ADDENDUM – 18 MARCH 2024

SECTION 42A STAFF REPORT FOR RESOURCE CONSENT APPLICATION RC-2023-0046 BY TIGA MINERALS AND METALS

Introduction

[1] This supplementary brief of evidence presents a summary of my expert planning opinion on matters raised during the hearing of the above applications for resource consents for TiGa Minerals and Metals Ltd.

[2] My qualifications and expertise are set out in the January s 42A report.

[3] I attended the hearing of the application and heard the applicant's and submitters' presentation of evidence and legal submissions.

[4] I have tried to make this report concise. I have focused largely on the matters I consider to be in contention:

a. The presence of and management of wetlands in and around the site, including applicable legislation.

b. Greenhouse gas discharges and climate change effects, and their management.

[5] However, some discussion and presentation of analysis is necessary on these topics.

NATURAL INLAND WETLANDS AND COASTAL LAGOONS

[6] This part of my report concerns the types of wetlands in and around the site, and the relevant planning provisions for consideration under s 104. Broadly my analysis of lagoons and wetlands is focussed on:

a. Whether wetlands and lagoons in and around the site are natural inland wetlands or not

b. If they are, what is meant by regulation 45D(6) of the NES-F (in particular, the "functional need" test)

c. Whether the applicant has a functional need under r 45D(6)

[7] My planning opinion and principal advice to the panel is as follows.

Delineation between coastal lagoons and natural inland wetlands

[8] It is necessary to determine whether the Canoe Creek Lagoon is a natural inland wetland (to which the NPSFM, NES-F and the RLWP will apply), or whether it is instead a coastal lagoon (to which the NZCPS and RCP apply).

[9] The distinction is important to make as, if the lagoon is a natural inland wetland then the NES-F provisions in regulation 45D apply (and otherwise not).

[10] On this matter the following do not appear to be in dispute:

a. The NES-F applies to natural inland wetlands only.[1]

b. The Canoe Creek Lagoon meets all parts of the definition of a natural inland wetland[2] except that it may be within the coastal marine area (CMA).

c. Wetlands or lagoons in the CMA are not natural inland wetlands under the NES-F.

[11] However, the crux matter that has not been settled is whether the lagoon is in the CMA. I have assessed this question as follows:

a. The definition of "coastal marine area" is "the foreshore, seabed, and coastal water, and the air space above the water" that meet spatial parameters.[3]

b. The lagoon is not "foreshore" as it is not "covered and uncovered by the flow and ebb of the tide at mean spring tide." [4]

c. The lagoon is not "seabed" as it is not the "floor of the sea".[5]

d. Water in the lagoon is not seawater as it is not "water of the sea, or water taken from the sea".[6]

e. As the water is not seawater it cannot be coastal water.[7]

[12] Consequently, under this interpretation the Canoe Creek Lagoon cannot be within the CMA, as it is not foreshore, seabed or coastal water.

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[1] Clause 3.21 NPSFM definition of "natural inland wetland" and regulation 45D NES-F

[2] Clause 3.21 NPSFM definition of "natural inland wetland"

[3] Section 2 RMA

[4] Section 2 RMA definition of "foreshore"

[5] Oxford English Dictionary definition of "seabed"

[6] Oxford English Dictionary definition of "seawater"

[7] Section 2 RMA definition of "coastal water".

[13] However, according to planning documents the Canoe Creek Lagoon is lower than the boundary of the coastal marine area at Collins Creek, and is shown as being within the CMA. [8]

[14] Empirically, the Canoe Creek Lagoon and its margins (seaward and landward) are subject to "dynamic stability" [9] during which, over time, the beach's gravel bar, the lagoon and its outlet will move.

[15] It seems possible that these dynamics may mean, from time to time, that the lagoon becomes part of the foreshore, making the lagoon part of the CMA for that time. It seems equally possible that, from time to time (as now) the gravel bar cuts off the waterbody from tidal influence and any other influences from the sea, and during these times the lagoon would not be part of the CMA.

[16] Under the Regional Coastal Plan the Canoe Creek Lagoon is shown to be within the CMA. However, in my assessment it would require a distortion of the facts and of the RMA's associated definitions to draw a rigid conclusion that the lagoon is permanently part of the CMA.

[17] The approach taken by the applicant was to assess the application against coastal and freshwater provisions. I support that approach.

