IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of applications by Meridian Energy Limited to Manawatū-Whanganui Regional Council, Greater Wellington Regional Council, Tararua District Council and Masterton District Council for resource consents to enable the construction, operation, and maintenance of a new wind farm on Mount Munro, located approximately 5km south of Eketāhuna

SECTION 87F REPORT OF

LAUREN EDWARDS, JOSHUA PEPPERELL AND DAMIEN MCGAHAN - PLANNING

MANAWATU-WHANGANUI REGIONAL COUNCIL, GREATER WELLINGTON REGIONAL COUNCIL, TARARUA DISTRICT COUNCIL AND MASTERTON DISTRICT COUNCIL

15 March 2024

Section 87F Report - Mount Munro Windfarm Application

TABLE OF CONTENTS

Part A:	Introduction	6
A.	OUTLINE OF REPORT	6
В.	REPORT AUTHORS	7
C.	EXECUTIVE SUMMARY	8
D.	SCOPE OF REPORT1	0
E.	BACKGROUND 1	4
F.	SITE LOCATION & DESCRIPTION1	5
	Site location1	5
	Site characteristics1	6
	Cultural Context1	9
G.	SURROUNDING ENVIRONMENT 2	0
Н.	PROPOSED ACTIVITY	0
Ι.	RESOURCE CONSENTS SOUGHT 2	4
	Horizons Regional Council2	4
	Greater Wellington Regional Council2	5
	Tararua District Council 2	6
	Masterton District Council2	8
	Overall Activity Status2	9
	Further Consents Required2	9
J.	FURTHER INFORMATION AND INFORMATION GAPS 2	9
К.	SUBMISSIONS	5
L.	STATUTORY CONSIDERATIONS	7
	Section 104 3	8
	Matters relating to the grant of discharge permits	9
Part B:	Regional Matters 4	1
M.	OUTLINE OF REPORT 4	1
N.	QUALIFICATIONS / EXPERIENCE – LAUREN EDWARDS	1
0.	QUALIFICATIONS / EXPERIENCE – JOSH PEPPERELL	2
Ρ.	CODE OF CONDUCT – LAUREN EDWARDS	2
Q.	CODE OF CONDUCT – JOSH PEPPERELL	2
R.	PERMITTED BASELINE	3
S.	ACTUAL AND POTENTIAL EFFECTS ON THE ENVIRONMENT 4	3
	Air Quality4	4
	Greenhouse Gases	6

	Hydrology	
	Groundwater Effects	50
	Water Quality Effects	52
	Land Disturbance/Earthworks/Sediment Control	
	Freshwater – effects on ecology	57
	Operational Stormwater Quality	61
	Land Stability/Geotechnical Effects	63
	Terrestrial ecology and wetland ecosystems	65
	Contaminated Land	69
	Natural Character	71
	Cultural Effects	73
	Positive Effects	77
	Summary of actual and potential effects on the environment.	
т.	STATUTORY ASSESSMENT	
	National Environmental Standards (NES)	
	National Policy Statements (NPS)	
	NPS for Freshwater Management	
	Horizons Regional Policy Statement and Regional Plan (One P	lan) 89
	Horizons Regional Policy Statement (RPS)	
U.	OPERATIVE REGIONAL PLAN (ONE PLAN)	
	Regional Plan – Policies	
	Summary of the One Plan	104
	GWRC Regional Policy Statement (RPS)	104
	GWRC Regional Policy Statement Plan Change 1 (GWRC RPS P	C1) 115
	Climate change, energy and infrastructure	116
	Fresh Water	117
	Indigenous Ecosystems	117
	GWRC Natural Resources Plan (NRP)	118
	NRP PC1	130
	Summary of objectives and policies analysis under the Region Plans	
	District Plans	130
	One Plan and NRP Rules	131
	Overall Activity Status	131
	Section 104(1)(c) Other Relevant Matters	132

`	v.	ASSESSMENT AGAINST RMA PROVISIONS	133
		Section 104G - Consideration of activities affecting drinking water supply source water	133
		Section 105	133
		Section 107	134
		Part 2 Assessment: Sections 5 – 8	135
		Section 6 – Matters of National Importance	136
		Section 7 – other matters	137
		Section 8 – Treaty of Waitangi (Te Tiriti o Waitangi)	137
,	W.	CONCLUSION	138
2	Χ.	TERM	138
`	Y.	SUBMISSIONS	145
-	Ζ.	CONDITIONS	145
I	Part C:	District Matters	147
	AA.	INTRODUCTION	147
I	BB.	AUTHOR INFORMATION	148
		Qualifications / Experience	148
		Code of Conduct	150
(CC.	PERMITTED BASELINE	151
I	DD.	ASSESSMENT OF APPLICATION	151
		Actual and potential environmental effects	151
		Landscape and visual effects	153
		Effects on tangata whenua and cultural values	158
		Traffic and transportation	159
		Construction and operational noise	166
		Air Discharges (Dust)	172
		Earthworks, Soil erosion and sediment	175
		Contamination (Human Health) and Hazardous Substances	176
		Archaeology and historic heritage	178
		Terrestrial Ecology	180
		Effects on highly productive land	181
		Effects on Farming Activities	182
		Lighting	184
		Shadow Flicker	
		Effects associated with natural hazards	187

	Fire Risk
	Aviation
	Telecommunications interference190
	Health and Social Wellbeing191
	Positive effects193
	Summary of actual and potential effects on the environment 193
EE.	STATUTORY ASSESSMENT 195
	National Environmental Standards (NES)196
	NES for Air Quality (NES-AQ)196
	NES for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS)196
	National Policy Statements (NPS)197
	NPS for Renewable Electricity Generation
	NPS for Highly Productive Land198
	Proposed NPS for Natural Hazard Decision-making
	Regional Planning Documents 201
	Tararua District Plan 201
	Combined Wairarapa District Plans210
	Proposed Combined Wairarapa District Plan (2023) 221
	Summary of objectives and policies analysis under the District Plans222
	Other matters [the consent authority] consider relevant
i.	Climate Change Response Act 223
	Part 2 Assessment: Section 5-8 225
	Section 5 – Purpose 225
	Section 6 – Matters of National Importance 226
	Section 7 – Other Matters 227
	Section 8 – Treaty of Waitangi 228
	Conclusion to assessment of application 229
FF.	LAPSE DATE
GG.	CONCLUSION
Part D:	Conditions

Part A: Introduction

A. OUTLINE OF REPORT

- 1 This report, required by section 87F of the Resource Management Act 1991 (RMA), addresses the issues set out in sections 104 to 112 of the RMA, to the extent that they are relevant to the applications lodged with the Manawatū-Whanganui Regional Council (Horizons), Greater Wellington Regional Council (GWRC), Tararua District Council (TDC) and Masterton District Council (MDC).
- 2 The resource consents applied for, by Meridian Energy Limited (**Meridian or the Applicant**), are required to authorise the construction, operation and maintenance of a new wind farm on Mount Munro, located approximately 5km south of Eketāhuna (the **Application**). The project is known as the Mt Munro windfarm project (the **Mt Munro Project** or the **Project**).
- 3 This report has four sections, allowing Horizons, GWRC, TDC, and MDC (the **Councils**) to efficiently address the issues set out in sections 104 to 112 of the RMA in relation to the Mt Munro Project. **Table 1** outlines the contents of each section.

Section	Content
A: Introduction	This section introduces the scope, structure and authors of this report, and provides information on the Mt Munro Project relevant to all Councils, including site description and existing environment, the proposed activity, consent requirements, procedural matters relating to the application and an introduction to the overarching statutory framework.
В:	This section considers the issues set out in sections 104 to 112 of the RMA in relation to the resource consents applications lodged with Horizons and GWRC (the Regional Councils).

Table 1: Report Structure

Section	Content
Regional	
Matters	
	This section considers the issues set out in sections 104 to 112 of
C:	the RMA in relation to the resource consents applications lodged
District	with TDC and MDC (the District Councils). Cross references are
Matters	made to Section B to minimise repetition relating to matters
	relevant to all Councils.
D:	This section is relevant to all Councils and sets out recommended
Conditions	conditions should the Mt Munro Project be granted.

4 While this report is pursuant to section 87F of the RMA, all authors have in accordance with section 42A(1A) and (1B) attempted to minimise the repetition of information included in the application and adopt that information where they consider it appropriate.

B. REPORT AUTHORS

5 There are three authors of this report, set out in **Table 2**.

Table 2: Report authors

Author	Section(s) written	Qualifications/ experience/ code of conduct
Lauren Edwards	Section B: Regional Matters (Horizons) Section D: Conditions	Paragraphs 90-92 and 96-98 in Section B set out qualifications/ experience and address the Code of Conduct for Expert Witnesses.

Joshua Pepperell	Section B: Regional Matters (GWRC) Section D: Conditions	Paragraphs 93-95 and 99- 101 in Section B set out qualifications/ experience and address the Code of Conduct for Expert Witnesses.
Damien McGahan	Section A: Introduction Section C: District Matters (TDC; MDC) Section D: Conditions	Paragraphs 492-503 in Section C set out qualifications/ experience and address the Code of Conduct for Expert Witnesses.

C. EXECUTIVE SUMMARY

- 6 The application for resource consents for the construction, operation and maintenance of the Mt Munro Project, together with the further information provided through the process to date, is supported by a range of technical information relating to potential and actual effects of the Project, the management of those effects through the effects hierarchy, including in some cases, offsetting, and a brief summary of the statutory framework.
- 7 The Mt Munro Project when assessed against the relevant provisions of the One Plan, Natural Resources Plan (**NRP**), Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (**NES-F**) and the district plan framework, including the Tararua District Plan and the Combined Wairarapa District Plan 2011, is bundled for assessment as a Discretionary Activity.
- 8 While many aspects of the Project can be suitably managed, there are some significant and/or more than minor adverse effects that have not been sufficiently addressed or where additional conditions are required to avoid, remedy or mitigate (or offset) effects. The recommended conditions are set

out in Part D. There are also some gaps where further information is required and these are covered within Part B and Part C of this report.

- 9 Remaining key significant or more than minor adverse effects include:
 - (a) Terrestrial ecology relating to the loss of natural inland wetlands,(which is to be managed through offsetting);
 - (b) Freshwater ecology relating to stream loss and modification of stream habitat;
 - (c) High adverse visual effects on 4 properties;
 - (d) Moderate-high adverse effects on landscape character for receivers within 4km of the site;
 - (e) Construction noise associated with the upgrade of Old Coach Road; and
 - (f) Construction noise generally for the residents of Old Coach Road.
- 10 Outstanding matters or gaps associated with the Project where further information is required include:
 - (a) Cultural matters how the issues and recommendations identified by tangata whenua to date have been addressed in the design and implementation of the Project and any ongoing interactions with relevant Iwi and how these interactions would be managed moving forward;
 - (b) Assessment of the stream classification, the stream
 values/significance and the related offsetting required in response
 if the effects are unable to be avoided, remedied or mitigated;
 - (c) Management of visual effects for four properties close to the Project Site;

- (d) Effects of the proposed Old Coach Road upgrade on the Project, including construction noise and construction programme.
- (e) Effects of construction noise generally for the residents of Old Coach Road
- (f) Any further information on the locations of the Concrete Batching
 Plant and Mobile Aggregate Facility and the associated effects
 assessment, particularly those associated with noise.
- 11 These significant or more than minor effects and outstanding matters/gaps will need to be resolved, as they currently mean some effects are not adequately managed and there are a number of areas where the Mt Munro Project is not aligned with the relevant legislative and policy framework.
- 12 While a suite of conditions has been proposed in Part D, these are not complete given there are some matters that still require further clarification or information from the Applicant, which will need to be addressed during the next stages of this consenting process.

D. SCOPE OF REPORT

- 13 This report focuses only on planning issues.
- 14 While the report has been split into four sections (respectively focused on introducing the Mt Munro Project, regional matters, district matters, and conditions), it should be read as an integrated whole. The four sections make reference shared supporting documents and include cross-references where appropriate.
- 15 Section A covers the following topics:
 - (a) Background;
 - (b) Site and surrounding Environment;
 - (c) Proposed Activity;

- (d) Resource Consents Required;
- (e) Further information and information gaps;
- (f) Submissions; and
- (g) Statutory considerations.
- Section B covers issues set out in sections 104 to 112 relevant to the Regional Councils. Specific topics in this section are introduced in paragraph X.
- 17 Section C covers issues set out in sections 104 to 112 relevant to the District Councils. Specific topics in this section are introduced in paragraph X.
- 18 Section D sets out recommended conditions should the resource consents for the Mt Munro Project be granted.
- 19 In preparing this report, all authors have reviewed the information provided by the Applicant, including:
 - (a) Assessment of Environment Effects (AEE), dated May 2023, prepared by Incite;
 - (b) AEE Appendices A-N (including plans, CTs, technical assessments, and CVAs);
 - (c) Further information responses received on 7 September 2023 (RFI#1 Response 1);
 - (d) Further information responses received on 11 September 2023
 (RFI#1 Response 2);
 - (e) Further information responses received on 12 September 2023
 (RFI#1 Response 3);
 - (f) Further information clarification responses received on 25 October2023 (RFI#1 Clarification response);

- (g) Letter regarding highly productive land, dated 21 November 2023, prepared by Incite;
- (h) Letter from Kahungunu ki Wairarapa to Meridian, dated 6 December 2023;
- (i) Further information responses received 31st January 2024 (RFI#2 Response 1);
- (j) Further information responses received on 14 February 2024 (RFI#2 Response 2);
- (k) Further information responses received on 23 February 2024 (RFI#2 Response 3); and
- (I) Further information response (Climate Change report), received on
 5 March 2024 (RFI#2 Response 4).
- 20 Authors have also relied on the expert advice from the following technical advisors (who have completed section 87F technical expert reports):
 - (a) Mr Andrew Curtis, Pattle Delamore Partners Limited Air Quality (Appendix 1);
 - (b) Ms Deborah Ryan, Pattle Delamore Partners Limited Greenhouse
 Gas Emissions (Appendix 2);
 - (c) Mr Josh Hunt, Narrative Landscapes Landscape (Appendix 3);
 - (d) Ms Harriet Fraser, Harriet Fraser Traffic Traffic and Transportation (Appendix 4);
 - (e) Mr James Lambie, Lambie Ecology Terrestrial Ecology (Appendix 5);
 - (f) Mr Adam Forbes, Forbes Ecology Freshwater Ecology (Appendix 6);
 - (g) Ms Sarah Newall, HAIL Environmental Site Contamination (Appendix 7);

- (h) Mr Neil Crampton, Pattle Delamore Partners Limited Geotechnical (Appendix 8);
- (i) Mr Neil Thomas, Pattle Delamore Partners Limited) Groundwater (Appendix 9);
- Mr Kerry Pearce, Bryant Environmental Solutions Limited Erosion and Sediment Control (Appendix 10);
- (k) Mr John McKensey, LDP Limited Lighting (Appendix 11);
- (I) Ms Claire West, Aurecon New Zealand Limited Shadow Flicker (Appendix 12);
- (m) Mr Nigel Lloyd, Acousafe Noise (Appendix 13);
- (n) Ms Sure Ira, Koru Environmental Operational Water Quality (Appendix 14); and
- Mr Andres Roa, AR & Associates Operational Water Quantity (Appendix 15);
- Authors have also relied on Mr Fowzi Dahhan's review of the Applicant's Radio Compatibility Assessment to assess the potential of electromagnetic interference to broadcast or other radio communications signals (Appendix 16).
- 22 This report provides an analysis of the resource management issues for the Mt Munro Project. The assessments and recommendations within this s87F report are based on the information provided by Meridian, the authors review of the submissions, and reliance on the section 87F technical expert reports (as listed in paragraph 20 above). For the benefit of submitters, we record that the assessment and recommendations made are not binding on any decision maker, including the Environment Court, should the matter be referred to it for determination by the Applicant.
- 23 A more detailed description of the location/ site, the proposed activities and history of the application is provided in sections F, G, and H of this report.

24 The recommendations made, and conclusions reached, in this report may be revisited following mediation, any expert witness conferencing, and following review of evidence of the Applicant and submitters later in the process.

E. BACKGROUND

- 25 Meridian's application for the construction, operation and maintenance of Mt Munro Wind farm was formally received by Horizons on 22 May 2023, GWRC on 9 June 2023, TDC on 9 June 2023 and MDC on 22 May 2023. Two site visits were held on Monday 19th June and 21 June 2023.¹ The application was later accepted as complete by the Councils under s88 of the RMA on 23 June 2023 (see Appendix 17).
- 26 Meridian made a request on 27 October 2023 for the application to proceed directly to the Environment Court for determination, which was granted by Councils on 31 October 2023. The Application was then publicly notified at the Applicants' request on 6 November 2023.
- 27 The key dates associated with the application are show in **Table 3** below.

Action	Date
Application lodged	26 May 2023 (MDC)
	9 June 2023 (TDC)
	22 May 2023 (Horizons)
	9 June 2023 (GWRC)
Site visit	19 June 2023 and 21 June 2023
Application accepted as complete (s88)	23 June 2023

¹ Some specialists who could not make this date visited the site at a later stage. This is noted in the individual s87F reports where relevant.

Section 87F Report – Mount Munro Windfarm Application

Action	Date	
Further information requested (s92) (RFI#1)	6 July 2023	
Further information received (RFI#1 Response 1, RFI#1 Response 2, RFI#1 Response 3)	7, 8 and 12 September 2023	
Further information clarification requested (RFI#1 Clarification request)	20 September 2023	
Further information clarification response (RFI#1 Clarification response)	25 October 2023	
Direct referral request made	27 October 2023	
Direct referral recommended to be accepted	1 November 2023	
Public notification	6 November 2023	
Submissions closed	6 December 2023	
Further information requested (s92) (RFI#2)	20 December 2023	
Further information received (RFI#2 Response 1, RFI#2 Response 2, RFI#2 Response 3)	31 January 2024 & 14 and 23 February 2024	

28 It is noted that Meridian lodged an application for resource consents for a wind farm on the same site back in 2012. This was subsequently withdrawn by Meridian due to a drop in electricity demand.

F. SITE LOCATION & DESCRIPTION

Site location

- 29 The subject site is located approximately 5km south of Eketāhuna, and predominantly sits within the Manawatū-Whanganui region and Tararua district with the eastern portion of the site within the Greater Wellington region and Masterton district. The majority of the site is located to the east of SH2.
- 30 A plan below shows the locality of the project.

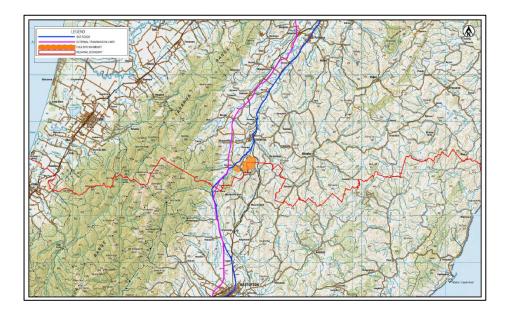


Figure 1: Site Location (AEE page 14, 2023)

Site characteristics

31 The irregularly shaped site is approximately 897.5ha. It is owned by five separate parties. Figure 2 below shows its three main elements outlined in black: a core wind farm site (located to the east, containing Mt Munro), a substation site (located to the west, flat), and transmission site the joins the

Section 87F Report - Mount Munro Windfarm Application

two (located between the others, relatively flat near State Highway 2 (SH2) and hilly to the east).

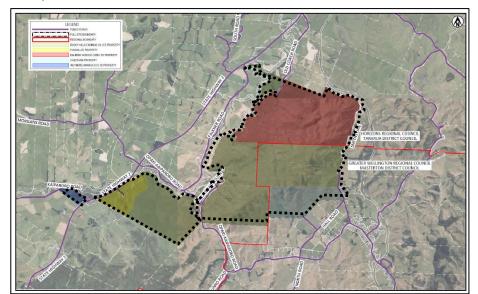


Figure 2: Site sections (AEE page 16, 2023, approximate outline added in black)

- 32 The Applicant has provided a description of the site in the AEE, addressing the site location, ownership, topography, vegetation, rivers and wetlands, wind resource and current use, as well as providing a summary of the surrounding area.² Further information on the site and its cultural context is contained in technical reports and further information submitted as part of the application, which has been summarised below.
- 33 There are multiple roads that provide access or cross segments of the site. This includes SH2 and five other local roads: Old Coach Road, Coach Road South, Kaiparoro Road, Falkner Road, Opaki-Kaiparoro Road. Old Coach Road, Coach Road South and Kaiparoro Road predominately unsealed, while Falkner Road and Opaki-Kaiparoro are sealed.
- 34 Part of the site is located on highly productive land. The core windfarm site has small sections of land classified as LUC 2 and 3, while the south-west corner of the entire site (including all of the substation site, and part of the

² AEE, Section 2.3, pages 9-12.

transmission site) is located on land identified as LUC 3 in the Manaaki Whenua Landcare Research Mapping.

- 35 The Applicant's PSI notes that HAIL activities have previously occurred onsite and identities soil contaminated as a result of sheep dipping, storage of fuel in above ground storage tanks, and bulk storage of fertilisers within a 'super bin'. The super bin is located upon on the ridgelines of Mt Munro, near to the proposed turbine locations, while the sheep dip and fuel storage tank are located to the east of the proposed laydown area by the Old Coach Road entrance to the site.
- 36 The site does not contain any known archaeological sites. However, there is one potential archaeological site near the northern Old Coach Road entrance, within/beside the proposed construction and laydown area. This was the site of an old farmhouse that may have been constructed prior to 1900. While there is no evidence of the farmhouse above ground, the Applicant's Archaeological Assessment of Effects notes it is possible subsurface features remain.³
- 37 The Applicant's Ecological Assessment describes the majority of the site as improved pasture, with some rushland & wet pasture, shrublands, forest, and garden ornamentals present. This also noted that 55 avifauna species could use the site, with subsequent surveys showing indigenous species include the bush falcon (threatened), and the New Zealand pipit (at risk). Their assessment concluded that northern grass skink are present on the site in low densities, with other herpetofauna species (specifically copper skink, ornate skink, barking gecko, and Raukawa gecko) possible in low/undetectable densities. Acoustic bat surveys were also undertaken and show that long-tailed bats are occasionally present within the site.

³ Technical Assessment M: Mt Munro Wind Farm: Archaeological Assessment of Effects, Section 6, page 13.

38 The site includes several gullies which contain ephemeral and perennial streams, as well as natural inland wetlands.⁴ The Applicant's description of the site and surrounds identifies that many of these waterbodies drain to the Mākākahi River which is located in the Horizons Region. A small part of the site along the eastern boundary drains to the Kopuaranga River, which is located in the Greater Wellington Region and considered an important trout fishery and spawning water by the GWRC Natural Resources Plan.

Cultural Context

- 39 There are four iwi which have an interest in the Mt Munro Project site: Rangitāne o Wairarapa; Rangitāne o Tāmaki nui-ā-Rua; Ngāti Kahungunu ki Wairarapa; and Ngāti Kahungunu ki Tāmaki nui-ā-Rua.
- 40 Part of the Mt Munro Project Site is located within the Mākākahi River's catchment. Rangitāne o Wairarapa and Rangitāne o Tāmaki nui-ā-Rua have a statutory acknowledgement to the Manawatu River and its tributaries (including the Mākākahi River).⁵
- 41 The Applicant provided a Cultural Values Assessment (CVA) from Rangitāne o Wairarapa and Rangitāne o Tāmaki nui-ā-Rua as part of their application.⁶ This was written in 2014 for a previous wind farm consent application on Mt Munro, and was relodged as part of the new consent application in 2023. The report sets out the history of the land and the connection that Rangitāne o Wairarapa and Rangitāne o Tāmaki nui-ā-Rua have with it. The report also provides recommendations on the previous Mt Munro Wind Farm proposal.

