use luminaires of 2000K and be directed downward, shielded to avoid light spill outside of GDP permitted activity limits (2.0 lux spill horizontal and vertical of light onto any adjoining property), operate primarily in the yellow or orange spectrum, and be filtered to reduce blue and violet wavelengths;
- (c) Exterior fixed lights will be present on the WCP building, the administration building and the car parking area. The exterior lights will only be used during the hours of darkness when maintenance of equipment supporting the WCP plant is required,

¹⁰⁹ Supplementary Evidence Statement of Gary Bramley, 8 March 2024, paragraphs 10 to 13.

which cannot be deferred until daylight, or when staff are moving between buildings or to and from their parked cars. The external lights will be activated by motion sensors or push buttons¹¹⁰ with short-duration timers to minimise light spill, and

- (d) If the Mine Water Facility (Ponds 3 and 4 and associated holding tanks) adjacent to the WCP or equipment in the mining void (such as pumps) require maintenance which cannot be deferred until the morning, vehicles towing or carrying mobile light sets to the desired location will provide lighting where and when needed. The mobile lighting would only be used in the hours of darkness if the situation is urgent and cannot wait until daylight. All mobile lights would deploy the same type of equipment and approach as for the fixed external lighting. Vehicles will only use headlights that are ‘dipped’.

[362] There was some contention as to whether or not the Australian Government’s National Light Pollution Guidelines for Wildlife January 2020 were fit for purpose at this site. As noted by Ms Booker in Reply, in her first statement of evidence, Ms Simister¹¹¹ stated that any artificial lighting associated with the mining proposal must follow those Guidelines. She also referred to Westland Petrel being included in the CMSWA and is listed as having an “unfavourable” conservation status. Relevantly, the CMSWA endorsed the Wildlife Light Pollution guidelines in February 2020.

[363] Dr Bramley advised that Australian Guidelines and principles were recently applied at the Westland Mineral Sands’ 9-mile sand mining site (south of Westport).

[364] We have no evidential basis for concluding that the Australian Guidelines are unfit for purpose.

[365] A lighting plan prepared by IHC Mining was attached to Dr Bramley’s 7 March 2024 Supplementary Evidence. In a memorandum¹¹² attached as Appendix 4 to Ms McKenzie’s reply evidence, Tom Lawson advised that he had prepared the lighting plan with input

¹¹⁰ Push buttons are considered superior to motion sensor lights which may be nuisance tripped by wildlife or other movements.

¹¹¹ EIC Simister, paragraph 14.

¹¹² Titled “Responses on Lighting Plan Queries”.

from David Pollock¹¹³, Kevin Price¹¹⁴, Dr Bramley, and Gordon Skinner¹¹⁵. Having read the lighting plan, we are satisfied it incorporates the elements outlined by Dr Bramley. We note that following the construction of the WCP and associated infrastructure, a lighting expert will independently audit the site to ensure compliance with the lighting plan, and any deficiencies in the installed lighting will need to be rectified.

[366] The IHC lighting plan noted that to meet Occupational Health and Safety safe working protocols, lighting may be used during periods of low light, such as overcast daylight hours. However, it was noted that when mining was conducted at full pit depth, it would be substantially below the natural ground level, shielding the lit area from the surrounding environment. Importantly, the mining pit will only be operated during daylight hours. We are satisfied that this aspect of the Proposal does not pose a risk to the Westland Petrel.

[367] We note that counsel for the Director-General of Conservation submitted that it was unclear whether the lighting plan would be consistent with the health and safety requirements for the mine and the Australian Guidelines. She suggested that conditions relating to the lighting plan would be *ultra vires*. In response, we note that Tom Lawson's 18 March 2024 Memorandum concludes with the statement that "As a team, we are confident that lighting can be accommodated on-site and will meet both health and safety requirements and the lighting guidelines for Wildlife (i.e. National Light Pollution Guidelines for Wildlife dated May 2023), as has been done for other sites previously. That is demonstrated in the site layout provided." In the absence of any qualified evidence to the contrary, we accept Mr Lawson's evidence on that matter.

[368] At this point, we wish to emphasise that the Applicant's site will not be the only source of artificial lighting in the area. Many houses and farm buildings are located along SH6 in proximity to the mine site, and there are no controls on the artificial lighting associated with those buildings. Between 30 and 50 other vehicles use SH6 during the hours of darkness in the most at-risk period of October to February¹¹⁶.

¹¹³ Project Manager who reviewed the lighting design in relation to operational activities of the plant.

¹¹⁴ Kevin Price (Engenuity Solutions) - a senior electrical Engineer, who specialises in electrical system design and lighting.

¹¹⁵ Senior Designer who modified the lighting layout drawing.

¹¹⁶ Supplementary Statement of Nicholas Peter Fuller, 07 March 2024. Table 1 (derived from the evidence of Kate Simister).

- [369] As noted by Ms Booker¹¹⁷ in Reply, lighting controls on existing farming activities on the site are unrestricted. For example, the landowner could switch on the artificial lights of the existing milking shed within the hours of darkness and have outdoor lighting associated with garages, the farm shed and their residential housing. Residential subdivision could occur as a controlled activity (with a lot size of 1ha), and small-scale mining activities can also occur in the rural areas of the Barrytown flats with unrestricted lighting.
- [370] In other words, in terms of the risk posed by artificial lighting, the existing environment is by no means risk-free.
- [371] Dr Bramley has prepared an Avian Management Plan (AMP) that addresses a range of relevant matters. The AMP will be subject to certification from the GDC. The AMP contains a procedure to address interactions¹¹⁸ (which include a sighting) with Westland Petrel on site. The occurrence of one interaction (which includes a sighting or interaction on a wildlife camera¹¹⁹) will prompt a review of the AMP. Two interactions within four weeks of each other, or a grounding, will result in mining operations being suspended at the site during the hours of darkness until the AMP has been reviewed and any actions necessary to protect Westland Petrel incorporated into the mining operations¹²⁰. Dr Bramley also advised that the Applicant will seek a Wildlife Act Authority (or Wildlife Permit) so that it can rescue any Westland Petrel birds that happen to ground in the mine site and convey those birds to the Department of Conservation.
- [372] We find that to be a suitable cautionary approach.
- [373] The AMP also requires that between November and January each year, a weekly report setting out the number and nature of any Westland Petrel interactions at the Site is to be prepared by an ecologist and provided to the GDC, Te Runanga o Ngāti Waewae, Paparoa Wildlife Trust, the Community Liaison Group, West Coast Penguin Trust, and the Buller/Kawatiri Department of Conservation office in Westport. Between October and February, that report is to be provided monthly.

¹¹⁷ Paragraph 18.

¹¹⁸ An interaction is defined in the AMP as the presence of a bird or birds within close proximity to the mining infrastructure, including buildings, vehicles and plant where they are or could be put at risk

¹¹⁹ Wildlife cameras will be installed around the processing plant, access road and the lagoon to detect Westland Petrel (and Korora) should they be present on the Site.

¹²⁰ Supplementary Evidence Statement of Gary Bramley, 8 March 2024, paragraph 9.

- [374] In addition, an Annual Bird Management Report is to be prepared covering a wide range of matters, including the number, dates and location of any near misses or camera records of interactions with Westland Petrel, any grounded Westland Petrel, any birds found dead at the Site; the management undertaken and the outcome for any grounded and rescued Westland Petrel; and the autopsy outcomes for any dead Westland Petrel.
- [375] We are satisfied that the reporting requirements are comprehensive and appropriate.
- [376] Finally, some submitters suggested that the Applicant should be undertaking monitoring of the Westland Petrel breeding colony. We are not persuaded that this is necessary given that the Applicant has sought to avoid adverse effects on the Westland Petrel and given that the Department of Conservation already undertakes such monitoring. Importantly, we agree with Ms Booker that management and monitoring of the species is outside of the Applicant's control. Nevertheless, Dr Bramley advised that the Applicant proposes to address monitoring at the breeding colony via a programme of work developed to achieve the goals of the Memorandum of Understanding with Ngāti Waewae outside of the consent process¹²¹. We find that to be appropriate given that Westland Petrel is defined as a taonga in the Ngai Tahu Claims Settlement Act.

Finding

- [377] We are satisfied that potential adverse effects on the Westland Petrel will be avoided to the fullest extent that is rationally justified, allowing for uncertainties.

Little Blue Penguin

- [378] The Little Blue Penguin (*Endyptula minor* or kororā.) was also a bird of concern to submitters¹²².
- [379] The Little Blue Penguin occurs throughout New Zealand and is thought to have a large but declining population. Dr Bramley advised that during surveys of the Site, no Little Blue Penguin burrows or potential burrows had been detected within the MDA, but he acknowledged that Little Blue Penguins are present in low numbers in the Pakiroa and Barrytown beach area.

¹²¹ Supplementary Evidence Statement of Gary Neil Bramley, 8 March 2024, paragraph 18.

¹²² Including Inga Perkins, Michael Hill, Melissa McCluskie and Marie Elder.

- [380] Relevantly, Inger Perkins¹²³ considered it unlikely that burrows themselves would be disturbed by any mining activity and from the West Coast Penguin Trust's evidence to the hearing we understand that penguin burrows would not be found in areas actively grazed by cattle as any burrows would be collapsed by cattle trampling.
- [381] The main threats to Little Blue Penguins while on land are predators (including dogs, stoats, cats and rats), road mortality, habitat loss and human disturbance. Little Blue Penguins are active onshore at all times of the year, with the breeding season being the most active period. However, as the penguins are nocturnal when on land, the Applicant's proposals only to undertake mining and trucking during daylight hours and avoid shift changes during the hours of darkness will prevent the potential for road mortality and reduce the potential for disturbance at the mining site.
- [382] However, suitable nesting habitat for Little Blue Penguin is present between the adjacent beach and the MDA. It is also possible that Little Blue Penguin's might visit Canoe Creek Lagoon, or that they may cross the farm to habitats further inland, although we understand that is unlikely.
- [383] Consequently, the Applicant has proposed some mitigations relating to the Little Blue Penguin. In particular, the proposed consent conditions and the AMP provide for the following:
- (a) Annual monitoring of Pakiroa Beach, Canoe Creek Lagoon, Collins Creek, Canoe Creek, and suitable vegetation within 500 m of the MDA area using a conservation dog. The first survey is to be conducted at least 20 working days prior to mining commencing;
 - (b) Installing ten trail cameras along the coastal edge of the site between Canoe Creek and Deverys Creek Lagoon to detect penguins entering the coastal vegetation from the sea and surrounding areas. The footage will be reviewed by an independent ecologist, be retained for a period of six months and provided to Department of Conservation on request;
 - (c) Quarterly footprint surveys and searches for dead penguins;

¹²³ Manager of the West Coast Penguin Trust.

- (d) Maintaining any existing penguin access ways that are discovered between the adjacent beach and the MDA;
- (e) Establishing a ring of traps and/or bait stations targeting rats and mustelids around the perimeter of the site and Canoe Creek Lagoon prior to mining commencing;
- (f) The prohibition of dogs on site (except for conservation dogs used in the penguin surveys);
- (g) Replacement of any directly affected burrows with two artificial burrows/nest boxes placed in the vegetated coastal foreshore habitat associated with any identified accessways; and
- (h) The development of a specific Penguin Management Plan by a suitably qualified and experienced ecologist if Little Blue Penguin are subsequently found within the mine site.

[384] The Annual Bird Management Report discussed above will also address the Little Blue Penguin and the result of the above monitoring.

[385] If the pre-mining survey does detect penguins within 500 m of the MDA, but not within the MDA and provided no access tracks are detected beyond the coastal margin, a penguin fence will be erected along the length of the Canoe Creek Lagoon boundary, from Collins Creek to the northern boundary of the site, on the landward side of the riparian planting. This will preclude Little Blue Penguins from entering the mining area¹²⁴. The integrity of the fence is to be certified by a suitably qualified ecologist and the certification is to be provided to the GDC before mining commences.

[386] In light of the fact that no Little Blue Penguins have been discovered at the proposed mining site to date and it being common ground that they are unlikely to have burrows in the currently farmed MDA, we find the above measures to be a suitably cautionary mitigation approach.

¹²⁴ Some submitters including Fiona McDonald endorsed the benefits of penguin fences.

Finding

[387] On the evidence we are satisfied that potential adverse effects on the Little Blue Penguin (Kororā) are likely to be no more than minor at worst.

Natural hazards

[388] Submitters raised the issue of natural hazards, namely coastal erosion and inundation and flooding from adjacent surface water bodies. We address the risk to the mining void in the section of this decision that addresses the consents required from the WCRC.

[389] Evidence on coastal hazards was provided for the Applicant by Gary Tear. He noted that the coastal environment comprises a Mixed Sand Gravel Beach (MSGB) and its associated lagoon system behind a continuous gravel berm at the top of the beach, constituting a natural barrier to wave action and inundation. Mr Tear advised that these types of barrier beaches, in their natural state, were resilient coastal forms able to gradually shift landward in response to rising sea-level and wave action while retaining their integrity. Consequently, the existing protection from wave action for the hinterland behind the MSGB will continue, even as climate-induced Sea-Level Rise (SLR) accelerates.

[390] The conservatively estimated combined erosion rate due to the ongoing existing coastal erosion and SLR was estimated at 2 m/year. The MDA is around 250 m inland from the high-water tide mark on the beach with a 20 m setback from the edge of Canoe Creek Lagoon. Therefore, at the estimated conservative¹²⁵ rate of combined erosion, it would take in excess of 100 years for the sea to reach the MDA.

[391] Regarding coastal inundation, Mr Tear advised that the risk of inundation for the 2130 planning horizon applies to both the existing and reinstated topography. Land would be reinstated at or above the existing level at the relevant western end of the Site, so there would be no increased risk of coastal inundation.

[392] For completeness, we note that the mining operation cannot impact coastal processes because the MDA is well clear of the dynamic coastal area.¹²⁶

¹²⁵ The 2m/year estimate is for a more erodible sandy beach not a gravel beach.

¹²⁶ This issue was raised by several submitters.

[393] Mr Geddes advised that part of the site is subject to coastal hazard overlays¹²⁷ in the TTPP. However, only some water treatment ponds and mining panels (with no new buildings) are in the existing and draft TTPP Coastal Hazard Alert Areas. He did not consider those activities to be at risk from coastal hazards and observed that the TTPP only controls buildings in the Coastal Hazard Alert Area.¹²⁸

[394] Regarding the inundation of the mining void from surface water flooding from Collins Creek or Canoe Creek, we note that the land will be contoured or bunded to preclude overland flow traversing into the open mining void. Even if that did happen, the mining void would simply fill up with water which would then be pumped out.

Finding

[395] Based on the evidence, we find that the risks posed by natural hazards do not weigh against a grant of consent.

Contaminated land

[396] Mr Geddes advised¹²⁹ that while the WCRC identifies the entire Site as a contaminated site, the WCRC has clarified that they have updated their contaminated site register and confirmed the contamination is located on a neighbouring site. He noted a technical issue preventing the WCRC from updating their maps. Mr Geddes concluded on that basis that contaminated land is irrelevant to the Applicant's application. We accept that advice.

Pit wall stability

[397] As we have outlined earlier, the mining void (or mining pit) will be up to 9 m deep below the existing ground level and around 7 m deep when each panel is initially opened at the western end of the MDA. We therefore need to consider the stability of the resulting pit wall. The issue of potential concern is whether a collapse of the pit wall could lead to the displacement of the ground between the pit and adjacent surface water bodies such that those surface water bodies are breached and flow into the mining void.

¹²⁷ Coastal Alert Hazard and Coastal Setback. The Coastal Tsunami Hazard is located on the beach front of the Site well west of the application area.

¹²⁸ GDC Section 42A Report, paragraphs 176 to 177.

¹²⁹ GDC Section 42A Report, paragraph 174.

- [398] We acknowledge that there are also potential health and safety issues for the mine operators should a pit wall collapse. However, Mr Berry advised that the Applicant would comply with the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016, which includes identifying hazards and risk assessment and preparing principal hazard management plans. That being the case we do not assess that particular matter any further.
- [399] Evidence on pit wall stability was provided for the Applicant by Cameron Wylie. He considered¹³⁰ that the geotechnical aspects of the proposal were relatively simple, with topsoil and barren overburden overlying mineralised sands which overlay a basement stratum comprising dense sand and gravel. Mr Wylie noted that backfilling of the mining void would be continuous, with tailings being placed using hydraulic methods; followed by overburden and topsoil placed by earthworks machinery. Backfilling the pit with tailings and overburden would effectively buttress the advancing pit wall.
- [400] Mr Wylie undertook a stability analysis using generally accepted limit equilibrium methods which produce a Factor of Safety¹³¹ (FoS) against failure, and Finite Element Methods¹³² (FEM) which produce an estimate of the deformation in the ground behind the pit wall. He assessed the displacement that would be expected to occur during an earthquake¹³³ before the mining void was backfilled (or buttressed). For the seismic cases where the factor of safety (FoS) was less than < 1 FEM, the assessed ground displacement was less than 0.05 m at a distance of between 12 m to 20 m beyond the crest of the mining void. That level of displacement would not be visible to the naked eye. Mr Wylie concluded there was a very low likelihood that any surface water bodies would be impacted.¹³⁴
- [401] Once the mining voids was buttressed with tailings only (conservatively not allowing for the placing of overburden and top soil) the FoS improved and no ground deformation in the pit wall or ground displacement was expected.

¹³⁰ Summary Statement, Cameron Wylie.

¹³¹ The limit equilibrium FoS balances forces resisting failure against forces driving failure. A FoS=1 is a slope in balance. Typical acceptable FoS in NZ may range from < 1 under earthquake (short term, extreme conditions) to 1.5 for residential development.

¹³² Finite element methods provide an indication of how the slope may deform due to excavation.

¹³³ Earthquake loads comprising peak ground acceleration (pga) were been assessed in accordance with AS/NZS 1170:2016 Structural Design Actions and MBIE Earthquake Geotechnical Engineering Practice (Module 1; Nov 2021).

¹³⁴ SOE Wylie, paragraphs 29 to 37.

- [402] Mr Wyle considered the proposed infiltration trenches and infiltration bores would not adversely influence the pit wall stability because his modelling already assumed groundwater levels 1 m below the ground surface and the proposed infiltration mitigation would not significantly raise those levels.
- [403] He concluded that the risk of uncontrolled pit wall collapse was very low and remedial measures would be immediately available to rectify any collapse should it occur. He also noted that the Applicant's proposed conditions of consent included pit wall monitoring and additional investigations of in-situ ground conditions as Panels 1 to 4 were progressively mined and the resultant data would be used to confirm the geotechnical model used to assess the risks of pit wall collapse. Those updated assessments would be included in an annual geotechnical review.
- [404] Some submitters were concerned about the risk of a M8 earthquake arising from the Alpine Fault and the risk of coastal inundation.
- [405] Mr Wylie considered the risk of such an extreme earthquake occurring during the relatively short life of the mine was low¹³⁵, and if it did occur it would only result in the pit wall slumping into the mine void, with no significant toe run-out. In effect the wall would "sit down" into the pit. If this occurred when Panels 5 to 9 were just being opened, the indicative displacement at the 20 m boundary would reduce the ground level by around 0.25 m. That would cause the Canoe Creek lagoon to spill over into the mine void, but sediment entrainment out of the lagoon would not be expected as the gradient of the induced discharge channel would be too low.
- [406] That would result in short-term adverse effects for the fish and birds residing in the lagoon until it filled again, but similar effects can arise naturally now should the lagoon be breached by the sea during storm conditions (as has occurred in the past¹³⁶), with the subsequent dewatering of the lagoon.
- [407] Regarding coastal inundation or erosion reaching the mining void, as we discussed earlier, that is unlikely to occur.

¹³⁵ The likelihood of a M8 Alpine Fault earthquake impacting the Site within in any one-year period is 0.001%.

¹³⁶ At the time of our hearing the nearby Deverys Lagoon had recently been breached by the sea.