[18] In summary, my opinion on the matter is that: The Canoe Creek Lagoon is a natural inland wetland to which the NES-F and NPSFM apply, as it meets the definition of in the NPSFM. It is shown to be downstream of the CMA boundary in the proposed RCP, but it cannot be part of the CMA as it is nor foreshore, sea bed or coastal water.

[19] For completeness, the other wetlands subject to the application are certainly not within the CMA and this is undisputed.

Margins of coastal lagoons above mean high water springs

[20] If we presume (counter to my opinion above) that the open water of the Canoe Creek Lagoon is within the CMA, and that the CMA boundary lies at the edge of the open water of the wetland, this introduces the question of whether the margins of the wetland, above that line, could be natural inland wetlands.

[21] Under the NPSFM a "natural inland wetland" [10] is defined by exclusions from the RMA's definition of a "wetland".[11]

[22] Under the RMA a wetland "includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are

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[8] Proposed West Coast Regional Coastal Plan pg. 80. In addition, empirically the lagoon is fed predominantly by freshwater entering it from Collins Creek.

[9] Teear EIC at 33

[10] Clause 3.21(1) NPSFM.

[11] Section 2 RMA.

adapted to wet conditions." I interpret this definition as disjunctive (as well as open) – so land may be a wetland if it has any of those features.

[23] Evidence is before the hearing that the Canoe Creek Lagoon has land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.[12]

[24] Consequently the margin of the Canoe Creek Lagoon is a wetland.

[25] If this margin is not in the CMA, and is outside of an area of pasture used for grazing (which it is, and will be), then the margin of the lagoon also meets the definition of a natural inland wetland.

[26] Therefore, in my opinion, the margin of the Canoe Creek Lagoon is natural inland wetland, whether or not the open water area of the lagoon is a natural inland wetland.

[27] There is an argument that to manage the bulk of this water body as coastal lagoon and to (separately) manage its margins as a natural inland wetland is administratively difficult, and against the intention of the legislation.

[28] I agree it is administratively awkward, though perhaps not difficult.

[29] When considering the intention of the legislation, it may be helpful to consider – for context – the exclusions in the definition of a natural inland wetland.

[30] The NPSFM has an exclusion for "a wetland that has developed in or around a deliberately constructed water body" – meaning that the margin of a deliberately constructed water body may (in some situations) be a "wetland" but not a "natural inland wetland".

[31] A similar exclusion could have been made to state that a natural inland wetland 'means a wetland that is not: (x) a wetland that has developed around a wetland that is in the coastal marine area.' However the NPSFM makes no such exclusion.

[32] Since there is no explicit exclusion, I have concluded the margins of wetlands in the CMA or on the CMA boundary were not intended to be excluded from the remit of the NPSFM and NES-F.

[33] My view, therefore, the margin of the Canoe Creek Lagoon is a natural inland wetland to which the NES-F and the NPSFM apply. This would not be changed by a decision that the open water area of the lagoon were to be excluded because it lies within the CMA.

Delineation between natural inland wetlands and deliberately constructed wetlands

[34] Further questions arise over whether Rusty Lagoon is a natural inland wetland, and whether its margins are a natural inland wetland.

[12] For completeness I note that "water" includes coastal water and freshwater unless in a pipe, tan or cistern (which here it is not) – so irrespective of whether the lagoon is in the CMA or contains sea water or coastal water, the margin of the lagoon is a boundary between land and water.

[35] The relevant exclusions in the definition of a natural inland wetland are disjunctive as follows:[13]

> *(b) a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or*
>
> *(c) a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or*

[36] The exclusion applying to "a deliberately constructed wetland" does not require much interpretation. It appears to apply to a wetland whose construction was intentional. The exclusion relates to the Policy 6 of the NPSFM that "there is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted." Taken together, the exclusion and the policy position mean that natural inland wetlands have a higher level of protection than wetlands that are deliberately constructed (for example to treat stormwater runoff from urban developments), unless they are to offset a loss of a natural inland wetland elsewhere.

[37] Rusty Pond is described in unchallenged evidence as "a former dredge pond".[14] Its origins are in the excavation of material for sorting or sifting for the extraction of gold. It is not a deliberately constructed wetland. Therefore, under clause 3.21(1)(b) the pond does not meet the NPSFM's exclusion.