⁴ Natural inland wetlands are defined in the National Policy Statement for Freshwater Management 2020 as a wetland excluding those in the coastal marine area, deliberately constructed wetlands, wetlands developed in or around deliberately constructed waterbodies, geothermal wetlands, or wetlands within pasture areas used for grazing with vegetation cover comprising over 50% exotic pasture species unless the wetland is a location of a habitat of a threatened species identified under clause 3.8 of the National Policy Statement, but the exclusion does not apply in this circumstance.

⁵ Rangitāne Tū Mai Rā (Wairarapa Tamaki nui-ā-Rua) Claims Settlement Act 2017

⁶ Mount Munro Wind Farm Project – Rangitāne O Tamaki nui a Rua Cultural Values Assessment, written by Patrick Parsons, May 2014 (AEE, Appendix I).

42 The Applicant also provided a Cultural Values Assessment from Ngāti Kahungunu ki Tamaki nui-a-Rua as part of their application.⁷ This report was updated for the current consent application but contains the CVA for the original application as an Appendix. The report provides a historical review of the area, introduces sites of significance for Ngāti Kahungunu ki Tamaki nui a Rua, including Mt Munro and the Mākākahi River, and provides recommendations on the project.

G. SURROUNDING ENVIRONMENT

- 43 The AEE notes that the Mt Munro Project Site and many surrounding sites are used for pastoral sheep and beef farming. Other surrounding uses include rural residential housing to the north and southeast of site, SH2 to the west of the site, 110kV Mangamarie to Masterton national grid transmission line (to the west of the site, immediately adjacent SH2), Wairarapa railway line to the east and north, hiking areas, including a short 'Loop Trail' (west of the proposed transmission site), Pukaha National Wildlife Centre at Mount Bruce (approximately 4km to the south), Hastwell Cemetery (to the southeast), and quarrying activities.
- 44 Paragraph 504-506 in Part C includes consideration of the permitted activities that apply under the District Plans and thus may form part of the future environment and a permitted baseline for the site. The authors of this report do not consider there is a relevant permitted baseline under the Regional Plans.

H. PROPOSED ACTIVITY

45 Meridian proposes to construct a wind farm and ancillary infrastructure across the three components of the site: the core wind farm section, a terminal substation section, and a transmission line section that connects these two parts (described in more detail in section 2.4 of its AEE, pages 15-

⁷ Proposed Mt Munro Wind Farm, 5km South of Eketähuna, Cultural Values Assessment (Revised 2023) for Meridian, written by James Kendrick, dated 4/5/2023.

31, and shown in Figure 2 above). The wind farm is anticipated to generate approximately 90MW.

- In more detail, the proposal comprises 20 wind turbines and ancillary works including earthworks, underground internal cable network, access roads between the turbines and from the site entrance, a new overhead transmission line to connect the wind farm to the national grid and an associated new terminal substation. The proposal also includes temporary concrete batching, temporary fuel storage, temporary aggregate crushing, a new meteorological mast, an operation and maintenance/services (O&M) building and construction laydown areas.
- 47 It is proposed that the majority of the wind farm is constructed, operated and maintained within three location-based envelopes, shown in Figure 3 below. These envelopes are:
 - (a) A turbine envelope zone (located in the core wind farm site);
 - (b) A turbine exclusion zone (located in the core wind farm site); and
 - (c) A transmission corridor (crossing all sections of the site).

Section 87F Report – Mount Munro Windfarm Application

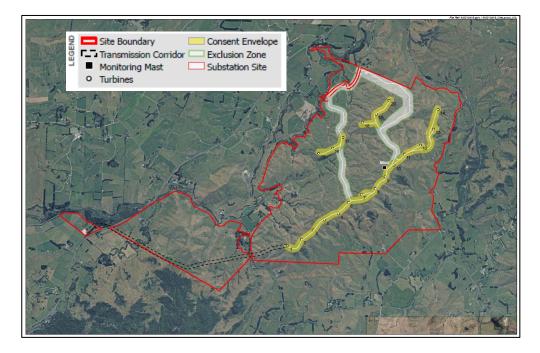


Figure 3: The site with three location-based envelopes (Boffa Miskall Landscape Assessment Report, May 2023, page 87)

- 48 The Core Wind Farm site crosses the boundary of Horizons/TDC and GWRC/MDC. The main site access would be from Old Coach Road. The site would include:
 - (a) Up to 20 wind turbines within the turbine envelope zone. Each would be up to 160m tall (comprised of a hub height of 92m and a blade diameter of 136m), with associated hard standards and concrete foundations.
 - (b) Supporting infrastructure within the turbine envelope zone, including:
 - i. A 92m high meteorological mast; and
 - Site substation including a switchyard, transformers and up to two small control buildings up to 7m high, within a total approx. footprint of 70m x 90m.
 - (c) Other supporting infrastructure including new access roads, up to twelve culverts, and an internal cable network to connect the

Section 87F Report – Mount Munro Windfarm Application

turbines within either the turbine envelope zone or turbine exclusion zone.

- (d) A permanent Operations and Maintenance building close to the Old Coach Road entrance. This building will be up to 6.5m high and approximately 35m long by 20m wide, within the turbine exclusion zone.
- (e) Mitigation planting along the northern perimeter of the site beside the Old Coach Road entrance.
- 49 The terminal substation and transmission line site are entirely located within Horizons and TDC's boundary. This includes:
 - (a) A terminal substation adjacent the Transpower's existing 110kV
 Mangamarie to Masterton transmission line adjacent to Kaiparoro
 Road / State Highway 2 intersection;
 - (b) A permanent control building, water storage tank, on-site wastewater treatment, storage facilities and car parking within a footprint of approximately 100m x 125m; and
 - (c) Internal transmission lines supported by poles up to 20m in height.
- 50 Construction is anticipated to take less than 3 years (24-36 months). This would involve a range of short-term activities within the site, including:
 - (a) Earthworks (approx. 1,410,820m³) across the entire site;
 - (b) Temporary site offices and laydown areas;
 - (c) Concrete batching, occupying an area approximately 100m by 60m;
 - (d) Potential rock blasting;
 - Diesel fuel storage (approx. 30,000 litres general, plus a further 3000l associated with the concrete batching plant); and
 - (f) Upgrading Old Coach Road to allow for anticipated traffic volumes.

I. RESOURCE CONSENTS SOUGHT

- 51 The resource consents and durations sought for the Mt Munro Project are listed below, with consent requirements listed under the relevant council or NES.
- 52 The Applicant seeks a 10-year lapse date, rather than a 5-year lapse date, for all consents.

Horizons Regional Council

53 The Project requires the following consents from Horizons under the One Plan:

Activity	Consent type	Duration
A land use consent, a water permit and a discharge permit is sought pursuant to sections 9(2), 13, 14 and 15 of the RMA and Rule 13-7 of the One Plan for land disturbance and vegetation clearance (including any ancillary disturbance of the bed of a river, division of water and discharge of sediment) that is not in a 'rare', 'at-risk' or 'threatened' habitat and is: - within 5m of the bed of a permanently flowing river; or - within 5m of the bed of a river that is not permanently flowing and has a width greater than 1m.	Discretionary Activity	10 year lapse, Unlimited term
A land use consent, a water permit and a discharge permit is sought pursuant to sections 9(2), 14 and 15 of the RMA and Rule 13-6 of the One Plan for land	Restricted Discretionary activity	10 year Iapse,

Activity	Consent type	Duration
disturbance and vegetation clearance in a		Unlimited
Hill Country Erosion Management Area.		term
A land use consent, a water permit and a discharge permit is sought pursuant to sections 9(2), 13, 14 and 15 of the RMA and Rule 17-23 of the One Plan for the placement of twelve culverts.	Discretionary Activity	35 years
A land use consent is sought pursuant to sections 9(1) of the RMA and Regulation 45 of the NES-F for vegetation clearance, earthworks and land disturbance within or near natural wetlands for the purpose of constructing specified infrastructure.	Discretionary activity	10 year lapse, Unlimited term
A land use consent is sought pursuant to sections 13 of the RMA and Regulation 71 of the NES-F for the placement of culverts in, on over, or under the bed of a river.	Discretionary Activity	35 years

Greater Wellington Regional Council

54 The proposal requires the following consents from GWRC under their Natural Resource Plan.

Activity	Consent type	Duration
A discharge permit is sought pursuant to section 15 and Rule R42 of the NRP for a discharge to air from concrete batching plant and mobile aggregate crushing.	Discretionary Activity	35 years

Activity	Consent type	Duration
A land use consent, water permit and a discharge permit is sought pursuant to sections 9(2), 13, 14 and 15 of the RMA and Rule R142 of the NRP for the reclamation of ephemeral streams	Discretionary activity	35 years
A land use consent and a discharge permit is sought pursuant to sections 9(2) and 15 of the RMA and Rule R107 of the NRP for earthworks, vegetation clearance and the associated discharge of sediment	Discretionary Activity	10 year lapse, Unlimited term
A land use consent is sought pursuant to sections 9(1) of the RMA and Regulation 45 of the NES-F for vegetation clearance, earthworks and land disturbance within or near natural wetlands for the purpose of constructing specified infrastructure.	Discretionary activity	10 year lapse, Unlimited term
A land use consent is sought pursuant to sections 13 of the RMA and Regulation 71 of the NES-F for the placement of culverts in, on over, or under the bed of a river.	Discretionary Activity	35 years

Tararua District Council

55 The proposal requires the following consents from TDC under the Tararua District Plan (**TDP**):

Activity	Consent type	Duration
A land use consent is sought pursuant to section 9(2) of the RMA and Standard	Discretionary Activity	Unlimited

Activity	Consent type	Duration
5.3.7.2(b) for construction, operation and maintenance of a windfarm.		
A land use consent is sought pursuant to section 9(2) of the RMA and Standard 4.1.6.1 for a renewable electricity generation facility in the rural management area.	Discretionary activity	Unlimited
A land use consent is sought pursuant to sections 9(2) of the RMA and Standard 5.1.5.3 for land disturbance.	Discretionary Activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Standard 5.3.3.3 for transport – access radii.	Discretionary activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Standard 5.4.3.4 for signs.	Discretionary Activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Standard 5.4.4.3 for height of structures.	Discretionary activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Standard 5.4.1.3 for construction noise.	Discretionary activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Standard 5.3.6.2 for a network utility.	Controlled activity	Unlimited

Masterton District Council

56 The proposal requires the following consents from MDC under the operative Combined Wairarapa District Plan (**CWDP**):

Activity	Consent type	Duration
A land use consent is sought pursuant to section 9(2) of the RMA and Rule 21.6(j) for wind energy facilities.	Discretionary Activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Rule 4.5.6(a) for the concrete batching plant and mobile aggregate crushing.	Discretionary activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Rule 21.6(n) for the quantity of hazardous substances (approximately 32,000L of transformer oil and cement material stored on site).	Discretionary Activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Rule 21.2.2 for the quantity of hazardous substances (30,000L diesel tank and 3,000L diesel tank for the concrete batching plant).	Controlled activity	Unlimited
A land use consent is sought pursuant to section 9(2) of the RMA and Rule 21.2.4 for metrological structure.	Controlled activity	Unlimited

57 The proposed Wairarapa Combined District Plan (**Proposed WCDP**) was notified on 11 October 2023, which contains some rules that have immediate legal effect under section 86B(3) of the RMA. None of these rules apply to the Mt Munro Project.

Overall Activity Status

- 58 The application includes three controlled activities one for a network utility (an electricity substation receiving lines having a voltage up to and including 110KV) from TDC, and two for the metrological mask and quantity of diesel fuel from MDC. These controlled activities have been bundled into the wider application so their effects can be assessed holistically when it comes to considering the more restrictive activities should the consent be granted. However, controlled activities cannot be bundled with a more restrictive class of activity so that consent can be refused. I therefore note the three controlled activities could be unbundled and considered separately under section 104A of the RMA, with conditions imposed if required, in the event the wider application is declined.
- 59 Notwithstanding the commentary in paragraph 59 above, it is considered that the above listed activities are inextricably linked. Overall, the activity is considered to be a **Discretionary Activity** under the One Plan, Natural Resources Plan, TDP and the operative CWDP.

Further Consents Required

- 60 The Applicant has not applied for consent under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Project Human Health (**NESCS**). I consider a resource consent under the NESCS is likely required given the proposal would change part of the use of the land (away from exclusively land-based primary production) and could disturb potentially contaminated soil for a period over 2 months. This matter is discussed in more detail in section C, from paragraph 597.
- 61 Add commentary on TDP stormwater consent if we consider it necessary.

J. FURTHER INFORMATION AND INFORMATION GAPS

62 Further information was requested in the form of a joint request by all the Councils under section 92(1) of the RMA on 6 July 2023 (**RFI#1**).

63 RFI#1 related to:

- Landscape and visual matters, including boundary treatments, the location of concrete batching plant, and clarifications that specific activities had been considered within the Landscape Effects Assessment.
- (b) Traffic, including consultation with specific parties, construction timing and details, truck movements, potential upgrades to Old Coach Road, information on proposed quarries and aggregate, and many clarifications on data provided in the Traffic and Transportation Effects Assessment, in some cases supported by further modelling.
- (c) Lighting effects during construction and operation, noting this was not considered in the AEE.
- (d) Noise, including impacts on Old Coach Road, further details/assessment on wind farm sound monitoring, and location of a proposed concrete batching plant.
- (e) Shadow flicker and how trees/shelterbelts affect the proposed conditions and assessment.
- (f) Aggregate crushing, requesting information on the location of this activity and noise/traffic effects.
- (g) Temporary activities, including timing, content and activity status of construction activities.
- (h) Consultation, requesting details about discussions with iwi, neighbouring landowners/residents, and specified parties such as Department of Conservation (DoC) and Civil Aviation Authority (CAA).
- Erosion and sediment control, including details on management plans, earthworks volumes and methodologies, and the need for geotechnical assessments.

- Aquatic ecology, including stream classification, details of proposed culverts, possible sediment release, and proposed freshwater offsetting.
- (k) Terrestrial ecology, including effects on indigenous species (avifauna, lizards) and wetlands and proposed offsets.
- Stormwater, requesting information on stormwater discharges, water quality, and flooding.
- (m) Hydrology, including information on culverts (number, scour and erosion protection measures), and their proposed maintenance.
- (n) Geotechnical/land stability requesting details on the total earthworks volumes and cut/fill areas (including corridor widths, proposed fill disposal site, transmission corridor, public roads); turbine foundations and seismic considerations and the need for further geotechnical investigations; and the number of concrete batching plants & ponds.
- (o) Contaminated land, requesting a PSI to support the application.
- (p) Air quality, requesting an air quality assessment.
- (q) Greenhouse gases/ carbon life cycle, requesting a preliminary life cycle assessment of the proposal and details on how carbon emissions will be mitigated.
- 64 The Councils received RFI#1 Response 1 on 7 September 2023, which included responses to most regional and district matters (). RFI#1 Response 2 was sent through on 8 September 2023 on transport matters.
- Following a review of the further information package, the Councils determined that there were additional points relating to the scope of the application and consents that needed clarification, and this was raised with Meridian via email on 20 September 2023 (RFI#1 Clarification request). RFI#1 Clarification response was provided by the Applicant on 25 October

2023, with further specific information relating to earthworks (fill) volumes provided on 30 October 2023.

- On 21 November 2023, the Applicant confirmed that the site contained LUC
 3 land, meaning the National Policy Statement for Highly Productive Land
 2022 was relevant to the site.
- 67 After submissions were received (refer summary in paragraph 77 and 78), another further information request under section 92(1) of the RMA was made on 20 December 2023 (**RFI#2**). RFI#2 covered a range of matters raised through the submissions received, including:
 - (a) Clarifying natural hazards affecting the site (specifically landslide features);
 - (b) Implications for local groundwater takes;
 - (c) Effects on waterways including the potential for contamination (discharges) and impacts on fish;
 - (d) Classification of waterways and rainfall levels;
 - (e) Management of fire risk;
 - (f) Construction noise and issues with an existing meteorological mask;
 - (g) The impact on highly productive land affected and reverse sensitivity effects associated with adjacent production land;
 - (h) Effects of dust;
 - (i) Management of shadow flicker effects;
 - (j) Traffic effects on Old Coach Road and Opaki-Kaiparoro Road; and
 - (k) The effects of the proposal on social wellbeing and health.
- 68 In addition to the above, RFI#2 also asked the Applicant to provide further information on

Section 87F Report - Mount Munro Windfarm Application

- (a) Contamination (specifically how construction will avoid a 'super bin' HAIL site);
- (b) Potential archaeological effects on a pre-1900s dwelling;
- (c) The effects of controlled rock blasting;
- (d) Assessment of the proposal against the proposed Wairarapa
 Combined District Plan;
- (e) Provide clarification on the location of some activities (specifically the concrete batching plant, aggregate crushing facility, and the potential aggregate sources); and
- (f) The requested lapse and expiry dates of all consents.
- 69 The Applicant provided RFI#2 Response 1 on the 31 January 2024.⁸ Information on groundwater was provided by email on 14 February 2024 (RFI#2 Response 2). Information on groundwater, dust, highly productive land, transport and social wellbeing and health was provided on the 23 February 2024 (RFI#2 Response 3). The Applicant then provided a report covering the Climate Change Impacts of the Project on the 5 March 2024.
- 70 The authors of this report have reviewed all material provided by the Applicant. However, the timing of the additional information provided on highly productive land meant there was insufficient time to engage, brief and receive advice from a new specialist on the Mt Munro Project to consider these matters within this s87F report. A specialist has been engaged to provide advice on these matters for future stages of this project.
- 71 The authors of this report do not consider there is sufficient information on the proposal to make a recommendation on the entire consent application and conditions. Some of the key gaps (although not exhaustive) are:

⁸ Response to RFI#2.

- (a) Cultural values -as some CVAs lodged as part of the application include recommendations that do not form part of the proposal);
- (b) Noise particularly relating to the duration and mitigation of construction traffic noise along Old Coach Road
- (c) Additional effects on Old Coach Road (in particular, potential changes to the overall construction programme, noise impacts and existing culverts due to recommendations to seal and widen the road);
- (d) Other transport matters including the need for a right-turn bay to be installed at the SH2 intersection with Old Coach Road, confirmation the 501,300m³ of fill will not be imported to site, the need and management of construction traffic on some local roads, responses to issues raised by submitters, and more⁹.Contamination specifically over the extent of contamination present within the Turbine Envelope Zone near the superbin;
- (e) Freshwater ecology specifically with regard to the freshwater survey and stream classification methods, the ecological significance and values assessments, the effects assessment and effects management hierarchy, and as a result, the offsetting proposal.
- (f) Stormwater confirmation if proposal meets district and regional permitted activity standards;
- (g) Concrete batching/aggregate crushing confirmation of location; and
- 72 These gaps are considered further throughout Parts B and C of this report.

⁹ Ms Fraser has provided a comprehensive overview of these gaps in paragraphs 73-75 of her report.

- 73 In other instances, identified gaps in information are considered by the technical experts to be able to be addressed through the conditions recommended alongside this report in Part D.
- 74 I note matters relating to highly productive land and reverse sensitivity towards existing land-based primary production activities have not yet been assessed and therefore may contain gaps that have not yet been identified.

K. SUBMISSIONS

- As summarised above at paragraphs 25-27, the application was publicly notified on the 6 November 2023, with affected/interested parties served notice of the application on 6 November 2023. The submission period closed on 6 December 2023. There were 73 submissions received, including two late submissions. Appendix 18 includes a summary of submissions.
- 76 Two late submissions were received by the Councils on 8 December and 12 December 2023 respectively. These were accepted by the Councils after extending the submission deadline.
- 77 The general position of submissions is recorded in Table 4 below, noting this includes submissions that comment on matters relevant to all Councils. Partial opposition or support indicates a submitter only indicated their support/opposition for some resource consents (for example, only consents located with Horizons and TDC, rather than all Councils).

Table 4: Summary of submissions

Position	Number
Support	7
Partial Support	-
Neutral	2
Partial Opposition	2
Oppose	60
Not specified	2
Total submissions	73

78 Submissions covered a broad range of issues, outlined in Table 5 below. Note many submissions covered more than one theme.

Submission themes	Number of times issue raised
Effects	
Air Quality / Dust	27
Archaeological / Heritage	5
Climate Change	4
Construction Effects	18
Contaminated Land	3
Cultural / Tangata Whenua	6
Economic	28
Freshwater Ecology	14
Health	22
Light / Flicker	22
Natural Character & Landscape	30
Natural Hazards / Flooding	8
Noise	40
Operation & Maintenance	1
Productive Land	7
Social	29
Terrestrial Ecology	20
Traffic Design / Safety / Heavy Vehicle Access	48
Visual	26
Water Quality	19
Water Take	2
Other	
Application	33
Consultation	11
Statutory matters	3
Solutions & Suggestions	60

Table 5: Mt Munro Submission Themes (positive and negative)

- 79 At the time of preparing this section 87F report, **19** submitters wish to be heard in relation to their submission, and **43** submitters do not wish to be heard. Ten submitters **11** did not specify one way or it was unclear if they wished to speak at the hearing.
- 80 The authors have addressed the matters raised in the submissions in Parts B and C of this report where those concerns are relevant to the environmental effects or statutory documents being addressed within the Regional or District consents respectively. The technical experts referred in paragraph 19 of this report have also reviewed the relevant submissions, and incorporated comments into their assessments as required.

L. STATUTORY CONSIDERATIONS

- 81 Section 87F of the RMA outlines that if a consent authority grants a request for direct referral, it must prepare a report on the application. The report must:
 - (a) Address issues that are set out in section 104 to 112 of the RMA to the extent that they are relevant to the application (covered in Part B and C);
 - (b) Suggest conditions that it considers should be imposed if the Environment Court grants the application (covered in Part D and Appendix 23); and
 - (c) Provide a summary of submissions received (covered in Part A and Appendix 18).
- The New Zealand Transport Agency Waka Kotahi (**Waka Kotahi**) and the Pukaha National Wildlife Centre have provided their written approval. However, the approval from Waka Kotahi is conditional, and the approval from Pukaha National Wildlife Centre references superseded plans. Updated approvals are required before effects on these parties can be disregarded under section 104(3)(a) of the RMA.

The application has been bundled and therefore assessed as a discretionary activity, although some aspects of the proposal are controlled activities. When considering an application for a discretionary activity, the consent authority must have regard to Part 2 of the RMA and sections 104, 104B, and where relevant sections 104G, 105, 107, 108, 108AA, and 108A of the RMA.

Section 104

- 84 Section 104 of the RMA sets out the matters a consent authority shall have regard to in considering an application for resource consent and any submissions received. The section 104 matters the authors consider relevant to the applications include:
 - (a) Actual and potential environmental effects, including measures proposed to ensure positive effects¹⁰. Both sections B and C include consideration of the AEE and the technical expert reports before providing an overall assessment of the actual and potential effects of the activities.
 - (b) National Environmental Standards¹¹ Relevant National Environmental Standards (NES) include the NES for Assessing and Managing Contaminants in Soil to Protect Human Health (considered in Part C), and the NES for Freshwater, the NES for Air Quality, and the NES for Sources of Human Drinking Water (considered in Part B).
 - (c) **Other regulations.**¹²
 - (d) National policy statement¹³ Relevant National Policy Statements (NPS) include the NPS for Freshwater Management and the NPS on Electricity Transmission (considered in Part B); the NPS for Highly Productive Land and the NPS for Renewable Electricity Generation (considered in Part C). The NPS for Indigenous Biodiversity is not considered as clause 1.3(3) specifies it does not apply to the

Section 87F Report - Mount Munro Windfarm Application

Prepared by Damien McGahan - Planning

¹⁰ RMA section 104(1)(a)-(ab).

¹¹ RMA section 104(b)(i).

¹² RMA section 104(b)(ii).

¹³ RMA section 104(b)(iii).

development, operation, maintenance or upgrade of renewable electricity generation assets and electricity transmission network assets and activities.