[408] We received a JWS¹³⁷ touching on the above matters dated 5 March 2024. The JWS confirmed that the proposed mining operation would result in the placement of processed tailings as backfill along the edge of any newly opened panel no later than six weeks following the commencement of excavation. Therefore, the period of pit wall exposure to potential deformation at any specific time was short. The JWS also confirmed that infiltration trenches were not inconsistent with the groundwater pressures applied in the slope stability assessments undertaken by Mr Wylie, meaning the proposed groundwater recharge system could be installed and managed in a manner consistent with the need to maintain pit wall stability.

[409] We received no qualified expert evidence that was contrary to the evidence of Mr Wylie and the contents of the JWS.

Finding

[410] On the evidence, we find that the issue of pit wall stability does not weigh against a grant of consent.

Tourism

[411] The potential effects of mining on tourism were a matter of concern for submitters. Specific issues raised by submitters include adverse effects on:

- a) The value of West Coast tourism and its marketing, particularly the branding of West Coast tourism as ‘Untamed Natural Wilderness’ and the NZ 100% pure NZ marketing branding.
- b) People using the Paparoa track from Blackball to Punakaiki and the Truman Track in the Paparoa National Park.
- c) The coast road (SH6) as an iconic coastal drive.
- d) The landscape as viewed from SH6.
- e) The significant government investment made in the Dolomite Point redevelopment at Punakaiki.
- f) Accommodation businesses by increased traffic and noise.
- g) Effects on the wagon tour business that uses the Barrytown beach.¹³⁸

¹³⁷ Joint Witness Statement – Hydraulic Factors Influencing Geotechnical Assessment. Jens Rekker, Cam Wylie and GDC/WCRC peer review expert Brett Sinclair.

¹³⁸ Grey District Council, Officer’s Report, paragraph 122.

- [412] Lee Harris for CRRG raised concerns over the effects of the mining operation on nature-based tourism, visitor accommodation between Rapahoe and Punakaiki, and on tourism employees “jumping ship” to work for the TiGa operation. Mr Harris highlighted at the hearing the visual impact of mining, effects of truck haulage on visitor accommodation near SH6, and potential effects on road safety for tourists. Overall, Mr Harris was of the opinion that the mining operation would have a net detrimental effect on the tourism economy of the West Coast.
- [413] Mr Volk for CRRG, drawing on his experience in managing tourism related business on the West Coast, expressed concern over the effects of the mining operation on Central Government investment in tourism infrastructure including the Dolomite Point Visitor Centre and on the Untamed Natural Wilderness brand. A northern HMC haulage route and the potential safety risk of increased truck movements past Dolomite Point and through Punakaiki was a focus of concern. However, with TiGa’s decision to haul the HMC south towards Greymouth, that is no longer a relevant concern.
- [414] Sophia Allan owns and operates Golden Sands Horse and Wagon Tours on Pakiroa Beach. The business relies on the natural and quiet environment of the lagoons and beach front directly adjacent to the proposed mine site, and on the low volume of heavy vehicles on the road as they travel up the Main Road and then down Burkes Rd to the Beach.
- [415] Development West Coast (DWC) in its role as the Economic Development Agency and Regional Tourism Organisation for the West Coast submitted in support of the application. DWC saw no adverse impact on the visitor experience or the reputation of the region from the mining operation. Heath Milne for DWC, in response to questions from the Panel, discussed the success of the Untamed Natural Wilderness brand in promoting the West Coast, and the evolution of the brand to encompass cultural heritage and history, including mining history.
- [416] The economic evidence of Mr Ballingall for TiGa concluded that the mining works would not have a material impact on the decisions of domestic and international tourists to visit the West Coast and that a drop in tourism activity of a scale that could be attributed to the proposed mining operation is highly unlikely.¹³⁹ Mr Ballingall’s opinion on the economic

¹³⁹ TiGa, Attachment R: Economic Assessment by Sense Partners, paragraph 26; and EIC of John Ballingall, paragraph 72.

effects of tourism were informed by Mrs Crawford's evidence on the effects of the mining operation on landscape character and visual effects.¹⁴⁰

[417] Mr Ballingall concluded that the mining operation is unlikely to draw workers away from the tourism sector, as mining jobs are largely specialised and require specific skills.¹⁴¹ Mr Heath in his economic peer review for GDC concurred that any impact on tourism is likely to be minor and significantly outweighed by the economic contributions of the proposed mining operation.¹⁴²

[418] Mrs Crawford assessed the visual effects of the mining operation from a range of public viewpoints. The visual effects of mining from public viewpoints will vary depending on the location of mining and distance from the site. Mrs Crawford concluded that the Proposal will have a low adverse (less than minor) visual effect on the users of SH6 and the Pakiroa Beach foreshore. For users of SH6 views are for a short duration and seen at speed (in a 100 km/hr zone).¹⁴³ The establishment of a bund on the frontage of SH6 with mitigation planting and the central stockpile bund will progressively screen mining activity from view.¹⁴⁴ The views towards the site from Pakiroa Beach vary but are greatest from the boulder bank at the south-western coastal edge of the site. Wetland and coastal mitigation planting will reduce the visual effects of mining activity.¹⁴⁵

[419] The visual effects of the Proposal for walkers on the Paparoa Track was raised by submitters. The site is a minimum distance of 8.4 km from the Paparoa Track with the coastal plain being part of the overall view. Mrs Crawford concludes that the Site and mining activity will be difficult to discern at that distance.¹⁴⁶

[420] We concur with Ms McKenzie and Mr Ballingall that the mining operation will not have a material impact on tourism. The site is located on a coastal highway that extends for approximately 102 km from Greymouth to Westport and the mining operation will be screened from SH6 by bunds and mitigation planting. The selection of the southern haulage route ensures that there are no effects on tourism infrastructure and visitor

¹⁴⁰ John Ballingall, Rebuttal of Layperson Evidence, paragraph 22.

¹⁴¹ John Ballingall, Rebuttal of Layperson Evidence, paragraph 26.

¹⁴² Property Economics, Economic Assessment Peer Review, p 7.

¹⁴³ TiGa Attachment N: Landscape Assessment, Section 10.2.

¹⁴⁴ TiGa Attachment N: Landscape Assessment, Section 10.2.

¹⁴⁵ TiGa Attachment N: Landscape Assessment, Section 10.2.

¹⁴⁶ TiGa Attachment N: Landscape Assessment, Section 10.2.

accommodation to the north of the site. The visual effects of mining when viewed from Pakiroa Beach will be reduced by planting along the coastal lagoon frontage and the open coast.

[421] We accept Mr Ballingall's assessment that the mining operation will not draw workers away from the tourism sector.

Finding

[422] We find that potential adverse effects on tourism will be no more than minor.

Economic benefits

[423] The Panel must be satisfied under NES-FW, Regulation 45D(6)(a) that the extraction of minerals proposed by the application will provide significant national or regional benefits.

[424] TiGa provided evidence from Mr Ballingall, an economist with Sense Partners Limited. Mr Ballingall prepared his evidence to assess whether Regulation 45D(6)(a) was met. He concluded the requirement was met under his economic assessment. In approaching that question, he considered the contribution that the Proposal would make to the following metrics:

- (a) Contribution to regional exports.
- (b) Contribution to regional GDP.
- (c) Contribution to spending on intermediate inputs.
- (d) Contribution to national taxes and royalties.
- (e) Regional Employment effects.
- (f) Contribution to regional wages and incomes.

[425] Mr Ballingall also made an opportunity cost assessment to provide a net economic assessment. He assessed the Proposal as an alternative to productive land use for a 10–12-year period. Unsurprisingly, the economic contribution to the West Coast region from the Proposal far outweighs the opportunity cost from lost primary production within the Site.

- [426] Mr Ballingall made an economic assessment of the likely impact of the activity on tourism as we noted in the previous section of this decision.
- [427] International tourism is attracted to the West Coast for various reasons, including its ‘wild nature’ qualities. It is difficult to predict the behaviour of tourists in response to individual projects. Our working assumption is that unless the activity materially alters the natural experiential qualities of the region generally (or even in Barrytown), then any effects on tourism are speculative. Our analysis of effects demonstrates that these experiential impacts are unlikely to be compromised by the Proposal. Adverse perceptions of mining as an activity by international visitors seemed speculative and irrelevant. Accordingly, we do not see this mining proposal as diminishing international tourism.
- [428] Mr Milne for the West Coast Economic Development Agency called “Development West Coast” did not consider the Proposal would impact international tourism.
- [429] A summary of Mr Ballingall’s conclusions on the benefits is set out below.
- (a) Export revenue of \$63.0 million per year once fully operational or \$274.4 million over the 5 years of establishment and operations of the mine under the current resource consent application.
 - (b) This would boost the Grey District’s exports by around 37.8% per year and the West Coast region’s exports by around 7.1%.
 - (c) Directly generating around \$33.7 million of additional GDP per year once fully operational, or around \$146.1 million over the life of the mine.
 - (d) This would lift the Grey District’s GDP by 3.8% and the West Coast region’s GDP by 1.5%.
 - (e) Spending on goods and services as inputs to production of around \$27.4 million per year, much of which will go to local businesses.
 - (f) Direct employment of 57 full time equivalent jobs, and a further 80 indirect jobs supported elsewhere in the economy. This would see employment in the Grey District increase by 2.0% and employment in the West Coast region rise by 0.9%.

- (g) The 57 new direct jobs will generate \$6.6 million per year of additional wages in the region, at an average of around \$116,000 per job compared to the regional median wage of \$53,730.
- (h) Government royalties, business tax and employees' income taxes of around \$33.0 million over the mine's lifetime.
- (i) Mr Ballingall's economic assessment was peer-reviewed by the Council's expert, Mr Heath from Property Economics. His conclusions largely align with those of Mr Ballingall.

[430] Mr Milne from Development West Coast gave a PowerPoint presentation to the Panel. He presented as a compelling witness with a deep understanding of the West Coast community and the economic interactions and impacts of various activities in the region. He produced graphs of the impact of mining in the Barrytown area that demonstrated economic lifts and drops directly correlated to historical mining activity in the Grey District. Development West Coast supports the opportunity to obtain high-value jobs and economic diversification from new mining activities such as those provided by the Proposal.

[431] Jill Bradley lives on Coast Road south of Motukiekie Beach and has an enduring interest in the natural environment of the West Coast. Ms Bradley has many qualifications, some related to teaching and has had a varied career. Ms Bradley provided a detailed assessment of the deficiencies of TiGa's economic analysis as a layperson, assisted by consultation with expert economists we did not hear from. The central thesis of her evidence is that the potential benefits from employment are unverified assertions by the Applicant that feed into the economists' assumptions. Further, the analysis fails to consider opportunity and social costs, which a proper Treasury-based analysis would require. The latter criticism arises because Ms Bradley contended that the economic report supporting the Proposal claimed to rely on a Treasury cost-benefit analysis. In addition, Ms Bradley argued that the West Coast economy was robust and that any diversion of employment when a region is in a full employment state is not an economic benefit.

[432] Mr Colin Robertson, a submitter in opposition to the application, made similar arguments and an argument about foreign ownership of TiGa. While an economist, Mr Robertson

presented his evidence as a lay witness and hence did not take upon himself the obligations of the Code for Expert Witnesses.

[433] A resource consent application can cause both negative and positive effects. These are often referred to as beneficial and negative externalities. The Panel considers that Regulation 45D(6)(a) requires the Panel to consider whether the beneficial externalities of the Proposal are significant at either a national or regional scale. These benefits are not confined to economic benefits and, for large-scale projects, can include transportation efficiencies from extensive transport infrastructure and other social benefits. In this case, the beneficial externalities are primarily economic and economic-related social consequences that arise from the Proposal.

[434] We accept that mining is an unwelcome intrusion for many people in Barrytown and that environmental and social costs are associated with the activity. However, in assessing benefits, we do not consider those matters to determine whether Regulation 45D(6)(a) is met. Instead, these are evaluated as part of the broader effects assessment under RMA, s 104.

[435] We agree with Mr Ballingall and Mr Heath that the Proposal will provide significant regional benefits to the West Coast.

Finding

[436] We find that the Proposal has significant regional benefits for the West Coast region.

Site rehabilitation

[437] It is intended that the Site will be used for farming once mining activities are completed. Mr Miller outlined the proposed rehabilitation process, the details of which will be contained in a Rehabilitation Management Plan. He advised that the final landform and land use has been discussed and agreed with the farm owner. The outcome will be a final landform having a similar contour and profile (“humping and hollowing”) to that which existed prior to mining.

[438] In order to minimise the active mining area, the Applicant has proposed to undertake progressive rehabilitation as part of the short-term mining cycle, as opposed to rehabilitating the entire Site at the end of the project. This will involve the sequential

placement of mine tailings and waste from the WCP behind the active mining area, followed by the replacement of overburden and the spreading of topsoil stripped from in front of the mining path directly over the shaped area. The topsoil will be immediately sown in rye grass, returning the land to pasture. This progressive approach will maintain a maximum mine pit area of 3.5ha.

- [439] Weed control, fertilisation and land management will occur on the rehabilitated pasture.
- [440] Topsoil, overburden and mineralised sand from the initial mining void (Panel 1) and the water treatment ponds will be stockpiled and used in the eastern bund and ore stockpiles. These stockpiles and bunds will be capped with topsoil and temporarily rehabilitated with rye grass and straw before being recovered and processed at the end of mining. The final mine closure works will involve rehabilitation of the clean and dirty water ponds, followed by progressive work along the eastern edge of the MDA to marry up existing land contours with the post mine area contours.
- [441] Once mining ceases, the WCP processing plant and all associated equipment will be decommissioned and removed from the site, except for the HMC storage shed that will be used for farming. The constructed wetland in Pond 4 in the northwest of the site will also be retained. That constructed wetland will be protected in perpetuity by a covenant in favour of GDC, which is to be registered on the Titles for the Site¹⁴⁷. The area that that covenant will cover is shown on the Planting Covenant Area Plan that forms Schedule 6 to the offered conditions. We find that to be appropriate.
- [442] If the mine ceases operations for any reason for a period of more than 3 months, all disturbed areas will be rehabilitated within 6 months of that cessation.

Finding

- [443] We are satisfied that the site will be appropriately rehabilitated in a progressive manner as mining is carried out over the site.

Bond

- [444] It is relatively routine for a bond to be imposed on a consent holder for large-scale projects of this nature. The Applicant has offered a bond in favour of the WCRC and GDC jointly

¹⁴⁷ Condition 19.11.

“to secure compliance by the Consent Holder with all the conditions of these consents, including the completion of all final mine closure activities required by these consents and to avoid, remedy or mitigate any adverse effects on the environment arising as a result of the exercise of these consents.”

[445] We understand why a bond is necessary to deal with site remediation if the consent holder should abandon the site for any reason prior to the final mine closure occurring. However, at our 20 March 2024 hearing, we queried how a bond could “secure compliance by the Consent Holder with all the conditions of these consents” given that those conditions included matters such as monitoring and reporting, which if not undertaken, would be subject to normal enforcement responses available to the councils under the RMA.

[446] In Reply Ms Booker advised that the offered bond conditions had been amended to remove reference to conditions of consent and focus on closure activities which was the purpose of requiring the bond. We find that to be appropriate.

Finding

[447] We are satisfied that a bond is appropriate and also with the final wording of conditions 4.1 to 4.13 offered by Ms Booker in Reply, subject to some minor clarifying amendments.

Overall findings on effects

[448] Our overall finding on effects is that subject to the imposition of robust conditions of consent, the potential adverse effects of the proposal are likely to be no more than minor and any residual adverse effects do not weigh against a grant of consent.

National Environment Standards and other regulations

[449] We discuss relevant national environment standards and other regulations pertaining to the consents required from the WCRC in the section of this decision that addresses the consents required from the WCRC. Mr Geddes advised that the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 does not apply as the site is not listed as a HAIL site. We heard no evidence to the contrary.

National Policy Statements

[450] In the section of this decision that addresses the consents required from the WCRC, we discuss the National Policy Statement for Freshwater Management 2020 (NPSFM). The other national policy statements that are relevant to our consideration of the Applicant's proposal are:

- (a) National Policy Statement for Indigenous Biodiversity 2023.
- (b) New Zealand Coastal Policy Statement 2012.

National Policy Statement for Indigenous Biodiversity 2023

[451] The National Policy Statement for Indigenous Biodiversity 2023 (*NPS-IB*) came into effect on 7 July 2023.

[452] The objective of the NPS-IB is to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity. The NPS-IB sets out 17 Policies, of which eight are ecological matters relevant to the Applicant's proposal (Policies 3, 4, 6 - 8 and 13 - 15). The evidence of Dr Bramley provides a comprehensive assessment of the proposal against the policies of the NPS-IB.

[453] CRRG argued that the precautionary principle (Policy 3) applied to potential effects on all indigenous biodiversity. We do not consider that a 'precautionary approach' is warranted because the potential adverse effects of the proposal are neither little understood nor significantly adverse. The evidence is that the proposed hydrological and ecological mitigation will protect the full range and extent of ecosystems and habitats used or occupied by indigenous biodiversity.

[454] The management of indigenous biodiversity to promote resilience to the effects of climate change is addressed by Policy 4. The evidence of Dr Bramley is that the revegetation of the constructed wetland around the clean water ponds, and riparian planting of sections of Collins Creek and the Northern Drain, will increase the extent and integrity of indigenous communities and improve ecological resilience to climate change.

[455] The NPS-IB requires the identification and protection of significant indigenous vegetation and habitats of indigenous fauna and the maintenance of indigenous biodiversity outside

of significant natural areas (Policies 6 – 8). The proposed Te Tai o Poutini Plan (TTTP) identifies the Deverys coastal lagoon north-west of the site as a Significant Natural Area (SNA ‘PUN-W034’).¹⁴⁸ The evidence is that the proposed hydrological and ecological mitigation including wetland planting around the clean-water ponds following cessation of mining will protect the indigenous biodiversity of PUN-W034 and maintain indigenous biodiversity outside this SNA.

[456] Policies 13 and 14 promote the restoration of indigenous biodiversity and increased indigenous vegetation cover. The ecological and landscape evidence demonstrates that the Applicant’s Proposal protects and restores indigenous vegetation and habitats of indigenous fauna within the Northern Drain, Collins Creek, and Canoe Creek Lagoon. Following cessation of mining there will be further restoration of indigenous vegetation and habitat for indigenous fauna around the clean-water ponds secured by covenant.

[457] Policy 15 requires the identification and management of areas outside SNAs that support specified highly mobile fauna to maintain their populations across their natural range. Overall, Dr Bramley was of the opinion that any adverse effects on threatened or at-risk bird species using Canoe Creek Lagoon, Rusty Pond and surrounding vegetation, or making use of the pasture and bare soil within the MDA, can be managed so that they were either avoided, or were very low.

[458] We find that having regard to the objective and policies of the NPS-IB does not weigh against a grant of consent.

New Zealand Coastal Policy Statement 2010

[459] The New Zealand Coastal Policy Statement 2010 is relevant because at least part of the MDA resides within the coastal environment.¹⁴⁹

[460] We consider that the proposal is consistent with the objectives of the NZCPS that are relevant to the consents required from the GDC. The proposal sustains the ecosystems

¹⁴⁸ Site PUN-W034 is described in Schedule 4 of the TTTP as “Punakaiki Lagoon and Coastal Wetland sequence. A lagoon and series of small lakes bordered by flax wetlands and coastal forest. Significant vegetation and ecosystem sequence.

¹⁴⁹ Paragraph 4.4 of the AEE states that the site is within the Coastal Environment overlay contained in the proposed Te Tai o Poutini Plan.

of the coastal environment (Objective 1), preserves natural character and landscape values (Objective 2), and Te Rūnanga o Ngāti Waewae support the proposal (Objective 3).

[461] Submitters raised the issue of natural hazards, namely coastal erosion and inundation and flooding from adjacent surface water bodies. On the evidence provided for the Applicant by Mr Tear we find that the risks posed by natural hazards are managed (Objective 5).

[462] Overall, we conclude that the protection of the values of the coastal environment does not preclude the Applicant's Proposal. In our opinion, the constraints and characteristics influencing TiGa's mine design to achieve a viable mining operation create a "functional need" to operate within the coastal environment (Objective 6).

[463] Turning to the NZCPS policies, Te Rūnanga o Ngāti Waewae support the proposal (Policy 2). We do not consider that a 'precautionary approach' is warranted because the potential adverse effects of the proposal are neither little understood nor significantly adverse (Policy 3).