[38] The NPSFM's exclusion in clause 3.21(1)(c) relates to a deliberately constructed "water body" and a wetland "that has developed in or around" it.

[39] Whilst it is clear that the Rusty Pond was not deliberately constructed to be a wetland, it is less clear whether it was deliberately constructed as a water body, or is a by-product of excavations to enable mining, or existed in some form (or not) prior to dredging. None of those matters are in the evidence but they do relate to whether it is a deliberately constructed water body.

[40] The second element of the exclusion in clause 3.21(1)(c) requires determination of whether a wetland "has developed in or around" the water body. "Developed" has two potentially applicable meanings:

a. "to bring (something) to a fuller or more advanced state"[15] or

b. "to come into being gradually."[16]

[41] Context suggests that the second definition aligns better with the framing of the legislation – that if a wetland "has developed" this implies a sequence through time as follows: (i) there is no water body and no wetland a the given location, (ii) a water body is deliberately constructed there, (iii) in or around that water body, a wetland comes into being (and perhaps over time gains a fuller or more advanced state).

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[13] Clause 3.21 NPSFM

[14] Roper EIC at 13

[15] Oxford English Dictionary definition of "developed"

[16] Merriam-Webster Dictionary definition of "developed"

[42] This exclusion does not provide for a situation where a wetland existed before the water body was constructed. In other words, a wetland may have been present first and then a body of water (such as a dredge pond) was constructed within that wetland. In this case there is a wetland around a constructed body of water, but the wetland did not necessarily "develop" there. It may have existed all along.

[43] There is no evidence before the panel on the origins and history of wetlands around Rusty Pond. Evidence of that sort is necessary for a determination that any such wetlands are not natural inland wetlands for reasons that they developed around a constructed water body.

[44] Speculatively, it seems plausible that a wetland or wetlands at the location pre-dated the excavation of the dredge pond, given:

a. that dredging in ponds relies on relatively shallow groundwater – suggesting wet and intermittently wet areas, and adapted vegetation would have been present in the area

b. the presence of wetlands elsewhere in the immediate vicinity

c. geological and meteorological evidence[17]

[45] On balance, in my assessment it is not plausible to conclude that a wetland has developed in or around a deliberately constructed water body. The proposition fails on both counts: it is not apparent that Rusty Pond is a pond that was deliberately constructed, nor that a wetland developed around it.

[46] On this basis I have concluded that Rusty Pond and its surroundings meet none of the exclusions in the NPSFM's definition of a natural inland wetland. For the purpose of assessing this application Rusty Pond is a natural inland wetland, as are any parts of its surroundings that meet the relevant definition.

<u>Delineation between natural inland wetlands and pasture</u>

[47] Professor McGlynn (for G and G Langridge and others) speculated on whether the hollows within the site's humping and hollowing drainage system could be natural inland wetlands. To my knowledge there is no other evidence on this matter.

[48] The provision states[18] that:

natural inland wetland means a wetland (as defined in the Act) that is not:

[…]

(e) a wetland that:

(i) is within an area of pasture used for grazing; and

(ii) has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)); unless

[17] For example Rekker EIC at 21

[18] Clause 3.21(1) definition of "natural inland wetland"

(iii) the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply

[49] The presence of "unless" in clause (e)(ii) means that two separate tests to be taken in order:

a. First, whether the wetland is a location of a habitat of a threatened species.

b. If the answer to the first question is yes, then the exclusion does not apply and, unless it is otherwise excluded by (a) to (d), it will be a natural inland wetland.

c. Second, whether the area in question:

i. is a permanently or intermittently wet area, and

ii. is within an area of pasture used for grazing, and

iii. has cover of > 50% exotic pasture species.

[50] Under clause 3.8 of the NPSFM regional council must identify freshwater management units and within each identify the location of habitats of threatened species.

[51] Schedule 7 of the operative Regional Land and Water Plan does not list any areas of humping and hollowing as locations of habitats of threatened species. "Barrytown Dredge Ponds" are listed as habitat for giant kokopu. Evidence is before the Panel that within the "*coastal lagoons […] freshwater fish present with an 'At Risk' (Declining) status are longfin eel, bluegill bully, torrentfish and potentially giant kōkopu and kōaro (based on eDNA data)*".[19] Dr Bramley stated:[20]

> *"Given the ongoing grazing of the areas to the south, the likelihood of threatened and at risk species being present is low. Grazing pressure is less intense to the north. Given this area's location near natural biogeographic boundaries it is possible that some plants of conservation interest, and/or threatened or at risk species are present, particularly at the northern site."*

[52] The exclusion in clause 3.21(1) requires that threatened species are identified in wetlands under clause 3.8 (i.e. under the NOF process set out in the NPSFM). The evidence is that it is possible there are threatened species in the hollows of the humps and hollows in paddocks. However this is not sufficient to say the hollows are natural inland wetlands under the definition.