- (e) New Zealand Coastal Policy Statement¹⁴ The authors of this report not consider the New Zealand Coastal Policy Statement relevant as the subject site is not located in the coastal environment.
- (f) Regional policy statement¹⁵ The relevant objectives and policies of the One Plan and the Greater Wellington Regional Policy Statement are discussed in paragraphs Part B, from paragraph 270, and Part C, from paragraph 334 of this report.
- (g) Relevant plans¹⁶ The relevant objectives, policies and rules of the One Plan and Natural Resources Plan are discussed in Part B paragraphs 310 and 354, while the TDP and the CWDP are discussed in Part C, from paragraph 707 of this report.
- (h) Other matters [the consent authority] consider relevant¹⁷ these matters include the Climate Change Response Act, the Emissions Reduction Plan, the lack of detail and gaps in the application, the Manawatu Accord, and iwi management plans. These matters are considered in Part B, paragraphs 438-440, and Part C, paragraphs 803-813 of this report.

Matters relating to the grant of discharge permits

85 Section 105(1) of the RMA lists additional matters that a consent authority must have regard to when considering applications for discharge (or coastal) permits to do something that would contravene section 15 of the RMA. These matters are addressed in Part B, paragraphs 443-445 of this report.

¹⁴ RMA section104(b)(iv).

¹⁵ RMA section104(b)(v).

¹⁶ RMA section104(b)(vi).

¹⁷ RMA section104(c).

86 Section 107(1) of the RMA places restrictions on the grant of resource consents for the discharge of contaminants into water if they cause certain adverse effects in receiving waters after reasonable mixing, with a limited range of exceptions provided in section 107(2) to this prohibition. These section 107 matters are addressed in Part B, paragraphs 446-448 of this report.

Lauren Edwards

Joshua Craig Pepperell

Damien Ryan McGahan

15 March 2024

Section 87F Report – Mount Munro Windfarm Application

Part B: Regional Matters

M. OUTLINE OF REPORT

- 87 Part B of this report focuses only on planning issues with regard to the resource consent applications lodged with Horizons and GWRC (referred to as the "Regional Councils" at times in this report). Matters relating to the District Council consents are addressed in Part C by Mr McGahan. Parts A, B and C are all intended to be read together and make reference to the shared set of supporting documents set out in Part A Section B.
- Part B has been co-authored by Lauren Edwards of Horizons and Joshua
 Pepperell of GWRC. Lauren Edwards is the author of Sections A, B, D, G, H, J O, and Joshua Pepperell is the author of Sections C, E, I.
- 89 This section covers the following topics:
 - (a) Author information (qualifications/experience, code of conduct);
 - (b) Permitted baseline;
 - (c) Actual and potential environmental effects;
 - (d) Statutory assessment; and
 - (e) Duration and lapse date.

N. QUALIFICATIONS / EXPERIENCE – LAUREN EDWARDS

- 90 My name is Lauren Adele Edwards. I am a Senior Consents Planner at Horizons. I have been in that position since April 2023. Prior to my current role, I was a Consents Planner with Horizons, commencing in that role in September 2020.
- 91 I hold a Bachelor of Law and a Bachelor of Science (majoring in Marine Biology) from the Victoria University of Wellington. I practiced law for two years before joining Horizons. I am also a certified RMA commissioner under the Making Good Decision Programme (2023).

92 I am familiar with the site and surrounding area. I visited the site along with other experts of the Regional Councils and District Councils on 21 June 2023 with representatives of Meridian.

O. QUALIFICATIONS / EXPERIENCE – JOSHUA PEPPERELL

- 93 My name is Joshua Pepperell. I am a Resource Advisor at Greater Wellington Regional Council. I have been employed by GWRC since February 2020.
- I hold a Bachelor of Resource and Environmental Planning (Second Class Honors) from Massey University, Palmerston North.
- 95 I am familiar with the site and surrounding area. I visited the site along with other experts of the Regional Councils and District Councils on 21 June 2023 with representatives from Meridian.

P. CODE OF CONDUCT – LAUREN EDWARDS

- 96 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I confirm that I have stated the reasons for my opinions I express in this report, and considered all the material facts that I am aware of that might alter or detract from those opinions.
- 97 Statements expressed in this report are made within the scope of my expertise except where I rely on the technical advice referred to in Part A, Section B of this report.
- 98 Unless otherwise identified within the body of my report, I have all the information necessary to assess the application within the scope of my expertise and am not aware of any gaps in the information or my knowledge.

Q. CODE OF CONDUCT – JOSHUA PEPPERELL

99 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I confirm that I have stated the reasons for my opinions I express in this report, and considered all the material facts that I am aware of that might alter or detract from those opinions.

- 100 Statements expressed in this report are made within the scope of my expertise except where I rely on the technical advice referred to in Part A, Section B of this report.
- 101 Unless otherwise identified within the body of my report, I have all the information necessary to assess the application within the scope of my expertise and am not aware of any gaps in the information or my knowledge.

R. PERMITTED BASELINE

102 The permitted activity baseline test under sections 95D(b) and 95E(2)(a) of the RMA is not considered applicable in relation to the Regional Council consents.

S. ACTUAL AND POTENTIAL EFFECTS ON THE ENVIRONMENT

- 103 The assessment of environmental effects below considers the key effects arising from the application that are within the jurisdiction of Horizons and GWRC. These effects are:
 - (a) Effects on air quality;
 - (b) Greenhouse gas effects;
 - (c) Effects on hydrology;
 - (d) Effects on groundwater;
 - (e) Effects on water quality;
 - (f) Land disturbance/earthworks/sedimentation effects;
 - (g) Freshwater Ecological effects;
 - (h) Operational stormwater (quality) effects;
 - (i) Effects on land stability/geotechnical effects;
 - (j) Effects on terrestrial ecology and wetland ecosystems;
 - (k) Contaminated land potential effects;

- (I) Effects on natural character;
- (m) Effects on tangata whenua and cultural values; and
- (n) Positive effects.

Air Quality

- 104 There is the potential for effects on air quality from the construction and operation of the Mt Munro Project, particularly from the concrete batching plant and mobile aggregate crushing, primarily in the form of dust. The Applicant has addressed these issues in RFI#2 Response 3.¹⁸ Air quality and dust were raised in a number of submissions and can be broken down into the following categories:
 - (a) Dust risks on human health;¹⁹
 - (b) Dust risks on animal health;²⁰
 - (c) Effects of dust on roof collected drinking water;²¹
 - (d) Dust effects on pasture;²²
 - (e) Dust effects on surface or ground water quality;²³
 - (f) General dust nuisance effects;²⁴
 - (g) Road dust on Old Coach Road;²⁵ and

²¹ Submission No.s 1, 3, 21, 29, 41, 43, 44, 47, 48, 65, 67, 68, 71.

- ²³ Submission No.s 21, 41, 44, 48, 63.
- ²⁴ Submission No.s 1, 3, 14, 15, 17, 21, 23, 33, 43, 65, 68, 71.
- ²⁵ Submission No.s 28, 44, 45, 62, 63, 65.

¹⁸ RFI#2 Response 3, Appendix 1, Tonkin & Taylor, Mt Munro Dust Assessment, February 2024.

¹⁹ Submission No.s 1, 17, 29, 31, 41, 46, 47, 48, 49, 56, 63, 67,68.

²⁰ Submission No.s 1, 3, 68.

²² Submission No.s 3, 21, 43, 65, 68,71.

- (h) Effects of diesel emissions from construction machinery.²⁶
- 105 Mr Andrew Curtis has assessed these air quality effects issues on behalf of Horizons and GWRC.
- 106 Mr Curtis notes that the primary potential discharge to air associated with the Project is dust, which can occur from almost all aspects of the earthworks activities. The Applicant provided an assessment of the potential effects of dust using the FIDOL factors.²⁷ Mr Curtis is generally comfortable that the assessment addressed the effects of the Project.
- 107 Mr Curtis agrees with the assessment in relation to the nature of the discharges and the key factors that influence the discharge of dust from earthworks and construction.²⁸ He does not, however, agree that that the most significant source of dust arises from the movement of vehicles along unpaved surfaces during dry weather. While this can be a significant source, Mr Curtis is of the view that wind erosion of exposed or unconsolidated surfaces is likely to be a more significant source of dust in this instance.
- 108 Rural dwellings are likely to be the most sensitive receptors, and generally rural properties are considered to have low sensitivity.²⁹ However, Mr Curtis notes that the proximity of the adjoining land at the north of the site where the main access road is proposed with excess fill is to be disposed, means the sensitivity at this location is considered moderate. He agrees that the dwellings on Old Coach Road are at greatest risk of being impacted by dust.
- 109 Mr Curtis further agrees with that the greatest potential for effects on sensitive receptors is form traffic movements along Old Coach Road. He considers the proposed measures to mitigate these effects as reasonable, and agrees that sealing the road provides the most effective mitigation.
- 110 Mitigations for other activities, however, have not been considered by the Applicant. Mr Curtis is of the view that minimising dust effects could be

²⁶ Submission No.s 1, 14, 41, 44, 46, 65.

²⁷ RFI#2 Response 3, Appendix 1, Tonkin & Taylor, Mt Munro Dust Assessment, February 2024.

²⁸ Section 87F Report – Air Quality – Andrew Curtis at 36-37.

²⁹ At 41.

Section 87F Report – Mount Munro Windfarm Application

achieved through a Dust Management Plan (DMP). A condition requiring a DMP and identifying what is required has been recommended by Mr Curtis³⁰ and I have included this in Part D. A condition setting out that the activities must not cause noxious, dangerous, offensive or objectionable adverse effects at any point beyond the boundary of the site has also been recommended by Mr Curtis and has been included in Part D.

- 111 In relation to the mobile crusher, the concrete batching plant and the operation of generators on the site, it is noted that the only resource consent sought for these activities is under the NRP for the air discharge associated with the mobile crusher and concrete batching plant. Mr Curtis is concerned that there was insufficient information provided with the application to show that the activities meet all other applicable permitted activity rules.³¹
- 112 Mr Curtis has recommended conditions which ensure that the potential for air quality effects are minimised. I support these conditions. Further it remains my view, as it is Mr Curtis' that Meridian should provide sufficient information to demonstrate at detailed design how they meet the relevant permitted activity standards in relation to the discharge to air from the mobile crusher, concrete batching plant and the operation of generators. This requirement is reflected in recommended conditions in Part D.

Greenhouse Gases

- 113 Amendments to the RMA in November 2022 removed the previous restrictions in considering the effects of greenhouse gases that was contained in s104E (now repealed). Regional Councils now have the ability to consider the effects of the proposal on climate change, being the cumulative build-up of greenhouse gases in the atmosphere, as an "actual or potential effect" under s104(1)(a) of the RMA.
- 114 The effects of the Project on climate change was raised in three submissions, two supportive of the Project and one opposed.³²

³⁰ At 55.

³¹ At 56-61.

³² Submission No.s 12, 46 and 52.

- 115 Meridian's commitments to action on climate change was addressed by the Applicant in RFI#1 Response 1.³³ Ms Deborah Ryan has assessed the benefits of the Mt Munro Project in providing renewable energy, emissions of greenhouse gases to air, and the effects of the emissions from the Mt Munro Project on climate change.
- 116 Ms Ryan is of the view that the Mt Munro Project has significant benefits to assist New Zealand in meeting renewable energy targets and targets for decarbonisation. Ms Ryan agrees with Meridian that there is a need for the project to add renewable energy capacity to the national grid for decarbonising, which is critical to mitigate the effects of climate change and meet New Zealand's Paris Agreement Commitments.
- 117 Despite discussing their commitments to action on climate change, the Applicant has not provided an assessment of the greenhouse gas emissions or opportunities for reductions throughout the Project. While the Applicant provided a Climate Change Report on 5 March 2024³⁴, Ms Ryan's view that it did not address the emissions resulting from construction/establishment of the wind farm, assess the climate change effects or provide an approach to manage, reduce, or mitigate those emissions.
- 118 Ms Ryan points out that, while there are benefits of renewable energy, the Project is a significant infrastructure investment that has its own carbon footprint. In her view, an assessment from the Applicant as to the greenhouse gas emissions resulting from the Project and how they will be managed or reduced compared to business as usual would be required in order to fully assess the effects of greenhouse gases in relation to the Project. This would need to be in accordance with the following frameworks:
 - ISO 14067 Greenhouse gases Carbon footprint of products —
 Requirements and guidelines for quantification;

³³ RFI#1 Response 1, page 19.

³⁴ Jen Purdie, 'Climate change impacts on the proposed Mt Munro wind farm', ClimateWorks, February 2024

Section 87F Report – Mount Munro Windfarm Application

- (b) ISO 14040 Environmental management Life cycle assessment —
 Principles and framework; and
- (c) ISO 14044 Environmental management Life cycle assessment Requirements and guidelines.
- 119 In Ms Ryan's view, there are opportunities to ensure that carbon emissions are reduced as part of the Project compared to the business as usual case, through considering life cycle carbon in the design, construction, operation and end of life of the wind farm.
- 120 Conditions addressing consideration of the life cycle carbon emissions are recommended to address the missed opportunity discussed above,³⁵ including a design options report to consider the greenhouse gas life cycle carbon analysis of the build infrastructure, plans to manage or minimise greenhouse gas emissions during construction, operation and at end of life.

Hydrology

- 121 The Applicant has addressed hydrology effects in relation to stormwater and the proposed culverts in RFI#1 Response³⁶, in the technical report³⁷ and in RFI#1 Clarification Response.³⁸
- 122 Mr Andres Roa has assessed the application from a hydrology perspective. The rainfall parameters used by the Applicant, was raised in a number of submissions³⁹ as well as concerns about damage to stream margins⁴⁰ and effects on waterways.⁴¹
- 123 In relation to the proposed culverts and bridge, Mr Roa notes that indicative information, including a map and assessment of pre and post development flows, has been provided by the Applicant. Mr Roa considers this information

- ⁴⁰ Submission No.s 8 and 13.
- ⁴¹ Submission No.s 34 and 40.

³⁵ Section 87F Report – Deborah Ryan - Greenhouse Gas Emissions, paragraphs 63 and 64.

³⁶ RFI#1 Response, pages 15-17.

³⁷ RFI#1 Response, Appendix 13

³⁸ RFI#1 Clarification Response, page 3.

³⁹ Submission No.s 8, 34, 37 and 44.

Section 87F Report - Mount Munro Windfarm Application

to be generally appropriate, however, it is his view, that this needs to be confirmed through the detailed design review process.

- 124 Mr Roa notes that there are additional gaps in the assumptions and parameters provided which need to be further understood such as soil type and associated runoff coefficients, culvert slope, alignment and associated erosion protection measures, allowance for fish passage (which may impact on the culvert's effective cross-sectional), minimum freeboard requirements and culvert construction including bedding and backfilling for structural support. He is of the view, however, that there matters are able to be addressed using appropriate consent conditions. I have recommended conditions in relation to culvert design on the basis of Mr Roa's report.
- 125 In relation to the rainfall depths used in the Applicant's hydrological assessment, Mr Roa notes this was carried out in accordance with Wellington Water's *"Reference Guide for Design Storm Hydrology"* document, which accounted for climate change by accounting for a 20% increase. Mr Roa considers this to appear generally appropriate, however, the climate change time horizon used in the assessment is unclear. Mr Roa therefore reviewed the rainfall parameters against NIWA's HIRDS Version 4 data which suggested increases of 34% and 35% are likely to apply for 10- and 100- year ARI events. This is significantly higher than the Applicant's 20%. Therefore, Mr Roa considers that the more conservative HIRDS data should be adopted.
- 126 Mr Roa generally agrees with the Applicant's design approach in relation to erosion and scour protection methods,⁴² and is of the view that these can be included as consent conditions. I have suggested consent conditions in relation to this matter in Part D on the basis of Mr Roa's report.
- 127 Mr Roa has also assessed the potential effects of the stormwater design. While Meridian has not applied for resource consents in relation to the stormwater design, on the basis that it considers the discharges to be permitted, a number of issues are raised in submissions.

⁴² Section 87F Report – Andres Roa – Hydrology, paragraph 31-32.

- 128 Mr Roa notes that increases in the volume and rate of stormwater runoff can potentially result in flooding, erosion and changes to the natural hydrological regime including natural flow paths. He suggested that these effects can be managed through the implementation of a number of measures, including primary and secondary conveyance systems, stormwater detention and attenuation systems, and energy dissipation and erosion protection systems.
- 129 In order to ensure the adequate functioning of the stormwater design, Mr Roa has suggested that an operation and management plan be developed during the design phase.⁴³
- 130 Mr Roa notes that, overall, the level of detail provided is limited with a lot being left the detailed design stage. He has therefore recommended that various requirements in relation to stormwater quantity be addressed through consent conditions.⁴⁴
- 131 I agree with Mr Roa's assessment regarding the shortfall of information in relation to stormwater design. While resource consents in relation to the stormwater design are not currently being sought by Meridian, the level of uncertainty around stormwater design (and resultant effects) means I consider it important that the process for identifying the nature and extent of effect at detail design stage (and any required response) is clearly set out as part of a management plan approach. At the very least, I would expect Meridian to demonstrate at the time of detailed design how they meet the relevant permitted activity standards in relation to the management of stormwater.
- 132 I further agree with Mr Roa that that there is a shortfall of information in relation to culvert and bridge design. However, I rely on Mr Roa's report in reaching the view that any potential effects from the culverts and bridge can be addressed through the recommended conditions, which have been included in Part D.

Groundwater Effects

⁴³ Section 87F Report – Andres Roa – Hydrology, paragraph 14(c).

⁴⁴ Section 87F Report – Andres Roa – Hydrology, paragraphs 52.

Section 87F Report – Mount Munro Windfarm Application

- 133 The Applicant addressed the potential effects on groundwater in RFI#2 Response 2.⁴⁵ This was assessed by Mr Neil Thomas.
- 134 Mr Thomas notes that Meridian has provided very limited assessment of the potential effect of the proposal on groundwater. In summary, they indicate that:
 - (a) Groundwater use in the area is very limited;
 - (b) The greatest impact on groundwater is expected during excavations due to high turbidity in localised areas, but this potential effect can be addressed via the construction management plan; and
 - (c) Potential effects on groundwater quality as a result of the development of other structures in the valley (e.g. substations etc) could occur, but the potential effects from these activities can also be addressed through a management plan.
- 135 In general, Mr Thomas agrees with these potential effects. He is of the view that effects due to high turbidity during excavations could reasonably be addressed through a construction management plan. Appendix F to the application notes that turbid groundwater encountered during the construction process will be directed to sediment retention ponds and other sediment removal devices. In Mr Thomas' opinion, this represents a suitable means by which effects on groundwater can be minimised to an extent that is less than minor.
- 136 In Mr Thomas' view, the exception to the above is the concrete batching plant, which could result in effects on groundwater quality. These effects would potentially arise where concrete trucks are washed out and where stormwater runoff is discharged to ground. Mr Thomas notes that the application suggests that the runoff from washing trucks will be discharged to ground, where it may soak to groundwater, and that stormwater runoff will soak into ground via a settling pond. In Mr Thomas' experience, this can result in increased alkalinity in groundwater.

⁴⁵ RFI#2 response 2.

- 137 Mr Thomas notes that the eventual effects are uncertain given that the final location of the plant has not been determined, with the greatest risk in terms of location being if the plant was located in the valley. This is due to the strata being more likely to be permeable, and the distance to the nearest receptors being shorter, allowing the least opportunity for attenuation.⁴⁶
- 138 If the plant was to be located in the valley in an area where groundwater is used for drinking water, Mr Thomas is of the view that any potential effects could be addressed through a management plan requiring that a shallow monitoring bore is installed down-gradient of the plant. Mr Thomas recommends that groundwater quality monitoring be required to be undertaken at quarterly intervals, including at least two samples to be obtained prior to the commencement of the plant to provide a baseline.
- 139 Mr Thomas notes that there are no drinking water standards or aesthetic guideline values for alkalinity. However, an aesthetic standard for drinking water is set for hardness (<200 mg/L) and pH (7 to 8.5), which are both directly related to alkalinity and he suggests that these thresholds be included as triggers for further action if the discharge occurs in the valley and in an area where groundwater is used for drinking water.
- 140 In my view, it is appropriate for the monitoring to be included in the Concrete Batching Plant Management Plan which is set out in the proposed conditions in Part D.

Water Quality Effects

- 141 The effects of the Mt Munro Project on surface water quality during and after construction have been considered by Dr Adam Forbes, having regard to the reports of Mr Kerry Pearce (erosion and sediment control) and Ms Sue Ira (operational stormwater quality). Surface water quality was raised in a large number of the submissions.⁴⁷
- 142 The Project is located in the catchment of the Mākākahi and Kopuaranga Rivers, and eventually discharges through the Manawatū River and

⁴⁶ Section 87F Report – Neil Thomas – Groundwater, paragraph 29.

⁴⁷ Submission No.s 1, 3, 6, 7, 8, 13, 20, 24, 29, 30, 34, 44, 45, 47, 49, 61, 65, 68 and 71.

Ruamahanga River. The Kopuaranga River is listed under the NRP as having Schedule B (Nga Taonga Nui o Kiwa) and Schedule I (Trout Fishery River) values. This reach of the Mākākahi River has the One Plan Schedule B values of Water Supply, Trout Fishery (Regionally Significant) and Trout Spawning.

- 143 Schedule E of the One Plan sets out water quality targets for the Mana_8d water management sub-zone, which are referenced in Dr Forbes' report together with those specific to the site due to the trout spawning value.⁴⁸ Importantly, from the Applicant's Freshwater Assessment, Dr Forbes notes that the estimates of deposited sediment cover for the Mākākahi tributaries are towards the upper end or exceeding the water quality targets, particularly for trout spawning value during the spawning season (May to September).⁴⁹ The mean MCI is also less than the water quality target in Schedule E.⁵⁰
- 144 Given the above, Mr Forbes is of the view that it is clear that the receiving environments are sensitive to sediment deposition, particularly in relation to trout spawning values.
- 145 In relation to the proposed instream works, the proposal discusses the need to undertake culvert works in dry conditions (facilitated by a temporary diversion). In Dr Forbes' experience, any water quality effects come from sediment released upon the livening of the culvert, which is short term, and which Dr Forbes considers is manageable with appropriate site management.
- Discharges of sediment and other construction related contaminants could potentially affect water quality, freshwater habitats and biodiversity values. In particular, as Mr Pearce sets out, increased sediment and turbidity can cause adverse effects such as smothering aquatic life, injury to the mouths and gills of aquatic animals, the destruction of spawning grounds, hindering animals feeding due to poor visibility, increased heat absorption and reducing photosynthetic activity.⁵¹ There is also the potential for discharges associated with the concrete batching plan which have the potential to have

⁴⁸ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 21 and 23.

⁴⁹ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 23.

⁵⁰ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 24.

⁵¹ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraph 23.

Section 87F Report – Mount Munro Windfarm Application

an elevated pH. This could also result in adverse effects on water quality and associated freshwater habitats and ecological values. These matters are considered in greater detail below when considering the erosion and sediment control measures as part of the reporting of Mr Pearce.

147 Dr Forbes is of the view that pH in receiving environments will be manageable within the pH water quality target range set out in the One Plan. He has recommended that instream pH monitoring be included as a condition of consent. This condition has been included in Part D.

Land Disturbance/Earthworks/Sediment Control

- 148 Meridian addresses land disturbance/earthworks effects in the AEE⁵² and RFI#1 Response.⁵³ Mr Kerry Pearce assesses these issues on behalf of Horizons and GWRC.
- 149 The proposed construction footprint area (or 'envelope') is approximately 55.8ha with a maximum cut volume of 1,723,100m³ and a maximum fill volume of 505,700m³. This requires a fill disposal volume of 1,217,400m³.
- 150 Mr Pearce agrees with the overview provided by the Applicant in the proposed Construction Water Management Plan (**CWMP**) as to how erosion and sediment control can manage resultant effects on the receiving environment. Mr Pearce agrees with the Project objectives for Erosion and Sediment Control (**ESC**), with erosion control the highest priority in the design and implementation of the ESC measures, alongside proposed nonstructural measures which are also crucial in avoiding significant environmental effects.⁵⁴
- 151 The proposed CWMP is an environmental management document, proposed in place of an Erosion and Sediment Control Plan. The measures and plans in the CWMP are then refined in Specific Environmental Management Plans (SEMPs) which are to be certified by Council prior to works commencing. The SEMPs, will be developed in line with the *"Erosion and Sediment Control*

⁵² AEE, Section 5.7, pages 105-107.