[464] The Proposal will yield significant regional economic benefits and the MDA is well set back from the coastal marine area and other water bodies (Policy 6). The evidence is that the proposed hydrological and ecological mitigation will protect the indigenous biodiversity of the potentially affected water bodies (Policy 11). The natural character and landscape attributes of the surface water bodies will be enhanced (or restored) by the proposed wetland and riparian planting (Policies 13, 14 and 15).

[465] We find that having regard to the objectives and policies of the NZCPS does not weigh against a grant of consent.

Regional Policy Statement

[466] The West Coast Regional Policy Statement (*RPS*) was made operative in July 2020. It has not been updated to give effect to the NPS-IB and Mr Geddes informed us there is no Proposed RPS.

[467] The West Coast Regional Policy Statement (*WCRPS*) was addressed by Ms McKenzie and Mr Geddes.

- [468] In terms of the WCRPS objectives, we agree with Ms McKenzie that the WCRPS seeks to provide for resilient and sustainable communities (Objective 4.1), enable economic use and employment opportunities in a sustainable manner (Objective 4.2), and recognises the contribution of resource use to the local economy (Objective 5.1). We also agree that the objectives of the WCRPS demonstrate an overarching intent to enable activities, provided that the adverse effects of the activities are avoided, remedied, or mitigated. In that regard we find that the proposal is consistent with that intent.
- [469] Dr Bramley assessed the WCRPS in relation to the objectives and policies of Section 7 Ecosystems and Indigenous Biological Diversity. We agree with Dr Bramley that the proposal is consistent with Objectives 7.1-7.4 that promote the identification and protection of areas of significant indigenous vegetation and habitats of indigenous fauna, sustainable development in significant natural areas, and the maintenance of the region's terrestrial and freshwater indigenous biodiversity. Dr Bramley confirmed that the Proposal has been designed in a way that does not give rise to the effects identified in Policy 7.2, the effects management hierarchy has been applied to the activity (Policy 7.3), and the Proposal maintains indigenous biological diversity, ecosystems, and habitats (Policy 7.8).
- [470] Objective 7A.1 and Policy 7A.2 promote the protection of the natural character of the region's wetlands, rivers and their margins, and Objective 9.1 seeks to preserve the natural character of the coastal environment. Mrs Crawford confirmed that the proposed mitigation and rehabilitation measures protect the natural character of the wetlands, water bodies and their margins on the Site. Mrs Crawford and Mr Girvan agreed that the effects of the Applicant's proposal on the natural character of the coastal environment are not significant, and in the long term, following project completion, there is potential for beneficial effects on natural character.
- [471] Dr Bramley confirmed that the Proposal is consistent with Objective 9.1 and Policy 9.1 which require the protection of indigenous biodiversity within the coastal environment. Objective 9.2 and Policy 9.3 provide for development in the coastal environment which has a technical, functional, or operational requirement to be located within the coastal environment. In our opinion, the constraints and characteristics influencing TiGa's mine design to achieve a viable mining operation create a "functional need" to operate within the coastal environment.

[472] We find that having regard to the objectives and policies of the WCRPS does not weigh against a grant of consent.

Regional Coastal Plan

[473] The TiGa mine site is not located in the CMA but is located in the coastal environment. Mr Geddes advised that the RCP was approved in 2000 and has not been updated to give effect to the NZCPS. He considered it to be out of date and recommended that little weight should be given to its provisions. We agree.

[474] Mr Geddes also advised that a PRCP was notified in 2016, but it was put on hold in 2020 and has not progressed to hearings. We consequently afford little weight to that document.

The Grey District Plan

[475] The Grey District Plan (GDP) was made operative in February 2005 and remains the operative district plan for the Grey District. The Site is located within the Rural Environmental Area as defined by the GDP and mining is classified as a Non-Rural Activity.

[476] The GDP was addressed by Ms McKenzie and Mr Geddes. Ms McKenzie advised us that the GDP has an enabling policy framework that seeks to provide for activities subject to avoiding, remedying, or mitigating the adverse effects of such activities.

[477] The Rural Environmental Area covers every part of the Grey District outside of the townships. The objectives and policies of the Rural Environmental Area seek to manage resources in the rural environment in a manner that enables people and communities to carry out a variety of activities while ensuring that the resource base is sustainable for future generations, maintaining the life supporting capacity and healthy functioning of ecosystems, and retaining the character of the rural environment.

[478] Ms McKenzie and Mr Geddes concluded that the proposal is generally consistent with the objectives and policies of the GDP, with differences of opinion between the experts on objectives and policies that provide for indigenous vegetation and fauna, the natural character of the coastal environment and cyclist and pedestrian safety.

[479] Objective 5.3.1 and Policies 5.4.3 and 5.4.4 seek to protect and enhance areas of significant indigenous vegetation and habitats of indigenous fauna. In that regard, we concur with Ms McKenzie that the hydrological and ecological evidence demonstrates that the Applicant's Proposal protects and enhances indigenous vegetation and habitats of indigenous fauna within the Northern Drain, Collins Creek, and Canoe Creek Lagoon and protects in part the limited indigenous vegetation that exists within the Site. Following cessation of mining there will be further enhancement of indigenous vegetation and habitat for indigenous fauna around the clean-water ponds secured by covenant.

[480] Objective 7.3 and Policy 7.3 seek to preserve the natural character of the coastal environment and to protect unmodified areas from the adverse effects of development. Mrs Crawford and Mr Girvan agree that the effects of the Applicant's Proposal on the natural character of the coastal environment are not significant, and in the long term, following project completion, there is potential for beneficial effects on natural character.

[481] Objective 12.3 and Policy 12.4.1 promote the safe and efficient operation of transport infrastructure in a manner that avoids adverse effects, including adverse effects on vehicle and pedestrian safety. Mr Fuller has assessed the effects of the Applicant's proposal and concludes overall that there are no more than minor effects on pedestrian and cyclist safety. The Panel is satisfied that the combination of proposed consent conditions and the implementation of the TMP will reduce the level of additional risk posed by the Applicant's maximum five additional truck movements per hour to the extent practicable for pedestrians and cyclists who choose to venture onto SH6.

[482] We find that having regard to the objectives and policies of the GDP does not weigh against a grant of consent.

Te Tai o Poutini Plan

[483] The proposed Te Tai o Poutini Plan (*TTPP*) was notified in July 2022. The TTPP is the combined Proposed District Plan for the Buller, Grey and Westland District Councils.

[484] The entirety of the site is located in the TTPP's Special Purpose: Mineral Extraction Zone (MINZ). The site is also subject to the following overlays:

- a) Coastal Environment

- b) Pounamu Management overlays
- c) Coastal Tsunami Hazard (on the site, but west of the application area)
- d) Coastal Hazard Alert
- e) Coastal Setback

[485] An assessment of the Proposal for consistency with the objectives and policies of the TTPP was included with the application (Attachment V).

[486] The Mineral Extraction Strategic Objectives (MIN-01, MIN-02, MIN-06) provide for the use, development, and extraction of mineral resources, while minimising the adverse effects of mineral extraction on Poutini Ngāi Tahu cultural resources and taonga; areas of significant indigenous vegetation, significant indigenous fauna habitat and protected native fauna; waterways and waterbodies; the coastal environment; and the wellbeing of people and communities. We find that the extraction of HMC is enabled within the Mineral Extraction Zone.

[487] The Natural Environment Strategic Objectives (NENV-01, NENV-02, NENV-04) recognise and protect natural character, landscapes and features, ecosystems, and indigenous biodiversity, ensure that the rights, interests, and values of Poutini Ngāi Tahu to natural environment areas and features are protected, and identify areas where development can be sustainably managed. The landscape and ecological evidence propose mitigation measures to protect natural character, landscapes, ecosystems, and indigenous biodiversity, Te Rūnanga o Ngāti Waewae support the proposal, and the Site is identified as an area where mineral extraction can be sustainably managed.

[488] The Poutini Ngāi Tahu Strategic Objectives (POU-02 and POU 04) supports the exercise of cultural rights, interests and kaitiakitanga, and recognises the special relationship of Poutini Ngāi Tahu with te taiao, taonga and wāhi tapu. The Poutini Ngāi Tahu Strategic Policies (POU-P7, POU-P8, and POU-P9) provide for the active participation by Poutini Ngāi Tahu in the sustainable management of West Coast/Te Tai o Poutini resources and recognises their role as kaitiaki and specialists in tikanga. Poutini Ngāi Tahu are best placed to convey their relationship with their ancestral lands, water, sites, wāhi tapu and other taonga. Te Rūnanga o Ngāti Waewae support the Proposal.

- [489] The Transport Objectives (TRN-01, TRN-03, TRN-05) and Policies (TRN-P1 - TRN-P4, TRN-P9) recognise and provide for the role land transport infrastructure plays in supporting communities; enables the accessibility, safety and connectivity of land transport infrastructure and considers the amenity of all transport users, including pedestrians and cyclists; and ensures the provision of safe and efficient parking, loading, and access. The Applicant's Integrated Transport Assessment confirms that the effects on the region's transport network are less than minor, and adverse effects have been avoided through the creation of an upgraded access, provision for on-site parking and consent conditions managing the peak vehicle movement rates for heavy vehicles. The Panel is satisfied that the combination of proposed consent conditions and the implementation of the TMP will reduce the level of additional risk posed by the Applicant's maximum five additional truck movements per hour to the extent practicable for pedestrians and cyclists who choose to venture onto SH6.
- [490] The Natural Hazard Objectives (NH-02, NH-04 - NH-05) and Policies (NH-P1, NH-P2 – NH-P4, NH-P12) seek to reduce the risk to life, property, and the environment from natural hazards, recognise and protect natural features that minimise the impacts of hazards including wetlands and dunes, and to recognise and provide for the effects of climate change and its influence on the frequency and severity of natural hazards. Submitters raised the issue of natural hazards, namely coastal erosion and inundation and flooding from adjacent surface water bodies. On the evidence provided for the Applicant by Mr Tear we find that the risks posed by natural hazards are managed appropriately.
- [491] The Ecosystems and Indigenous Biodiversity Objectives (ECO-01, ECO-02, ECO-04) and Policies (ECO-P2, ECO-P6 - ECO-P8, ECO-P10) seek to identify and protect areas of significant indigenous vegetation and habitats of indigenous fauna, provide for appropriate development within areas of significant indigenous vegetation and habitats of indigenous fauna where the values of the area can be maintained or enhanced, and to maintain the range and diversity of ecosystems and indigenous species. We concur with Ms McKenzie that the hydrological and ecological evidence demonstrates that the Applicant's Proposal protects and enhances indigenous vegetation and habitats of indigenous fauna within the Northern Drain, Collins Creek, and Canoe Creek Lagoon. Following cessation of mining there will be further enhancement of indigenous vegetation and habitat for indigenous fauna around the clean-water ponds secured by a covenant.

- [492] The Natural Character and Margins of Waterbodies Objectives (NC-01 – NC03) and Policies (NC-P1 – NCP4) seek to preserve the natural character of rivers and wetlands and their margins, recognise and provide for the relationship of Poutini Ngāi Tahu and their traditions, values and interests, and to provide for activities which have a functional need to locate in the margins of rivers and wetlands. The landscape and ecological evidence propose mitigation measures to protect the natural character of rivers, wetlands and their margins, Te Rūnanga o Ngāti Waewae support the proposal, and there is a functional need for the location of the mining operation.
- [493] The Coastal Environment Objectives (CE-01 – CE03) and Policy CE-P2 seek to preserve the natural character, landscapes, and biodiversity of the coastal environment, recognise and provide for the relationship of Poutini Ngāi Tahu and their traditions, values and interests and enable the exercise of tino rangatiratanga and kaitiakitanga, and to provide for activities which have a functional need to locate in the coastal environment. The landscape and ecological evidence propose mitigation measures to protect natural character, landscapes and biodiversity, Te Rūnanga o Ngāti Waewae support the Proposal, and there is a functional need for the location of the mining operation in the coastal environment.
- [494] The Earthworks Objective EW-01 and Policies EW-P2 and EW-P3 provide for earthworks to facilitate development while ensuring that their adverse effects on the surrounding environment are avoided or mitigated. As with any proposal that involves large scale earthworks, it is necessary to employ mitigation measures intended to avoid, or at least minimise, erosion in and around the earthwork areas. Mr Ridely prepared an Erosion and Sediment Control Plan (ESCP) that addresses both the construction and operational stages of the Applicant's Proposal. We have reviewed that document and find it to be comprehensive, appropriate, and consistent with other ESCP's that we have viewed for other projects involving significant earthworks.
- [495] The Light Objectives (LIGHT 01- 02) and Policies (LIGHT P1- P3) provide for outdoor lighting while minimising potential adverse effects on the health and safety of people, the safe operation of the transport network, views of the night sky, the habitats and ecosystems of nocturnal native fauna and the species themselves. The Applicant has acknowledged the risk that artificial lights at the mine site could pose to the Westland Petrel. They have

consequently developed a lighting plan intended to avoid the adverse effects of artificial lighting on the Westland Petrel.

[496] The Noise Objectives (NOISE-01, NOISE-03) and Policies (NOISE P1, NOISE P4) seek to protect the health and well-being of people and communities from significant levels of noise. The proposed mining activity will produce construction and operational noise. This was understandably a matter of concern to submitters, especially those who reside close to the site or to SH6. Evidence on noise was provided for the Applicant by Mr Farren. The Applicant has offered to prepare a Noise Management Plan (NMP) to be certified by the GDC, which we find to be appropriate and routine for proposal of this magnitude.

[497] We find that having regard to the objectives and policies of the TTPP does not weigh against a grant of consent.

Section 104(1)(c) other matters

[498] Relevant to the consents required from the GDC, no relevant other matters were brought to our attention.

Part 2 matters

[499] We are aware of the case law which outlines that if the lower order statutory instruments appropriately deal with Part 2 matters, then no further assessment of Part 2 matters is required. Consequently, it is arguable that there is no need to separately assess RMA Part 2 matters in light of our previous assessment of the statutory instruments. However, we do so now in a reasonably concise manner for the sake of completeness.

[500] We are satisfied that the Applicant's proposed landscape and riparian planting, buffer areas (including a 100 m buffer from Canoe Creek lagoon during the August to December bird breeding season) will preserve the natural character of the MDA residing within the coastal environment, including the margins of Canoe Creek Lagoon, Collins and Canoe Creeks. Those mitigation measures will also protect those natural resources from inappropriate use and development (s6(a)). While the Te Tai o Poutini Plan establishes a SNA to the north of the site, there are no outstanding natural features or landscapes within the site (s6(b)). The proposed riparian planting and buffer zones will protect any significant habitat of indigenous avifauna in Canoe Creek Lagoon. We note no significant indigenous vegetation areas within the site (s6(c)). The proposal will not affect public access to and along the

coastal marine area or Canoe Creek¹⁵⁰ (s6d). The support of Te Rūnanga o Ngāti Waewae for the proposal satisfies us that the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga has been recognised and provided for (s6(e)). There is no historic heritage or protected customary rights affected by the proposal (ss6(f) and (g)). We are satisfied that the significant risks of significant natural hazards (earthquakes and coastal inundation) can be suitably managed should those hazards impact on the operational mining pit (s6(h)).

[501] The support of Te Rūnanga o Ngāti Waewae for the proposal satisfies us that kaitiakitanga and the ethic of stewardship have had particular regard to (ss7(a) and (aa)). The mining of the mineral sands and the production of HMC represents an efficient use of that natural resource (s7(b)) and the efficient end use of energy (electrical power) (s7(ba)). The site to be mined has little, if any, amenity value. We are satisfied that the proposed landscape and riparian planting, together with compliance with GDP noise limits and the avoidance of nuisance off-site dust emissions, will maintain amenity values for adjoining properties. The proposed planting and the eventual use in perpetuity of the Clean Water Facility as a wetland will enhance the amenity values of the site (s7(d)). The Applicant's proposed riparian planting, buffer areas (including a 100 m buffer from Canoe Creek lagoon during the August to December bird breeding season) has appropriate regard to the intrinsic values of those ecosystems (s7(d)) and will maintain and enhance the quality of those environments (s7(f)). The mineral sands within the site are a finite natural resource insofar as the site itself is concerned, but not in the context of the wider Barrytown Flats area. The mining of the site is not an inappropriate use of that natural resource (s7(g)). Section s7(h) is not relevant with regard to the land use consents required from GDC. We have regard to the effects of climate change insofar as that might affect sea levels and the risk of coastal inundation of the site (s7(i)). Section 7(j) is not relevant.

[502] The support of 'Te Rūnanga o Ngāti Waewae' for the proposal satisfies us that the Applicant has appropriately taken into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

[503] In overall terms we find that a consideration of Part 2 matters does not weigh against a grant of consent.

¹⁵⁰ Collins Creek and the Northern Drain are on private property and there is no right of public access to them.

Consent duration and lapsing

[504] As we noted previously, the Applicant considers that mining will take approximately 5 - 7 years to complete to full site rehabilitation. However, the Applicant has sought a 12-year consent term, to allow for contingencies and to provide operational certainty given the level of financial investment required in the proposed sand mineral mine. We find that should consent be granted, a 12-year duration as sought is not unreasonable.

[505] The Applicant has not sought an extended lapse period and so we find there would be no need to deviate from the normal lapse period of five years after the date of commencement of the consent, as specified in s 125 of the RMA.

Consent conditions

[506] We were provided with numerous iterations of recommended conditions by the Applicant and the two reporting officers. For the areas of contention that remained at the end of the hearing that we have not previously discussed in previous sections of this decision we find:

- (a) We do not consider it appropriate to 'approve' the various draft management plans that were provided to us as was suggested by Mr Geddes. Instead, it is appropriate that those plans are certified by the councils, with input from external consultants if necessary. We understand that any external consultancy costs would be recoverable from the Applicant. Having said that, we are satisfied that the draft management plans that we have received are fit for purpose.
- (b) For the reasons outlined above in relation to the management plans, we do not consider it necessary to require the establishment of an expert advisory panel.
- (c) We agree with Mr Geddes that it is reasonable for the 'lay person' members of the Community Liaison group to be compensated for the time they spend reading materials and attending meetings. During the hearing on 20 March 2024 we noted that any such condition could however not be imposed by us as it would be a form of financial contribution. In Reply¹⁵¹ Ms Booker advised that Condition 11.1 had been amended to include a requirement for the consent holder to provide a voluntary contribution to a local community group or charity, to be decided by attendees of

¹⁵¹ Paragraph 107(b).

each meeting (in lieu of paying individual attendees). We find that to be a suitable response.

- (d) It would be unduly onerous to require there to be no external lighting on the site, as was recommended by Mr Geddes. We are satisfied that the conditions¹⁵² addressing that lighting are sufficient to ensure that any exacerbation of the existing risk of Westland Petrels grounding as a result of their attraction to artificial lighting is avoided to the extent practicable.
- (e) In light of the preceding finding, we do not agree with Mr Geddes that the suite of lighting conditions developed by the Applicant should be deleted. We agree with Ms McKenzie that doing so would frustrate the exercise of the consent.
- (f) We find that three monthly noise monitoring should only be required for the first 12 months of mining, because once the mining pit and the HMC plant are operational the noise emissions will be relatively consistent for the duration of the consent.
- (g) In light of the threats to the Westland Petrel identified in Waugh and Wilson 2017, we are satisfied that there should be no overhead wiring (which we assume to be power lines) on the site as was recommended by Mr Geddes. We amended condition 7.1 accordingly.
- (h) It would be unduly onerous to require mining activity to stop if a vehicle associated with the activity causes a fatality or serious injury, regardless of whether or not the driver was at fault. Any such incidents would be covered by usual Health and Safety procedures, including Work Safe and their associated legislation. Also, the Applicant is already required to review the TMP and implement the changes within 10 working days of a serious or fatal incident occurring; and
- (i) Annual monitoring of the truck drivers to ensure they are complying with the requirements of the Transport Management Plan is not necessary because conditions require that complaints about driver behaviour are recorded, investigated, and fed back to the drivers. Importantly, the Applicant proposes that the trucking fleet will

¹⁵² Conditions 16.1 to 16.7 and in particular condition 16.2 that lists nine separate requirements that any external lighting must comply with.

be required to be equipped with a GPS monitoring system. That will enable complaints to be investigated efficiently and effectively and will provide an important tool for monitoring compliance with the transport conditions of consent. We also fail to understand how any annual monitoring would be practically implemented.