[53] The area of these hollows is used for grazing and it seems plausible that they have >50% exotic species from the National List of Exotic Pasture Species. If this is the case then the hollows within humps and hollows are not natural inland wetlands.

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[19] Roper EIC at 60

[20] Bramley EIC at 68

Application of r. 45D and "functional need" gateway test

General statement on functional need

[54] The presence of natural inland wetlands around the site means r. 45D of the NES-F is a relevant consideration when assessing the earthworks, vegetation clearance and for any taking, use, diversion or damming of water within 100 m of natural inland wetlands.

[55] Under r. 45D(4) there appears to be no dispute that there is a hydrological connection between the taking, use, damming, or diversion and the wetland nor any dispute that the taking, use, damming, or diversion will change, or is likely to change, the water level range or hydrological function of the wetland. In addition, under r. 45D(5) there is no dispute that the discharge will enter the wetland and will change, or is likely to change, the water level range or hydrological function of the wetland. Rather the applicant's water management system is designed to do this.

[56] This means r. 45D applies to the proposal, but that granting consents under this regulation is subject to the "functional need" test in r. 45D(6)(b).

[57] Ms Booker and Ms MacKenzie have addressed the matter of functional need with four related arguments:

a. The first is that functional need exists because the minerals are present in this location*: "there is a clear functional need for minerals to be extracted from within or near a wetland if deposits are located there."*[21]

b. The second argument is that this intepretation has the weight on the Minister's intent behind it: that the Minister for the Environment *"has already determined that there is a functional need for mineral extraction activities to occur where the mineral is located, including within, and within a 100m setback, of a natural inland wetland."*[22]

c. The third is that, when considering whether an activity 'can only occur in that location,' it is not relevant whether the same minerals are present elsewhere (as per NES-F r 45D(6)(b) and NPSFM cl. 3.21(1)): *"whether there are mineral resources beyond a 100 m setback from a natural inland wetland on the Application Site (or further afield) is not relevant to the Panel's assessment."*[23]

d. The fourth argument is that the requirement for a functional need to exist "in that environment" (NPSFM cl 3.21) is the same as requirement for a functional need to exist "in that location" (NES-F r. 45D(6)(b)).[24]

[58] I have reached a different view on each of these points and explain how below. In my assessment the applicant does not have a functional need to extract minerals from within 100 m of a natural inland wetland.

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[21] Booker "Legal submissions – functional need" (16 Feb 2024) at 15(c)

[22] Booker "Legal submissions – functional need" (16 Feb 2024 at 3 and 4)

[23] Booker "Legal submissions – functional need" (16 Feb 2024) at 6

[24] Booker "Legal submissions – functional need" (16 Feb 2024) at 18

Policy intent of amendments to the NES-F

[59] Ms Booker has stated that the Minister for the Environment "has determined" that a functional need to extract minerals and undertaken ancillary activities exists somewhat automatically because of their presence. Ms MacKenzie made a similar argument. Ms Warnock described that as "tautological."

[60] The purposive approach to interpretation of legislation is that "the meaning of legislation must be ascertained from its text and in the light of its purpose and its context".[25] Ms Booker and Ms Warnock sought to do this by gathering context from the Ministry for the Environment's document "Managing our wetlands: Report, recommendations and summary of submissions" (published 1 June 2022)[26] and the Ministry's s 32 analysis of amendments made the NES-F (published 8 December 2022).[27] From this document Ms Booker concluded the Minister had made certain determinations.

[61] Respectfully, these analyses missed the two most key policy documents that lead to the decision to change the NES-F: [28]

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

[62] Cabinet papers explain and make recommendations to Cabinet or Cabinet Committees on policy decisions. They are written (usually by officials) in the voice of the Minister.[29] Importantly, the purpose of the Cabinet paper is to state the decisions the Minister wants Cabinet to make and their reasons. Those decisions are then confirmed (or not) in the relevant Cabinet Minute.