⁵³ RFI#1 Response, pages 12-5 and Appendix 11.

⁵⁴ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraphs 22-25.

Section 87F Report – Mount Munro Windfarm Application

Guide for Land Disturbing Activities in the Wellington Region" dated February 2021 (the GW Guidelines).

- 152 The CWMP sets out that the ESC measures will be designed, constructed and maintained in accordance with the GW Guidelines. Mr Pearce is of the view that the GW Guidelines are currently regarded as industry best practice when undertaking earthworks activities.⁵⁵ He notes, however, that the proffered consent conditions do not contain a design standard. In his view, a consent condition should be included that requires ESC measures to be designed, constructed and maintained in accordance with the GW Guidelines.
- 153 The application includes ESC drawings showing how the GW Guideline measures will be employed. Mr Pearce notes that these show that Sediment Retention Ponds (SRPs) and Decanting Earth Bunds (DEBs) will be the predominant sediment control devices used. Hybrid Decanting Earth Bunds (HDEBs) are also proposed for shorted duration earthworks. Mr Pearce notes that chemically treated SRPs are the most efficient sediment control device, and that DEBs and HDEBs can be less effective due to their simplistic design. Mr Pearce is therefore of the view that all run-off practicable should be directed to SRPs for treatment.⁵⁶
- 154 In terms of the ESC framework, Mr Pearce supports the use of SEMPs as an effective structure to implement the most effective ESC solution to a changing site. However, in order to address the potential adverse effects from earthworks, Mr Pearce considers that:
 - (a) All SEMPs must be certified in writing by the Regional Councils prior to the commencement of works in the area covered by the SEMP.
 - (b) Any proposed winter works must be approved in writing by the Regional Councils prior to the commencement of winter works.

⁵⁵ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraphs 29 and 30.

⁵⁶ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraphs 33.

- (c) Chemical treatment (flocculation), which is a key tool to assist in the sediment control efficiency of the sediment impoundment devices, should be the subject of a consent condition in the form of a Chemical Treatment Management Plan.
- (d) A specific condition should be included requiring progressive stabilisation of completed earthworks areas.
- (e) Dewatering management procedures should be followed by the Applicant, and a condition included which requires that any discharge must meet a clarity standard or be via a sediment treatment device provided that the device is not currently in use and can impound water to achieve the required clarity.
- (f) Spoil sites must be managed to ensure that they do not lead to any uncontrolled instability or collapse affecting either the spoil site or adversely affecting watercourses; and a condition of consent to this effect is required.⁵⁷
- 155 In relation to the monitoring proposed through the CWMP, Mr Pearce notes that there has been no discussion as to the definitive standards and what the ESC measures will be monitored against other than visual monitoring. There is discussion on the use of a field turbidity meter for SRP discharges and the upstream and downstream environments during a rainfall event, however there is no specific and measurable target to be met. ⁵⁸
- 156 Given the potential effects arising from the discharges of sediment, it is Mr Pearce's view that triggers within the CWMP are not sufficient. Rather, in order to ensure that the ESC measures are working effectively, Mr Pearce considers that a standard or target should be imposed, along with clear processes to be followed should that target not be met. Mr Pearce advises that a clarity standard would be sufficient for the discharge of water off site to minimise the adverse effects of the proposed works.⁵⁹

⁵⁷ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraph 45.

⁵⁸ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraphs 49-52.

⁵⁹ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraph 52.

Section 87F Report – Mount Munro Windfarm Application

- 157 In his assessment of the CWMP, Mr Pearce considers the implications of circumstances where GW Guidelines (as he recommends) does not achieve the required minimisation of impacts on the receiving environment. In that case, Mr Pearce is of the opinion that further consideration will need to be given to non-structural approaches in any catchment where these impacts are occurring. This could require consideration of a more staged approach where parts of the catchment are rapidly stabilised, or earthworks are undertaken in stages to minimise the sediment laden flows to a treatment device.⁶⁰
- 158 Mr Pearce considers that a condition of consent should be imposed requiring all works in watercourse to be undertaken only when all flows can be diverted around the works area (e.g. beds are dry) and rapid stabilisation of areas occurs on completion of the works.⁶¹
- 159 Mr Pearce notes that a number of performance outcomes, monitoring requirements and trigger procedures are recorded in the CWMP, which should be, in his view, reflected in the conditions.
- 160 Relying on Mr Pearce's assessment, it is my view that, with the conditions recommended by Mr Pearce included in Part D, the actual and potential effects associated with land (erosion and sediment) disturbance, can be appropriately managed and the effects will likely be less than minor.

Freshwater – effects on ecology

- 161 The effects of the proposed activities on freshwater ecology across the Mt Munro Project catchments and receiving waters are identified in the AEE⁶² and through RFI#1 Response.⁶³ Potential effects on freshwater ecology were raised in a number of submissions.⁶⁴
- 162 Dr Adam Forbes has assessed the potential effects on freshwater ecology. Dr Forbes' report ultimately concludes that there are significant inadequacies

⁶⁰ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraph 55.

⁶¹ Section 87F Report – Kerry Pearce – Erosion and Sediment Control, Paragraph 56-57.

⁶² AEE, Section 5.6.3, pages 100-102, and Appendix 12a and 12b.

⁶³ RFI#1 Response page 15 and Appendix 12.

⁶⁴ Submission No.s 8, 13, 21, 24, 34, 36, 37, 40, 41, 45, 47, 56, 67 and 68.

Section 87F Report – Mount Munro Windfarm Application

in the methods followed for freshwater fish surveys and stream classifications, resulting in uncertainty over the accuracy of the statutory significance assessment, freshwater values assessment, and the corresponding effects assessment. It is not clear to Dr Forbes how the effects management hierarchy has been applied, and he identifies inadequacies in the information provided which leave Dr Forbes unable to determine the level of effect or whether the proposed offset package is appropriate.

- 163 Dr Forbes firstly points out that he has a number of issues with the Freshwater Assessment Methods used by Meridian. These include the length of stream the fish survey was conducted over,⁶⁵ limiting the survey method to only a spotlight survey,⁶⁶ and the method used for stream classification.⁶⁷ The latter is particularly important given it was raised in a number of submissions.⁶⁸
- 164 Dr Forbes in his report assesses the accuracy of the Statutory Ecological Significance Assessment provided by the Applicant. The Applicant has relied on the One Plan Schedule B and NRP Schedule I to assess the statutory significance of waterways, however, Dr Forbes is concerned that there is a lack of consideration given to the At Risk – Declining longfin eel which may have been missed in surveys given the abovementioned issues. Further, the assessment does not consider the NRP Schedule F, which would support the conclusion that the Kopuaranga tributaries hold statutory significance.⁶⁹
- 165 In terms of the adequacy of the Ecological Values Assessment, Dr Forbes' is concerned that the conservation concern of the longfin eel has been downplayed⁷⁰ and that other Nationally Vulnerable species that may be present have not been considered.⁷¹ Mr Forbes is therefore of the view that the actual ecological values are unclear and may be under represented due

⁶⁵ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 28.

⁶⁶ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 29.

⁶⁷ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 31 and 32.

⁶⁸ Submissions No.s 5, 34, 37 and 47.

⁶⁹ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 34 and 35.

⁷⁰ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 37-42.

⁷¹ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 43-46.

Section 87F Report – Mount Munro Windfarm Application

to the approach to threat classification and inadequate fish sampling in extent and method, and this needs to be addressed by the Applicant.

- Dr Forbes then looked at the completeness and accuracy of the Freshwater
 Ecology Effects Assessment in relation to the proposed culverting and bridge.
 In regard to the bridge, Mr Forbes has little concern as direct effects can be
 avoided and there is unlikely to be ongoing adverse effects. However, in
 relation to the proposed culverts, Mr Forbes has identified issues:
 - (a) The effects of the 210m of culverting (Culverts 1 and 2) in the Mangaroa tributary have been assessed by the Applicant has being of Low magnitude to a Low value waterway, resulting in a Very Low overall effect. Mr Forbes considers the tributary to have a Moderate value for the reasons discussed above. He also disagrees that the magnitude would be low at a sub catchment scale as there would be more than a minor shift away from the existing baseline conditions and the existing baseline would be altered so it is no longer similar to the pre-development character.
 - (b) In relation to proposed Culverts 3 and 7 in tributaries of the Mākākahi Catchment, the proposed length did not include the wingwalls at either ends. Mr Forbes notes that the total length of stream works used for effects management (e.g. freshwater offsetting) should include both the culvert length plus the length of wingwalls and any other activities that create effects in the stream.⁷²
- 167 In terms of the adequacy of the proposed Freshwater Effects Management, Dr Forbes is concerned that the Applicant has not quantified the effects to the waterways for the purposes of calculating a freshwater biodiversity offset. Mr Forbes is of the view that the freshwater assessment has not demonstrated a no-net-loss outcome, and the proposed offset in not transparent in terms of the accuracy of the values supporting their calculations. Dr Forbes considers the proposed stream restoration to be environmental compensations rather than a biodiversity offset given it is not based on data collected from relevant areas of the site. This has not been

⁷² Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 58-59.

resolved by the Applicant to date, and Mr Forbes considers that the proposal is not an offset.⁷³

- 168 The Applicant, in Dr Forbes' view, needed to collect relevant site data to support an SEV based freshwater offset calculation. Dr Forbes outlined a non-exhaustive list of things that would need to be provided by the Applicant in order to adequately meet offset principles as outlined in the One Plan and the NRP. It is Dr Forbes' opinion that detailed methods for mitigating adverse effect would need to be developed on a site-specific basis for the culvert installation, which should include fish passage method and methods of conducting stream works offline.⁷⁴
- 169 Mr Forbes further sets out a monitoring regime in the absence of a recommended approach being provided by the Applicant. The regime includes monitoring triggers, survey sites, responses to issue identification, and specific monitoring requirements. Dr Forbes considers it necessary for the monitoring to be co-ordinated with the ESC monitoring. ⁷⁵
- 170 The NPS-FM establishes an effects management hierarchy. Dr Forbes is of the view that the main concern from a freshwater perspective is the proposed culverting of the Mangaroa tributary. Dr Forbes sees two main avenues for avoidance of loss of river extent or values:
 - (a) Firstly, alternative routing of the access track to avoid or minimise interaction with the tributary. This has not been assessed by the Applicant.
 - (b) Secondly, the method of culvert design. The Applicant has proposed standard barrel culverts which, Dr Forbes notes, can create uniformity in the stream ecosystem which presents risk for fish passage and inevitably reduces habitat diversity, and more generally, ecosystem health and indigenous biodiversity values. Dr Forbes notes that stream simulation culverts, defined by the New Zealand

⁷³ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 60-63.

⁷⁴ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 68 and 74.

⁷⁵ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 69 and 70.

Section 87F Report – Mount Munro Windfarm Application

Fish Passage Guidelines, can be used to reduce the magnitude of adverse effects and to align with the NPS-FM clause 3.24.⁷⁶

- 171 Based on the report of Dr Forbes, I have included a condition of consent in Part D requiring the installation of stream simulation culverts.
- 172 I rely on Dr Forbes' report in reaching the view that the proposal will potentially have adverse effects on the values of those waterways affected by the proposal, but the level of effect remains uncertain given the identified shortcomings with the assessments provided by the Applicant. If the effects of stream habitat loss (once assessed in a fulsome manner) cannot be fully avoided, remedied or mitigated, the Applicant has the opportunity to offset the habitat loss. However, the adequacy of the proposed offset cannot be assessed on the information provided to date.
- 173 Based on Dr Forbes review, I consider that further work is required to adequately address the above issues. Through the next steps of the consenting process (evidence, and expert conferencing), it is possible, in my view, that the identified issues can be resolved. In the absence of the necessary information to assess the proffered conditions, a structure of conditions (that lack specifics in terms of what any freshwater offset would look like) have been recommended and included in Part D. It is expected the structure of these will not change, but the specific details of any offset will be able to be included should the necessary information become available.

Operational Stormwater Quality

174 Ms Sue Ira has assessed the potential effects of operational stormwater on behalf of Horizons and GWRC. While Meridian has not applied for resource consents in relation to the discharge of stormwater, on the basis that it considers the discharges to be permitted,⁷⁷ a number of issues are raised in submissions.⁷⁸ Further, Ms Ira is of the view the Applicant has not provided

⁷⁶ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 73-75.

⁷⁷ By reference to One Plan Rule 14-18 and Rule R48 of the NRP.

⁷⁸ Submissions No.s 3, 6, 7, 8, 13, 30, 34, 44, 45, 47, 49, 61 and 68.

Section 87F Report – Mount Munro Windfarm Application

sufficient information to demonstrate how the Project meets the permitted activity standards.

- 175 Ms Ira explains that the development of a wind farm in this location will create new impervious surfaces and has a number of activities onsite that could lead to a discharge of contaminants. Key contaminants of concern include sediments, metals (amongst others: zinc, copper, lead, aluminium, manganese), pH and oils/ hydrocarbons.⁷⁹
- 176 Ms Ira's view is that the Application did not include an adequate level of information to demonstrate that the discharge of contaminants from impervious areas resulting from the operational phase of the wind farm would meet the relevant permitted activity standards. She notes that much of the infrastructure will remain onsite after the construction phase has been completed, as well as the ongoing maintenance activities which will also have the ability to discharge contaminants and have an effect on the receiving environment. Unsealed gravels and the creation of table drains could concentrate flows, and Ms Ira notes that the application did not specify if these drains would discharge directly to waterways.⁸⁰
- 177 In the further information provided by the Applicant it was confirmed that the water quality effects of the new unsealed, granular surfaces would be managed by design and incorporating a number of different measures.⁸¹ Ms Ira notes that the Applicant has not provided the location or design of any treatment devices, and is proposing to leave these details and developing a plan for the long term operation and maintenance of the stormwater treatment system to the detailed design stage. On the basis that it considers the activity will be permitted, I note there has been no further assessment completed by the Applicant.
- 178 The Applicant has confirmed that the GW Guidelines, supplemented by Waka Kotahi and Auckland Council stormwater standards will be used as the basis for the design. Ms Ira supports use of the latter two (noting that the

⁷⁹ Section 87F Report – Sue Ira – Stormwater Quality, Paragraphs 20-25.

⁸⁰ Section 87F Report – Sue Ira – Stormwater Quality, Paragraph 29.

⁸¹ RFI#1 Response, Appendix 13.

GW Guidelines relate to ESC and is not appropriate for the mitigation of stormwater contaminants over the operational phase of the Project).⁸²

- 179 Ms Ira agrees with the Applicant that the use of swales and filter strips would mitigate the effect of the key contaminants from the unsealed roads, but notes that their efficiency is dependent on their location, design, construction and long term operation.⁸³ As noted above, the details of these matters have not been provided by the Applicant.
- 180 Overall, and based on the current level of detail provided by the Applicant, Ms Ira is unable to determine whether the proposal meets the permitted activity standards for the discharge of stormwater. Ms Ira's preference is for conditions to be imposed enabling review of the detailed design to understand the nature and extent of the discharges and whether they are being appropriately managed.⁸⁴ Recommendations have been made to this effect in her report.
- 181 I agree with Ms Ira's assessment regarding the shortfall of information. While resource consents in relation to the stormwater design are not currently being sought by Meridian, the level of uncertainty around operational stormwater management means I consider it important that the process for identifying the nature and extent of effect at detail design stage (and any required response) is clearly set out as part of a management plan approach.

Land Stability/Geotechnical Effects

182 Meridian addresses land stability/geotechnical effects in the AEE⁸⁵ and the RFI#1 Response.⁸⁶ Mr Neil Crampton assesses these issues on behalf of Horizons and GWRC.

⁸⁶ RFI#1 Response, Page 17, Appendix 15.

⁸² Section 87F Report – Sue Ira – Stormwater Quality, Paragraph 32.

⁸³ Section 87F Report – Sue Ira – Stormwater Quality, Paragraph 33.

⁸⁴ Section 87F Report – Sue Ira – Stormwater Quality, Paragraph 39, 44-48.

⁸⁵ AEE, Appendix D.

- 183 Submissions were received in relation to earthquakes and fault lines,⁸⁷ landslides and rockfalls,⁸⁸ and detailed geological survey.⁸⁹
- 184 Mr Crampton is in general agreement with the Applicant's approach to assessing and managing geotechnical matters for the Mt Munro Project and considers that the project is feasible from a geology, geotechnical and natural hazards perspective.⁹⁰
- 185 Mr Crampton agrees with the Applicant that a range of further investigations and construction monitoring will be required to confirm geotechnical conditions for detailed design of a range of project components including road cut batter stability, treatment of existing slope instability, fill batter stability, turbine foundations, facilities located on potentially liquefiable ground and soil sub classes for seismicity assessment.⁹¹
- 186 These investigations are considered to be part of normal practice to inform detailed project design and construction. However, robust consent conditions are considered necessary to ensure investigations and monitoring occur in an appropriate manner and Mr Crampton has recommended these.⁹² I have included these in Part D.
- 187 Seismic considerations for the Project, including earthquake shaking, site subsoil classes and liquefaction, are described in the application.⁹³ Mr Crampton then summarises key seismicity considerations and additional information requirements.⁹⁴ Mr Crampton is of the view that seismic design for the project components are required to be carried out in accordance with New Zealand industry standards.

⁸⁷ Submission No.s 8, 13, 21, 34, 37, and 48.

⁸⁸ Submission No.s 13 and 34.

⁸⁹ Submission No. 34.

⁹⁰ Section 87F Report – Neil Crampton – Geotechnical, Paragraph 18.

⁹¹ Section 87F Report – Neil Crampton – Geotechnical, Paragraph 20.

⁹² Section 87F Report – Neil Crampton – Geotechnical, Paragraph 47.

⁹³ Section 87F Report – Neil Crampton – Geotechnical, Paragraph 35

⁹⁴ Section 87F Report – Neil Crampton – Geotechnical, Paragraph 36.

Section 87F Report – Mount Munro Windfarm Application

188 Subject to the imposition of conditions recommended by Mr Crampton, which have been included in Part D, I am of the view that any geotechnical effects can be appropriately managed.

Terrestrial ecology and wetland ecosystems

- 189 The AEE addresses effects on terrestrial ecology⁹⁵ and effects of this nature were also raised by a number of submitters.⁹⁶ Mr James Lambie, on behalf of Horizons and GWRC, undertook an assessment of the Project on issues related to effects on terrestrial and wetland ecosystems.
- 190 Mr Lambie generally agrees that the overall potential effects on terrestrial and wetland ecological values and threats to fauna and flora are low. However, in his view, there is need to qualify aspects of this conclusion with regard to effects on vulnerable flora, the proposed wetland offset, the management of effects on lizards, the management of effects on pipit, the level of effect (and management thereof) on long-tailed bats, dust effects and biosecurity.
- 191 In relation to vulnerable flora:
 - (a) The assessment does not specifically identify the presence of any vulnerable flora or assess effects on populations. Mr Lambie has identified three species that are potentially within the site, being *Sphagnum perchaetiale* (At risk), *Luzula leptophyla* (At risk) and *Solanum aviculare var aviculare* (Poroporo) (Threatened).
 - (b) The gully features/wetland plots have not been labelled by the Applicant, and Mr Lambie has therefore not been able to ascertain whether the first two species are within the effects envelope. If these wetlands/gullies are not impacted then the threat to these species is negligible. However, if the plots are from impacted wetlands, then there may be an impact. Mr Lambie is of the view that this level of

⁹⁵ AEE, section 5.6.1, pages 97-105.

⁹⁶ Submission No.s 5, 8, 11, 13, 17, 21, 24, 33, 40, 41, 44, 45, 47, 56, 57, 58, 61, 68.

Section 87F Report – Mount Munro Windfarm Application

effect could be managed by directly transferring propagules from the affected wetlands into the recipient offset sites.

- (c) In relation to Poroporo, in Mr Lambie's view, confirmation of the absence of Poroporo is required. However, he considers that the level of effect of removal of this species could be managed with a 1:1 replacement of plants into an appropriate recipient site.⁹⁷
- 192 In relation to wetland offsetting:
 - (a) Notwithstanding his concern for potential effects on Sphagnum perchaetiale and Luzula leptophyla, Mr Lambie agrees with the view that the wetland features within the effects envelope are not significant wetland habitats. The impacted wetlands are not so vulnerable or irreplaceable that the loss of wetland extent will cause reduction in indigenous biodiversity; nor will the potential reduction in supporting ecosystem services likely lead to noticeable deterioration in water quality.
 - (b) Mr Lambie notes that the expectations in the NPS-FM are that there will be no further loss of 'inland natural wetland', irrespective of the inherent biodiversity value. This expectation is interpreted to mean no further loss of hydrological extent and no further loss of indigenous biotic representation. However, as the Project involves specified infrastructure, Mr Lambie acknowledges there is the opportunity for offsetting the potential effects.
 - (c) Without more detailed design, Mr Lambie notes that the scale of actual loss of wetland extent remains uncertain, with the proposed 0.32ha remaining as the upper extent. Mr Lambie notes that the 1:1 ratio approach is useful in that it offers flexibility, however the Applicant's proffered Condition 16 does not set a limit on the scale of loss. Mr Lambie recommends that this is limited to 0.32ha in the Horizons Region and no loss in the Greater Wellington Region.

⁹⁷ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 34 & 36.

- (d) Considering the very small scale loss and the very low level of ecological value presented by the wetlands, Mr Lambie is of the view that the Applicant's analysis indicating a net gain is commensurate with scale and intensity of the effect. On this basis, he considers the 1:1 ratio offered for wetland offsetting to be an acceptable approach in this particular case and is of the view that the effects hierarchy has been followed under the circumstances.⁹⁸
- 193 In Mr Lambie's view, given the potential for effects on lizards, a condition requiring pre-clearance inspection of the vegetation at the western end of the transmission line and a lizard transfer protocol should be included in the condition set for the Project.⁹⁹ In my view, a Lizard Management Plan would appropriately address these concerns, and a condition requiring this has been included in Part D.
- 194 In relation to the management of effects on avifauna:
 - (a) Mr Lambie is of the view that bird-strike monitoring is necessary and supports the recommendation made by the project ecologists for post-construction bird strike monitoring of the wind farm and transmission line with an appropriate response in the event that there are unanticipated adverse effects. Mr Lambie recommends that this monitoring occur for five years post construction rather than the proposed one year. Mr Lambie is of the opinion that the monitoring recommendation should be carried over to the conditions along with provision for review and further reporting and/or any remedial, mitigation or offsetting actions.
 - (b) The threat status of pipit is "at risk declining" and the species is valued as "high". The species is present within the site in low numbers. It is Mr Lambie's view that the assessment of habitat loss is fair and he agrees that the Project may actually lead to more pipit habitat within the site. However, there is concern that the construction of gravelled tracks and temporary exclusion of livestock

⁹⁸ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 37-48.