[507] Over and above the matters outlined above and in previous sections of this decision, we have made amendments to the final suite of conditions that accompanied Ms Booker’s Reply submissions in order to clarify their intent, remove subjective terms, and use consistent terminology. These amendments are shown in ‘track changes’ format in Appendix 1 attached to this decision. We also attach a ‘clean’ version of the conditions. We direct the GDC to provide both versions of the conditions to the Applicant and submitters. The ‘track changes’ version should be circulated in PDF format.

[508] Given the amendments we have made to the conditions, combined with their complexity, it is conceivable that they may now contain minor errors or omissions. Accordingly, should the Applicant or the GDC identify any minor mistakes or defects in the attached conditions, then we are prepared to issue a revised schedule of amended conditions under s133A of the RMA correcting any such matters. Consequently, any minor mistakes or defects in the amended conditions should be brought to our attention prior to the end of the 20-working day period specified in section 133A of the RMA.

Determination

[509] We grant the consents required from the GDC under the Grey District Plan as follows:

Rule	Reason	Activity Status
19.7.8(iii)	Buildings (15 m) exceed the 10m height limit in by Rule 19.7.8(i)(a).	Discretionary
19.7.12(iii)	The volume of diesel proposed to be stored on site (40,000 L) exceeds the 5,000 L limit in in Appendix 3 of the GDP	Discretionary
9.7.13(iii)	Car parking (49 spaces) does not meet minimum numbers required under Rule 24.2.1, being 2 spaces per 100 m ² gross floor area for industrial buildings equating to 74 spaces required. The proposed car-park will not be laid out in accordance with Rule 24.2.3 that species minimum parking space dimensions.	Discretionary

Rule	Reason	Activity Status
	The proposed access design does not comply with Rule 24.3.1 that includes diagrams that vehicle crossings must comply with. The proposed vehicle movements (390 per day) onto a Strategic Route exceed the maximum (100 per day) outlined in Rule 24.	
19.7.16(iii)	The Non-Rural Activity, will breach the maximum standards specified in Rule 19.7.16(i) for floor area, vehicle movements and noise.	Discretionary

[510] We grant consents required from the GDC under the Te Tai O Poutini Proposed Plan as follows:

Rule	Reason	Activity Status
ECO-R2	Clearance of indigenous vegetation in the coastal environment	Restricted
ECO-R5		Discretionary
NC-R3	Clearance of indigenous vegetation and earthworks within riparian margins.	Discretionary
NC-R4	Buildings and structures within riparian margins.	Discretionary

[511] Our reasons are detailed in the body of this decision, but in summary they include:

- (a) Subject to the imposition of robust conditions of consent, the potential adverse effects of the proposal are likely to be no more than minor, and any residual adverse effects do not weigh against a grant of consent; and
- (b) Granting consent for the proposal subject to those conditions would not be inconsistent with the relevant statutory instruments.

Section 4 – West Coast Regional Council Consents

[512] The application to WCRC seeks a range of consents for a Site on Barrytown Flats, State Highway 6, approximately 9km south of the Punakaiki Township and 36km north of Greymouth, to establish and operate a mineral sand mine in an area of roughly 63 ha over 12 years, including the taking of ground and surface water and the discharge of contaminants to land, water and air.

Consents required and consent category

[513] We understand it was common ground that resource consents are required under the WCRC Regional Land and Water Plan (LWP) as follows:

Rule	Purpose	Activity Status
16	To use land for earthworks and vegetation clearance within 10m of a riparian margin.	Discretionary
16	To use land for earthworks within 50m of the Coastal Marine Area.	Discretionary
16	To use land for earthworks exceeding 5000m ³ per annum.	Discretionary
55	To take and use of surface water from Canoe Creek for the purposes of mineral sand mining.	Restricted Discretionary
56	To take and use groundwater for the purposes of mineral sand mining and processing, pit dewatering and well-point pumping.	Restricted Discretionary
71	To discharge water including contaminants (dewatering water, treated mine, process and stormwater) to land where it may enter water.	Discretionary
71	To discharge ionizing radiation into water.	Discretionary
91	To discharge water including contaminants (dewatering water, treated mine, process and stormwater) to water in Collins Creek, the Northern Boundary Drain and Canoe Creek.	Discretionary
91	To discharge ionizing radiation into land	Discretionary

[514] Dr Durand considered that consents were required under the WCRC Regional Air Quality Plan (*AQP*) as follows:

Rule	Purpose	Activity Status
16	To discharge unanticipated dust emissions from stockpiling and mining activities	Discretionary
16	To discharge ionising radiation from an industrial or trade premises into air	Discretionary

[515] Dr Durand considered that consent was required under Rule 16 of the AQP for the discharge of combustion emissions, including of greenhouse gases, from operational machinery. Counsel for the Director-General of Conservation advocated that consent was required for the discharge of GHG from the proposal because those emissions were “dangerous” and on that basis the AQP permitted activity rules did not apply to them.

- [516] Counsel for the Applicant agreed that s104E RMA had been repealed and greenhouse gas emissions (*GHG*) were no longer barred from our consideration. However, counsel submitted that the previous statutory bar on consent authorities considering *GHG* commenced on 2 March 2004, some three years after the AQP became operative. Counsel observed that the AQP specifically addressed greenhouse gases in its Chapter 9 and it took a permissive approach to *GHG* by way of AQP permitted activity Rules 3 and 5. Counsel submitted that because Ms McKenzie had assessed the Applicant's *GHG* emissions as complying with the AQP permitted activity rules, no consent was required under Rule 16.
- [517] We accept counsel for the Applicant's submissions and find that consent for the emission of *GHG* is not required.
- [518] In particular we are not persuaded that the *GHG* emissions likely to be generated by the proposal are "dangerous". If that were to be the case then the entire fleet of heavy vehicles in NZ would fall into that same category and that is a fanciful proposition in our view. We find that the Applicant's proposed *GHG* emissions are permitted under AQP Rules 3 and 5.
- [519] Having said that, we note that Ms Warnock for the Director-General argued that Rule 5 of the AQP does not permit dangerous emissions. Further, in the AQP the plan notes that the terms "dangerous" is not defined (alongside "offensive" and "objectionable") because of the need to take account of case law and precedent as it develops.¹⁵³
- [520] Following from that Ms Warnock pointed out that the Supreme Court has found in *Smith v. Fonterra Co-operative Group Limited*¹⁵⁴ that any - even minimal - contribution to *GHG*'s is dangerous.
- [521] We addressed this interpretation question using the method described in Section 2. The terms "dangerous, offensive and objectionable" are notoriously difficult to define as the case law shows. It is an intensely factual assessment. The AQP by abjuring a definition is simply acknowledging that point.
- [522] It is quite another matter to suggest that the AQP intended to exclude as dangerous *GHG* emissions when the Plan recognises that these are important emissions under "Global

¹⁵³ West Coast Air Quality Plan 2001, [10.2], p 54.

¹⁵⁴ *Smith v. Fonterra Co-operative Group Limited* [2024] NZSC 5, p 5.

Issues' but the AQP's scheme is to not impose regulatory controls. One cannot ignore that wider policy setting of the AQP even allowing for a somewhat ambulatory definition of "dangerous" to allow for circumstances as they arise¹⁵⁵ as part of a purposive assessment.¹⁵⁶

[523] Making a mining activity that creates GHG emissions fall into an innominate class without policy guidance for assessment does not seem to be a plausible tool employed by the AQP for determining mining applications that have to be located where the minerals exist.

[524] We consider it unreasonable to interpret the AQP as now excluding GHG emissions from the permitted air discharges of a mining activity.

[525] We pointed out to Ms Warnock that the Director-General's interpretation leaves us in a position where there is almost no policy context to assess what is a routine emission from an activity. The AQP cannot have contemplated placing decision-makers in that situation.

[526] Ms Warnock's response to that is that it is a situation that decision-makers also find themselves in Australia citing *Gloucester Resources v. Minister for Planning* and we must do the best we can without policy guidance.¹⁵⁷

[527] The *Gloucester Resources* is entirely different type of case not related to the interpretation of an air quality plan controlling emissions from a mining activity. Rather, it concerned whether a large coal mine produced product that would inevitably generate GHG emissions that would substantially compromise carbon zero targets and the relevance of that under NSW and Federal legislation. In conclusion, we were not persuaded by Ms Warnock's submissions that Rule 5 of the AQP does not permit GHG emissions.

[528] We understand that the Applicant did not disagree with the need for consents for the discharge of ionising radiation to land, water and air.

[529] Consequently, we find that under the 'bundling principle', the consents required under the WCRC regional plans are to be assessed as a discretionary activity.

[530] Dr Durand considered consent was required under Regulation 45D of the NES-FW to:

¹⁵⁵ Legislation Act, s 11.

¹⁵⁶ For that approach in another context see *Yemshaw v. London Borough of Hounslow* [2011] UKSC 3

¹⁵⁷ *Gloucester Resources v. Minister for Planning* [2019] NSWLEC 7.

- (a) Use land for earthworks and land disturbance within a 100 m setback from a natural inland wetland;
- (b) Take and use water within a 100 m setback from, a natural inland wetland; and
- (c) Discharge water into water within a 100 m setback from a natural inland wetland.

[531] As we discussed earlier in this decision, this was a matter of contention at the hearing. We have earlier addressed the “functional need” issue.

Effects assessment

[532] We now assess the actual and potential effects on the environment of the proposed activities.

Existing environment and permitted baseline

[533] As we noted earlier, when forming an opinion for the purposes of subsection 104(1)(a) of the RMA we may disregard an adverse effect of the activity on the environment if a national environmental standard or a plan permits an activity with that effect.¹⁵⁸ In order to undertake a fulsome assessment of the potential adverse effects of the proposal we have elected not to disregard any effects of the proposed activity under s104(2) of the RMA.

Māori cultural values and interests

[534] We discussed Māori cultural value and interests earlier in this decision in terms of the consents required from the GDC. We adopt those findings here as they are equally relevant to the assessment of the consents required from the WCRC.

Effects on surface water bodies

[535] There are several surface water bodies located in close proximity to the Mining Disturbance Area (MDA). These include (from north to south) Deverys Lagoon, Rusty Pond, Northern Drain, Canoe Creek Lagoon¹⁵⁹, Collins Creek, Canoe Creek and springs

¹⁵⁸ Section 104(2) of the RMA.

¹⁵⁹ At times participants referred to this lagoon as Collins Creek lagoon.

in George and Gladys Langridge's property to the south of the MDA. Potential adverse effects on these waterbodies were of concern to many submitters we heard from¹⁶⁰.

[536] From the evidence of the Applicant's witnesses Stephen Millar and Jens Rekker, and contents of the AEE and the Water Management Plan¹⁶¹, we understand the mining process 'water cycle' can be distinguished between 'contact water' and 'non-contact water'. For the benefit of readers, we now outline our understanding of that 'water cycle'.

[537] Non-contact water is water that has no contact with the immediate mining operation, and it primarily comprises clean stormwater runoff. The non-contact water will flow through drainage channels to the Clean Water Facility (CWF) located in the north-western corner of the site. The inflow will be initially to Pond 3 (the finishing pond) and thereafter to Pond 4 (the clean water pond). As we set out below, water from Pond 4 may flow into Collins Creek Lagoon and be used for the augmentation of the creeks.

[538] Pond 4 will be partially planted in wetland species at the commencement of mining. There will also be permanent planting on the western and northern edges of the CWF between Collins Creek Lagoon and Pond 4.

[539] Contact water will be treated as dirty water that has to be contained within the mine's water management system. That system is based on the Mine Water Facility (MWF) (Ponds 1 and 2) located to the immediate west of the Wet Concentrator Plant (WCP). The contact water system is reasonably complex:

- (a) A MUP situated in the active mining void will pump the ore sand (a wet slurry) to the WCP via a pipeline;
- (b) At the WCP the heavy mineral sands are separated from the lighter quartz sand waste, and the sand waste (also a wet slurry) will be pumped back to the rear of the mining void as part of the rehabilitation process;
- (c) Water (inflowing groundwater and rainwater) ponding in the base of the mining void, along with stormwater collected from the area around the WCP, will be pumped to

¹⁶⁰ Including Susanne Hills, Nicola Calcott, Rianne Klempel, Sharon Langridge, Ros Williams, Robyn Langridge, George and Gladys Langridge, Dr Gamlen-Green, Don Kerr, Roseann Gamlen-Green, the Coast Road Resilience Group and Nicky Snoyink (RFBPS).

¹⁶¹ Appendix I1 to the AEE.

Pond 1 (the 'dirty water pond'). Pond 1 has a forebay where sediment settles out, aided by the use of flocculants and aeration;

- (d) Excess water from the WCP process also discharges into Pond 1;
- (e) Pond 1 water flows into Pond 2 (the 'clean water pond');
- (f) Water from Pond 2 discharges into the central drain (which is lined with limestone to reduce water hardness) and the central drain discharges into Pond 3. Water from Pond 2 is also used in the WCP when necessary; and
- (g) A cyclone 'may' be used to further treat water discharged from Pond 2.

[540] Water from Pond 3 flows into Pond 4 and the water in Pond 4 is utilised in the following hierarchical order:

- (a) Firstly, recharging groundwater through a system of infiltration trenches and bores situated along the western, northern and southern MDA boundaries (we discuss the efficacy of this below);
- (b) Discharging water that meets water quality 'thresholds' into Canoe Creek Lagoon by way of an overland flow path;
- (c) In the event that the proposed infiltration trench system is insufficient to avoid surface water depletion, Pond 4 water will be used to directly augment surface water flows in Collins Creek or the Northern Drain, if it meets water quality standards;
- (d) Discharging excess water which does not meet water quality standards to the Canoe Creek Infiltration Basin. Water discharged to this trench is expected to enter the shallow underlying groundwater system and flow through this system to Collins Creek¹⁶². If the capacity of the infiltration basin is exceeded, the overflow from the basin will be discharged by way of overland flow to the riverbed at the mouth of Canoe Creek.

[541] The WCP may require an initial water take from Canoe Creek. The point of take will be located adjacent to the existing farm access track near the coast. The maximum rate of take

¹⁶² JWS Rekker and Sinclair, 6 March 2024.

will be 63 L/s. Additional water may be abstracted from time to time to top up the MCP. For streams with mean flows less than or equal to 5 m³/s, guidance in the ‘Proposed National Environmental Standard on Ecological Flows and Water Levels: Discussion Document’ promulgated by MfE in 2008 is that allocation (the total rate of water abstracted) from watercourses like Canoe Creek should not exceed 30% of the mean annual low flow (MALF). The mean flow of Canoe Creek is around 3 m³/s and so that guidance is applicable here¹⁶³. The MALF of Canoe Creek downstream of SH6¹⁶⁴ is 630 L/s and so the allowable allocation would be 189 L/s, which is significantly greater than the Applicant’s proposed rate of take. We therefore have no issue with this aspect of the proposal.

[542] The surface water bodies located in close proximity to the MDA can be potentially affected by the Applicant’s proposal in two other ways:

- (a) By loss of volume (the lagoons) or flow (the drain, creeks, and springs) caused by an induced drawdown of the local groundwater level resulting from groundwater flowing into the mining void; and
- (b) By the discharge of mining process augmentation water into the surface water bodies.

[543] We address the first potential effect here and the second potential effect in the next section of this decision.

[544] The mining void (or mining pit) will be up to 9 m deep below ground level. The existing groundwater level in the MDA is very close to the ground surface, as evidenced by the farm being previously ‘humped and hollowed’ to drain the pasture. The mining void will act much like a groundwater well, causing a cone of depression in the surrounding groundwater as that groundwater flows into the mining void. As outlined above, ponding water accumulating in the base of the mining void will be pumped out.

[545] The issue here is that in an unconfined aquifer, the ‘cone of depression’ can cause the depletion of surface water resources (the creeks, lagoons, wetlands, and springs in the Langridge property to the south of the MDA) if the depressed groundwater level (the ‘cone

¹⁶³ Section 2.5.3 of Attachment I to the AEE.

¹⁶⁴ Section 2.5.3 of Attachment I to the AEE.

of depression’) reaches those resources. The Applicant’s response is to use a series of infiltration trenches located around 20 m landwards from the respective edges of the mining voids. Those trenches will receive water from Pond 4, and in the words of Mr Rekker, create a ‘groundwater curtain’ (or localised mounding of the groundwater level) that will avoid the depletion of the surface water resources by preventing the ‘cone of depression’ reaching the surface water resource. We understand the key mechanism is to ensure the groundwater level in the vicinity of a trench is above the water level in the nearby surface water body¹⁶⁵.

[546] The need to use the infiltration trenches will be guided by groundwater level monitoring carried out in a network of piezometers (monitoring bores) around the MDA. A drop in groundwater levels near a mining void will result in the initiation of the relevant infiltration trenches.

[547] Mr Rekker advised that trial sections of infiltration trenches undertaken in September 2023 had shown that the unit acceptance rate into the shallow groundwater would be 2.9 m³/s per metre of trench. That acceptance rate was consistent with the preliminary design rate indicated in the AEE and demonstrated the capacity of the ground to accept water at the rates envisaged by the Applicant¹⁶⁶. The trials were fully described in a report that formed Appendix 2¹⁶⁷ to Mr Rekker’s evidence.

[548] Another mitigation system will involve the installation of an injection bore array near the MCP, adjacent to Collins Creek, or along the Northern Boundary Drain. This system will aim to raise local groundwater levels or pressures, avoiding the spread of lowered groundwater levels or pressures beyond the MDA Site boundaries. In the words of Mr Rekker, this would also ‘bolster’ the flow of springs in George and Gladys Langridge’s property and groundwater levels in harakeke wetlands between the Kahikatea Forest and Rusty’s Lagoon. Mr Rekker advised that the capacity for a bore trial undertaken over 24 hours was 5L/s with a small above-ground injection pressure¹⁶⁸.

¹⁶⁵ JWS Rekker and Sinclair, 6 March 2024.

¹⁶⁶ SOE Rekker, paragraphs 91(a) and 126.

¹⁶⁷ TiGa Minerals & Metals Ltd Report No: Z22004-4-Rev0 Barrytown, Coates Block Hydrological Revision: Injection and Infiltration Trials, Conceptual & Groundwater Model Re-Model. KSL. DRAFT (17 November 2023).

¹⁶⁸ SOE Rekker, paragraphs 127 to 129.

[549] Mr Rekker advised that the infiltration trench system is focused on shallow groundwater level management, while the injection bore system has a deeper focus on the basal gravels beneath the mineral sands layers¹⁶⁹.

[550] A 6 March 2024 JWS¹⁷⁰ addressed the injection bore system. We consider that the key matters of agreement in that JWS were:

- (a) The water injection trial represents a reasonable proof of concept with respect to the use of treated mine water to manage potential groundwater drawdown around the edges of the proposed mine;
- (b) The injection pressure and flow rate applied in the pumped bore injection test were higher than what would be applied under operational mining conditions¹⁷¹;
- (c) A line of injection bores can be designed to generate overlapping groundwater mounding effects with separation distances of at least 32 m between bores, however the number of injection bores required and their spacing would be optimised through system testing during the early stages of the mining operation. In areas where the buffer zone is approximately 20 m wide, the injection bores would be installed close to the adjacent surface water body to minimise movement of injected water back toward the open pit; and
- (d) That positioning would leave no room to install groundwater compliance monitoring wells between the injection bores and the surface water body, as was proposed in the Water Management, Monitoring and Mitigation Plan. Groundwater monitoring wells would be more appropriately positioned halfway between adjoining injection bores.

[551] From the evidence, it appears to us that the potential depletion of the lagoons only really becomes a significant issue when Panels 4 to 8 are mined, because Panels 1 to 3 are sufficiently distant from Canoe Creek Lagoon, which is the first lagoon to be potentially impacted as mining proceeds from south to north across the MDA. Monitoring of

¹⁶⁹ EIC Rekker, paragraph 130.