[63] This is the highest level of policy-making for regulations, and in my view the most reliable context available for ascertaining the meaning of legislation (outside of the legislation itself).

[64] By contrast, a summary of submissions or a s 32 report does not set out the Minister's final policy intentions nor does it assist with ascertaining meaning to the same extent. Rather,

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[25] Legislation Act 2019, s 10(1)

[26] https://environment.govt.nz/publications/essential-freshwater-amendments-managing-our-wetlands-report-recommendations-and-summary-of-submissions/

[27] https://environment.govt.nz/publications/amendments-to-nes-f-and-nps-fm-section-32-report/

[28] These documents were released proactively under the Official Information Act 1982: https://environment.govt.nz/what-government-is-doing/cabinet-papers-and-regulatory-impact-statements/essential-freshwater-2022-amendments-seeking-final-agreement-on-wetlands-technical-and-stock-exclusion-amendment/ and https://environment.govt.nz/assets/publications/cabinet-minute-essential-freshwater-2022-amendments.pdf

[29] Paragraph [19] of initial section 42A report set out my experience. Between 2012 and 2015 I was Senior Analyst at the Ministry for the Environment where I was involved in drafting cabinet papers, reviewing Cabinet Minutes, preparing drafting instructions from MfE to the Parliamentary Counsel Office (PCO) and working with PCO on drafting legislation.

these documents set out the Ministry's analysis of a set of policy proposals and submissions on them.

[65] The Cabinet Paper reads [with emphasis added]:

> *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 cleanfill 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.*

[66] The paper concludes with recommendations the Minister made to the Cabinet Environment, Energy and Climate Committee.

[67] The Minute records that the Cabinet Environment, Energy and Climate Committee:

> *4 noted that public consultation has occurred on proposed changes to address implementation issues as follows:*

4.2 exposure drafts of amendments to the wetland provisions and technical changes to the NPS-FM and NES-F, from 21 May to 10 July 2022 [CAB-21-MIN-0500];

7 noted that in August 2021, the Cabinet Business Committee agreed to consult on:

7.1 providing a consent pathway for quarries, cleanfill, landfill and managed fill;

7.2 providing a consent pathway for the mining sector, including whether any checks and balances additional to what apply to other sectors in the freshwater regulations should be in place for the mining sector;

8 noted that 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;

10 agreed to provide additional consent pathways for:

10.1 quarrying activities;

10.2 landfills and cleanfill areas;

10.3 the extraction of minerals and ancillary activities;

10.4 urban development on land identified for development in operative provisions of a regional or district plan;

11 agreed that the additional consent pathways will be subject to the gateway tests, including the offsetting requirements, in the NPS-FM;

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;

14 noted that additional activities are likely to be required to enable extraction to occur, for example to install machinery required for extraction or to provide access to extraction sites;

15 agreed that the quarrying and mining consent pathways will provide for the full scope of activities required to undertake or support extraction of aggregate and minerals;

24 agreed to apply a 'no practicable alternative location' test to the consent pathways for landfills and cleanfill areas and urban development;

79 noted that following public consultation, officials prepared an evaluation report in accordance with section 32 for amendments to the NPS-FM and NES-F (Appendix 5 to the paper under ENV-22-SUB-0051);

80 noted that the Minister for the Environment has considered the evaluation report and has had particular regard to it;

[68] It is axiomatic that the Minister's paper to Cabinet and the resulting Minute of Cabinet's decisions are more useful context for interpretation than the s 32 report and the summary of submissions.

[69] I have drawn a number of conclusions from these documents that assist in ascertaining the meaning of the relevant provisions of the NES-F:

a. The Minister recognised that, prior the amendments being made, the extraction of minerals could be either non-complying or prohibited because of the status of ancillary activities associated with quarrying that are addressed by the NES-F (vegetation clearance, earthworks, takes and discharges of water).

b. Relevant sectors were consulted

c. The change in policy was intended to avoid a blanket non-complying or prohibited status

d. The change in policy was intended to create a new consenting pathway for quarrying and its ancillary activities as they relate to wetlands (e.g. the installation of mining infrastructure)

e. The new pathway for quarrying was deliberately designed to include the "gateway" test of "functional need"

f. The functional need test was deliberately designed to apply to activities intending to locate in a particular location, rather than in a particular environment ("a functional need for the activity to occur in that location")

g. In addition, new pathways for landfills, cleanfills and urban development were introduced

h. These pathways were designed with an alternate test ("no practicable alternative location")

i. The introduction into the NES-F of separate consenting pathways for quarrying, mining, landfills, cleanfills and urban development – each with their own gateway test – reinforces that the provisions within r. 45D were deliberately designed.