⁹⁹ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraph 49.

from the works would create opportunities for pipit to nest within the construction area during construction season. Mr Lambie agrees with the Applicant's approach of requiring appropriate pasture management within the proposed construction envelope. He is also of the view that a condition for pipit should include pre-clearance checks for nesting pipit if the grass is suitably tall enough. ¹⁰⁰

- 195 In relation to long-tailed bats:
 - (a) Given the very low levels of bat activity within the site, Mr Lambie is comfortable with the assessment that the bat habitat value is low. However, the ecological evaluation of the bats themselves is 'very high' due to their threat status. Mr Lambie is of the view therefore that turbine strike directly impacts the value of the species regardless of the low habitat value i.e. the loss of even one bat is of very high conservation concern.
 - (b) Mr Lambie agrees that the magnitude of effect be assessed as "moderate", although reaches that conclusion for different reasons than the Applicant. Mr Lambie sets out that there is likely to be a negligible effect on the population, and joined with a high value species the level of effect would likely be low. However, in his view the level of effect should be moderate when taking into account the risk of turbine strike.
 - (c) The moderate level of effects indicates the potential need for mitigation or the need for offsetting or compensation to address the uncertainty that the overall level of effect is low. Mr Lambie considers an adaptive management plan is appropriate to refine the risk and response.¹⁰¹
- 196 In regard to dust, having considered that the native woody vegetation outside the effects 'envelope' is not significant native vegetation or significant habitat of flora or fauna, and having considered that it is unlikely

Section 87F Report – Mount Munro Windfarm Application

Prepared by Lauren Edwards and Joshua Pepperell - Planning

Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 50-55.
 Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 56-61.

¹⁰¹ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 56-61.

that there will be effects directly related to fauna, Mr Lambie is of the view that effects management of dust is not necessary.¹⁰²

- 197 Mr Lambie has also recommended the inclusion of conditions to address the potential spread of field horsetail, yellow bristle grass, didymo and the potential introduction of plague skinks.¹⁰³ I have included these in Part D.
- 198 In order to ensure delivery of the proposed ecological management approach, Mr Lambie has recommended a suite of condition changes to improve certainty on biodiversity outcomes.¹⁰⁴ I have included these in Part D.
- 199 Drawing on Mr Lambie's conclusion and his recommended changes to conditions, I am of the view that the effects on terrestrial ecology and wetland ecosystems can be addressed through the proposed conditions, including the proposed offset measures which address the residual effects from the potential loss of wetland habitat.

Contaminated Land

- 200 Ms Sarah Newall, a contaminated land consultant, has assessed the regional consent applications on behalf of Horizons and GWRC.
- 201 Three submissions raised concerns in relation to contaminated land. Two of these raised concerns in relation to the threat of contamination to waterways during rainfalls,¹⁰⁵ and the third was in relation to contamination from the construction and operation of the turbines.¹⁰⁶ Ms Newall is of the view that, in her experience, these concerns cam be addressed through construction management and operational maintenance procedures.¹⁰⁷
- 202 Resource consents under the NES-CS and/or the One Plan and NRP are not included as part of the application. Nonetheless, the AEE includes a section

¹⁰² Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 62-65.

¹⁰³ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 66-71.

¹⁰⁴ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraphs 80-91.

¹⁰⁵ Submission No.s 6 and 7.

¹⁰⁶ Submission No. 8.

¹⁰⁷ Section 87F Report – Sarah Newall – Site Contamination, Paragraph 71-72.

on contaminated land,¹⁰⁸ and a Preliminary Site Investigation (**PSI**) was provided as part of RFI#1 Response.¹⁰⁹ In addition, the proposed Regional Council Condition 9 set out that a Specific Environmental Management Plan (**SEMP**) would contain measures relating to the discovery of potentially contaminated land.

- 203 Ms Newall agrees that having an unexpected discovery procedure is important, and considers it standard practice for large scale earthworks projects such as this. However, she does not consider the condition to be a substitute for identifying HAIL areas through site investigations.¹¹⁰
- 204 During the site visit, Ms Newall identified a number of potential HAIL activities, namely:
 - (a) A 'super bin' on the main ridge;
 - (b) A sheep dip/spray unit adjacent to the proposed access road off Old Coach Road;
 - (c) Cropping land at the proposed laydown area off Old Coach Road;
 - (d) Disused underground fuel storage tanks, one which appeared to have been converted to a water tank at the 'super bin' site.¹¹¹
- 205 Ms Newall notes that there may have been other potential HAIL sites that were not visited.
- 206 The PSI provided in RFI#1 also identified the above potential HAIL activities. Ms Newall adopts the findings of the PSI with the exception of the 'super bin'.
- 207 Ms Newall notes that the plans provided in the application show the 'super bin' as being within the 'turbine envelope zone', with an access track nearby.

¹⁰⁸ AEE section 5.14, page 110.

¹⁰⁹ Appendix 16 - Preliminary Site Investigation (Tonkin + Taylor September 2023)

¹¹⁰ Section 87F Report – Sarah Newall – Site Contamination, Paragraphs 33 and 34.

¹¹¹ Section 87F Report – Sarah Newall – Site Contamination, Paragraph 35.

Section 87F Report – Mount Munro Windfarm Application

The drawings are at a large scale, so it is not possible to interpret the actual location of the access track in relation to the 'super bin'. ¹¹²

- 208 Ms Newall does not consider there is sufficient information to confirm that neither the NES-CS nor relevant contaminated land rules in the One Plan do not apply. No work has been undertaken to delineate the 'super bin' area which is to be avoided.¹¹³ For this reason, Ms Newall recommends a Detailed Site Investigation (DSI) is undertaken for the 'super bin'.
- 209 In terms of discharges of contaminants during construction, Ms Newall is of the view that the size(s), specification(s) and location(s) of the fuel tanks and the approach to their set-up, use, maintenance and decommissioning, should be documented in a management plan, whether it be the CWMP, or a Spill Contingency Management Plan (SCMP). Ms Newall is of the view that a SCMP is necessary to be included as a condition of consent.¹¹⁴
- 210 While resource consents are not currently being sought by the Applicant, I consider it is important that the process for addressing contaminated land be clearly set out in conditions. I agree with Ms Newall's recommendations, which are reflected in Part D.

Natural Character

- 211 The Applicant addresses the effects on natural character in the AEE¹¹⁵ and in a technical report¹¹⁶ and is a matter raised by a number of submitters.¹¹⁷ On behalf of Horizons and GWRC Mr Josh Hunt, Mr James Lambie and Mr Adam Forbes undertook a review of the natural character assessment as it related to their field of expertise.
- 212 Mr Lambie has considered and agrees with the Applicant's assessment that the affected wetlands have a low level of natural character, and that the effects on the natural character of wetlands will be very low. The loss of

¹¹² Section 87F Report – Sarah Newall – Site Contamination, Paragraph 45.

¹¹³ Section 87F Report – Sarah Newall – Site Contamination Paragraphs 46-53.

¹¹⁴ Section 87F Report – Sarah Newall – Site Contamination Paragraph 62.

¹¹⁵ AEE Section 5.3.2, page 88.

¹¹⁶ Appendix K - Landscape Effects Assessment (Boffa Miskell 2023).

¹¹⁷ Submission No.s 3, 6, 7, 8, 13, 34, 37, 39, 42, 48, 54, 55, 56, 57, 58, 61, 70, 71, 73.

Section 87F Report – Mount Munro Windfarm Application

wetland extent will inevitably result in the complete loss of the wetland biophysical character of the affected sites, but he is of the opinion the biodiversity offset will also offset this loss with a marked improvement in the indigenous natural elements of the recipient site(s).¹¹⁸

- 213 In relation to the natural character of the waterways and their margins, Dr Forbes notes in particular that the proposed culverting has the potential to directly have an adverse impact on the affected rivers' natural character. Additionally, any adverse levels of sediment discharged to rivers from the Project construction could have an impact. Dr Forbes is of the view that the proposed culverting is of a scale that could significantly disrupt the existing ecosystem.¹¹⁹
- 214 To address these (and other concerns), Dr Forbes has recommended conditions requiring that the natural stream beds are retained through the use of stream simulation culverts, and requiring instream monitoring and appropriate response mechanisms around unauthorised discharges to receiving environments.¹²⁰ I have included these in Part D. However, there continues to remain uncertainty in the absence of further information as to the level of effects and the adequacy of any response.
- 215 In relation to the experiential component of natural character, Mr Hunt is of the view that this is unable to be appreciated from beyond the site boundaries and therefore the Project would result in a very low adverse experiential effect on natural character.¹²¹
- 216 Relying on the opinions of Mr Lambie and Mr Hunt, the effects of the Project on the wetland and experiential components of natural character are low or able to managed through conditions. However, relying on the opinion of Dr Forbes, further information is required around the effects on natural character of the streams and their margins.

¹¹⁸ Section 87F Report – James Lambie – Terrestrial Ecology, Paragraph 48.

¹¹⁹ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraphs 82.

¹²⁰ Section 87F Report – Adam Forbes – Freshwater Ecology, Paragraph 96.

¹²¹ Section 87F Report – Josh Hunt – Landscape, Paragraph 88.

Section 87F Report – Mount Munro Windfarm Application

Cultural Effects

217 Effects on tangata whenua has been addressed in the AEE.¹²² The proposal is within the rohe of Rangitāne o Tamaki nui-ā-Rua, Rangitāne o Wairarapa, Ngāti Kahungunu ki Tamaki nui ā Rua and Ngāti Kahungunu ki Wairarapa. No submissions were received from these iwi, but some submissions identified cultural effects matters.¹²³

Rangitāne o Tamaki nui-ā-Rua and Rangitāne o Wairarapa

218 The application includes a Cultural Values Assessment (**CVA**) from Rangitāne o Tamaki nui-ā-Rua and Rangitāne o Wairarapa dated May 2014.¹²⁴ The application includes a 2023 update confirming that both iwi were happy with the CVA to be lodged with this application, subject to the right to subsequently:

> Update this document post lodgement, to provide an update of any new findings, to present mitigation measures, to put forward additional recommendations, and to report any impacts the proposed project may have on our environmental and cultural values and areas important to Rangitāne.¹²⁵

- 219 The AEE states the Rangitāne CVA was prepared jointly by Rangitāne o Tamaki nui-a-Rua and Rangitāne o Wairarapa. While the CVA only contains the name of Rangitāne o Tamaki nui-a-Rua on the front, I note the names of both Rangitāne o Tamaki nui-a-Rua and Rangitāne o Wairarapa listed on page 2, and therefore accept this statement.
- 220 The CVA considers the likelihood of Māori archaeological sites at the Project site to be slim, with no evidence that Mount Munro was of high spiritual significance. The CVA included a number of recommendations:¹²⁶
 - Rangitāne o Tamaki nui-ā-Rua and Meridian establish an on-going formal relationship through a Memorandum of Partnership with the

¹²² AEE, Section 5.2, page 88-89.

¹²³ Submission No.s 8, 13, 16, 21, 40, and 41.

¹²⁴ AEE, Appendix I.

¹²⁵ Rangitāne CVA, page 2.

¹²⁶ Rangitāne CVA, page 40.

Section 87F Report – Mount Munro Windfarm Application

intention that this will target the development of a long term relationship and provide for on-going consultation where appropriate.

- (b) Rangitāne o Tamaki nui-ā-Rua and Meridian prepare an Accidental Discovery Protocol (ADP) to ensure in the event of any Māori archaeological material being uncovered or disturbed on the Mt Munro Project site, the provisions of the Historic Places Act 1993 apply and all activity should cease to allow the situation to be evaluated.
- (c) That any remnant/extant native forest or flora within the Mt Munro Project which might be impacted by the wind farm be surveyed and avoided. A condition be included to protect these pockets so as to ensure they are retained and not removed for wind farm construction purposes.
- (d) That the turbines be brought down off the ridgelines, due to its value to Rangitāne. It is a skyline of importance, and the placement of turbines at such a height will affect the visual/aesthetic value of the range from all directions.
- (e) Due to the closeness of the proposal to Pukaha, Rangitāne want to know how the turbines are going to impact on the bird species and their flight paths.
- (f) At the end of the wind farms life span the turbines be dismantled, removed off site and the turbine site will be restored and regrassed to its original condition.
- 221 The Applicant has stated that they have "worked with"¹²⁷ the recommendations, but have not confirmed how this has been carried out and whether the recommendations have been addressed with Rangitāne. While an ADP condition has been proffered,¹²⁸ it is not clear how the other recommendations of tangata whenua have been accounted for. In particular,

Section 87F Report – Mount Munro Windfarm Application

¹²⁷ AEE, section 5.2, page 84.

¹²⁸ Proffered condition 29, AEE page 128.

I note the recommendation that the turbines be brought down off the ridgelines, which has not been carried forward by the Applicant.

<u>Ngāti Kahungunu ki Tamaki nui ā Rua</u>

- 222 The application also includes a CVA from Ngāti Kahungunu ki Tamaki nui ā Rua (**NKKTNAR**) dated 4 May 2023.¹²⁹ The CVA provides a summary of the Mt Munro Project, and brief information on the area's history and sites of significance for NKKTNAR. This identities Mt Munro and as a site significant to NKKTNAR¹³⁰ It also notes that the Makākahi river has huge significance, with its smaller tributaries having mana and mauri of their own.
- 223 The CVA set out a number of recommendations and requests, including:¹³¹
 - (a) That NKKTNAR and Meridian enter a Memorandum of Commitment.
 - (b) Meridian commissions cultural health monitoring of the Mākākahi and Kopuaranga awa through an agreed upon monitoring plan.
 - (c) Implementation of an ADP.
 - (d) Avoidance of areas where taonga or sites of significance to hapū of NKKTNAR are uncovered within the windfarm which might be impacted by the placement of roadways, turbines, buildings or other infrastructure.
 - (e) The surrounds of major construction areas be planted with native species as a landscape restoration measure and to provide for enhancement of indigenous biodiversity.
 - (f) Regular updates provided to NKKTNAR.
 - (g) A reasonable degree of preference for employment of tangata whenua.

¹²⁹ AEE, Appendix J.

 [&]quot;Sites significant to Ngāti Kahungunu ki Tamaki nui a Rua which whakapapa to the whenua, the site referred to as Mt Munro" – Ngāti Kahungunu CVA, page 14.
 Ngāti Kahungunu CVA, pages 20-24.

Section 87F Report – Mount Munro Windfarm Application

- (h) That NKKTNAR is able to visit Mill Creek windfarm to view as an example of what will be involved in terms of the level of earthworks.
- (i) That representatives from Meridian and NKKTNAR view Te Apiti Windfarm to listen to representatives of NKKTNAR in the presence of these Natural Tipuna to be able to articulate orally what has been drafted in a written form.
- 224 The Applicant has stated that they will continue to work with NKKTNAR on these recommendations. The Applicant has not provided any updates as to how this is progressing. Again, I note the breadth of the recommendations raised in the CVA, without any information provided to date regarding how these matters have been addressed or resolved between the Applicant and iwi, and/or reflected in the proposal before the regulatory authorities.

Ngāti Kahungunu ki Wairarapa

- 225 On 12 December 2023 the Applicant provided a letter from Ngāti Kahungunu ki Wairarapa (NKKW) dated 6 December 2023. This letter set out that NKKW is "satisfied with the plans of Mount Munro to build renewable energy generators through wind turbines."
- 226 While the Letter notes that Kahungunu ki Wairarapa are "satisfied that the visual effect for the wider community will not be onerous," it notes they were concerned about the visual effect for neighbours including a traditional Māori land block. It also notes that Kahungunu ki Wairarapa are happy to support the responses of the Makirikiri Māori Land Block owners and trustees.

<u>Submissions</u>

- 227 I have reviewed the submissions on the Project and note none were received from the Makirikiri Māori Land Block owners and trustees as a group.
- 228 I acknowledge the submissions which have raised cultural matters¹³² including reference to kaitiakitanga, mana and importance of Mt Munro;

¹³² Submission No.s 8, 13, 16, 21, 40, and 41.

insufficient consultation with mana whenua and iwi; and reference to a recommendation within the Rangitāne CVA to place turbines below the ridgeline.

229 I consider iwi are best placed to speak to the quality of engagement and consultation with them and how particular recommendations or residual cultural effects have been considered. It would be useful for the Applicant to provide any update on this.

<u>Summary</u>

- 230 While the CVA's provided with the application do not uniformly oppose the project, they have raised issues with, and recommendations relating to, the Project. It is presently unclear how they have been addressed or resolved as they have not been explicitly addressed within the Application. It would be useful to understand if further discussions have taken place with iwi and whether any (and how) progress has been made. At this time, I am not able to conclude that the proposal and/or conditions have adequately addressed cultural effects and additional information is required from Meridian.
- 231 I note that I have not recommended any conditions in relation to iwi involvement in the construction, operation and maintenance of the Project as it is my view that these conditions should be formulated alongside iwi, where they wish to be involved. As explained above, I do not have sufficient information to allow me to reach a view on the extent of involvement sought.

Positive Effects

- The Applicant has addressed positive effects of the proposal in the AEE.¹³³ In summary, they consider the Mt Munro Project will result in the following:
 - (a) National benefits: New Zealand requires a significant increase in electricity to be generated to match forecast demands, and through commitments to climate change, this demand needs to be met by renewable generation. The proposal assists to sustain the benefits of electricity usage into the future, powering the equivalent of 42,000

¹³³ AEE section 5.1, pages 80-83.

homes. Through the Emissions Reduction Plan, New Zealand must increase its use of renewable energy generation in order to meet existing and future demand, as well as reducing reliance on fossil fuels. The proposal on this site makes use of the Class I wind resource which exists in this location.

- (b) Local and regional benefits:
 - During the construction period, the wind farm will provide employment for between 100 to 150 people (depending on the specific activities that are being undertaken) which is estimated to take 24-26 months. The Applicant is proposing to use locally sources materials and plant and as far as possible. In addition, it is expected that there will be some downstream or secondary economic benefits from the construction phase as workers buy food, fuel and potentially require accommodation in the local area.
 - Operation of the wind farm will benefit the local economy by providing an estimated eight new jobs associated with ongoing turbine operation and maintenance. It is also likely that local people would be involved in maintenance of the wind farm roading network, transmission line and the services building.
 - The Project also provides for diversification of the existing farms on which the wind farm is proposed to be located. Further, the proposal utilises only a small area of land, and is compatible with existing farming activities. It will create a new revenue stream that complements existing activities on the sites. The Project would also result in the upgrade of some existing farm tracks, which the Applicant states will improve erosion control and could reduce erosion over the long term within existing catchments.

Finally, the Applicant has stated that the Project will involve the upgrade Old Coach Road, improving its safety.

- 233 The importance of the Project in relation to climate change, and potential social/economic benefits for Eketāhuna and the wider community was raised in submissions.¹³⁴ However, some submitters disagreed with the Applicant's portrayal of the positive effects.¹³⁵
- 234 Section 104(1)(ab) requires a decision maker to have regard to any measure proposed by the Applicant for the purpose of ensuring positive effects on the environment to offset any adverse effects.
- As is discussed above, the Applicant has proposed to offset the residual adverse effects associated with terrestrial and freshwater ecology. In relation to terrestrial ecology, Mr Lambie is of the view that the proposed 1:1 offset is appropriate and may result in a net biodiversity gain. However, in relation to freshwater ecology, the adequacy of the offsetting proposal cannot be assessed by Dr Forbes on current information.
- 236 I generally agree with the Applicant's assessment of the positive effects of the Mt Munro Project, but for reasons set out by Dr Forbes, I am unable to make a final recommendation in relation to s104(1)(ab) on the information currently provided.

Summary of actual and potential effects on the environment

237 After reviewing the AEE and accompanying technical assessments, the mitigation proposed by way of monitoring and conditions, the technical reviews undertaken by the Horizon's and GWRC's section 87F experts, and having considered the matters raised in submissions, I consider that with the recommended conditions in Part D, a number of the effects can be mitigated to a level which is minor or less than minor. However, in my opinion there is insufficient information available to reach a view as to the level of effect that remains for:

¹³⁴ Submission No.s 2, 10, 12, 52, 59, 60, 64,

¹³⁵ For example, submission No.s 33, 37, 73.

Section 87F Report – Mount Munro Windfarm Application

- (a) Freshwater ecology concerning the loss and modification of stream habitat; and
- (b) Cultural effects concerning the resolution of a number of issues and recommendations.
- 238 In relation to terrestrial ecology, the potential effects are unable to be mitigated but I consider that, with the recommended conditions in Part D, the effects are able to be offset. In terms of the freshwater ecology, if the effects of stream habitat loss cannot be fully avoided, remedied or mitigated, the Applicant has the opportunity to offset the loss. However, in my opinion, there is insufficient information available to reach a view as to whether the proposed offset is adequate.

T. STATUTORY ASSESSMENT

- 239 The Applicant has only provided a brief statutory assessment within the Application,¹³⁶ supported by Appendix G which listed, rather than assessed, objectives and policies from relevant statutory documents.¹³⁷ I have, therefore, had to provide my own detailed commentary against these objectives and policies. I further note that my view of what objectives and policies are relevant differs to what the Applicant has listed in Appendix G.
- 240 Mr McGahan has described the background of correspondence with the Applicant in attempting to obtain further planning assessments against the various relevant statutory documents.

National Environmental Standards (NES)

As identified in Part A, the applicable NES's for this proposal are the NES-F, the NES for Air Quality, the NES for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES-CS**), and the NES for Sources of Human Drinking Water. Mr McGahan addresses the NES-CS in Part C and for the purpose of this section, I adopt his analysis and recommendations.

¹³⁶ AEE, Section 9, pages 139-146.

¹³⁷ AEE, Appendix G: Relevant Statutory Document Objectives and Policies.

Section 87F Report – Mount Munro Windfarm Application

NES for Freshwater

- 242 The NES-F came into effect on 3 September 2020 and was subject to a number of amendments, with the latest Amendment 2 coming into effect on 5 January 2023.
- 243 Meridian has set out the regulations applicable to the Mt Munro Project, namely:
 - (a) specified infrastructure in natural wetlands (Subpart 1, Regulation 45)¹³⁸; and
 - (b) the passage of fish affected by structures (Subpart 3, Regulation 71)¹³⁹.
- I concur with the Applicant that the Project is specified infrastructure¹⁴⁰ as defined in the National Policy Statement for Freshwater Management 2020¹⁴¹. The Project is for regionally significant infrastructure identified in both the One Plan¹⁴² and the NRP¹⁴³.
- 245 The consenting pathway for these activities is as discretionary activities.
- Regulation 45(6)(b)¹⁴⁴ sets out that a resource consent under this regulation must not be granted unless the consent authority is satisfied that there is a functional need for the specified infrastructure in that location. The Applicant has set out that the wind resource at the site is Class I and is within relatively close proximity to national grid infrastructure for the transmission of power that in generated, which are functional requirements of a wind farm to be in a particular location.¹⁴⁵ Subject to any information emerging

¹⁴¹ National Policy Statement for Freshwater Management 2020, page 24.

Section 87F Report – Mount Munro Windfarm Application

¹³⁸ AEE Section 4.1, pages 47-49.

¹³⁹ RFI#1 Clarification Response, Page 3.

¹⁴⁰ AEE Section 3.3, page 34.

¹⁴² One Plan Policy 3-1 (a) (i).

¹⁴³ NRP Chapter 2 – Interpretations (definitions).

Resource Management (National Environmental Standards for Freshwater) Regulations 2020, Regulation 45(6)(b).

¹⁴⁵ AEE Section 4.1.1, page 48.

through the consent process, I agree with the reasons provided by the Applicant.

NES for Air Quality

247 The NES for Air Quality (NESAQ) 2004 came into effect on 8 October 2004 and was amended on 1 June 2011. Mr Curtis sets out that the combustion emissions associated with the generators or other stationary engines that may be used on site are covered by the NESAQ.¹⁴⁶ Relying on Mr Curtis' report I am of the view that there is insufficient information to determine whether the generators and other engines would meet the air quality standards set out in the NESAQ, noting that the effects need to be considered cumulatively.

NES for Sources of Human Drinking Water

- The NES for Sources of Human Drinking Water came into effect on 20 June 2008.
- 249 Regulation 7 of the NES for Sources of Human Drinking Water sets out that a Regional Council must not grant a discharge permit for an activity that will occur upstream of an abstraction point, if the discharge or water take will result in the drinking water not meeting health quality criteria or exceeding aesthetic guidelines. The regulation applies to abstractions serving at least 501 people for more than 60 calendar days a year.
- 250 Regulation 8 prevents the grant of discharge permits upstream of an abstraction point where drinking water is not tested.
- 251 Regulation 12 of the NES requires consideration of whether the activity being considered could result in an event (the example of a spill is given), or as a consequence of an event (an example of heavy rainfall is given) that may have a significant adverse effect on the quality of water at any abstraction point. Regulation 12 applies to abstractions serving at least 25 people for more than 60 calendar days a year. This regulation further stipulates that if the situation described above applies, a condition must be imposed on the

Section 87F Report – Mount Munro Windfarm Application

¹⁴⁶ Section 87F Report – Andrew Curtis – Air Quality, Paragraph 61.

resource consent which requires notification of the registered drinking water supply operators.