¹⁷⁰ Rekker and Sinclair.

¹⁷¹ The test resulted in injection water uprising around the bore casing and a spring developed around 13 m from the bore.

groundwater responses to mining (using piezometers) to the south and west of Panels 1 to 3 will enable the infiltration trench methodology to be refined before Panel 4 is initiated.

[552] However, Collins Creek is proximate to Panel 1, and the Northern Drain is proximate to Panels 7, 8 and 10. Those surface waterbodies may also be affected by surface water depletion. Mr Rekker advised that test bores indicated that the margins and beds of Collins Creek and the Northern Drain were associated with a pronounced thickening of the clay-rich, low permeability overburden up to 3 m thick. That partially hydrologically isolated those waterbodies from the underlying groundwater system, reducing the potential for surface water depletion to occur. Nevertheless, if hourly flow monitoring of Collins Creek¹⁷² identifies¹⁷³ that mining induced depletion is occurring, then the flow in Collins Creek would be augmented by water obtained from Pond 4.

[553] In that regard the Applicant proposes to maintain 90% of the MALF in Collins Creek. The MALF is 16 L/s and so the minimum flow during mining operations would be around 14 L/s. That approach is consistent with guidance for setting allowable minimum flows in streams with mean flows less than or equal to 5 m³/s contained in the ‘Proposed National Environmental Standard on Ecological Flows and Water Levels: Discussion Document’.

[554] Mr Rekker considered¹⁷⁴ that the surface waterbody depletion “mitigation measures specified and indicated outcomes have a high probability of success in preventing loss of flow or decline in water levels, beyond natural variation, in any” of the potentially affected surface waterbodies. Professor Brian McGlynn¹⁷⁵ was less convinced and was of the opinion that “infiltration galleries or subsurface water injections could¹⁷⁶ be highly problematic” due to (as we understand his evidence) the high local groundwater levels making it hard to ‘force’ additional water into the ground.

[555] The WCRC engaged Brett Sinclair to peer review the hydrological aspects of the Applicant’s proposal. His verbal advice to us was that the Applicant only needed to manage the groundwater system between the open mining voids and the nearest surface water body, considering that a backfilled void might not yet have become saturated¹⁷⁷. He

¹⁷² We understand the Northern Drain has no regular flow.

¹⁷³ By comparing flow upstream of the MDA to flow downstream of the MDA.

¹⁷⁴ Summary Statement, paragraph 10.

¹⁷⁵ An expert witness called by Robyn Langridge. Summary Statement paragraph 24.

¹⁷⁶ At the hearing he amended his written evidence from “would” to “could”.

¹⁷⁷ Once saturated the backfilled void would preclude any ‘cone of depression’ impacting on the lagoons.

considered that the Applicant's proposed piezometer network was a reasonable way of monitoring groundwater levels. He also told us that it would not be all that difficult to maintain groundwater levels (or pressures) between the open mining voids and the adjacent surface water features. He was satisfied that the viability of the infiltration trenches had been tested in the Applicant's trials.

[556] Regarding the springs in the Langridge property to the south of the MDA, Mr Sinclair considered that provided groundwater levels (or pressures) between the mining voids and Collins Creek were maintained at or above the water level in Collins Creek at low to median flows, it was highly likely that there would be little to no impact on those spring flows.

[557] In conclusion, Mr Sinclair saw no reason why the Applicant's proposed hydrological mitigation methodology would not minimise any adverse effects on the surrounding surface water resources. We note that the 6 March 2024 JWS between himself and Mr Rekker concluded with "In summary, it is reasonably expected that a groundwater recharge system can be installed and managed in a manner consistent with preventing surface water and off-site groundwater resource depletion, either in terms of flows or water levels."

Finding

[558] On the available evidence from the qualified experts, we are satisfied that the Applicant's proposed hydrological mitigation methodology is sufficiently robust to avoid, with a reasonable level of certainty, any significant adverse effects on adjacent surface water resources.

Water quality discharge standards

[559] Potential adverse effects on the water quality in adjacent waterbodies was of concern to a number of submitters that we heard from¹⁷⁸.

[560] As we outlined in the previous section of this decision, the Applicant intends to discharge treated water from Pond 4 into Canoe Creek Lagoon and may discharge augmentation water from that pond into the Northern Drain, Collins Creek, or Canoe Creek. It is important that, consistent with Objective 2.1(1)(a) of the NPS-FM 2020, that in assessing

¹⁷⁸ Including Nicola Calcott, Rianne Klempel, Robyn Langridge, George and Gladys Langridge, Dr Gamlen-Green, Don Kerr, and the Coast Road Resilience Group.

the Applicant's proposal we prioritise the health and well-being of those waterbodies and their freshwater ecosystems¹⁷⁹.

[561] Mark Roper (a freshwater ecologist) advised us that the freshwater ecological values of the Northern Drain were 'low'. The section of Collins Creek adjoining the MDA has 'high' ecological value due to the presence of 'At Risk' (Declining) fish species. Canoe Creek has 'high' ecological value due to the presence of 'At Risk' (Declining) fish species and its higher quality and less modified habitat¹⁸⁰.

[562] Mr Rekker assessed the likely condition of the water that would be pumped from the mining void by modelling a mix of groundwater upwelled from the base of the void and groundwater entering the void from the pit walls¹⁸¹. The pumped water will undergo a variety of treatments before it eventually enters Pond 4. Consequently, we have focussed our attention on the Applicant's proposed discharge 'thresholds' for the Pond 4 water. This was addressed in the evidence of Dr Michael Fitzpatrick.

[563] Dr Fitzpatrick assessed the effects of those discharges by modelling treated groundwater (Pond 4 water) with the respective surface waters at their median baseline quality and median and MALF flow levels using conservative dilution ratios. The modelling showed that discharges at the stated ratios, with hardness and pH adjustments, of Pond 4 water to receiving waters would not result in exceedances of relevant metals and metalloids guidelines, which are designed to protect aquatic biota.

[564] Turning to nutrients¹⁸², modelled average ammoniacal-nitrogen concentrations in the receiving waters placed them within either the NPS-FM (2020) A or B-bands and modelled nitrate nitrogen concentrations placed them within the NPS-FM (2020) A-band. Dr Fitzpatrick expected no effect on aquatic biota from those parameters. He advised that there was potential for a change in the dissolved reactive phosphorous (DRP) attribute state at the Collins Creek downstream monitoring site, from the B-band to the D-band, but he considered the treatment of the water pumped from the mining void or discharged from the MCP by way of combined settlement, flocculation and clarification, would result

¹⁷⁹ We understand that the water in Collins Creek and the Collins Creek Lagoon is not used as a source of potable water and so Objective 2.1(1)(b) is not relevant.

¹⁸⁰ Summary Statement, paragraph 4.

¹⁸¹ Deeper groundwater was mixed with shallower groundwater in the ratio 80:20.

¹⁸² We understand that excess nutrients could lead to the proliferation of nuisance periphyton in the creeks or eutrophication in the lagoons.

in the reduction of DRP concentrations such that either no change, or an improvement, would be realised¹⁸³.

[565] Finally, regarding suspended sediments (which have a direct bearing on visual clarity), Dr Fitzpatrick considered the Applicant's intent to control suspended solids and turbidity discharges through combined settlement, flocculation, and clarification, was standard mining practice that was able to achieve low turbidity values under day-to-day operating conditions. Consequently, he concluded that the proposed discharges should not result in elevation of receiving water turbidity values beyond the surface waterbodies' baseline ranges.

[566] For his part Mr Roper agreed with Dr Fitzpatrick and he concluded that adverse effects associated with altered water quality on aquatic biota were not expected¹⁸⁴.

[567] The Applicant's offered conditions of consent¹⁸⁵ set out thresholds (or standards) for metals, metalloids and non-metals. The discharge thresholds are based on either 90%ile or 95%ile¹⁸⁶ levels of protection for aquatic species which is appropriate. The metal and metalloid thresholds are derived from either USEPA or ANZECC guidelines, which we understand to be standard practice.

[568] However, it appears to us that the offered conditions apply the thresholds in the receiving waters at the in-stream monitoring sites shown in Schedule 8 of the conditions. While we appreciate that receiving water standards are usually measured in a waterbody after reasonable mixing has occurred¹⁸⁷, in this case for the 'thresholds' to be of practical use they need to apply to the actual discharge. That means that the 'thresholds' must be measured and applied at the outlet from Pond 4 as well as the receiving environment sites, whether that be the overland flow path to Canoe Creek Lagoon or a pumped outlet from Pond 4 if the pond water is to be used for the augmentation of flows in the Northern Drain, Collins Creek or Canoe Creek.

¹⁸³ EIC Fitzpatrick, paragraphs 31 to 34.

¹⁸⁴ Summary Statement, paragraph 8.

¹⁸⁵ Condition 25.2 containing Table A (metals and metalloids) and Table B (suspended solids and DRP).

¹⁸⁶ For arsenic, boron, cadmium, chromium, lead, manganese, nickel and zinc.

¹⁸⁷ Noting that Dr Fitzpatrick advised us it was better to monitor water quality in the creeks and not the lagoons.

[569] In that regard the Applicant's conditions required the discharges from Ponds 2 and 4 to be monitored for metals on a quarterly basis and for turbidity on a continuous basis¹⁸⁸. We find that the conditions need to clearly state that direct discharges of Pond 4 water to the receiving surface water bodies can only occur if that quarterly and continuous monitoring shows that the Thresholds set out in Tables A and B in Condition 25.2 are not exceeded in the Pond 4 water.

[570] Finally, we note that Dr Fitzpatrick advised¹⁸⁹ that the proposed discharges to surface water would fulfil the requirements of RMA section 107(1)(d), most notably that they will not result in any conspicuous changes in colour or visual clarity and would not result in any significant adverse effects on aquatic life. We received no qualified evidence that contradicted Dr Fitzpatrick's advice to us.

Finding

[571] On the available evidence we are satisfied that the proposed water quality thresholds are sufficiently conservative so as to avoid any significant adverse effects on water quality in the receiving surface water bodies and their associated freshwater ecosystems, if they are applied to any discharge of Pond 4 water to surface waterbodies.

Effects on groundwater

[572] There are two aspects of potential adverse effects on groundwater that we need to address. These are firstly groundwater flows and secondly groundwater quality.

[573] As we have noted previously, the mining voids will be up to 9 m deep. Those voids will be 100 m wide and 300 m long. As such the voids will disrupt the natural groundwater flow because groundwater will flow into the void through the mine pit walls and possibly also upwell through the base of the void. This is an unavoidable effect and so we need to consider its significance.

[574] In that regard we observe that the majority of the MDA will not be actively mined at any one time and the unmined area will continue to convey groundwater from SH6 towards the coast. That is incontrovertible because there is at least 13 m to 10 m of fall between

¹⁸⁸ Condition 26.2.

¹⁸⁹ Summary Statement, paragraph 8.

the SH6 and the coast¹⁹⁰. Groundwater that seeps into the open mining void will eventually be discharged either back into the groundwater around the periphery of the MDA or into adjacent surface water bodies. In response to our questions at the hearing, Mr Sinclair was of the opinion that, while during the mining operation the rate of groundwater flow towards the coast would change, groundwater would still flow through the site and report to the lagoons or the sea. We are therefore satisfied that effects on groundwater flows during mining will not be significant.

[575] Some submitters were concerned that the mining process would permanently disrupt groundwater flows. Professor McGlynn in particular was concerned that might occur. For example, he stated¹⁹¹ “Mining will undoubtedly change the (hydrological) system” and “hydrological and ecological conditions in the area will be permanently altered and natural conditions and dynamics sacrificed.”

[576] Mr Miller described the methodological placement of processed tailings in the wake of the actively mined void that will occur by way of a cyclone system followed by the placement of overburden, subsoil and soil materials that were previously separated and temporarily stockpiled in preparation for rehabilitation. We do not consider the scenario postulated by Professor McGlynn to be a plausible outcome, because the hydraulic head across the site will still cause groundwater to flow from SH6 to the coast through the rehabilitated mining voids.

[577] Turning to potential adverse effects on groundwater quality, we conclude that no such effects are likely to arise because the water that will be discharged back into the ground (by way of infiltration trenches or infiltration wells) will be the same groundwater abstracted from the parent aquifer, either from the base of the mining void or from the MCP discharge. The discharged groundwater will be treated and subject to conservative discharge thresholds (as outlined above).

[578] In terms of the tailings from the MCP deposited back into the mining void, at the hearing, Dr Fitzpatrick advised us that the tailings would be chemically stable as they would be saturated with groundwater. There would be no change to their composition from a

¹⁹⁰ Evident from the cross-sectional profiles in Appendix) of the AEE “Rehabilitation Management Plan”.

¹⁹¹ SOE McGlynn, paragraph 29.

geochemical point of view. We infer that it is unlikely that the deposited tailings could cause adverse effects on groundwater quality.

[579] Finally, there is the matter of potential saltwater intrusion into the fresh groundwater aquifer underlying the MDA. Mr Rekker advised that: given the high rainfall - high runoff setting of the Barrytown Flats, the presence of fresh groundwater right up to the coastline at depth, the significant slope on groundwater gradients into the Canoe Creek Lagoon, and the relatively modest pumping rates from the mining voids; there was a high degree of certainty that seawater intrusion would not result from the proposed mining activities. This low level of risk was confirmed by computer modelling¹⁹². We heard no qualified evidence to the contrary, so we accept Mr Rekker's advice.

[580] We conclude it is highly unlikely that there will be any degradation of the existing groundwater quality.

Finding

[581] On the available evidence we conclude that there will be no significant adverse effects on groundwater flows or groundwater quality, either in the short-term, during mining or after mining has ceased and the MDA has been rehabilitated.

Erosion and sediment control measures

[582] As with any proposal that involves large scale earthworks, it is necessary to employ mitigation measures intended to avoid, or at least minimise, erosion in and around the earthwork areas and the subsequent runoff of sediment laden stormwater into adjacent surface waterbodies. The mitigation measures are generally contained in an 'erosion and sediment control plan' that may or may not be subject to Council certification. There are industry standard practices for how this should occur, and many councils have developed guidelines to assist developers with this task.

[583] In this case, evidence on erosion and sediment control measures was provided by Graeme Ridley. Mr Ridely prepared an Erosion and Sediment Control Plan (ESCP) that addresses both the construction and operational stages of the Applicant's proposal. The ESCP applies the principles and practices documented in the "Erosion and Sediment Control

¹⁹² SOE Rekker, paragraphs 37 and 38.

Guide for Land Disturbing Activities in the Auckland Region. June 2016, incorporating Amendment 2 (February 2020) (GD05 Guidelines)”. We understand those guidelines to be widely accepted as being ‘state of the art’ in terms of erosion and sediment control.

[584] Mr Ridley advised that the ESCP will provide an overarching approach to water management on the Applicant’s site and is based on the provision of a detailed Site Specific ESCP (SSESCP) prior to construction earthworks commencing. The SSESCP will include specific design details for the earthworks (including the MCP site, the water treatment ponds, the bunds and the access road) and will provide the WCRC with an opportunity for further input into the proposed erosion and sediment control methodologies. The SSESCP will be reviewed annually and submitted as part of the Applicant’s Annual Work Programme, reflecting the water management measures proposed for construction and mining for the following 12 months¹⁹³.

[585] We note that conditions¹⁹⁴ proposed by the Applicant require the Annual Work Programme to be submitted to the “Consent Authorities” for certification. We understand that certification will be undertaken jointly by the GDC and the WCRC.

[586] Mr Ridely considered that because the Applicant has committed to having a maximum area open at any one time of 8.0ha (including bund establishment and road access), that would enable progressive stabilisation to be implemented as mining progressed across the MDA. He advised that would greatly reduce the risk of sediment generation and undesirable offsite turbid water discharges.

[587] Mr Ridely attached a copy of the proposed ESCP as Annexure A to his evidence¹⁹⁵. We have reviewed that document and find it to be comprehensive, appropriate, and consistent with other ESCP’s that we have viewed for other projects involving significant (multi-hectare) earthworks.

Finding

[588] We accept Mr Ridley’s evidence on these matters and observe we received no qualified evidence to the contrary. We find that subject to compliance with the ESCP and SSESCP,

¹⁹³ Summary Statement, paragraphs 6 and 7.

¹⁹⁴ Condition 5.1

¹⁹⁵ Barrytown Mineral Sand Operation, Erosion and Sediment Control Plan, TiGa Minerals and Metals, Ridley Dunphy Environmental Limited, 17th January 2024, Final - Version D

the potential adverse effects associated with erosion and sediment laden runoff will be no more than minor.

Dust

- [589] Several submitters were concerned about dust¹⁹⁶.
- [590] The construction-related earthworks and operational mining activities can generate dust. If that dust is carried off-site by prevailing winds, then it has the potential to result in adverse nuisance and health effects for nearby residents and businesses. The management of dust is routinely part and parcel of erosion and sediment control measures. However, we address it separately here as dust was of particular concern to a number of submitters¹⁹⁷. We do not deal with the potential radioactive nature of the dust because we discuss radiation related matters elsewhere in this decision.
- [591] Mr Ridley addressed dust management. He advised that the stabilisation of earthworks for dust minimisation purposes at the Applicant's site intended achieving an 80% vegetative cover or non-erodible surface over exposed areas and that stabilisation would be progressively implemented. In his experience, dust management for earthwork activities was relatively easy to manage with the provision of an appropriate water supply and water application ability (such as a water cart). He noted the Applicant's site would largely be a "wet operation", and any further water application with water carts or sprinklers could easily be implemented¹⁹⁸.
- [592] The Applicant has prepared¹⁹⁹ a Dust Management Plan (DMP)²⁰⁰. Table 4.1 of the DMP specifies dust mitigation measures relating to earthworks, stockpiles, unpaved surfaces (including haul roads and the area around the WCP), sealed surfaces, vehicle movements and material handling. Mr Ridley advised that while he was not the primary author of the DMP, he had reviewed its content and could confirm that the approach of having a DMP Plan with supporting consent conditions was an effective means of dust management and the DMP would achieve its intended outcomes if implemented²⁰¹.

¹⁹⁶ Including Anne Inwood, David Morre, Chris Cromey and Rosemary Mirza.

¹⁹⁷ Including Tammy Ward, Chris Cromey, Anne Inwood, David Moore and Rosemary Mirza.

¹⁹⁸ SOE Ridely, paragraphs 27 and 61.

¹⁹⁹ The author was John Berry.

²⁰⁰ Attachment K to the AEE.

²⁰¹ SOE Ridely, paragraph 62.

- [593] In response to our queries at the hearing, Mr Ridley provided further advice²⁰² on the DMP. He confirmed that the primary dust control measures for most earthwork operations was application of water and ensuring that the water was applied at a rate that minimised dust generation, and any subsequent dust discharges from the site. Other measures such as vehicle speed limitations and minimising drop heights were important considerations. Mr Ridley reemphasised the benefits of the progressive stabilisation of earthwork areas and the limit on open disturbed areas proposed by the Applicant, both of which he considered would assist significantly in minimising dust generation. Mr Ridley concluded that Table 4.1 of the DMP represented best practice measures.
- [594] In regard to the matters addressed by Mr Ridley, we observe that vehicles must not exceed 15 km/hr on-site at all times to avoid dust generation²⁰³. If wind measured at the meteorological station on-site exceeds 20km/hr, the Applicant must limit activities that generate dust downwind of sensitive receptors identified in the DMP, conduct frequent visual inspections of exposed earthwork areas, and assess the need for additional controls such as increase water application rates²⁰⁴. We find that to be appropriate.
- [595] The conditions²⁰⁵ proposed by the Applicant require the preparation of a DMP to be certified by the Councils.
- [596] Regarding dust monitoring, the DMP requires daily visual monitoring for dust and inspections of potentially dust-generating areas. The Applicant also intends to install four Dust Deposition Gauges on the site boundary. The Applicant's Offered Conditions²⁰⁶ impose a dust deposition standard of 4g/m²/30 days above background levels, and if that standard is breached, a requirement to "investigate possible reasons for the breach and take all necessary steps to achieve compliance in the following 30-day period".
- [597] We have no issue with the dust deposition standard of 4g/m²/30 days as we understand it to be the recommended trigger level for deposited solids in the Ministry for the Environment's guideline "Good Practice for Assessing and Managing Dust" in November 2016. However, in appreciation of the dust modelling undertaken by submitter Chris Cromey, we consider that the conditions should require the number and location of the

²⁰² Technical Memorandum dated 7 February 2024.