[70] These documents make it clear what was intended. It is plainly stated by the Minister, and plainly agreed by Cabinet, that that applications for resource consents for mineral extraction and ancillary activities will be subject to the "gateway test" of there being functional need for those activities in that location.

"Environment" vs "location"

[71] The "environment" referred to in the definition of a natural inland wetland is less specific than the "location" referred to in the NES-F.

[72] If "the environment" is taken broadly enough, there may be a functional need to extract minerals and undertake ancillary activities in this environment generally, as it is true that extraction of minerals "can only" occur where they are present.

[73] However, this is not the test in the NES-F. In the NES-F the regulation applies to the 100 m margin around a wetland and the wetland itself. Reference to "that location" in r. 45D(6)(b) can only mean the 100 m margin around a wetland and the wetland itself. The NES-F states

that consent cannot be granted for activities under r. 45D unless these activities "can only" occur there.

[74] Ms Booker has taken the counter argument as more convincing, and has asserted that it would frustrate the legislation if it only applied where a particular mineral only occurred within 100 m of a wetland. This interpretation conflates "extraction of minerals" with "ancillary activities". The regulation applies to both.

Has the applicant demonstrated functional need?

[75] I agree with Ms Warnock's assessment, and refer to my earlier assessment in the first s 42A report. I refer in particular to my analysis of "operational need" and also as shown above, to the alternate test for urban development and quarrying of "no practicable alternative location". The development of those tests and their application to particular types of developments underlines the intent for the functional need test to apply to mineral extraction.

[76] The application does not demonstrate a functional need for mineral extraction within 100 m from the natural inland wetlands. For there to be a functional need, it must be that extraction "can only" occur in that location (within the 100 m setback).

[77] The fact that extraction can occur elsewhere needs virtually no supporting analysis. The bulk of the extraction site is outside of this location. There are other sites with active consents for extraction of these minerals outside of this location. The applicant has a mining permit for the bulk of the Barrytown Flats, which strongly suggests extraction will be feasible elsewhere.

[78] For these reasons, in my view the applicant does not have a functional need to extract minerals from within 100 m of natural inland wetlands.

[79] There may be a functional need to locate ancillary water management activities within 100 m of a wetland. Those water management techniques may need to be placed close to water bodies in order to manage those water bodies.

<u>Conclusion</u>

[80] I have concluded that:

a. Canoe Creek Lagoon is a natural inland wetland

b. The margins of Canoe Creek outside of grazed paddocks are natural inland wetlands

c. Rusty Pond is a natural inland wetland

d. The margins of Rusty Pond are natural inland wetlands

e. Hollows of humps and hollows in paddocks are not natural inland wetlands

f. There is no functional need to extract minerals within 100 m of a Canoe Creek Lagoon and its margins, and Rusty Pond and its margins.

[81] If consent is granted for mineral extraction, this may be only for these activities beyond 100 m from these natural inland wetlands.

[82] Consent may only be granted for other activities within 100 m from these natural inland wetlands where they are ancillary activities that have a functional need to be in that location. However this may be complex to determine as not all ancillary activities will have a demonstrable functional need. For example:

a. reinjection of water to maintain groundwater pressure may have a functional need to occur within 100 m of a natural inland wetland

b. construction of ponds within 100 m of a natural inland wetland likely does not have a functional need to be in that location, as water can be pumped and stored elsewhere away from wetlands

c. overflow discharges from ponds into wetlands may have a functional need when the discharge is necessary to manage (i.e. to counteract) hydrological effects of mining and groundwater dewatering on the wetland

d. overflow discharges from ponds into wetlands will not have functional need if the overflow can occur to another location

GHG emissions and climate change

[83] Questions have arisen over the course of the hearing over whether greenhouse gas emissions (GHGs) are a relevant consideration.

[84] The applicant has asserted that GHG discharges are a permitted activity under Rule 5 of the Regional Air Quality Plan.

[85] Ms Warnock (for the Director General of Conservation) has submitted that GHG discharges from the site and associated transport are "dangerous" and consequently breach Rule 5, therefore leaving a consent to be necessary.