- 252 I have reviewed the location of bore information and registered drinking water sites held by Horizons and GWRC. The application states that there is an abstraction point from the Makākahi River approximately 2.7km north of the site.
- 253 On review of the drinking water register I identified the Pleckville Rural Water Supply. This registered drinking site is an abstraction point from the Makākahi River approximately 2.7km north of the site which supplies a population of 200 people (ATH-2007011829.00, see a copy of the water take consent in Appendix 19). There is also an abstraction point approximately 2km west of the site being Tararua District Council's Eketāhuna Supply from the Makākahi River, which supplies a population of 456 (ATH-2004008582.02, see a copy of the water take consent in Appendix 20). There are no registered drinking water supplies within the Greater Wellington Region.
- 254 Mr Thomas set out in his report that there are six groundwater bores located close to the base of the Mt Munro ridge, and he expects that these are shallow and taking no more than the permitted volume of 50m³/day given no resource consents are associated with them.
- 255 Having regard to the above, and considering the distance of the registered drinking water sources from the proposal, in my view the NES for Sources of Human Drinking Water is not directly relevant when considering the Project.

National Policy Statements (NPS)

256 The applicable NPS for the Regional Council consent applications is the NPS for Freshwater Management. I understand Mr McGahan has assessed the NPS for Highly Productive Land (**NPS-HPL**), the NPS for Electricity Transmission and the NPS for Renewable Electricity Generation 2011 in Part C. To the extent relevant, I rely on Mr McGahan's assessment of the NPS-HPL.

NPS for Freshwater Management

- 257 The National Policy Statement for Freshwater Management 2020 (**NPS-FM**) came into effect on 3 September 2020. Amendments were made in December 2022 which took effect on 5 January 2023. The Minister for the Environment made further amendments under section 53(2)(a) of the RMA on 23 February 2023.
- 258 The NPS-FM addresses, as a matter of national significance, the management of freshwater through a framework that considers and recognises Te Mana o te Wai as an integral part of freshwater management.
- 259 The Application refers to the NPS-FM containing one objective and 15 policies and states that all of which have some relevance to the proposal.¹⁴⁷ I disagree that all policies have relevance to the proposal, and have focussed below on those that, in my view, are relevant.
- 260 The NPSFM records a hierarchy of obligations in Te Mana o te Wai 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); and
 - (c) Third, the ability of people and communities to provide for their social, economic and cultural wellbeing, now and in the future.
- 261 The application states that the Mt Munro Project is consistent with the objective and policies of the NPS-FM, but is lacking a detailed assessment against the objective and policies. In the absence of a detailed assessment from the Applicant, I have carried out a full analysis against the objective and relevant policies.
- 262 When reviewing the NPS-FM, it is my view:

¹⁴⁷ AEE Appendix G and Section 3.2.

- (a) The Objective aims to ensure that natural and physical resources are managed in a way that prioritises the health and well-being of water bodies and freshwater ecosystems; the health needs of people (such as drinking water); and the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future.
- (b) Policy 1 outlines that freshwater must be managed in a way that gives effect to Te Mana to te Wai. Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and wellbeing of the wider environment. Further, tangata whenua are to be actively involved in freshwater management (including decisionmaking processes). As discussed in paragraphs 217-231 while CVA's that have been received in respect of the Project did not oppose the application, they identified issues and contained recommendations regarding (among others) effects avoidance and management. The NKKTNAR CVA was particularly concerned with the awa and recommended cultural health monitoring. Should the Applicant be able to demonstrate that any issues of iwi regarding freshwater (to the extent these are understood on the information available) are resolved in partnership with the Applicant, then the Project will likely be consistent with Policies 1 and 2.
- (c) Policy 3 outlines that freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-catchment basis, including the effects on receiving environments. Among other things this involves managing freshwater, land use and development, in catchments in an integrated and sustainable way to avoid, remedy, or mitigate adverse effects, including cumulative effects, on the health and well-being of water bodies, freshwater ecosystems, and receiving environments It is not clear whether the integrated management of freshwater and the use of land has been appropriately considered in the proposed design for the Project. Given the information gaps and uncertainties

that remain in relation to freshwater ecology, as discussed in relation to Dr Forbes report, it is not evident to me whether the proposal is consistent with Policy 3.

- (d) Policy 5 seeks to ensure that freshwater is managed through a National Objectives Framework (NOF) to ensure the health and wellbeing of waterbodies and freshwater ecosystems is maintained (given there are no degraded waterbodies subject to the application). Horizons is presently taking steps to implement the NOF through preparation of a freshwater plan change. However, for completeness, I note, in this case, appropriate erosion and sediment controls will be implemented during construction in accordance with the GW Guidelines.¹⁴⁸ Mr Pearce has recommended a condition to ensure that works within a waterbody are only undertaken when the water is diverted around the site and the bed is dry in order to minimise the discharge of sediment, and Dr Forbes agrees that that together with appropriate site management will minimise any sediment discharge. This is particularly important given Dr Forbes' view that the receiving environments are sensitive to sediment deposition. This, together with instream pH monitoring, will assist in ensuring that the waterbodies and freshwater ecosystems are maintained. I am therefore of the view that the Project is consistent with Policy 5.
- (e) Policy 6 seeks to ensure that there is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted. The NPS-FM requires management of this loss following the effects hierarchy. Being 'specified infrastructure', the project has the opportunity to offset that loss with improvement in the ecological condition of another wetland within the site. Mr Lambie is of the view that the effects hierarchy has been followed in the circumstances and the proposed 1:1 wetland offset is appropriate.

Section 87F Report – Mount Munro Windfarm Application

¹⁴⁹ See paragraph 246.

- (f) Policy 7 seeks to ensure that the loss of river extent and values is avoided to the extent practicable. There are several culverts forming part of the wind farm proposal, which will result in the loss of river extent. These are discussed by Dr Forbes. As described earlier, the NPS-FM requires management of any loss following the effects hierarchy. Being 'specified infrastructure', the Project has the opportunity to offset any loss in wetland extent. Mr Forbes is of the view that there are significant inadequacies in the assessments provided by the Applicant and so the level of effects and the adequacy of the offset is unable to be determined. As a result, without further certainty, it is not clear whether the proposal is consistent with Policy 7.
- (g) Policy 9 seeks to ensure that the habitats of indigenous freshwater species are protected. As discussed, Mr Forbes' report and discussed earlier, the Applicant's assessments have not adequately considered the potential presence of some indigenous freshwater species. This, together with the limitations identified by Dr Forbes with the proposed offset, mean it is unclear whether the proposal is consistent with Policy 9. As with Policy 7, further certainty is needed to be provided through additional work of the Applicant.
- (h) Policy 10 sets out that the habitat of trout should be protected, insofar as it is consistent with protecting the habitats of indigenous freshwater species. The Mākākahi River has the One Plan Schedule B value of Trout Spawning, and the NRP Schedule I value of important trout spawning water. As mentioned in relation to Policy 5, Dr Forbes is of the view that the receiving environments are sensitive to sediment deposition, particularly in relation to trout spawning values. However, with the measures discussed in relation to Policy 5, this value will be protected and my view (based on Dr Forbes advice) is that the Project will be consistent with Policy 10.
- Policy 15 outlines that communities should be enabled to provide for their social, economic, and cultural wellbeing in a way that is

consistent with the NPS-FM. The national, regional and local benefits of the proposal are discussed in paragraphs 232-233.

- 263 Based on the Applicant's AEE and supporting material, and the 87F reports of Mr Forbes, Mr Pearce and Mr Lambie, I conclude that, while the Mt Munro Project activities are generally consistent with some, but not all of the relevant policies the NPS-FM. Further information is required to make this determination in relation to policies 1, 2, 3, 7 and 9.
- The Applicant has not specifically addressed clause 3.22(1)(b) of the NPS-FM (which relates to natural inland wetlands), however, I am of the view that the Project is consistent with it in that;
 - (a) The activity (the Project) is necessary for the construction of specified infrastructure;
 - (b) The Project will generate regional and national benefits;
 - (c) The Project has a functional need to be located and to operate in the selected location;¹⁴⁹ and
 - (d) The effects management hierarchy has been applied to the Project, including through offsetting the unavoidable loss of extent of natural wetland, as discussed by Mr Lambie.
- 265 However, when considering clause 3.24(1) (which relates to rivers), I am of the view that there is not enough information in relation to the loss of river extent, as discussed by Mr Forbes in his report, to make a recommendation as to whether the Project is consistent with this clause.
- 266 In addition, relying on the assessment of Mr Forbes and subject to the conditions recommended by the Regional Council experts, the requirement to maintain or improve fish passage in clause 3.26(1) of the NPS-FM has generally been met provided the correct design guidelines are applied. Robust conditions will be needed, however, to ensure that these guidelines are applied and that stream simulation is achieved to secure fish passage.

¹⁴⁹ See paragraph 246.

Horizons Regional Policy Statement and Regional Plan (One Plan)

- 267 The One Plan is Horizons' Regional Policy Statement and Regional Plan. It is a combined Regional Policy Statement and Regional Plan.
- Part 1 of the One Plan is the Regional Policy Statement and Part 2 is the Regional Plan It was first notified in May 2007 and became fully operative on 19 December 2014. Plan Changes PC-1 (2016) and Plan Amendments 1 (2018) and 2137 (2022) are operative. Proposed PC-2 (2019) is under appeal, and is focused on the management of nutrient losses in target management water zones and as such is not considered relevant to the Mt Munro Project. Proposed PC-3 has been notified and had a hearing in February. This is focussed on urban development and so is not considered relevant.
- 269 Plan Amendment 3 (PA3) (2024) was adopted by the Council on 27 February 2024. This plan change was to give effect to the National Planning Standards, and has changed the format and naming of the objectives and policies within the One Plan. Given this process was already underway when PA3 came into effect, my report does not refer to the new objective and policy headings. I have included a table in Appendix 21 showing how the old objectives and policies correspond to the PA3 objectives and policies.

Horizons Regional Policy Statement (RPS)

270 I have assessed the application against what I consider to be the relevant objectives and policies of the RPS. For the most part these have been identified in the application,¹⁵⁰however, no specific analysis was undertaken by the Applicant. Given this, I have again carried out a full analysis against these applicable objectives and policies.

Chapter 2 - Te Ao Māori		
Policies 2-1 (hapū and involvement in resou management); 2-2 (sites significance); 2-3 (mauri of wate	ce manage of	(resource

¹⁵⁰ Appendix G.

Section 87F Report – Mount Munro Windfarm Application

Chapter 2 - Te Ao Māori	
2-4 (other resource management issues).	

- 271 The application identifies the relevant objective and policies, and has set them out when assessing the effects on Tangata Whenua.¹⁵¹ The effects on cultural values has been discussed at paragraphs 217-231.
- 272 The Applicant has proffered a condition of consent requiring that an ADP is submitted to the District Councils for certification. It is not clear in the application why this was only proffered in relation to the District Council consents. Having an ADP in place was something requested of Meridian by Rangitāne o Tamaki nui-ā-Rua, Rangitāne o Wairarapa and Ngāti Kahungunu ki Tamaki nui ā Rua. However, as discussed above, there were several recommendations and issues raised by iwi in the CVA's that have not been shown to have been addressed and resolved by Meridian. Ngāti Kahungunu ki Wairarapa is supportive of the proposal.
- 273 The issues and recommendations raised in the CVA's relate to partnership with iwi, various levels of requested input to design, the requirement of the Project to not directly impact some sites and the incorporation of matters of relevance to iwi, for example, remnant/extant of native fauna and flora.
- 274 Whie the CVA's provided with the application do not uniformly oppose the project, they have raised issues with, and recommendations relating to, the Project. As I indicate above, the Applicant has not provided information to show how these matters have addressed or resolved with iwi. It is my view that it would be useful to understand if further discussions have taken place and whether any progress has been made to resolving the matters raised.
- 275 It is, however, my view that if the Applicant is able to address and resolve the recommendations and issues with iwi then the proposed activities would be consistent with Objective 2-1 and Policies 2-2, 2-3 and 2-4.

¹⁵¹ AEE Section 5.2, page 83.

Chapter 3 - Infrastructure

Policy3-1(benefitsofObjective3-1(Infrastructure)infrastructure);3-3 (adverse effects(energy).ofinfrastructure);3-6 (renewableenergy).	cture); 3-2

- 276 The application identifies the relevant objective and policies, and has set them out when assessing the positive effects that will result from the proposal. The positive effects have been discussed in paragraphs 232-236.
- Objective 3-1 seeks to have regard to the benefits of infrastructure and physical resources of regional or national importance, by providing for their establishment, operation, and maintenance and upgrading. Objective 3-1 is implemented by Policies 3-1 and 3-3. Policy 3-1 sets out the infrastructure that is considered a physical resource of regional or national importance, of which facilities for the generation of more than 1 MW of electricity and its supporting infrastructure where the electricity generated is supplied to the electricity distribution and transmission networks are listed. The Policy directs Regional Council's to have regard to the benefits of these activities. Policy 3-3 seeks to allow minor adverse effects arising from the establishment of new infrastructure, and avoid, remedy or mitigate adverse effects while taking into account the need for infrastructure, the functional, operational or technical constrains, any alternative locations and whether there are any more than minor effects.
- 278 In this case, there are a number of benefits to the proposal (as discussed above in relation to the positive effects). Policy 3-3(c) is directive and establishes a hierarchy when considering any adverse environmental effects associated with the establishment of infrastructure. There remains uncertainty as to the level of effects from the proposal as to tangata whenua and freshwater ecology.
- 279 In relation to terrestrial ecology, Mr Lambie is of the view that the proposed
 1:1 wetland offset is appropriate for managing the adverse effects on
 wetland habitat arising from the Project.

280 Dr Forbes is of the view that the Project will potentially have adverse effects but the level of effect is uncertain given shortcomings in the application. While the Applicant has the opportunity to offset the habitat loss, the adequacy of the offset proposal cannot be assessed on the information provided to date. Without further information from the Applicant, based on the advice of Dr Forbes, I am unable to make a recommendation as to whether adverse effects can be avoided, remedied or mitigated, or offset.

Chapter 4 – Land

Policy 4-2 (land use activities); 4-3 (supporting codes of practice,	
standards, guidelines,	
environmental management plans	
and providing information on best	
management practices)	

- As has already been identified, the Mt Munro Project involves substantial land disturbance associated with construction of the windfarm, including the potential for accelerated erosion. Objective 4-2 and policy 4-2 seek to regulate land disturbance to minimise the risk of accelerated erosion and to minimise discharges of sediment to water. Based on the reports of Mr Pearce and Mr Crampton, and subject to recommended consent conditions, the proposed earthworks will be consistent with this objective and policy.
- 282 The policy also seeks to ensure that sediment loads entering water bodies as a result of accelerated erosion are reduced to the extent required to be consistent with the water management objectives and policies for water quality set out in Chapter 5 of the One Plan. The importance of those water management objectives and policies (and associated values) is highlighted through the reports of Dr Forbes and Mr Pearce, including their recommendations as to imposition of discharge standards. The importance of the policy is further articulated in Chapter 13, which I address below.
- 283 Policy 4-3 seeks to support codes of practise, standards, guidelines, environmental management plans and providing information on best management practices. The proposed land disturbance will be established and maintained in accordance with the document titled *"Erosion and*

Sediment Control Guide for Land Disturbing Activities in the Wellington Region" (February 2021). Mr Pearce is of the view that these GW Guidelines are best practice, and the management of the proposed earthworks will therefore be consistent with Policy 4-3.

Chapter	5 – Water
---------	-----------

Policy 5-1 (management zones and values); 5-2 (water quality); 5-3 (compliance where water quality targets are met); 5-4 (water quality targets are not met); 5-5 (water quality is unknown); 5-6 (groundwater quality); 5-9 (point source discharge to water); 5-10 (point source discharge to land); 5-22 (beds of rivers and lakes); 5-25 (other Schedule B Values)	Objective 5-1 (water management values); Objective 5-2 (water quality); Objective 5-4 (beds of rivers and lakes).

- 284 Chapter 5 addresses the management of freshwater in the Horizons Region, with the objectives and policies contained in Chapter 5 underpinning several key aspects of the application, including water quality targets. Meridian has identified all of the relevant objectives and policies in their application,¹⁵² with the exception of Policy 5-6 which, in my view, is relevant to the proposal.
- 285 Objective 5-1 seeks to manage surface waterbodies in a manner which safe guards their life supporting capacity and recognises and provides for the values in Schedule B. Objective 5-2 seeks to ensure that water quality is managed, maintained or enhanced in order to support Schedule B values. These Objectives are supported by Policy 5-1, 5-2, 5-3, 5-4, 5-5 and 5-6 which seek to manage discharges to water, maintain groundwater quality, maintain water quality which meets water quality targets, and improve water quality where these targets are not met or water quality is unknown.
- 286 Dr Forbes sets out in his report that the water quality at the Project site does not meet the water quality targets in Schedule E for deposited sediment and MCI. Policy 5-4 provides that where water quality targets are not met, the

¹⁵² Appendix G.

water quality in that sub-zone must be managed in a manner that enhances existing water quality. The Applicant has not set out any options/methods which would provide for the enhancement of water quality. The Project is, therefore, inconsistent with Policy 5-4.

- 287 The other part to Policy 5-4 is to protect the Schedule B values the water quality targets are designed to safeguard. Dr Forbes is of the view that the receiving environments are sensitive to sediment deposition, which directly affects the trout spawning values.
- 288 Sediment discharge has been assessed by both Mr Pearce, in relation to the earthworks, and Dr Forbes in relation to the works in a waterbody. Both Mr Pearce and Dr Forbes were of the view that the nature of any sediment discharges were temporary, and works in a waterbody will only be undertaken where any flow has been diverted so they are undertaken in the dry. This will minimise the discharge of sediment. Subject to the imposition of conditions imposing standards, including for pH levels, the works are able to be undertaken in a way that protects the trout spawning value.
- 289 Policy 5-9 seeks to manage point source discharges to water, and requires consideration of the degree to which the activity will affect the Schedule B values, whether the discharge will cause Schedule E targets to be breached, consistency with treatment and best management practices, the ability to allow time for improvements to be made, whether the discharge is temporary, the appropriateness of financial contributions and whether it is appropriate to adopt the best practicable option. Policy 10 seeks to manage point source discharges to land in a manner which does not result in toxic substances accumulating in soil so as to make it unsafe and having regard to Policies 5-3, 5-4 and 5-5.
- 290 As discussed in Ms Newall's report, the Applicant is proposing to avoid any contaminated areas and an accidental discovery protocol is proposed to be included as a condition of consent, which will reduce the risk of any contaminated discharges that could affect waterways or soil quality.

Section 87F Report – Mount Munro Windfarm Application

- 291 As discussed above in relation to the trout spawning value, based on Dr Forbes' and Mr Pearce's reports, subject to the imposition of conditions which are included in Part D, the discharges from the earthworks and works in a waterbody will be able to be managed in a way that is consistent with Policies 5-9 and 5-10.
- 292 Relying on the report of Mr Thomas, I am of the view that the Project is consistent with Policy 5-6, relating to groundwater, provided an appropriate management plan is in place to manage any potential effects arising in the concrete batching plant is located in the valley.
- 293 Objective 5-4 seeks to manage the beds of rivers and lakes in a manner which safeguards their life supporting capacity, provides for instream morphological components of natural character, recognises and provides for Schedule B values and provides for infrastructure and flood mitigation. Policy 5-22 outlines the general management required for activities in, on, under or over beds of rivers where:
 - (a) Any significant reduction in the ability of a river and its bed to convey flood flows needs to be avoided;
 - (b) Significant adverse effects on the stability and function of beds of rivers need to be avoided, remedied or mitigated;
 - Any significant reduction in the habitat diversity must be avoided, remedied or mitigated; and
 - (d) The safe passage of fish both upstream and downstream must be provided for.
- 294 Policy 5-25 further outlines the management required for activities in rivers and their beds with other Schedule B values other than Natural State, Sites of Significance for Cultural and Aquatic sites, and Flood Control and Drainage. It requires that adverse effects are, in the first instance, avoided, remedied or mitigated on the instream morphological components of natural character and Schedule B values. Policy 5-25(b) goes on to give the Applicant the option of making an offset.

Section 87F Report – Mount Munro Windfarm Application

- 295 The hydrology aspect of the Project has been assessed by Mr Roa. In regard to any effects on the ability of the river to convey flood flows and effects of the stability and function of beds of rivers, Mr Roa notes that while limited information was provided by the Applicant it is his view that these matters can be addressed through appropriate consent conditions. The recommended conditions have been included in Part D.
- 296 The proposal has also been assessed by Dr Forbes with respect to the effects on freshwater ecology, including the loss of habitat diversity. Dr Forbes' report is discussed in paragraphs 161-173. He is of the view that the freshwater assessments provided do not provide sufficient information and analysis to inform whether the reduction in habitat diversity can be avoided, remedied or mitigated. These issues are summarised in paragraph 166. If the effects of stream habitat loss (once assessed in a fulsome manner) cannot be fully avoided, remedied or mitigated, the Applicant has the opportunity to offset the habitat loss. However, for reasons already explained, the adequacy of the proposed offset cannot be assessed on the information provided to date.
- 297 Mr Forbes is also of the view that the proposed barrel culverts could present a risk for safe fish passage, however, records that this risk could be managed through consent conditions including requiring the installation of stream simulation culverts.
- 298 On the basis of the above, it is my view that further information is required in order to determine whether the proposal is consistent with Objective 5-4 and Policies 5-22 and 5-25.

Chapter 6 – Biodiversity and Landscape	
diversity); 6-8 (natural character);	Objective 6-1 (Indigenous biological diversity); Objective 6-2 (Outstanding natural features and landscapes, and natural character)

299 Meridian's identification of Chapter 6 of the One Plan deals with indigenous biological diversity, landscape and historic heritage.

Section 87F Report – Mount Munro Windfarm Application

- 300 Objective 6-1 and Policy 6-2 seek that significant indigenous biodiversity, particularly rare, at risk and threatened habitats, are protected and managed, and enhanced where appropriate. Mr Lambie for Horizons and GWRC is of the view that any potential effects on indigenous biodiversity can be managed through the inclusion of consent conditions requiring appropriate offsetting and mitigation of biodiversity and terrestrial ecological effects. With the recommended conditions, I consider the Project will be consistent with this objective and policy.
- 301 Objective 6-2 deals with outstanding natural features and landscapes, and natural character. The component of Objective 6-2 that addresses natural character is relevant here. Objective 6-2(b) and (c) seek to protect the natural character of amongst other matters wetlands, rivers and their margins, by ensuring that:
 - (a) The natural character of wetlands, rivers and their margins is protected from inappropriate development;
 - (b) Adverse effects on the natural character of wetlands, rivers and their margins are avoided where they would significantly diminish the attributes and qualities of areas that have high natural character, and avoided, remedied, or mitigated in all other cases; and
 - (c) Rehabilitation and restoration of the natural character of wetlands and rivers and their margins is promoted.
- 302 Policy 6-8 requires that the natural character of wetlands, rivers and their margins must be preserved and that these areas must be restored and rehabilitated where this is appropriate and practicable. Policy 6-9 lists matters for consideration to determine whether use or development is appropriate.
- 303 The natural character of the wetlands, rivers and their margins has also been assessed by Mr Lambie and Dr Forbes.
- 304 Mr Lambie is of the view that, in relation to the wetlands, the effects of the Project on natural character will be very low, and any loss will be offset with

a marked improvement in the indigenous natural elements at the recipient site(s).