²⁰³ Condition 27.2.

²⁰⁴ Condition 27.3.

²⁰⁵ Condition 6.1 and 27.1

²⁰⁶ Conditions 28.3 and 28.4

dust deposition gauges to be subject to specific certification by the Councils. That will be achieved by a requirement for the DMP to be certified by the Councils.

[598] We observe that the dust deposition conditions outlined above are in addition to a routine condition²⁰⁷ that requires “no offensive or objectionable discharge of dust into air from the minerals extraction, processing and loading operations that results in an adverse effect beyond the legal boundary of the site”. That condition will enable the Councils to undertake normal compliance and enforcement actions if off-site dust does create an adverse effect.

[599] Subject to the qualifications outlined above, we are satisfied with the overall robustness of the proposed dust management measures.

Finding

[600] On the evidence, we are satisfied that provided the Dust Management Plan is adhered to, the risk of off-site dust being a nuisance will be minimised to the extent practicable. If off-site dust discharges do occur, then conditions relating to the use of dust deposition gauges will enable any significant discharges to be identified and responded to.

Radiation

[601] Naturally occurring radioactive materials (NORMs) are materials that contain radioactive elements and emit ionizing radiation. NORMs are ubiquitous in the environment, including in the mineral sands that are proposed to be mined by the Applicant. Many NORMs are part of natural decay chains that start with radioactive Uranium or Thorium, which have extremely long half-lives and decay to other isotopes and eventually to a stable isotope of Lead²⁰⁸.

[602] Processing operations may lead to a build-up of certain elements either in the product, by-product, or waste, which may increase concentrations of NORMs to a level that warrants controls to protect people and the environment from radiological hazards²⁰⁹. The issue for us to consider is whether or not that is likely to be the case here.

²⁰⁷ Condition 28.1.

²⁰⁸ Peer Review of Radiological Assessment conducted by IHC Mining titled, “Radioactivity of BJV Material Tested Project 2019, 4 December 2023, Michael Lechermann (Technical Lead Environmental Radioactivity) and Cris Ardouin (Technical Lead Radiation Safety), ESR.

²⁰⁹ Summary Statement, 13 February 2024, Cris Ardouin.

Radioactivity levels

- [603] For the Applicant, Mitch Ryan advised that a 2.5 tonne sample representing high-grade Barrytown ore was excavated in May 2022 at near surface depths and was delivered to IHC Mining in Queensland, Australia. That ore sample was calculated to contain an indicative specific radioactivity of 0.28 Bq/g *in-situ* (undisturbed, in-ground) based on Uranium and Thorium “U+Th” assay. The heavy mineral concentrate (HMC) was calculated to contain an indicative specific radioactivity of 0.66 Bq/g based on U+Th content²¹⁰]
- [604] A second bulk sample²¹¹ totalling 1.4 tonnes and representing average grade Barrytown ore was composited²¹² by the New Zealand Institute of Minerals to Materials Research (NZIMMR). It was calculated to contain an indicative specific radioactivity of approximately 0.16 Bq/g in-situ based on “U+Th” assay. The average grade HMC material resulting from the average grade ore was calculated to contain indicative specific radioactivity of 0.72 Bq/g based on U+Th content.
- [605] Following ESR’s peer review that was commissioned by GDC, samples of the produced HMC from the high-grade sample and the average-grade sample were submitted for radiological analysis at by SGS laboratories in Melbourne, Australia. Mr Ryan explained that SGS analyses the samples for the specific activity levels of their full radiological decay chain, rather than just U+Th. The sum of the average measured activities for each HMC decay chain²¹³ were 0.66 ± 0.06 Bq/g for the high-grade sample and 0.70 ± 0.11 Bq/g for the average-grade sample.
- [606] Mr Ryan explained that NZIMMR also conducted a test work programme to assess the radioactivity of typical Barrytown ore, HMC, tailings and slime streams. The sum of the average measured activities for each decay chain was as follows: Ore 0.66 ± 0.06 Bq/g; Slimes 1.17 ± 0.15 Bq/g; HMC 0.87 ± 0.13 Bq/g; and Tailings 0.51 ± 0.05 Bq/g²¹⁴.
- [607] Chris Ardouin (ESR peer review co-author) advised that Schedule 2 of the Radiation Safety Act 2016 (the RSA) lists and defines “acceptable levels” for individual radionuclides. The provisions of the RSA do not apply to material that contains radionuclides below these

²¹⁰ SOE Mitch Ryan, paragraph 16.

²¹¹ That sample was a composite concentrated from 338 drill sub-samples.

²¹² This HMC sample was a composite concentrated from a set of 111 drill sub-samples.

²¹³ Heads of chain: U238, Th232, U235, K40.

²¹⁴ SOE Mitch Ryan, paragraph 23.

“acceptable levels”. The “acceptable levels” for the relevant Uranium and Thorium radionuclides are 10 Bq/g.

[608] Based on the sampling described by Mr Ryan we can conclude that the provisions of the RSA do not apply to the Applicant’s proposal.

[609] Mr Ardouin noted that an activity concentration of 1 Bq/g is a generally-accepted level for naturally occurring materials containing Uranium or Thorium, below which a potential source of radiation exposure, such as an ore or mineral concentrate, can be considered inherently safe. We observe that other than the slimes, the radioactivity levels described by Mr Ryan are all below that threshold.

Transportation of the HMC

[610] Mr Ardouin advised that the transport of radioactive materials must be undertaken under the IAEA Regulations for the Safe Transport of Radioactive Material (IAEA SSR-6)²¹⁵. These regulations are implemented in New Zealand through the Ministry of Health’s Code ORS C6, Code of Practice for the Safe Transport of Radioactive Material and regulations, including the Land Transport Dangerous Goods Rule (2005).

[611] The IAEA regulations state, “*these Regulations do not apply to any of the following: (f) Natural material and ores containing naturally occurring radionuclides, which may have been processed, provided the activity concentration of the material does not exceed 10 times the values specified in Table 2*”. The values quoted in Table 2 for uranium and thorium are 1 Bq/g. Consequently, the activity concentration at which the Regulations would apply is 10 Bq/g.

[612] Mr Ryan and Mr Ardouin both concluded that the Applicant’s HMC activity concentrations were well below the threshold for application of the IAEA Transport Regulations.

Adequacy of sampling

[613] Notwithstanding the above conclusions, Mr Ardouin considered that there was not enough information in the reports referred to by Mr Ryan to enable him to be satisfied

²¹⁵ The New Zealand radiation safety legislation makes use of mandatory Codes of Practice to prescribe more detailed requirements specific to the different types of radiation sources and their uses. There is no specific Code that deals with NORMs in mining and mineral processing.

that the results of the ore samples were sufficiently accurate or that enough sampling and assessment had been done. He recommended that additional sampling and testing using radionuclide analytical techniques be undertaken, after which the radiological risks posed by the Applicant's Proposal should be re-evaluated.

[614] Mr Ardouin's concern in that regard was shared by Brian Lunt²¹⁶, a witness called by CRRG. Mr Lunt believed that the three aggregate samples discussed by Mr Ryan did not constitute a statistically meaningful sample; on that basis, a conclusion could not be reached that the RSA did not apply²¹⁷.

[615] In response Mr Ryan advised that he understood the heavy mineral content in the 1,500 samples tested in the NZIMMR on-site drilling programme was reasonably consistent. On that basis, the low-moderate levels of variance in the measured radioactivity HMC samples would not result in the radionuclide concentration of the material increasing ten to twenty-fold, which is what would be required to cause the HMC to exceed the 'acceptable level' of 10 Bq/g.

[616] Mr Ryan helpfully provided further evidence on this matter²¹⁸, which was attached as an annexure to Ms McKenzie's end of hearing evidence statement. Mr Ryan advised that he had received and reviewed the individual results from the 2,274 drill samples. Those samples were analysed using a handheld XRF device for Thorium (Th). Uranium (U) was not measured, so while a reliable radioactivity (Bq/g) reading could not be inferred from those XRF assays, Mr Ryan was confident that the variability of radioactivity expected within the concentrated HMC could be provided by the Thorium assay, because Uranium and Thorium typically scale together²¹⁹. That seems to us to be a reasonable conclusion to draw.

[617] The 2,274 samples yielded an average Thorium content of 25 ± 13 ppm²²⁰. The maximum Thorium reading of 73 ppm was 2.8 times higher than the average. The drill sample data shows that the mineral sands have consistently low Thorium levels and that there is a low

²¹⁶ Mr Lunt gave evidence as an independent qualified consultant Medical Physicist and not as a member of the Australasian College of Physical Scientists & Engineers in Medicine, International Accreditation New Zealand or the Radiation Safety Advisory Council.

²¹⁷ Statement of evidence of Brian James Lunt, for Coast Road Resilience Group Inc, Topic Radiation Safety Management & Monitoring, Dated: 25 January 2024.

²¹⁸ Supplementary Statement of Mitchell Ryan, 19 March 2024.

²¹⁹ Supplementary Statement of Mitchell Ryan, 19 March 2024, paragraph 3.

²²⁰ Mr Ryan produced a spreadsheet showing all of the 2,274 sample results.

degree of variance throughout the MDA. Mr Ryan advised that the Thorium levels in the 2,274 samples were consistent with the levels of Thorium measured in the average and high-grade bulk samples (24ppm and 66ppm, respectively) that we discussed above, which confirms that those bulk samples are representative of the Barrytown resource.

[618] Relating the Thorium ppm data to Bq/g, Mr Ryan noted that the average grade Barrytown ore bulk sample assayed at 26 ppm U+Th. The HMC produced from that bulk sample was measured at 0.70 ± 0.11 Bq/g. Consequently, there would need to be an increase in radioactivity of approximately 14x across mineral sands in the MDA for the HMC to reach the 10 Bq/g level, where it would be classed as radioactive under the RSA. Based on the 2,274 samples assayed to date, that is not a plausible outcome.

[619] On that basis, we find that there is no need for an MDA-wide survey of radioactivity levels in the mineral sands.

[620] However, Mr Ardouin suggested that measurements inside the HMC processing building (once constructed) should also be carried out before operations to determine background gamma radiation, particulate airborne activity, and radon. We discuss that matter next.

Radon

[621] As noted by Mr Ryan²²¹, submitter Dr John Philip Bradley raised concerns regarding the radioisotope radon. Radon, specifically Rn-222 (or 222Rn), is a decay product of natural Uranium and Thorium. Radon is of particular concern due to its natural state being gaseous and, therefore its mobility in air. Mr Ryan advised that acceptable airborne radon levels above ambient levels are not defined within the RSA. He, consequently referred to the International Atomic Energy Agency Safety Standards No. GSR Part 3.

[622] Mr Ryan considered that due to the low levels of Uranium and Thorium in the ore and HMC, Rn-222 levels would remain well below the IAEA Safety Standard, so monitoring for airborne Radon was not required. He nevertheless recommended a consent condition to incorporate airborne Rn-222 monitoring in the HMC stockpile building into the proposed radiation monitoring programme. We consider that to be an appropriate

²²¹ Summary Statement, paragraph 17.

conservative approach and consider that it should include pre-mining background levels, as suggested by Mr Ardouin.

Radiation Conditions

- [623] Turning to consent conditions, Ms Mackenzie tabled a final suite of conditions as part of her end-of-hearing evidence. Section 8.0 of the “Hazardous substances” conditions contains conditions 8.5 to 8.9 that address the radiation issue.
- [624] In our view, a key consent requirement is using the radioactivity concentration limits specified in Schedule 2 of the RSA²²² as a ‘trigger level’ for quarterly HMC testing to confirm that the HMC remains below the acceptable level in the RSA (Condition 8.5).
- [625] Daily analysis of HMC samples from the processed stockpile area will also be done using a hand-held X-ray fluorescence device (Condition 8.8). That condition utilises a trigger level comprising a calculated activity concentration of >1.0 Bq/g based on the U+Th assay. If that trigger is exceeded, then the HMC sample will be subjected to a head-of-chain radioactivity concentration (namely radionuclide) analysis by an independent accredited laboratory. If that radionuclide analysis exceeds 1 Bq/g, the Applicant will need to notify the Office of Radiation Safety and act as directed by them.
- [626] If the daily analysis of HMC exceeds 10 Bq/g, the Applicant will need to cease HMC processing, and a HMC sample will be subjected to a radionuclide analysis by an independent accredited laboratory. The HMC material will be diluted with tailings material to reach <1Bq/g and returned to the mining void. If the independent test confirms a reading of >10Bq/g, the Office of Radiation Safety²²³ will be notified, and a Radiation Safety Plan will be required to be submitted for approval within 10 working days of the independent testing result (Condition 8.8).
- [627] The Applicant will also be required to install an apparatus in the HMC stockpile building to measure Rn-222 (radon) activity concentration and confirm that airborne radon levels do not exceed the IAEA Safety Standard No. GSR Part 3 reference level of 300 Bq/m³ (Condition 8.9). Mr Ardouin considered that workers in the HMC stockpile building can

²²² We find that to be preferable to specifying a single figure of say 1 Bq/g as Schedule 2 of the RSA covers a wide range to Thorium and Uranium species.

²²³ That Office is part of the Ministry of Health.

be considered as members of the public concerning radon levels. The radiation dose they receive can be assessed from the measure Rn-222 (radon) activity concentration monitoring programme combined with an assessment of worker occupancy in the monitored locations. The Applicant will be required to notify WCRC and the Office of Radiation Safety if the Rn-222 levels in the HMC stockpile building exceed 300 Bq/m³ and then act as directed by the Office of Radiation Safety.

Finding

[628] On the available evidence, we find it unlikely that the mineral sands, the HMC, the slimes and the tailings will have a radioactivity level that triggers the requirements of either the Radiation Safety Act 2016 or the IAEA Regulations for the Safe Transport of Radioactive Material. We also consider it unlikely that airborne radon levels above ambient levels will exceed the International Atomic Energy Agency Safety Standards.

[629] We were comforted by the fact that in answer to our questions, Mr Ardouin advised that if the mineral sand samples tested by the Applicant are representative of the wider area to be mined, then there would be no significant risk from radiation to surface and groundwater or to the general public. Mr Ryan's 19 March 2024 evidence confirms that to be the case.

[630] Nevertheless, we consider that the conditions outlined above provide an appropriate and conservative cautionary approach insofar as they require ongoing monitoring for radioactivity levels and associated trigger levels for action to avoid any future adverse health and safety risks associated with radiation levels arising from the proposed mining activity.

Greenhouse gas emissions

[631] Several submitters²²⁴ were concerned about the GHG generated by the proposal and the effects that would have on global warming and climate change. Notwithstanding our earlier finding that the Applicant's proposed GHG emissions are permitted under AQP Rules 3 and 5, we nevertheless address GHG emissions here.

²²⁴ Including the Coast Road Resilience Group and the Director-General of Conservation.

- [632] We understand that New Zealand's response to global warming is codified in the Climate Change Response Act 2002 (CCRA). Section 5Q of the CCRA defines a 2050 target to reduce net emissions of all greenhouse gases (except biogenic methane) to zero. To meet the 2050 target, under section 5X of the CCRA, the Minister for Climate Change must set a series of emissions budgets to act as stepping stones towards the 2050 target. For our assessment of the Applicant's proposal the relevant annual target is that set for Period 2 (2026 to 2030) of 61.00 million tonnes CO₂-e per annum, as that period is when the proposed mineral sands mine would most likely be active.
- [633] The CCRA provides for the implementation, operation, and administration of the Emissions Trading Scheme (ETS) which is the Government's main tool for reducing GHG emissions in New Zealand. The emissions from the use of liquid fossil fuels in plant and machinery are currently captured by the ETS. Liquid fuel importers are compulsory participants in the ETS. The fuel importers pass the ETS costs on to consumers at the price of the liquid fuels sold.²²⁵
- [634] We understand that the ETS funds are used to support emissions reductions directly. Since 2022, the NZ ETS auction proceeds have been used to support emissions reductions programmes through the Climate Emergency Response Fund²²⁶.
- [635] In light of the ETS, we queried whether or not we needed to consider GHG as we were initially concerned about potential regulatory 'double dipping'. However, we acknowledge that the previous statutory bar on RMA consent authorities considering GHG was removed on 2 March 2004. We therefore turn our mind to the GHG emissions that are likely to be generated by the Applicant's proposal.
- [636] By the close of the hearing the Applicant had confirmed that the HMC processing plant and the associated water treatment facilities would be powered by electricity and not diesel generators. Condition 7.7 requires the Applicant to use mains supplied electricity to operate the HMC processing plant once it is commissioned²²⁷. Consequently, the only

²²⁵ Crown Minerals Act 1991 assessment of Minerals Mining Permit 60785, Tim Journeaux, Principal Minerals Advisor, Ministry of Business, Innovation, and Employment. Section titled 'Climate Change'.

²²⁶ Reply submissions, paragraph 74.

²²⁷ Diesel generators may be utilised during the construction of the plant prior to a mains power supply being provided.

potential GHG emissions of any significance would be generated by the mobile machinery operated at the site along with emissions from the HMC truck haulage fleet²²⁸.

[637] As part of her evidence, Suzanne Hills provided a ‘lay person’ estimate of the likely carbon emissions from the proposal. We asked the Applicant to provide us with an expert estimate of those emissions, which Mr Miller provided²²⁹. He followed the “Measuring emissions: Detailed Guide 2023 (ME1764)” published by the Ministry for the Environment. Mr Miller noted that formal carbon emissions calculations always refer to CO₂ equivalents (CO₂ -e), not just CO₂. However, he provided both values for completeness.

[638] Mr Miller assumed:

- (a) The mobile vehicle mining fleet is as presented in the Applicant’s application;
- (b) HMC haulage off-site based on a 30 km one-way loaded trip plus a 30km unloaded return trip;
- (c) A total of 25 full truck loads plus 25 unloaded truck movements each day, totalling 50 truck movements per day for off-site HMC haulage; and
- (d) The use of on-highway currently available 30-tonne trucks.

[639] The results were:

Component	Tonnes CO ₂ per annum	Tonnes CO ₂ -e per annum
Mining fleet	1,583	1,583
Road haulage ²³⁰	812	1,126
Total	2,305	2,709

[640] Using the second emissions budget period (2026-30), which is when the majority of the mining and road haulage activity will occur, Mr Miller advised that the proposal’s overall total of 2,709 tonnes CO₂-e per annum amounted to 0.0044% of the All-Gases Emissions annual budget figure of 61.00 million tonnes CO₂-e per annum. The road haulage

²²⁸ We acknowledge there will be some negligible additional emissions from the busing of staff to and from the Site in ‘mini-vans’.

²²⁹ Supplementary Statement of Stephen Jeffrey Miller, 7 March 2024.

²³⁰ Mr Miller advised that as TiGa would use a fleet of large trucks the ‘long-haul heavy truck’ Emissions Factor of 0.105 kg CO₂-e / tkm was appropriate, which was smaller than the Emission Factor for ‘all trucks’ of 0.135 kg CO₂-e / tkm.

component of the Applicant's proposal amounted to just 0.00741% of the annualised Transport Sector Emissions budget of 15.20 million tonnes CO₂-e per annum²³¹.

[641] We do not consider those emissions equate to any more than a less than minor adverse effect on NZ's Emissions Budget. Consequently, there will, in all likelihood, be a negligible impact on global climate change. In that regard, we agree with Ms Booker²³² that it is relevant to reflect on the findings of the Environment Court²³³, which stated "The clear preferred policy of the New Zealand Government to address greenhouse gas emissions as an international issue and that sectional emissions should be considered at a national level to ensure a consistency of approach to guarantee an efficiency compatible with achieving the best social, environmental and economic outcome."

[642] Suanne Hills suggested²³⁴ that the 2,709 tonnes CO₂-e per annum resulting from the proposal should be offset by planting approximately 10-12 hectares per annum of native trees and shrubs at 4000 stems/hectare. We find that would be unduly onerous and disproportionate in light of the absence of any similar requirement being imposed on current operators of NZ's heavy vehicle fleet.