[86] Questions have arisen over any overlap between the Emissions Trading Scheme and the RMA.

[87] I have addressed each of these below with a more refined cascade of questions as follows:

a. What is the current policy context for GHG emissions in New Zealand?

b. Are emissions from TiGa's proposal within scope of the RMA?

c. If so, are the emissions permitted?

d. If not, are the effects of the emissions avoided, remedied or mitigated, and

e. What is the significance of those emissions?

f. Is there a case to reduce or avoid preventable emissions?

g. Can they reasonably be controlled by a resource consent?

h. If they can be reasonably controlled, should they be?

i. If they should be, how?

Policy context

[88] New Zealand amended the Climate Change Response Act 2002 with the "Zero Carbon Act" [30] to address commitments made to the Paris Accord.

[89] The Climate Change Response Act 2002 now sets a target of net zero emissions of CO_2 by 2050.

[90] To implement this there have been a number of further changes to government policy, including operational policy measures taken by government entities such as the Energy Efficiency and Conservation Authority (EECA). This list of changes is provided as relevant context:

a. The RMA was amended by the Resource Management Amendment Act 2020 to bring the environmental effects of GHG emissions back within the remit of the RMA.

b. This deliberately reversed the 2004 amendment to the RMA to take effects of GHG emissions out of the scope of the RMA.

c. The commentary from the Select Committee considering the 2020 amendment act explained the change back to including effects of GHGs like this: [31]

"Climate change policy at the time [in 2004] *was focused on a national-level pre-eminent carbon pricing scheme. Non-price measures such as RMA regulation were thought to be an unnecessary double-up. The climate change policy framework has since evolved. The policy goal is to transition to net zero carbon emissions by the second half of the 21st Century."*

d. Regarding consideration of GHGs and their effects by consent authorities the Select Committee stated:

"Authorities should be able to consider climate change when making decisions under the RMA: As we have noted, sections 70A and 104E of the RMA prevent decision-makers under the RMA from considering greenhouse gas emissions. We acknowledge that it will be vital to have direction at a national level about how local government should make decisions about climate change mitigation under the RMA. Otherwise, there could be risks of inconsistencies, overlap of regulations between councils and emissions pricing, and litigation. Therefore, we recommend a delayed commencement for these changes, of 31 December 2021, to ensure there is sufficient time to make the policy arrangements."

e. The government has gazetted and NPS and NES on greenhouse gas emissions from process heat. The intent of that legislation to prevent avoidable emissions from process heat.

f. Under the RMA, no further policy (NESs or NPSs) have been made public to date.

[30] Climate Change Response (Zero Carbon) Amendment Act 2019

[31] https://www.legislation.govt.nz/bill/government/2019/0180/latest/d14633153e6.html#LMS327122

g. The Climate Change Commission has stated how the ETS is a pricing mechanism rather than a regulatory mechanism to bring about reductions, but will not effectively do so on its own.[32]

h. The first National Emissions Reduction Plan[33] was published in 2022, states "But we still need to work with our key emissions-intensive industries and sectors to support them to both cut emissions and find new opportunities." (pp. 21) (emphasis added)

[91] EECA has developed a "Low Emissions Transport Fund" [34] to support those wishing to adopt and demonstrate low emissions transport technology.[35]

[92] The Treasury has described developments that reduce or add to national emissions in the context of future costs and benefits arising from those emissions:[36]

> "New Zealand has committed to emissions reduction targets, therefore:
>
> i. New policies or investments that increase emissions will move NZ further away from its target reductions. This implies a fiscal or economic 'cost' in that those emissions will have to be reduced elsewhere.
>
> ii. New policies or investments that decrease emissions will move NZ closer to its target reductions. This implies a fiscal or economic 'benefit' in the avoided cost of reducing those emissions elsewhere."

[93] Overall the current policy framework appears to be one where there is ambition to reduce emissions and to create law and incentives to do so, but other than for process heat discharges there is no directive policy currently in place.

[94] Nevertheless it is clear that new emissions create cumulative effects and future fiscal and/or societal costs. Emissions that are avoided or are permanently offset create the opposite.

Are emissions from TiGa's proposal within scope of the RMA?

[95] GHG emissions are a contaminant under s 2, and therefore s 15 applies.

Are the emissions permitted?