305 In relation to the rivers and their margins, Dr Forbes is of the view that the proposed culverting has the potential to directly adversely effect the natural character of the river and disrupt the existing ecosystem. Dr Forbes has recommended conditions to use stream simulation culverts and for instream monitoring and response mechanisms which aid in maintaining a level of natural character, however, there remains the uncertainty in the absence of further information as to the level of effects and the adequacy of the proposed offset. Without this information, I am unable to determine whether the Project is consistent with objective 6-2 and policies 6-8 and 6-9.

Chapter 9 – Natural Hazards

Policy 9-4 (other types of natural	Objective 9-1 (Natural hazards).
hazards); 9-5 (climate change).	

- 306 The Applicant did not provide an assessment of the Project against the natural hazards objectives and policies.
- 307 Objective 9-1 manages the adverse effects of natural hazard events on people, property and infrastructure so that effects are avoided or mitigated.
- 308 Policy 9-4 related to the management of activities subject to natural hazard event. The effects associated with natural hazards have been set out by Mr McGahan in Part C, paragraphs 648-653. Relying on the advice of Mr Crampton, any effects associated with seismic activity can be managed through conditions that have been included in Part D. The Project is therefore consistent with Policy 5-4. Policy 9-5 sets out that the Regional Council must take a precautionary approach when assessing the effects of climate change on the scale and frequency of natural hazards when making decision on a number of activities, including activities adjacent to rivers and activities in a Hill Country Erosion Management Area, both of which are applicable here.
- I am of the view that, with regard to Policy 9-5 and the report of Mr Roa, theProject may not have accurately accounted for the effects of climate change

in their hydrology modelling. Mr Roa has recommended conditions to address this for the purposes of detailed design which I have included in Part D. The Project is therefore consistent with Policy 9-5.

U. OPERATIVE REGIONAL PLAN (ONE PLAN)

Regional Plan – Policies

310 The following is an assessment of the proposal against the Objectives and Policies of the Regional Plan being Part II of the One Plan. Meridian has identified most of relevant Objectives and Policies within the Application.

Chapter 12 – General Objectives an	d Policies
12-4 (Consent conditions); 12-5 (Consent durations).	Objectives 12-1 (Resource management in the Region); 12-2 (Consent duration, review and enforcement).

- In accordance with Policy 12-4, the authors of this report have recommended a suite of conditions to attach to the resource consents if granted (see Part D). As I identified earlier in this report, some conditions were proposed by the Applicant, some are amended versions of what was proposed by the Applicant, and others are recommended by the authors in response to recommendations of the technical experts and the plan framework.
- 312 The proposed discharge will occur within the Mangatainoka (mana_8) Water Management Zone (WMZ). Policy 12-5 states that consent durations will generally be set to the next common catchment expiry date. The common catchment expiry date for the WMZ is 1 July 2013 or in 10 year increments where a term longer than 10 years can be granted.
- 313 I am of the view, subject to recommended amendments and additions to conditions, the Mt Munro Project is consistent with the objectives and policies in this chapter. I address the details of the duration and the recommended conditions in paragraph 467 onwards of my report.

Chapter 13 - Land

Policy 13-2 (consent decision	Objectives 13-1 (vegetation
making for vegetation clearance,	clearance, land disturbance).
land disturbance); 13-3A (natural	
inland wetlands).	

- 314 Objective 13-1 regulates activities to manage erosion and sedimentation in water bodies, and specifically requires that the potential increased sedimentation in water bodies as a result of human activity is avoided as far as reasonably practicable, or otherwise mitigated. As well as regulating activities to manage erosion, Objective 13-1 extends to any associated damage to people, buildings and infrastructure and so includes the consideration of dust generation.
- 315 The proposal involves a significant volume of earthworks. Meridian has prepared a draft CWMP to manage the construction effects prepared in accordance with the GW Guidelines. Policy 13-2 is relevant to managing construction effects by requiring resource consents for activities adjacent to some water bodies and large scale land disturbance (here, large scale earthworks) within five metres of streams and rivers.
- 316 In relation to dust management, Mr Curtis is of the view that any effects of dust resulting from the land disturbance can be managed through a Dust Management Plan, which has been included as a condition in Part D.
- 317 Mr Pearce is of the view that the GW Guidelines are appropriate to be used by Meridian in preparing their CWMP. In his opinion, the conditions should require the GW Guidelines to be met, and the proffered conditions must be further improved, and performance standards added, to ensure that the construction and implementation works sufficiently manage any potential adverse effects on water quality. Subject to the inclusion of the conditions recommended by Mr Pearce, Dr Forbes and Mr Crampton, I consider that the proposal will be consistent with Objective 13-1 and Policy 13-2.
- 318 Policy 13-A relates to Natural Inland Wetlands as defined in the NPS-FM and carries through the wording from clause 3.22. I have assessed this in relation to the NPS-FM at paragraph 264. Based on the report of Mr Lambie, I am satisfied that the Project is consistent with Policy 13-A.

Chapter 14 – Discharges (to land and water)

- 319 The objectives and policies within Chapter 14 are relevant to the Project. Objective 14-1 outlines the management of the effect of discharges on surface and ground water to provide for Schedule B values, provides for the objectives and policies of Chapter 5 of the One Plan, and seeks to avoid, remedy or mitigate the effects of any discharge to water. There are eight (8) policies in support of this objective.
- 320 Policy 14-1 and 14-2 are of particular relevance as they identify the matters to be considered when processing applications for the discharge of contaminants to water and land, including the objectives of Chapter 5 and associated policies, which I have already discussed in this report. I will not repeat my earlier analysis within this section.
- 321 Policy 14-4 seeks the consideration of opportunities to use alternative options or a combination of methods for the discharge of contaminants into water, or onto or in land to mitigate adverse effects. Policy 14-8 confirms the monitoring requirements for discharges to water.
- 322 Policy 14-9 seeks to implement the NPS FM 2014 (which has been superseded by the NPS-FM 2020) and requires consideration of:
 - (a) The extent to which the discharge would avoid contamination that will have an adverse effect on life supporting capacity of freshwater and its ecosystems;
 - (b) The extent to which it is feasible and dependable that any more than minor effects on freshwater and its ecosystems would be avoided;

- (c) The extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities; and
- (d) The extent to which it is feasible and dependable that any more than minor effects on the health of people and communities as affected by secondary contact with freshwater would be avoided.
- A full review against the NPS-FM has been undertaken in paragraphs 257-266. I will not repeat my earlier analysis here.
- 324 In relation to points (a) and (c) above, the Applicant has maintained that they will avoid disturbing any areas of contaminated land and have proffered a condition for managing an accidental discovery. In relation to points (b) and (d), pH level standards have been recommended to be included as conditions of consent by Mr Forbes and Mr Pearce, and there is no activity proposed by the Applicant that will affect peoples ability to use water bodies.
- 325 Based on the report of Mr Pearce, the discharges associated with the earthworks are able to be managed through consent conditions and the GW Guidelines. However, as discussed in relation to Chapter 5, Dr Forbes is of the view that the Project will potentially have adverse effects but the level of effect is uncertain given shortcomings in the application. While the Applicant has the opportunity to offset the habitat loss the adequacy of the offset proposal cannot be assessed on the information provided to date. Without further work and information by the Applicant, based on the advice of Dr Forbes, I am not able to presently determine whether the proposal is consistent with the Objective and Policies set out in Chapter 14.

Chapter 17 – Artificial Watercourses, beds of rivers and lakes, and damming

Policy 17-1 (activities in, on, under	Objective 17-1 (structures and
or over the beds of rivers and	activities); 17-2 (fish passage).
lakes); 17-4 (loss of river extent).	

326 Objective 17-1 directs the regulation of structures and activities in artificial watercourses and the bed of rivers and lakes, and damming, to occur in a

Section 87F Report – Mount Munro Windfarm Application

manner that safeguards life supporting capacity and recognises and provides for the Schedule B values and relevant Chapter 5 objectives and policies. Policy 17-1 guides consent decision making for such activities to have regard to best management practices, to avoid any adverse effects on other lawful activities, and have regard to the objectives and policies of Chapters 2, 3, 5, 9 and 12 as well as the matters in Policy 14-9 which relate to the NPS-FM.

- 327 The ability of the Project to meet the objectives and policies of Chapters 2, 3, 5, 9 and 12 and the matters in Policy 14-9 have been discussed in earlier sections and are not repeated here. Suffice to say that the issues with determining consistency with objectives and policies relating to iwi and freshwater ecology remains when considering Objective 17-1 and Policy 17-1.
- 328 Objective 17-2 sets out that the passage of fish is to be maintained or improved.
- 329 The proposal includes a bridge and numerous culverts to be located in tributaries of the Mākākahi River, as well as two culverts to be located in a tributary of the Mangaroa Stream.
- 330 Provided the bridge is constructed in accordance with best practice to avoid adverse effects from stream disturbance, Dr Forbes is of the view that the bridge will not be a concern. However, the proposed barrel culverts could present a risk for fish passage, and Dr Forbes considers this risk needs to be managed through consent conditions including requiring culverts to be installed using stream simulation methods.
- 331 Mr Roa is of the view that any hydrological effects of the proposed culverts and bridge can be managed through conditions of consent which have been included in Part D.
- 332 Policy 17-4 sets out that the loss of river extent and values is avoided unless the Regional Council is satisfied that there is a functional need for the activity in that location and the effects management hierarchy has been applied. This has been adopted from the NPS-FM. As discussed in relation to the NPS-FM, there are several culverts proposed which will result in the loss of river

extent, and this has been discussed by Mr Forbes. Through the effects management hierarchy, 'specified infrastructure' has the opportunity to offset that loss. Mr Forbes is of the view that the proposal will potentially have adverse effects on the values of those waterways affected by the proposal, but the level is uncertain given the inadequacies with the assessments provided by the Applicant. If the effects of stream habitat loss (once assessed in a fulsome manner) cannot be fully avoided, remedied or mitigated, the Applicant has the opportunity to offset the habitat loss. However, the adequacy of the proposed offset cannot be assessed on the information provided to date. As a result, without further information, it is not clear whether the proposal is consistent with Policy 17-4.

Summary of the One Plan

333 In summary, subject to the imposition of proposed conditions and the recommendations of the Regional Council experts, I generally agree that the potential adverse effects of the Mt Munro Project are avoided, remedied, mitigated and/or offset in a manner that is consistent with many of the objectives and policies of the One Plan. However, I have also identified a number of objectives and policies where I consider further assessment is required or which relate to areas of further work that need to be addressed by the Applicant. These include (in the main) matters relating to tangata whenua values, water quality and freshwater ecology.

GWRC Regional Policy Statement (RPS)

- As noted in section X of this report, s 104–108AA of the RMA sets out the relevant statutory framework for considering resource consent applications.
 I have considered this framework with regard to the applications for resource consent to GWRC, and the applicable plan framework.
- 335 The location of the local government boundary bisects the site, with the Horizons Regional Council and Tararua District Council covering the majority of the site to the north and west, and the Greater Wellington Regional Council and Masterton District Council covering a portion of the site to the southeast.

Section 87F Report – Mount Munro Windfarm Application

- The GWRC's Regional Policy Statement became fully operative on 24 April
 2013. A change to the Regional Policy Statement (Proposed RPS Plan Change
 1) was notified on the 19 August 2022 (discussed further below).
- 337 I have assessed the application against what I consider to be the relevant policies of the GWRC RPS, with those that require specific comment set out below. Meridian provided a brief assessment of the relevant RPS policies with the application, listing the relevant provisions rather than assessing them. I have therefore had to undertake my own assessment, with full commentary provided below under each relevant chapter. The policies in their entirety are listed in Appendix 22 and are therefore not repeated in full below.
- 338 I note that a number of matters have been raised by the experts as requiring further information and/or assessment, as noted in the various technical section 87F reports. These included uncertainties identified in relation to information provided on cultural matters and freshwater. The Applicant has also not provided any detailed assessment against the relevant provisions; therefore, my conclusions are again reliant on the various technical expert reviews.

Section 87F Report – Mount Munro Windfarm Application

Chapter 3.1 – Air Quality	
	Objective 1 (Discharges of odour, smoke and dust to air do not adversely affect amenity values and people's wellbeing).
	Objective 2 (Human health is protected from unacceptable levels of fine particulate matter)

- 339 Relying on the conclusions and suggested conditions in Mr Curtis's section 87F Report, it is my view that the discharge of contaminants to air, primarily dust associated with the construction activities of the project, can be managed and mitigated in a manner which prevents noxious, offensive or objectionable effects beyond the boundaries of the site. One of the largest potential sources of nuisance dust identified by Mr Curtis is the use of Old Coach Road by light vehicles and heavy machinery. The Applicant has proposed an option to seal the road to avoid potential dust effects in this area. Mr Curtis noted that if the road was to be sealed as recommended by the Applicant, the potential source of dust will be eliminated and air quality effects at this location minimised as far as practicable. Mr Curtis considers that any potential adverse air quality (dust) effects can be managed through the use of an appropriate Dust Management Plan and recommended condition which requires the works authorised by these resource consents to not cause noxious, dangerous, offensive or objectionable adverse effects at any point beyond the boundary of the site. His rationale for this conclusion is that the Project has significant separation distances between construction works and the majority of the sensitive receptors.
- Subject to the appropriate consent conditions, as outlined in Mr Curtis's section 87F Report, the Mt Munro Project will meet the objectives in Chapter
 3.1.

Chapter 3.3 – Energy, infrastructure	, and waste
Policy 39: (Recognising the benefits from renewable energy and regionally significant infrastructure – consideration)	Objective 9 The regions energy needs are met in ways that: (a) improve energy efficiency and conservation;

Section 87F Report – Mount Munro Windfarm Application

Chapter 3.3 – Energy, infrastructure, and waste	
	(b) diversify the type and scale of renewable energy development;
	(c) maximise the use of renewable energy resources
	(d) reduce dependency on fossil fuels; and
	(e) reduce greenhouse gas emissions from transportation
	Objective 10 (The social, economic, cultural and environmental, benefits of regionally significant infrastructure are recognised and protected).

341 These objectives and policies relate to the benefits of regionally significant infrastructure and its protection from incompatible subdivision use and development. The positive effects associated with this proposal are further discussed in section H and paragraph 232 of this report.

342 The RPS states:

The Wellington region faces several major long-term energy challenges, including responding to climate change and tackling carbon emissions, especially from transportation and energy generation better utilising the region's renewable energy resources.

- 343 This statement reinforces the significance of providing for renewable energy generation in our region and the important role these projects play in giving effect to renewable energy targets set by central government.
- 344 The Application sets out that the site is classified as having a Class I wind energy resource, which is considered one of the best wind resources available. The Project will provide for additional electricity generation at a time when it is needed and doing so in a way which contributes towards meeting Aotearoa New Zealand's renewable electricity needs and commitments outlined above. I also consider the Project to meet the criteria for regionally significant infrastructure under the NRP as it includes facilities

for the generation and/or transmission of electricity where it is supplied to the National Grid and/or local distribution network.

- 345 Based on the information above, I consider and recognise the benefits the Project will generate in terms of meeting New Zealand's renewable electricity needs and consider the Project to be consistent with Policy 39 and Objectives 9 and 10.
- 346 Based on the above, I consider that the Mt Munro Project is consistent with the objectives and policies in Chapter 3.3.

Chapter 3.4 – Freshwater	
Policy 40: (Safeguarding aquatic ecosystem health in water bodies – consideration), Policy 41: (Minimising the effects	Objective 12 (The quantity and quality of fresh water): (a) meet the range of uses and values for which water is required;
of earthworks and vegetation disturbance – consideration),	(b) safeguard the life supporting capacity of water bodies; and
Policy 42: Minimising contamination in stormwater from development – consideration),	(c) meet the reasonably foreseeable needs of future generations
Policy 43: (Protecting aquatic ecological function of water bodies – consideration)	Objective 13 (The region's rivers, lakes and wetlands support healthy functioning ecosystems)

- 347 These policies relate to the importance of protecting the region's fresh water to meet a range of uses valued by the community. Fresh water is integral to our health, wellbeing, livelihood, and culture and is essential for sustaining our natural landscapes and ecosystems. They seek to safeguard aquatic health (alongside water quality) and to minimise the effects of earthworks and contaminants in stormwater.
- 348 The Application identifies that the adverse effects in relation to wetlands and freshwater have been assessed based on the currently proposed infrastructure being provided within the 'envelope' of work zones. The Applicant suggests that detailed design and placement of infrastructure in the Turbine Envelope and Turbine Exclusion Zones may avoid direct impacts on fresh water or the impact may be less than initially assessed. However,

without certainty of detailed design at this stage, my assessment is based on the worst-case scenarios identified within the various 'envelope' zones.

- 349 I have considered the freshwater objectives and policies informed by the recommendations outlined in the Section 87F reports of Mr Pearce, Mr Lambie (as to wetlands) and Dr Forbes.
- 350 Mr Pearce reviewed the issues relating to the earthworks and Erosion and Sediment Control (**ESC**) practices associated with the construction of the Mt Munro Project. He was overall comfortable that the potential effects associated with the earthworks could be managed through the proposed management plan condition framework, although his recommendation was subject to the imposition of a number of further conditions regarding management of discharges.
- 351 The conditions proposed by Mr Pearce require best practice and impose a management response to manage effects of sediment and erosion. I therefore consider the Project to be consistent with policy 41. However, in my view, it is presently not clear on the information available, and from Ms Ira's technical report, that the Project will reduce the adverse effects of stormwater run-off, consistent with policy 43. The Applicant is of the view that the stormwater activity will be managed so as to be permitted, and therefore, it has provided no additional information to satisfy the Councils that the stormwater discharges meet the NRP (or One Plan).
- 352 Dr Forbes reviewed the freshwater ecology aspects of the application. He stated in his section 87F Report that there are significant inadequacies in the methods followed for freshwater fish surveys and stream classifications, which introduces uncertainty over the accuracy of the statutory significance assessment, freshwater values assessment, and corresponding effects assessment. Subject to the identified issues being addressed as part the consenting process, Dr Forbes was satisfied that protocols for instream works and in stream health monitoring were otherwise manageable through consent conditions. As there is outstanding information, Dr Forbes is unable to determine the potential level of effects on freshwater ecology or the adequacy of the proposed offset/compensation package. Dr Forbes also sets

out in his report that the Applicant has not clearly demonstrated any methods associated with the work which would result in the enhancement of water quality. He also referred to the targets in the Horizons One Plan, which are further discussed under Chapter 5 of the One Plan statutory assessment in this report.

353 Based on the conclusions of Dr Forbes in the section 87F Report, I am unable to determine whether the proposal is consistent with the objectives and policies relating to aquatic ecosystem health under Chapter 3.4, particularly Policies P40, P43 and objective 13.

Chapter 3.6 – Indigenous ecosystems	S
Policy 23: Identifying indigenous ecosystems and habitats with significant indigenous biodiversity values. Policy 47: (Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values – consideration),	Objective 16 (Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state.)

- 354 These policies relate to protecting and restoring the diverse natural processes that drive ecosystems in the region. Policy 47 specifically relates to managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values.
- 355 Mr Lambie considers the identification of the terrestrial and wetland ecological habitat values potentially affected by the proposal as sound. Any potentially significant areas of terrestrial vegetation or habitat of flora and fauna are avoided. The effects of habitat loss are confined to vegetation types that do not meet significance thresholds in the NRP and therefore do not require mitigation or offset for loss.
- 356 Dr Forbes outlined in his assessment that the application failed to consider GWRC NRP Schedule F "Ecosystems and habitats with significant indigenous biodiversity values" which defines significance as those ecosystems and habitats which meet one or more criteria of Policy 23 of the GWRC Regional Policy Statement (RPS). In the opinion of Dr Forbes, it is obvious from fish

data that one or more At Risk – Declining species are present (i.e., longfin eel and possibly torrent fish) which triggers the Rarity criterion of Policy 23.

- 357 Dr Forbes noted that given the macroinvertebrate communities are typical of the structure and diversity of pastoral systems New Zealand wide, the natural diversity of those macroinvertebrate communities would also trigger the Diversity criterion. These results support a conclusion that the assessed reaches of the Kopuaranga tributaries hold statutory significance in terms of Policy 23 criteria. As Dr Forbes identifies, this Policy was not identified or assessed as part of the application.
- 358 Noting the reporting of Dr Forbes, and without further information, I am unable to determine that the proposal is consistent with objective 16 as well as policies 23 and 47.

Chapter 3.8 – Natural Hazards	
Policy 51: (Minimising the risks and consequences of natural hazards – consideration), Policy 52: (Minimising adverse effects of hazard mitigation measures – consideration.	Objective 19 (The risks and consequences to people, communities, their businesses, property and infrastructure from natural hazards and climate change effects are reduced) Objective 20 (Hazard mitigation measures, structural works and other activities do not increase the risk and consequences of natural hazard events.)

- 359 The Wellington region has one of the most physically diverse environments in New Zealand. The Application outlines the aim of the Project to provide resilience to natural hazards and minimise the consequences of natural hazards. It also Mt Munro has been identified as having a good wind resource, which is expected to increase over time due to anthropogenic climate change.
- 360 The policies require minimisation of the risks and consequences of natural hazards and that regard be given to the residual risk that remains after protection works are put in place. Effects on natural hazards should be considered taking into account climate change.

Section 87F Report – Mount Munro Windfarm Application

- 361 One of the principal natural hazards that could affect the project is severe earthquakes. This was a matter raised in a number of submissions.¹⁵³ The risk of seismic activity to the Project has been assessed by Mr Crampton. Mr Crampton considered as part of his assessment earthquake shaking, site subsoil classes and liquefaction. Mr Crampton agreed with the Applicant that a range of further investigations and construction monitoring will be required to confirm geotechnical conditions for detailed design of a range of project components. This included road cut batter stability, treatment of existing slope instability, fill batter stability, turbine foundations, facilities located on potentially liquefiable ground and soil sub classes for seismicity assessment. Mr Crampton reiterates that robust conditions need to ensure that the investigations and monitoring occur in an appropriate manner.
- 362 There are aspects of the proposal that may also be impacted by severe flood events; however, the potential effects of this are difficult to determine due to the lack of detail provided by the Applicant on culvert hydrology. While aspects of the proposal have not been accurately accounted for in relation to effects from climate change and hydrological modelling, Mr Roa suggested that these can be addressed through conditions which have been included in Part X of the report. Further, while the application mentions that various allowances have been made in terms of factoring in climate change, it does not describe any of these in detail.
- 363 While there is a lack of detail in the application relating to Natural Hazards, Mr Crampton and Mr Roa have determined that the issues identified in their assessments can be addressed through detailed design and robust conditions. I therefore consider the proposal to be consistent with these provisions based on conclusions reached by both Mr Crampton and Mr Roa.

Chapter 3.10 – Resource Management with tangata whenua	
providing for matters of significance	Objective 25 (The concept of kaitiakitanga is integrated into the sustainable management of the Wellington region's natural and physical resources.)

¹⁵³ Submissions 8, 13, 21, 34, 37, 48.

Section 87F Report – Mount Munro Windfarm Application

Chapter 3.10 – Resource Management with tangata whenua	
	Objective 26 (Mauri is sustained, particularly in relation to coastal and fresh waters.)
	Objective 27 (Mahinga kai and natural resources used for customary purposes, are maintained and enhanced, and these resources are healthy and accessible to tangata whenua),
	Objective 28 (The cultural relationship of Māori with their ancestral lands, water, sites, wähi tapu and other taonga is maintained.)