Finding

[643] We find that having regard to the GHG likely to be emitted by the Applicant's proposal does not weigh against a grant of consent.

Monitoring and reporting

[644] A fundamental component of any resource consent is a programme designed to monitor the activity's effects once it commences to ensure conditions of consent are complied with. With regard to the WRCR consents the Applicant has proposed a Monitoring and Mitigation Plan²³⁵. The proposed monitoring and reporting programme includes:

- (a) The establishment of an on-site meteorological station to measure, amongst other things, rainfall and wind speed and direction;

²³¹ We note that Mr Miller's table in his initial Supplementary Statement had incorrect percentages which we queried and a revised Statement of Evidence was provided on 11 March 2024.

²³² Reply Submissions, paragraph 81.

²³³ *Environmental Defence Society (Inc) v. Auckland Regional Council* A183.

²³⁴ Comment on Supplementary Statement of Stephen Miller dated 7 March 2024, 15 March 2024, paragraph 9.

²³⁵ Other monitoring is specified in the ESCP and the Dust Management Plan.

- (b) The flow in Collins Creek upstream and downstream of the mining activity;
- (c) The quality and rate of flow of treated water discharged from the Clean Water Facility (Pond 4) to Canoe Creek Lagoon and the infiltration trenches and bores, and any augmentation discharges of Pond 4 water to the Northern Drain, Collins Creek or Canoe Creek. Water quality monitoring will be for metals and metalloids, total suspended solids, turbidity and visual clarity;
- (d) The quality of water discharged from the Mine Water Facility ('dirty water' Pond 2) to the Central Drain;
- (e) The quality of water in the Central Drain upstream and downstream of the mining activity;
- (f) Water quality in Canoe Creek Lagoon;
- (g) Water quality in the Northern Drain, Collins Creek and Canoe Creek upstream and downstream of the mining activity;
- (h) Annual macroinvertebrate and fish surveys in Collins Creek, the Northern Boundary Drain and Canoe Creek;
- (i) The rate of take from Canoe Creek;
- (j) Groundwater level monitoring using an array of piezometers around the periphery of the MDA;
- (k) Visual inspection of the Mine Water Facility ('dirty water' Ponds 1 and 2), Clean Water Facility (Ponds 3 and 4) and the Central Drain at least once daily;
- (l) Monitoring of erosion and sediment control devices²³⁶;
- (m) Stormwater discharge rates to the infiltration basin adjacent to Canoe Creek and
- (n) Daily visual dust inspections of all unsealed surfaces, including stockpiles, earthworks areas haul roads and any watering systems used in those areas, and

²³⁶ Along with water clarity at all pond outlets, all pump discharge locations, the Central Drain and the receiving environment. This will occur a minimum of once per day.

(o) Two Dust Deposition Gauges on the boundary of the site adjacent to SH6;

[645] In terms of reporting, an Annual Hydrological and Water Quality Report will be submitted to WCRC as part of the Annual Work Programme.

Finding

[646] We are satisfied that the proposed monitoring and reporting programme is both 'fit for purpose' and suitably comprehensive.

Bond

[647] We discussed the issue of a suitable bond in the section of this decision that addressed the consents required from the GDC. We note that any bond required from the Applicant would relate primarily to the remediation of the site which is most relevant to the jurisdiction of the GDC and so we do not discuss that further here.

Overall finding on effects

[648] Our overall finding on effects is that subject to the imposition of robust conditions of consent, the potential adverse effects of the proposal are likely to be no more than minor and any residual adverse effects do not weigh against a grant of consent.

Other submitter issues

[649] We are unaware of any other relevant issues we need to address, over and above those set out above.

National Environment Standards and other regulations

[650] Dr Durand drew our attention to the NES-FW and the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010.

[651] We discussed the NES-FW in earlier in this decision.

[652] Regarding the Measurement and Reporting of Water Takes regulations, we are satisfied that the Applicant's proffered consent conditions relating to the measurement and reporting of water abstraction from Canoe Creek can comply with those regulations.

National Policy Statements

[653] Relevant national policy statements are:

- (a) National Policy Statement for Freshwater Management 2020
- (b) New Zealand Coastal Policy Statement 2010, and
- (c) National Policy Statement for Indigenous Biodiversity 2023.

National Policy Statement for Freshwater Management (NPSFM)

[654] The National Policy Statement for Freshwater Management 2020 (NPSFM) has a single Objective:

2.1 Objective

- (1) The objective of this National Policy Statement 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.

[655] Granting the application will enable the Applicant to provide for their economic well-being. The evidence is that the Proposal will also create economic (and hence social) benefits for the wider community through direct employment, the purchase of goods and services, and the flow on effects from those activities. Te Rūnanga o Ngāti Waewae support the Proposal, so we can safely assume that it will also enable the provision of cultural well-being.

[656] Some submitters suggested that the Applicant had no “social licence” for the proposed mineral sand mine. We understand that to mean that some people do not support the proposal. In response we simply note that the submissions were roughly evenly divided between those in opposition and those in support of the applications. We have therefore focused on the potential adverse effects that might arise should the Proposal proceed.

[657] Consequently, in overall terms we are satisfied that the Proposal will achieve Objective 2.1(1)(c). Objective 2.1(1)(b) is not relevant as no potable use is made of the groundwater

and surface water directly affected by the Proposal and the evidence is that with mitigation in place, springs in the southern Langridge property that we understand may be used for potable purposes will not be adversely affected.

[658] Objective 2.1(1)(a) requires us to prioritise the health and well-being of water bodies and freshwater ecosystems. We discussed those matters in preceding sections of this decision and we are satisfied that (with mitigation in place) potential adverse effects on surface water bodies, the ecosystems supported by those surface waterbodies, and groundwater will be no more than minor.

[659] Therefore, we conclude that the Proposal is consistent with Objective 2.1 of the NPSFM.

[660] Turning to the relevant²³⁷ NPSFM policies, we find:

- (a) Policies 1 and 2 are met because Te Rūnanga o Ngāti Waewae support the Proposal;
- (b) Policy 3 is met insofar as the Applicant has considered potential adverse effects on the creeks, groundwater and Coastal Lagoons in the catchment that is directly impacted by the MDA;
- (c) Policy 5 is met as the water quality in the affected surface water bodies and groundwater will be maintained through the application of discharge water quality standards for metals and metalloids derived from the USEPA or ANZECC guidelines that are designed to protect aquatic species;
- (d) Policies 6, 7, 9 and 10 are met as there will be no further loss of natural inland wetlands or river extent and their associated values. The proposed riparian planting and stock exclusion will markedly enhance the existing habitat values of those water bodies; and
- (e) Policy 11 is met as the water proposed to be abstracted from Canoe Creek is well within normally accepted limits.

²³⁷ We do not consider Policies 4 and 8 are relevant. It is unclear to us what relevance New Zealand's integrated response to climate change has here (apart from the issue of GHG's which we have addressed) and there are no outstanding water bodies affected by the proposal. Policies 12, 13 and 14 appear to us to be relevant to the functions of the WCRC. Policy 15 merely repeats Objective 21.(1)(c).

[661] We find that having regard to the objectives and policies of NPSFM does not weigh against a grant of consent.

New Zealand Coastal Policy Statement 2010

[662] The NZCPS is relevant because at least part of the MDA resides within the coastal environment²³⁸. The NZCPS's six objectives and 23 policies are primarily relevant to the consents required from the GDC and we discussed those matters earlier in this decision.

[663] We consider that the Proposal is consistent with the objectives of the NZCPS that are relevant to the consents required from the WCRC. In particular the proposal will maintain coastal water quality (Objective 1) and Te Rūnanga o Ngāti Waewae support the proposal (Objective 3).

[664] Turning to the NZCPS policies, Te Rūnanga o Ngāti Waewae support the Proposal (Policy 2). We do not consider that a 'precautionary approach' is warranted because the potential adverse effects of the Proposal are neither little understood nor significantly adverse (Policy 3). The evidence is that the Proposal will yield significant regional economic benefits and the MDA is well set back from the coastal marine area (Policy 6). Subject to the mitigation proposed (such as the imposition of water quality discharge standards and the augmentation of creek flows) the water quality and indigenous biodiversity of the potentially affected water bodies will be protected (Policies 11, 22 and 23). The natural character and landscape attributes of the surface water bodies will be enhanced (or restored) by the proposed riparian planting (Policies 13, 14 and 15).

[665] We find that having regard to the objectives and policies of the NZCPS does not weigh against a grant of consent.

National Policy Statement for Indigenous Biodiversity 2023

[666] National Policy Statement for Indigenous Biodiversity 2023 is not overly relevant to the consents required from the WCRC because it applies to the terrestrial environment²³⁹. However, clause 1.3(2)(c) states that provisions relating to promoting restoration and increasing indigenous vegetation cover extend to include natural inland wetlands. Insofar

²³⁸ Paragraph 4.4 of the AEE states that the Site is within the Coastal Environment overlay contained in the proposed Te Tai o Poutini Plan.

²³⁹ NPS-IB clause 1.3(1).

as that might be relevant to Canoe Creek Lagoon, we note that the Applicant's intention is to undertake restoration planting and stock exclusion fencing around the margins of that lagoon, which is entirely consistent with the NPS-IB.

Regional Policy Statement

[667] The West Coast Regional Policy Statement (RPS) was made operative in July 2020.

[668] The West Coast Regional Policy Statement (WCRPS) was addressed by Ms McKenzie and Dr Durand. In terms of the WCRPS objectives, we agree with Ms McKenzie that the WCRPS seeks to provide for resilient and sustainable communities (Objective 4.1), recognising the contribution of resource use to the local economy (Objective 5.1) and enabling economic use and employment opportunities in a sustainable manner (Objective 4.2). We also agree that the objectives of the WCRPS demonstrate an overarching intent to enable activities²⁴⁰, provided that the adverse effects of the activities are avoided, remedied, or mitigated²⁴¹. In that regard we find that the proposal is consistent with that intent.

Regional plans

[669] The relevant regional plans are:

- (a) Regional Land and Water Plan;
- (b) Regional Coastal Plan; and
- (c) Regional Air Quality Plan.

Regional Land and Water Plan (LWP)

[670] The Regional Land and Water Plan (RLWP) seeks to sustainably manage the West Coast's natural and physical resources. In that regard, we consider that, subject to mitigation, the Applicant's proposal will adequately protect the surrounding surface water bodies (the Northern Drain, Collins Creek, Canoe Creek and Canoe Creek Lagoon and their riparian

²⁴⁰ Objective 5.1 with regard to the use of natural resources; Objective 7A.1 with regard to natural character; Objective 8.2 with regard to land and water; Objective 9.2 with regard to the coastal environment; Objective 10.2 with regard to discharges to air.

²⁴¹ SOE Mackenzie, paragraph 135.

margins), including their water quality, aquatic ecology, and natural character²⁴². The proposed system of infiltration trenches and bores will in all likelihood avoid surface water depletion of those water bodies, and if depletion beyond reasonable trigger levels does occur, flows in the creeks will be augmented with treated mine derived water²⁴³.

[671] We find that the objectives and policies of the RLWP do not weigh against a grant of consent.

Regional Coastal Plan (RCP)

[672] The mine site is not located in the coastal marine area but is located in the coastal environment. We were advised that the Regional Coastal Plan (RCP) was approved in 2000 and has not been updated to give effect to the NZCPS. Mr Geddes considered it to be out of date and recommended that little weight should be given to its provisions²⁴⁴. We agree.

Regional Air Quality Plan (AQP)

[673] The Regional Air Quality Plan (RAQP) is relevant to the consents required from the WCRC for various discharges to air. Ms McKenzie advised that the Applicant sought consent for discharges to air as a precautionary measure, however their intention is to comply with permitted activity Rules 3 and 5 of the RAQP.

[674] Rule 3 permits the discharge of any contaminant into air arising from the stockpiling, conveying, and handling of gravel, sand, soil, or rock provided there is no discharge of dust beyond the boundary of the subject property. Notwithstanding the Applicant's proposed Dust Management Plan, we are not convinced that there will be no discharge of dust beyond the property boundary. However, we are satisfied that the proposed erosion and sediment control measures together with the implementation of the DMP will result in any potential adverse effects arising from dust discharges being appropriately avoided or mitigated.

[675] Rule 5 is a 'catch-all' permitted activity rule applying to the discharge of any contaminant into air arising from earthworks, quarrying operations or mining provided (in this case)

²⁴² Objectives 3.2.2, 6.2.1, 8.2.1 and 10.2.1. Policies 3.3.1, 3.3.2, 3.3.7, 3.3.10, 6.3.5 and 8.3.1.

²⁴³ Objective 7.2.1 and Policy 7.3.1.

²⁴⁴ A Proposed Regional Coastal Plan (PRCP) was notified in 2016 but it was put on hold in 2020 and has not progressed to hearings. We consequently afford little weight to that document.

that any discharge of dust or gas is not noxious, dangerous, offensive, or objectionable beyond the boundary of the subject property. We consider that in terms of dust, the more specific Rule 3 applies.

[676] In terms of gas, the relevant issue is radon. The RAQP does not explicitly address radon. We discussed radon in section 4.2.8.4 of this decision and we understand the primary concern is with levels of radon inside the HMC processing plant that might pose a risk to the health of mine workers. We note that the Applicant has Offered Conditions requiring the monitoring of radon levels in the HMC building. On that basis we are satisfied that this potential adverse effect will be adequately addressed.

[677] For completeness, we note that the RAQP does not explicitly address radiation, other than in permitted activity Rule 11.2 which applies to x-rays from a radioactive source. The explanation of that rule states “The control of radiation is administered by the National Radiation Laboratory. Permitting these activities²⁴⁵ avoids the duplication of current legislative requirements and controls relating to radiation.” We are not convinced Rule 11.2 is relevant to the radiation matters we addressed earlier in this decision and in that regard, we have agreed that consent to discharge ionizing radiation from an industrial or trade premises into air is required under the general ‘catch-all’ discretionary activity Rule 16²⁴⁶ of the RAQP. Having said that, for the reason set out earlier in this decision, we are satisfied that consent can be granted for that discharge.

[678] This leaves the issue of greenhouse gas (GHG) emissions which are addressed in Chapter 9 of the RAQP. That chapter contains no rules and the relevant objective 9.3.1 is “The reduction and minimisation of adverse effects from discharges of contaminants to air of global significance, such as ozone depleting substances or greenhouse gases.” As we discussed earlier in this decision, while the Proposal will result in the discharge of GHG’s from the onsite machinery and trucking fleet, we find those discharges to be inconsequential from a national viewpoint.

[679] We find that having regard to the provisions of the RLWP does not weigh against a grant of consent.

²⁴⁵ X-rays released in a range of industrial processes used for testing the integrity of pipes, welding and structures.

²⁴⁶ Rule 16 applies to an industrial or trade process and we are satisfied that the processing of the mineral sand ore into HMC meets the definition of an industrial process in the RMA.

Section 104(1)(c) other matters

[680] Relevant to the consents required from the WCRC, we do not consider that there are any other matters that we need to assess.

Section 105(1) matters

[681] The Section 105(1) of the RMA states that where an application is for a discharge permit to do something that would otherwise contravene Section 15 or Section 15B²⁴⁷ of the Act we must have regard to certain matters, namely:

- (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects;
- (b) The applicant's reasons for the proposed choice; and
- (c) Any possible alternative methods of discharge, including discharge into any other receiving environment.

[682] We discussed the nature of the proposed discharges and the sensitivity of the respective receiving environments in earlier sections of this decision. We are satisfied that the proposed water quality discharge standards are appropriate in relation to the sensitivity of the Canoe Creek Lagoon, Northern Drain, Collins Creek and Canoe Creek receiving environments. We note the reasons for the Applicant's choosing of monitoring locations for those receiving environments are reasonable, namely that discharges from Pond 4 to Canoe Creek Lagoon relate to water that would have probably reached that lagoon anyway and the discharges to the creeks are primarily intended to augment flows when necessary. The only alternative receiving environment is the sea and we are satisfied that it is more desirable to discharge to the aforementioned surface water bodies.

[683] We find that having regard to s105(1) matters does not weigh against a grant of consent.

Section 107(1) matters

[684] Section 107(1) of the RMA states that a discharge permit shall not be granted if, after reasonable mixing, the contaminant or water discharged is likely to give rise to certain listed

²⁴⁷ Discharge of harmful substances from ships or offshore installations which is not relevant here.

effects. As we stated in section 4.2.3 of this decision, we accept Dr Fitzpatrick's advice²⁴⁸ that the proposed discharges to surface water would fulfil the requirements of RMA section 107(1)(d), most notably that they will not result in any conspicuous changes in colour or visual clarity, and would not result in any significant adverse effects on aquatic life.

Part 2 matters

[685] We are aware of the case law which outlines that if the lower order statutory instruments appropriately deal with Part 2 matters, then no further assessment of Part 2 matters is required. Consequently, it is arguable that there is no need to separately assess RMA Part 2 matters in light of our previous assessment of the statutory instruments. However, we do so now in a reasonably concise manner for the sake of completeness.

[686] We are satisfied that the Applicant's proposed riparian planting, buffer areas from surface water resources (including a 100 m buffer from Canoe Creek lagoon during the August to December bird breeding season), and use of infiltration trenches to insulate the hydrology of Canoe Creek Lagoon and Collins Creek from the mining pit, will preserve the natural character of the MDA residing within the coastal environment, along with that of Canoe Creek Lagoon, Collins Creek, Canoe Creek and their margins. Those mitigation measures will also protect those natural resources from inappropriate use and development (s6(a)). There are no outstanding natural features or landscapes in the site (s6(b)). The aforementioned mitigation measures will also protect any significant habitat of indigenous avifauna in Canoe Creek Lagoon. We note there are no areas of significant indigenous vegetation within the site itself (s6(c)). The proposal will not affect public access to and along the coastal marine area or Canoe Creek²⁴⁹ (s6d). The support of 'Te Rūnanga o Ngāti Waewae' for the proposal satisfies us that the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga has been recognised and provided for (s6(e)). Sections (ss6(f) and (g)) are not overly relevant to the consents required from the WCRC, but in any case, we note there are no historic heritage or protected customary rights affected by the proposal. We are satisfied that the significant

²⁴⁸ Summary Statement, paragraph 8.

²⁴⁹ Collins Creek and the Northern Drain are on private property and there is no right of public access to them.

risks of significant natural hazards (earthquakes and coastal inundation) can be suitably managed should those hazards impact on the operational mining pit (s6(h)).

[687] The support of Te Rūnanga o Ngāti Waewae for the proposal satisfies us that kaitiakitanga and the ethic of stewardship have had particular regard to (ss7(a) and (aa)). The mining of the mineral sands and the production of HMC represents an efficient use of that natural resource (s7(b)) and the efficient end use of energy (electrical power) (s7(ba)). The site to be mined has little if any amenity value. We are satisfied that the proposed landscape and riparian planting, together with the avoidance of nuisance off-site dust emissions, will maintain amenity values for adjoining properties. The proposed planting and the eventual use in perpetuity of the Clean Water Facility as a wetland will enhance the amenity values of the site (s7(d)). The Applicant's proposed landscape and riparian planting, buffer areas (including a 100 m buffer from Canoe Creek lagoon during the August to December bird breeding season), and use of infiltration trenches to insulate the hydrology of Canoe Creek Lagoon and Collins Creek from the mining pit has appropriate regard to the intrinsic values of those ecosystems (s7(d)) and will maintain and enhance the quality of those environments (s7(f)). The mineral sands within the site are a finite natural resource insofar as the site itself is considered, but not in the context of the wider Barrytown Flats area. The mining of the site is not an inappropriate use of that natural resource (s7(g)). Any trout habitat in Canoe Creek Lagoon, Collins Creek or Canoe Creek will be protected by the mitigation measures summarised above (s7(h)). We have regard to the effects of climate change insofar as that might affect sea levels and the risk of coastal inundation of the site. We have also considered the matter of GHG emissions from the proposal (s7(i)). Section 7(j) is not relevant.

[688] The support of Te Rūnanga o Ngāti Waewae' for the proposal satisfies us that we (and the applicant for that matter) have appropriately taken into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

[689] In overall terms we find that a consideration of Part 2 matters does not weigh against a grant of consent.