[96] I agree with Ms Warnock's interpretation that GHG emissions, cumulatively, are dangerous. As I understand it, this position is supported by the case *Smith v Fonterra* which Ms Warnock assessed in detail. This means that emissions from TiGa's operations, all of which are "arising

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[32] https://www.climatecommission.govt.nz/news/insight-ets/

[33] https://environment.govt.nz/assets/publications/Aotearoa-New-Zealands-first-emissions-reduction-plan.pdf

[34] https://www.eeca.govt.nz/strategic-focus-areas/efficient-and-low-emissions-transport/about-the-low-emission-transport-fund/

[35] To my knowledge the applicant has not made an application for this funding

[36] https://www.treasury.govt.nz/publications/oia-response/information-shadow-price-carbon-oia-20210278

from earthworks, quarrying operations, [or] mining" as under Rule 5, are not permitted activities.

[97] The intent behind this rule at the time it as written, I suggest, was not to capture GHG emissions and require consent for these. However, that is an assessment of the intent as it was at that time. To my mind this does not mean that a rule cannot be applied after its development to a contaminant that is later considered to be dangerous. In my view, this can be done legitimately – even if it was not originally the intent to capture GHG discharges with this rule.

[98] Further, there is an argument that such "catch all" rules are partly intended to capture new pollutants or pollutants that have effects that were greater than those realised at the time – to 'future proof' a plan. Otherwise the WCRC might have made a rule stating explicitly that GHG discharges are permitted (and support this with evidence that they are not dangerous).

Are the effects of the emissions avoided, remedied or mitigated

[99] Evidence to support the idea emissions are being avoided, remedied or mitigated is present:

a. the suggestion to operate a minivan. This could avoid up to 24 car movements between Barrytown and Greymouth daily, assuming a full 12-seater van filled by occupants who live in Greymouth and who would otherwise drive a single occupancy car. The avoided emissions from this measure appear small relative to the emissions from the 50 truck and trailer movements daily to and from the site, and emissions from machinery.

b. the commitment to power the site with electricity rather than fossil fuels.

What is the significance of those emissions?

[100] New emissions take New Zealand away from its climate targets and have a future costs. As the Treasury has stated: "New […] investments that increase emissions will move NZ further away from its target reductions. This implies a fiscal or economic 'cost' in that those emissions will have to be reduced elsewhere." In terms of their climate change effects, it sems likely these emissions are de minimus. However, it also seems to be accepted that the problem of climate change has been and continues to be created by emissions such as this which are, when considered alone, particularly small.

Is there a case to reduce or avoid preventable emissions?

[101] There is a case to prevent or avoid preventable emissions. Climate change is being created by cumulative emissions, many of which are of the scale proposed by TiGa. Ms Warnock cited the case of *Environmental Defence Society v Taranaki Regional Council* where the Environment Court stated "it is just this very situation [of effects of emissions being 'vanishingly small'] that section 3(d), which relates to cumulative effects, is intended to cover."[37]

Can they reasonably be controlled by a resource consent?

[102] Yes. Conditions of discharge permits routinely manage emissions of other contaminants and / or require emissions management plans to be prepared and emissions mitigated or reduced over time.

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[37] Warnock EIC at 97.

[103] The NES-GHG requires emissions plans to be prepared with consent applications, showing how applicants are adopting the best practicable option to prevent avoidable emissions.

If they can be reasonably controlled, should they be?

[104] Ms Hills for the CRRG was asked whether it is reasonable to impose a requirement to reduce emissions on this applicant. Context of New Zealand's existing ambitions to reduce emissions rather than increase them, suggests that may be reasonable to do this now (along with for other sources of GHGs). If it is not reasonable now, eventually it will need to become reasonable to do so.

If they should be, how?

[105] It is not clear exactly how emissions could be reduced or avoided other than by avoiding the activity. Funding is available through EECA to support the adoption of low emission transport technology. However, this technology does not appear to be widely available to date. The applicant presented uncontested evidence that low or zero emissions trucks were not yet available.

[106] Given the rapidly changing technology in low emissions transport, if consents for activity in general are granted, the applicant should be granted a consent allowing emissions from 50 truck movements per day for 5 years. Following that, emissions may continue only if an emissions reduction plan has been filed with WCRC within 4 years, showing the BPO for reducing or avoiding emissions and proposing a s127 change to the consent to adopt that BPO.

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