Consent duration and lapsing

[690] As we noted earlier in this decision, the Applicant has sought a 12-year consent term to allow for contingencies and to provide operational certainty given the level of financial

investment required in the proposed sand mineral mine. We find that duration to be appropriate.

[691] The Applicant has not sought an extended lapse period and so the default period of five years after the date of commencement of the consent set out in section 125(1)(a) of the RMA applies.

Consent conditions

[692] We were provided with a suite of recommended conditions for the WCRC consents by the applicant. Unfortunately, Dr Durand elected not to provide us with any commentary on those conditions as part of his end of hearing report. Nevertheless, we have reviewed the conditions ourselves and find them to be generally appropriate, subject to some amendments to clarify their intent, remove subjective terms and use consistent terminology. Those amendments are shown in ‘track changes’ format in Appendix One attached to this decision.

[693] We also attach a ‘clean’ version of the conditions. We direct the WCRC to provide both versions of the conditions to the Applicant and submitters. The ‘track changes’ version should be circulated in PDF format.

[694] Given the amendments we have made to the conditions, combined with their complexity, it is conceivable that they may now contain minor errors or omissions. Accordingly, should the applicant or the WCRC identify any minor mistakes or defects in the attached conditions, then we are prepared to issue a revised schedule of amended conditions under s133A of the RMA correcting any such matters. Consequently, any minor mistakes or defects in the amended conditions should be brought to our attention prior to the end of the 20-working day period specified in section 133A of the RMA.

Determination

[695] We grant the resource consents required under the WCRC Regional Land and Water Plan (LWP) as follows:

Rule	Purpose	Activity Status
16	To use land for earthworks and vegetation clearance within 10 m of a riparian margin.	Discretionary

16	To use land for earthworks within 50 m of the Coastal Marine Area.	Discretionary
16	To use land for earthworks exceeding 5000 m ³ per annum.	Discretionary
55	To take and use of surface water from Canoe Creek for the purposes of mineral sand mining.	Restricted Discretionary
56	To take and use groundwater for the purposes of mineral sand mining and processing, pit dewatering and well-point pumping.	Restricted Discretionary
71	To discharge water including contaminants (dewatering water, treated mine, process and stormwater) to land where it may enter water.	Discretionary
71	To discharge ionizing radiation into water.	Discretionary
91	To discharge water including contaminants (dewatering water, treated mine, process and stormwater) to water in Collins Creek, the Northern Boundary Drain and Canoe Creek.	Discretionary
91	To discharge ionising radiation into land	Discretionary

[696] We also grant the consents required under the WCRC Regional Air Quality Plan (AQP) as follows:

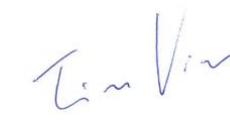
Rule	Purpose	Activity Status
16	To discharge unanticipated dust emissions from stockpiling and mining activities	Discretionary
16	To discharge ionising radiation from an industrial or trade premises into air	Discretionary

[697] Our reasons are detailed in the body of this decision, but in summary they include:

- (a) Subject to the imposition of robust conditions of consent, the potential adverse effects of the proposal are likely to be no more than minor and any residual adverse effects do not weigh against a grant of consent; and
- (b) Granting consent for the proposal subject to those conditions would not be inconsistent with the relevant statutory instruments.


John Maassen (Chair)


Rob van Voorthuysen


Tim Vial

Attachment 1

List of application items, materials, reports and evidence received by the Panel excluding individual lay submitter items presented on the day of the hearing

1	Mineral Sands Mine	Link
2	Public Notice	Link
3	Public Meeting	Link
4	<p>Applications</p> <ul style="list-style-type: none"> • Resource Consent Application form Grey District Council • TiGa Application Form 1 - Administration fillable • TiGa Form 5 - Resource Consent Application Declaration • TiGa RC Application AEE FINAL • TiGa Site Plan V6 • Records of Title • Archaeological Site Records • Certificate of Compliance • MUP site layout (DIMENSIONED) • Processing Plant Building Plans • Barrytown Mine Transport Assessment • Acoustic Assessment • Noise Management Plan • Hydrological Assessment • Water Management Plan • Barrytown Erosion and Sediment Control Plan • Fuel Tank Indicative Design • EcIA - Final - 170423 • Wetland and Riparian Plan • Avian Management Plan FINAL • Barrytown Landscape Assessment • Landscape Graphic Supplement • Rehabilitation Management Plan April 2023 • Proposed Conditions of Consent FINAL • Compliance Assessment • Economic Assessment • Geotechnical Assessment • Radiation Assessment • Radiation Dose Report MMR-001E • Objectives and Policies Assessment • HAIL Form GDC 	Link

5	<p>Amendment to Application</p> <ul style="list-style-type: none"> • 2019-G-MEM-0000-8016_A_Process Water Treatment • Proposed Conditions of Consent Revised • Proposed Conditions of Consent Revised 	Link
6	<p>Further Information Requests</p> <ul style="list-style-type: none"> • Economic Peer Review • Final Noise Peer Review • Final Terrestrial Ecology Peer Review • Landscape Peer Review • Landscape Report in response to submissions • Noise Review May 2023 • Palaris Final Landform Report • Final landform v2 • Landscape Memorandum • Revised Landscape Assessment • Barrytown Graphic Supplement • Cowan Written Approval Redacted • O'Neil and Costello Written Approval Redacted • Ecological Response Memorandum • Amended Site Plan • Transport Assessment Revised • Dust Management Plan April 2023 • Landscape Desktop Review 20230511 • Gary Bramley Appendix 1 Draft Avian Management Plan V3 - provided by Applicant 23 January 2024 • Grey District Significant Natural Areas Assessment – 1 June 2006 [PUN-W034] Punakaiki Ecological District • Hyperlinks to Planning Instruments received 29 01 2024 - Mark Geddes • LU3154-23 - Further Information Request 12.05.23 • LU3154-23 - Further Information Response 20230726 • RC-2023-0146 s92 further information request • WCRC Hydrological Peer Review Response • WGA Final Peer Review 04.09.23._hydrological and hydrogeological Review • WGA211239-MM-HG-0001_A Consent application review hydrological and hydrogeological Review 	Link
7	Submissions	Link
8	Late Submissions	Link
9	Commissioner's Minutes	Link

10	Memorandums	Link
11	Hearing Timetable and Expert Witnesses	Link
12	<p>Joint Witness Statements</p> <ul style="list-style-type: none"> • Barrytown_Landscape_JWS 29 01 2024 • TiGa Applications - Geotechnical hydraulic factors - Joint Witness Statement • TiGa Applications - Hydrology & Water Related - Joint Witness Statement • TiGa Applications - Water injection - Joint Witness Statement 	Link
13	<p>Applicant's Evidence</p> <ul style="list-style-type: none"> • Planning Bundle • Statement of Evidence - Cam Wylie (geotechnical) • Statement of Evidence - Gary Bramley terrestrial ecology • Statement of Evidence - Gary Tear (coastal) • Statement of Evidence - Graeme Ridley (sediment control and stormwater management) • Statement of Evidence - Jens Rekker (hydrogeology) • Statement of Evidence - John Ballingall (economics) • Statement of Evidence - John Berry (company) • Statement of Evidence - Jon Farren (noise) • Statement of Evidence - Kate McKenzie (planning) • Statement of Evidence - Mark Roper (aquatic ecology) • Statement of Evidence - Mike Fitzpatrick (water quality) • Statement of Evidence - Mitch Ryan (metallurgy and radiation) • Statement of Evidence - Naomi Crawford landscape • Statement of Evidence - Nick Fuller (transport) • Statement of Evidence - Robert Brand (company) • Statement of Evidence - Stephen Miller (mine planning) • Statement of Evidence - Tom Lawson (plant design) 	Link
14	<p>GDC s 42a Report</p> <ul style="list-style-type: none"> • TIGA S.42A Officer's Report • Addendum 1 - Summary of Submissions • Addendum 2 - Recommended Amendments to Conditions • Addendum 3.1.1 Initial Landscape Peer Review • Addendum 3.1.2 Landscape Peer Review in response to submissions • Addendum 3.2.1 Noise Peer Review May 2023 • Addendum 3.2.2 Noise Peer Review Memo November 2023 • Addendum 3.3 Terrestrial Ecology Peer Review 	Link

	<ul style="list-style-type: none"> • Addendum 3.4 Economic Peer Review • Addendum 3.5 Radiation Peer Review 	
15	<p>WCRC s42A Report</p> <ul style="list-style-type: none"> • RC-2023-0046 Notification of s42A report time extension to 15 January 2024 - issued 12 01 2024 • RC-2023-0046 s42A Staff Report FINAL amended 15 01 2024 	Link
16	<p>Submitter Evidence</p> <ul style="list-style-type: none"> • Hearing Letter by Fire and Emergency - Grey District Council and West Coast Regional Council - TiGA Minerals and Metals • Submitter [175] CRRG Dr John Bradley expert evidence submission 26 01 2024 • Submitter [175] CRRG Dr S Waugh evidence body 25 01 24 • Submitter [175] CRRG Expert evidence Dr J Renwick • Submitter [175] CRRG tourism expert evidence Patrick Volk 26 01 2024 • Submitter [175] 'Westland petrel and blue penguin conservation biology • Submitter [188] Statement of Evidence of Professor Brian McGlynn on behalf of G & G Langridge 25 January 2024 • Submitter [208] New Zealand Penguin Initiative – TiGa Barrytown Mineral Sand Mining Submission Hearing - received 26 01 2024 • Submitter [241] Legal Submissions for the DG - TiGa resource consent application 2024 pdf (003) • Submitter [241] TiGa Minerals and Metals Ltd - Evidence of K Simister for the DG of Conservation 25 01 2024 • Submitter 175 CRRG Expert evidence Brian Lunt Medical Physicist Jan 2024 Final 	Link
17	<p>Applicant's Legal Submissions</p> <ul style="list-style-type: none"> • Legal Submissions - Functional need - 16 February 2024 • Legal Submissions - TiGa - 5 February 2024 	Link
18	<p>Applicant's Summary Statements and Rebuttal Evidence</p> <ul style="list-style-type: none"> • Summary Statement - Cam Wylie geotechnical • Summary Statement - Graeme Ridley sediment control and stormwater • Summary Statement - Jon Farren noise • Summary Statement - Mike Fitzpatrick water quality • Summary Statement and Rebuttal Evidence - Katherine McKenzie • Summary Statement and Rebuttal Evidence - Gary Bramley ecology • Summary Statement and Rebuttal Evidence - Gary Tear coastal • Summary Statement and Rebuttal Evidence - Jens Rekker hydrology • Summary Statement and Rebuttal Evidence - John Ballingall economic 	Link

	<ul style="list-style-type: none"> • Summary Statement and Rebuttal Evidence - Mark Roper aquatic • Summary Statement and Rebuttal Evidence - Mitch Ryan metallurgy • Summary Statement and Rebuttal Evidence - Naomi Crawford landscape • Summary Statement and Rebuttal Evidence - Nick Fuller transport • Summary Statement and Rebuttal Evidence - Stephen Miller mine • Summary Statement and Rebuttal Evidence - Tom Lawson plant design 	
19	<p>Applicant's Evidence provided during Hearing</p> <ul style="list-style-type: none"> • 2023_nzenvc_277_te_runanga_o_ngati_whatua_v_auckland_council • 2304626 Graphic Bundle - For resource consent applications by TiGa Minerals and Metals Ltd • 240208 N Crawford - Supplementary Evidence R1 • Amendments-to-the-NES-F-and-NPS-FM-Section-32-report (1) • Appendix 1 Revised Conditions with Changes Hearing version • Deverys Creek, Collins Creek, & Canoe Creek annexures 07 02 2024 • Draft Avian Management Plan V5 March 2024 • DRAFT Lighting Management Plan V2.docx 8 March 2024 • essential-freshwater-amendments-report-recommendations-summary-submissions-may2022 • J Ballingall Rebuttal of lay person evidence • Memorandum RDE Ltd - 7 Feb 24 • MOU TIGA Ngati Waewae and Paparoa Wildlife Trust (redacted) • Supplementary Evidence - Mitchell Ryan 6 Feb • Supplementary Evidence - Nick Fuller transport - 7 March 2024 • Supplementary Evidence - Stephen Miller carbon emissions - 7 March 2024 (revised 11 March 2024) • Supplementary Evidence - Stephen Miller carbon emissions - 7 March 2024 • Supplementary evidence in response to questions - Jens Rekker • Supplementary Evidence Stephen Miller 6Feb2024.docx • Supplementary Evidence Cam Wylie 6 February • Supplementary Statement - Gary Bramley ecology - 8 March 2024 • Table 25.2A • TiGa - Corporate - Governance - Sustainability Report - FINAL 17 	Link
20	<p>Submitter Lay Witness Statements and Evidence</p> <ul style="list-style-type: none"> • Appendix Michael Weston methodology • v2 Climate Change revised • Compliance • Lay witness statement Tourism • Visitor survey data • Lay witness statement of evidence Transport • SH6 Concerns Det. Scott Burrowes to Waka Kotahi 	Link

	<ul style="list-style-type: none"> • Hydrology & Functional Need • Natural Character & Landscape, Amenity Values & Social Wellbeing • Westland petrel • Indigenous Biodiversity • Indigenous Biodiversity Attachment One DOIA 2324-0082 • Lay witness statement Radiation • Health & Safety, specifically Dust • Emissions Data • Coast Road overtaking Excel data • Coast Road overtaking places Excel data 2 • Coast Road overtaking places methodology • Traffic survey 231216AM • Traffic survey 231216AM photos • Traffic survey 231219AM • Traffic survey 231219AM photos • Traffic survey 240114PM • Traffic survey 240114PM photos • Traffic survey 240116PM • Traffic survey 240116PM photos 	
21	<p>Submitter Evidence provided during Hearing</p> <ul style="list-style-type: none"> • Kate Simister TiGa Summary Statement of Oral Evidence 26th February 2023 on behalf of Submitter [241] 	Link
22	<p>D-GoC Further Information Request during Hearing – 20 02 2024</p> <ul style="list-style-type: none"> • Gloucester Resources Limited v Minister for Planning - NSW Caselaw • MfE 2I-definitions-standard (1) • Waugh and Wilson 2017 	Link
23	<p>GDC s42A Expert Evidence provided during Hearing</p> <ul style="list-style-type: none"> • Addendum A Recommended Amended Conditions Mark Geddes • Mark Geddes Evidence in Relation to Minute 8 • RC-2023-0046 s 42A Report Addendum 18 March - updated • Rhys Girvan BM230199_Hearing_Landscape_Summary_20240213 • Supplementary Evidence Mark Geddes • Terrestrial Ecology Statement_Harding_18 March 2024 	Link
24	<p>WCRC s42A Expert Evidence provided during Hearing</p> <ul style="list-style-type: none"> • Cris Ardouin witness statement 13Feb24 • RC-2023-0046 s42A Report Addendum 18 March - updated (1) 	Link
25	<p>D-GoC Supplementary Statements and Legal Submissions – 15 03 2024</p>	Link

	<ul style="list-style-type: none"> • TiGa - Legal Submissions for DG dated 15 March 2024 • TiGa Kate Simister Supplementary Statement 15th March 2024 	
26	<p>Coast Road Resilience Group Supplementary evidence provided 15 March 2024</p> <ul style="list-style-type: none"> • CRRG response to Mat Collins transport review • GHG Emissions supplementary statement Suzanne Hills • Waugh supplementary evidence 170324 	Link
27	<p>Applicant's Supplementary evidence provided 19 03 2024</p> <ul style="list-style-type: none"> • Appendix 1 to Reply Statement of Katherine McKenzie - Revised Conditions of Consent - Changes Version • Appendix 1 to Supplementary Evidence of Mitchell Ryan - Barrytown Drill Programme XRF Data • Appendix 2 to Reply Statement of Katherine McKenzie - Revised Conditions of Consent - Reply Version • Appendix 3 to Reply Statement of Katherine McKenzie - Schedules to Conditions • Appendix 4 to Reply Statement of Katherine McKenzie - Email from Tom Lawson • Reply Statement - Katherine McKenzie (planning) - 19 March 2024 • Supplementary Evidence - Mitchell Ryan (radiation) - 19 March 2024 • Supplementary Evidence - Nick Fuller (transport) - 19 March 2024 	Link
28	<p>Applicant's legal Reply and Final conditions – 26 March 2024</p> <ul style="list-style-type: none"> • Final conditions of consent - 26 March 2024 • Legal Reply - TiGa - 26 March 2024 	Link

Attachment 2

Index of items provided as part of the planning bundle for the hearing

Section A:	West Coast Regional Policy Statement
1	WCRPS Chapter 3 – Resource Management Issues of Significance to Poutini Ngāi Tahu
2	WCRPS Chapter 4 – Resilient and Sustainable Communities
3	WCRPS Chapter 5 – Use and Development of Resources
4	WCRPS Chapter 7 – Ecosystems and Indigenous Biodiversity
5	WCRPS Chapter 7A – Natural Character
6	WCRPS Chapter 8 – Land and Water
7	WCRPS Chapter 9 – Coastal Environment
8	WCRPS Chapter 10 – Air Quality
9	WCRPS Chapter 11 – Natural Hazards
Section B:	West Coast Regional Land and Water Plan
1	WCRLWP Chapter 3 – Natural and Human Use Values
2	WCRLWP Chapter 4 – Land Management
3	WCRLWP Chapter 6 – Wetland Management
4	WCRLWP Chapter 7 – Surface Water Quantity
5	WCRLWP Chapter 8 – Surface Water Quality
6	WCRLWP Chapter 10 - Groundwater
7	WCRLWP Chapter 15 – Hazardous Substances
Section C:	West Coast Regional Air Quality Plan
1	RAQP – Chapter 7 Dust
2	RAQP – Chapter 8 – Products of combustion
3	RAQP – Chapter 9 - Global Issues – Objectives and Policies
Section D:	National Policy Statement on Freshwater Management 2020
1	NPS-FM 2020

Section E:	National Environmental Standards for Freshwater Management
1	NES-FM Regulation 45A
2	NES-FM Regulation 45D
3	NES-FM Regulation 52
4	NES-FM Regulation 54
Section F:	National Policy Statement for Indigenous Biodiversity 2023
1	NPS-IB 2023
Section G:	New Zealand Coastal Policy Statement
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2	NZCPS Policies 1-6
3	NZCPS Policy 11
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5	NZCPS Policies 22-26
Section H:	West Coast Regional Coastal Plan
1	WCRCP Map of Coastal Marine Area boundaries
2	WCRCP Map of Marine Mammal Bird Sites and Coastal Hazard Areas
Section I:	West Coast Proposed Coastal Plan 2016
1	WCPCP 2016 Map of CMAs
2	WCPCP 2016 Map of Coastal Management Areas (from page
Section J:	Grey District Plan
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2	GDP Chapter 5 - Significant Indigenous Vegetation and Significant Habitats of Indigenous Fauna
3	GDP Chapter 6 – Waterways and Margins
4	GDP – Chapter 7 – The Coastal Environment
5	GDP – Chapter 9 – Natural Hazards
6	GDP – Chapter 10 – Tangata Whenua
7	GDP – Chapter 11 – Hazardous Substances

8	GDP – Chapter 12 - Transport
9	GDP – Chapter 19 – The Rural Environment
10	GDP – Planning Maps – Map 6
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1	TTPP – Strategic Direction – Minerals Extraction
2	TTPP – Strategic Direction – Natural Environment
3	TTPP – Strategic Direction – Poutini Ngai Tahu
4	TTPP - Transport
5	TTPP – Natural Hazards
6	TTPP – Ecosystems and Indigenous Biodiversity
7	TTPP – Natural Features and Landscapes
8	TTPP – Natural Character and Margins of Waterbodies
9	TTPP – Coastal Environment
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11	TTPP – Light
12	TTPP – Noise
13	TTPP – Mineral Extraction Zone
14	TTPP – Planning Maps – Grey Zoning Mapbook – Map 39
15	TTPP – Planning Maps – Grey Natural Hazards Mapbook – Map 39
16	TTPP – Planning Maps – Grey Environmental and Cultural Values – Map 39