- 364 The RPS outlines that tangata whenua of the region consider that the region's natural and physical resources need to be managed in an integrated and holistic way in order to achieve a sustainable future. The objectives and policies recognise the role of tangata whenua as kaitiaki and make provision for tangata whenua involvement in management of natural resources.
- 365 The Mt Munro project falls within the rohe of Ngāti Kahungunu (Te Taiwhenua o Tāmaki Nui-a-Rua), Ngāti Kahungunu ki Wairarapa and Rangitāne o Tāmaki Nui-a-Rua and Rangitanē ki Wairarapa.
- 366 Rangitāne o Tamaki nui-ā-Rua and Rangitāne o Wairarapa have provided the applicant with a joint Cultural Values Assessment (CVA). The recommendations outlined in this assessment are set out in paragraph 220 -221 (Section H) of this report. They include (in summary) a Memorandum of Commitment between Ngāti Kahungunu ki Tamaki nui a Rua and the Applicant; cultural health monitoring of the Mākākahi and Kopuaranga awa, use of an accidental discovery protocol, procedures for the discovery of taonga or sites of significance to hapu, restoration and biodiversity enhancements, construction monitoring and social outcomes (employment opportunities). The Applicant has proposed to continue to work with (at least) Ngāti Kahungunu ki Tamaki nui a Rua on these recommendations.
- 367 The Applicant has not confirmed whether the recommendations in the CVA have been worked through with Rangitāne specifically. Based on the

information provided in the Application and correspondence received from mana whenua since initial lodgement of the application, it is not clear if all interested iwi are either for or against the proposal due to the various recommendations and issues raised through this process, and how they may have been resolved (if at all). Neither is it clear how the ongoing support and involvement of mana whenua has been provided for through the Project which is discussed in more detail in section H of this report.

368 Therefore, I am currently unable to determine whether these policies are met as it remains unclear how the issues are being addressed or resolved between the Applicant and mana whenua. This information would need to be provided before I could reach a view as to the consistency of the Project with these objectives and policies.

Chapter 3.11 – Soils and Minerals	
Policy 59: (Retaining highly productive agricultural land (Class I and II land) – consideration)	Objective 29 Land management practices do not accelerate soil erosion.
	Objective 30 (Soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses).

- 369 The Applicant provided information relating to the NPS-HPL, outlining that they have considered the impact on LUC3 land within the site and therefore have amended their design accordingly. There is no reduction to highly productive land with the Wellington Region as a result of this proposal. A review of the Applicant's assessment has not been concluded since this information was received. Therefore I am unable to make any further conclusions with regard to Policy 59 until the time further information is presented or reviewed by the relevant expert.
- 370 Similar to the assessment for Chapter 3.4 above, proposed erosion and sediment control measures to be implemented on the Project will ensure consistency with the objectives and policies under this Chapter. My view is

Section 87F Report – Mount Munro Windfarm Application

contingent on the works meeting best practice guidelines as recommended by Mr Pearce (as a condition of consent) and the various ESC requirements.

GWRC Regional Policy Statement Plan Change 1 (GWRC RPS PC1)

- 371 Plan Change 1 to the Regional Policy Statement for the Wellington Region ("RPS PC1") was publicly notified on 19 August 2022. A decision on submissions and further submissions is yet to be made on PC1, with hearings scheduled to finish in March 2024.
- 372 The key topics of the GWRC RPS PC1 are;
 - (a) Lack of urban development capacity and implementation of the NPS-UD and Wellington Regional Growth Framework;
 - (b) Degradation of freshwater and partial implementation of the NPS-FM;
 - (c) Loss and degradation of indigenous biodiversity and the need for regional policy to implement central government strategy and draft RMA national policy direction; and
 - (d) The impacts of climate change including regional policy to complement central government policy direction.
- 373 The Application does not provide an assessment against RPS PC1. I have assessed the proposal against the relevant provisions of RPS PC1 below.
- Of particular relevance to this Project, is the amendment proposed to Policy40, which is to be amended in the following manner:
 - Policy 40: Maintaining Protecting and enhancing the health and wellbeing of water bodies and freshwater ecosystems aquatic ecosystem health in water bodies – consideration.
- 375 This amendment aligns with the direction of the NPS-FM and strengthens the policy considerations as to the well-being of water bodies. I have had regard to the proposed policy in my assessment. Relying on the expert reviews on terrestrial ecology and aquatic ecology (and operational stormwater), as

they relate to GWRC matters, I am unable to determine whether the proposal will be consistent with this proposed policy. This is consistent with my assessment of the Application under Chapter 3.4 (as set out above), particularly regarding freshwater ecology.

Climate change, energy and infrastructure

376 Eight new climate change specific objectives are proposed under RPS PC1, which flow on to numerous new and amended policies. Objective CC.1 and CC.3 are most relevant to this proposal.

These changes are summarised as follows:

Objective CC.1	Sets out a low-emission and climate resilient vision for the region by 2050, which includes mitigation of emissions being a part of sustainable management of resources, well-functioning environments and well- planned infrastructure. This objective is linked to policies that seek to create climate resilient urban areas which is integrated with sustainable transport options amongst other matters.
Objective CC.3	Seeks that greenhouse gas emissions from various sectors including transport, agriculture, stationary energy, waste, and industry in the Wellington Region are reduced, with an overall target of net-zero emissions by 2050. This objective is linked to a number of policies that seek to enable activities that reduce emissions, including Policy 7 which seeks to recognise the benefits from renewable energy and regionally significant infrastructure.

377 These proposed objectives are relevant to the proposal as they seek to enable a low-emission future for the region, of which renewable energy generation is a critical component. Ms Ryan has outlined that the Applicant has not provided any information relating to reducing GHG emissions through the implementation of the Project. She highlighted that there are opportunities for the Applicant to explore this further. Notwithstanding, given that the Mt Munro Project is defined as regionally significant infrastructure and is targeted towards meeting New Zealand's decarbonisation goals, I consider that it is consistent with these objectives.

Section 87F Report – Mount Munro Windfarm Application

Fresh Water

- 378 Amendments are proposed to freshwater provisions within the RPS to give effect to the NPS-FM, and insertion of Te Mana o te Wai visions/objectives as required by the NPSFM.
- 379 Objective 12 is proposed to be amended to include the hierarchy of Te Mana o te Wai, including:
 - Six principles to inform the RPS and its implementation including Mana whakahaere, Kaitiakitanga, manaakitanga, governance, stewardship and care and respect.
 - Te Mana o te Wai expression statements from Kahungunu ki Wairarapa and Rangitāne o Wairarapa.
- 380 As outlined earlier when considering resource management with tangata whenua under chapter 3.10 of the RPS, all four tangata whenua groups have an interest in the site and these statements provide an expression of their visions and values with regard to freshwater that is relevant to this proposal.
- 381 Further information is required around cultural matters before I can reach a view that the issues and recommendations identified in the CVA have been resolved. Only then would I consider recommending that matters have been resolved consistent with the above proposed objectives and policies.

Indigenous Ecosystems

- 382 Amendments are proposed through RPS Change 1 to provisions for indigenous ecosystems, including three new proposed objectives relating to giving effect to Te Rito o te Harakeke, incorporating mana whenua/tangata whenua values, and the recognition of the values and roles of landowners in regard to biodiversity. While these proposed changes are not new matters as those listed in the above sections, they are relevant to the assessment of ecological effects of this proposal.
- 383 These objectives are summarised as follows:

Objective 16A	New objective focused on maintaining indigenous ecosystems, and enhancing or restoring these so that they are in a healthy functioning state, giving effect to Te Rito o te Harakeke.	
Objective 16B	New objective focused on mana whenua / tangata whenua values relating to biodiversity and kaitiakitanga.	
Objective 16C	New objective focused on landowners and community values relating to biodiversity and stewardship.	

GWRC Natural Resources Plan (NRP)

384 The NRP was made fully operative on 28 July 2023.

Ki uta ki Tai: mountains to the management	e sea and integrated catchment
Policy P2: Cross-boundary matters Policy P3: Precautionary approach	Objective O1, Objective O2, Objective O3, Objective O4
Policy P5: Synchronised expiry and review dates	

- 385 These objectives and policies relate to the holistic and integrated use and management of resources.
- 386 As noted, the proposed construction methodology, implementation of best practice through conditions and imposition of discharge standards, will assist with sustaining the mauri of the Kopuaranga River and its life-supporting capacity during the construction phase in line with Objectives O3 and O4. The requirement to adhere to best practice will be further enhanced through Mr Pearce's recommended consent conditions which require the works to be undertake in accordance with the Greater Wellington Erosion Sediment Control Guidelines 2021. Therefore, I consider that the proposal is consistent with these provisions.
- 387 Policy P5 relates to ensuring that a common expiry or review date is imposed on resource consents within a whaitua or sub-catchment if the affected resource is fully allocated, or the exercise of the resource consent may

impede the ability to implement an integrated approach to manage water quality, quantity or habitat within that whaitua or sub-catchment. The Regional Council consents will be synchronised in terms of expiry and review dates in line with Policy P5. I discuss term (including expiry and review dates) for the consents later in this report.

388 Policy P3 requires a precautionary approach to be taken where there is limited information regarding the effects and any adverse effects are potentially significant. The application states that a precautionary approach has been taken with regard to the maximum scope of effects included within the 'envelope' of proposed work. The outer limits of effects have therefore been considered pending detailed design. Dr Forbes expressed that he is unable to come to a conclusion on the level of effect and offsetting requirements of the proposal. His recommendations for what can be addressed through consent conditions and management plans is discussed further in this report under paragraph 86. I otherwise agree that the adoption of the recommended conditions will minimise significant adverse effects as directed by Policy P3 and so the proposal is consistent with this policy.

Beneficial use and development	
Policy P6: Uses of land and water Policy P7: Beneficial activities	Objective O5, Objective O6, Objective O9, Objective O10.
Policy P9: Avoid, remedy or mitigate any adverse effects on contact recreation and Māori customary use in fresh and coastal water.	
Policy P11: Having regard to the benefits of Regionally Significant Infrastructure and renewable electricity generation activities.	
Policy P13: Providing for Regionally Significant Infrastructure and renewable electricity generation activities.	
Policy P15: Incompatible activities adjacent to Regionally Significant Infrastructure, renewable electricity generation activities and	

Section 87F Report – Mount Munro Windfarm Application

- 389 These provisions recognise and enable the benefits of development, particularly as it relates to regionally significant infrastructure and renewable electricity generation activities. The Mt Munro Project aims to assist with meeting New Zealand's decarbonisation goals. The Applicant's climate change report highlights that it is required to supply the doubling of electricity by 2050 which is projected to be required for the electrification of transport and industry.
- 390 Ms Ryan stated in her section 87F report that the Mt Munro Project has significant benefits to assist Aotearoa in meeting renewable energy targets and targets for decarbonisation. While acknowledging this, Ms Ryan also mentions that no assessment of the GHG emissions or opportunities for reductions has been put forward by the Applicant. She later concludes that for large scale infrastructure projects such as Mt Munro, these opportunities are a material consideration to ensure sustainability over the long term. This may include considering life cycle carbon in the design, construction, operation and end of life of the wind farm.
- 391 While it was indicated by Ms Ryan that there are further opportunities available for the Applicant to explore with regard to reducing GHG emissions, there is recognition that this Project has significant benefits associated with renewable energy generation. As with my assessment of Chapter 3.3 of the RPS, it is my view that the proposal is generally consistent with these objectives and policies of the NRP which recognise and promote the need for regionally significant infrastructure and renewable energy sources.

Māori relationships	
Policy P18: Mauri Policy P19: Recognising and	Objective O12, Objective O13
providing for relationships between mana whenua and Ngā Huanga o Ngā Taonga Nui a Kiwa identified in Schedule B.	
Policy P20: Māori values Policy P21: Exercise of kaitiakitanga	

Section 87F Report – Mount Munro Windfarm Application

- 392 These objectives and policies relate to recognising Māori relationships and kaitiakitanga, the intrinsic value of the ecosystems they support, and aquatic ecosystem health. There is no formal assessment as to whether the Project addresses whether it is consistent with these policies and objectives.
- 393 The proposed activities that occur in and around the Kōpuaranga River (including its tributaries) are relevant to these policies and may potentially affect iwi cultural values and other associative values to be addressed by mana whenua.
- 394 The Kōpuaranga River has several tributaries which run through the southeastern portion of the site before connecting with the primary river which is listed under Schedule B (Ngā Taonga Nui a Kiwa) of the NRP. The mana whenua groups identified under Schedule B are Rangitāne o Wairarapa and Ngāti Kahungunu ki Wairarapa. Policy P19 refers to the importance of recognising and providing for the relationships between mana whenua and Ngā Huanga o Ngā Taonga Nui a Kiwa identified in Schedule B (Ngā Taonga Nui a Kiwa).
- 395 As I have noted earlier, the Applicant has outlined the recommendations included in the CVA, referring to a Memorandum of Commitment between Ngāti Kahungunu ki Tamaki nui a Rua which included cultural health monitoring of the Mākākahi and Kōpuaranga awa, use of an accidental discovery protocol, procedures for the discovery of taonga or sites of significance to hapu, restoration and biodiversity enhancements, construction monitoring and social outcomes (employment opportunities). The Applicant has stated that they will continue to work with Ngāti Kahungunu ki Tamaki nui a Rua on these recommendations.
- 396 The Applicant offered an ADP as the only condition to address any potential effects on tangata whenua, specifically Rangitāne o Tamaki nui-ā-Rua, Rangitāne o Wairarapa and Ngāti Kahungunu ki Tamaki nui ā Rua. Ngati Kahungunu ki Wairarapa reached out to the Applicant in support of the proposal, however several issues and recommendations have been raised by other iwi in the CVA's that have not been addressed by the Applicant. These issues and recommendations relate to providing for partnership with iwi and

Section 87F Report – Mount Munro Windfarm Application

various levels of input to design, as well as the requirement for the Project to avoid any potential impacts on sites of importance to iwi, including but not limited to remnant/extent of native fauna and flora.

- 397 I consider the intent of proffered ADP to be acceptable (subject to any views of tangata whenua), however, there is insufficient direction and information provided by the Applicant to demonstrate how iwi will be engaged moving forward with regard to potential cultural effects arising from the Project and any recommendations raised through this process. This requires clarification, in my view, particularly given the issues that have been raised previously.
- 398 As with my assessment of the GWRC RPS, it is my view that if the Applicant is able to address (or show how they have been addressed) the recommendations and issues raised by iwi then the proposal would be consistent with these objectives and policies of the NRP.

Natural character, form and function	
Policy P23: Identification of outstanding/high natural character and outstanding natural features and landscapes	Objective O14
Policy P24: Preserving and protecting natural character from inappropriate use and development	

399 These objectives and policies aim to protect waterways from inappropriate use and development, and to minimise the interference of development on natural processes. In relation to preserving the natural character of areas and protecting it from inappropriate use and development, Policy 24 of the NRP states that this should be done by;

avoiding, remedying or mitigating other adverse effects of activities on the natural character of wetlands, rivers, lakes and their margins that are not addressed under or (d) of Policy P24.

400 The Mt Munro Project avoids areas of outstanding/high natural character and outstanding natural features and landscapes in the Greater Wellington Region. As described by Dr Forbes and Mr Lambie, the natural character associated with Mt Munro includes the natural and ecological elements and natural movement of water as well as the terrestrial native vegetation and aquatic ecosystems.

- 401 While the full extent of natural character loss is currently unknown in the absence of detailed design (also noting the envelope approach adopted by the Applicant), Dr Forbes considers that there are particular adverse natural character effects associated with aspects of the proposal. This includes the proposed culverting which has the potential to adversely affect aspects of the affected rivers' natural character. Mr Lambie mentions that the overall effects on terrestrial vegetation are likely very low, however, where it relates to riparian habitat, based on the conclusions of Dr Forbes, the Applicants response to the proposed loss of terrestrial native vegetation and associated natural character requires further consideration.
- 402 Dr Forbes is unable to come to a view as to whether the offset is appropriate given the current inadequacies, as that is part of the natural character of the stream that is being affected. However, Dr Forbes recommends retention of the natural stream beds through the use of simulation culverts, and the implementation of instream monitoring and response mechanisms to unauthorised discharges to receiving environments to ensure any potential impacts on the natural character of the water bodies are preserved in line with P24. This approach to culverts was supported by Mr Roa in his assessment of operational water quantity.
- 403 Mr Hunt, in relation to the experiential component of natural character, considered that any natural character present at the site is unable to be appreciated from beyond the site boundaries. As such, the Proposal would result in a Very Low adverse experiential effect on natural character.
- 404 As outlined above, natural character as it relates to rivers and their margins has the potential to be adversely affected by the proposed culverting and associated disruption to the existing ecosystem. The recommendations highlighted by Dr Forbes aim to maintain natural character in line with P23. However, as Dr Forbes alluded to, there remains uncertainty as to the level of effects and adequacy of the proposed offset. Based on this I am unable to

Section 87F Report – Mount Munro Windfarm Application

determine whether the proposal is consistent with these provisions until further information is received.

Natural hazards	
Policy P25: High hazard areas	Objective O15, Objective 16
Policy P26: Diversion of flood waters in a floodplain	
Policy P27: Hazard mitigation measures	
Policy P28: Climate Change	

- In relation to P28, no assessment of the GHG emissions or opportunities for reductions were put forward by Meridian. Although no assessment was provided, Ms Ryan highlighted in her technical review the opportunities provided through this project to reduce emissions while constructing, operating and maintaining the wind farm and maximising resource recover at end of life. She also highlighted potential benefits in relation to the benefits of the Mt Munro Project in providing renewable energy, potential effects of GHG emissions to air and effects of the emissions from the Mt Munro Project on climate change. Ms Ryan recommended conditions relating to the consideration of the life cycle carbon emissions which could form part of conditions relating to requiring design reports, and construction management plans prior to commencement.
- 406 Policy P27 discourages the implementation of hard hazard engineering mitigation or protection methods except where it is necessary to protect Regionally Significant Infrastructure or significant existing development. The Applicant did not provide any information in relation to natural hazards and how the proposal would meet these provisions. Mr Roa's report highlights that the application and further information provided does not sufficiently address stormwater attenuation or extended detention systems particularly when considering culverts and bridges. However, Mr Roa is of the view that these limitations can be addressed through design and by incorporating appropriate stormwater measures to address the risks through conditions.

407 Subject to the imposition of conditions and detailed design being satisfactory, I consider P27 to be met.

Water Quality	
	Objective O17, Objective 18

- 408 These objectives aim to ensure that the quality of freshwater meets a range of uses and values, supports the life supporting capacity of water bodies.
- 409 These objectives seek the water quality is maintained or improved to meet contact recreation standards and be suitable for Māori customary use, and that the activities be managed in a way that will improve the water quality in the Kōpuaranga catchment and its tributaries in line with the objectives.
- 410 I rely on the reports of Mr Pearce and Dr Forbes, including recommendations as to oversight of detailed design and management plans, regarding the Project's activities being managed in a manner which will not have any or less than minor adverse effects and maintain water quality.
- 411 In relation to sediment discharges associated with earthworks and other construction activities (concrete batching plant), I note that the standards, and conditions recommended by Mr Pearce and Dr Forbes are essential to mitigate any adverse effects from discharges during construction. My assessment of these policies is therefore dependent on the conditions proposed in response to the expert advice of Mr Pearce and Dr Forbes.

Biodiversity, aquatic ecosystem health and mahinga kai and riparian management and activities in the beds of lakes and rivers

Policy P30: Biodiversity, aquatic ecosystem health and mahinga kai	Objective O19, Objective 21
Policy P31: Adverse effects on biodiversity, aquatic ecosystem health, and mahinga kai	Objective 22, Objective 23, Objective 24
Policy P32: Fish passage	
Policy P33: Restoring fish passage	
Policy P34: Values of wetlands	
Policy P35: Restoration of wetlands	

Section 87F Report – Mount Munro Windfarm Application

Biodiversity, aquatic ecosystem health and mahinga kai and riparian management and activities in the beds of lakes and rivers

Policy P45 – Trout habitat			
Policy P109: Management of riparian margins			
Policy P110: Loss of extent and values of the beds of lakes and rivers, and natural wetlands			

- 412 Objective O21 and Policy P30 aim to establish and maintain vegetated riparian margins. The proposal includes the establishment, enhancement and maintenance of vegetated riparian margins.
- 413 These provisions also require the use and development to provide for fish passage. Recommended conditions by Dr Forbes to address fish passage includes a freshwater ecology management plan to capture an adequate level of detail regarding instream works.
- 414 As previously outlined, the Applicant has proposed an 'envelope' of potential impacts on freshwater receiving environments, including wetlands.
- 415 Policy 110 requires that the loss of extent and values of beds and lakes and rivers, and natural wetlands is avoided. An exception to this when the loss of extent and values is associated with the construction or upgrade of specified infrastructure. Mt Munro meets the definition of specified infrastructure under the NRP. In summary, these are described as follows:
 - (a) The activity, including any reclamation and drainage, is necessary for the construction or upgrade of specified infrastructure, and
 - (b) The specified infrastructure will provide significant national or regional benefits; and
 - (c) There is a functional need for the specified infrastructure in that location.
- 416 The Applicant has set out that the wind resource at the site is Class I and is within relatively close proximity to national grid infrastructure for the transmission of power that is generated, which are functional requirements

of a wind farm to be in a particular location. I agree with these reasons provided by the Applicant, subject to any information emerging through the consent process.

- 417 The Applicant outlined in RFI#1 Response 1 that all wetland features identified in the Greater Wellington Region can be avoided, and the other features within the Horizons boundary will be avoided where possible.
- 418 The Applicant will only understand the true impacts on natural wetlands within the identified envelope once they have undertaken detailed design. In particular, the location/extent of any wetland loss and proposed mitigation/offsetting package needs to be confirmed upon final design and before relevant management plans can be certified by the Regional Councils.
- 419 Without detailed design, Mr Lambie points out that this limits his assessment of the scale of actual loss of wetland hydrological extent to the 0.32ha identified by the Applicant. Mr Lambie confirmed that he is satisfied with conditions of consent limiting the extent of wetland loss in the Horizons region to 0.32ha and zero loss in Greater Wellington region. He also considered the loss of wetland to be small in scale and low in terms of ecological value, and therefore based on the assessments provided was comfortable that 1:1 wetland offset ratio was acceptable in this case.
- 420 Overall, Mr Lambie concluded that the loss of wetland extent will inevitably result in the complete loss of the wetland biophysical character of the affected sites, however, was satisfied that the biodiversity offset will also offset this loss with a marked improvement in the indigenous natural elements of the recipient site(s).
- 421 Dr Forbes is unable to confirm the level of adverse effects from works in streams (and the freshwater environment) on the information provided by the Applicant to date. There are concerns around the approach to assessing those effects, and their classification. Consequently, Dr Forbes has requested that further information is provided to enable those effects to be understood and the effects hierarchy applied, and any required offset of residual effects

determined. Dr Forbes is not content to leave these matters to conditions and a management framework, as they inform the effects assessment.

422 At this stage, therefore, on the basis of Dr Forbes' advice, I cannot conclude whether the Project is consistent with these provisions.

Air Quality	
Policy P55: Managing ambient air quality	Objective O30, Objective 32
Policy P58: Managing air amenity	

423 As per my GWRC RPS assessment above under Chapter 3.1, relying on the conclusions and suggested conditions in Mr Curtis's section 87F Report, I conclude that, subject to appropriate consent conditions, the proposal can meet the objectives and policies as to air quality for the NRP.

Soils and Land use	
Policy P107: Land use activities, erosion and associated discharges	Objective O33, Objective 34

- 424 It is proposed that all ESC measures will be designed, constructed and maintained in accordance with the GWRC Guidelines. Mr Pearce states that the GWRC guidelines are well recognised throughout New Zealand and have a proven track record in ensuring successful ESC management for a range of projects. These guidelines are recommended to be imposed via a condition, and I support that approach.
- 425 Policy requires use of measures which minimise the risk of accelerated soil erosion; control silt and sediment runoff, and ensure the site is stabilised and vegetation cover is restored. Mr Pearce and Dr Forbes address these matters in their reports, and I agree with their recommendations.
- 426 Subject to the adoption of GWRC guidelines, and with amended conditions from Mr Pearce (and Dr Forbes) relating to ESC best practice and management plans, the proposal is consistent with this policy.

Section 87F Report – Mount Munro Windfarm Application

Discharges to land and water	
Policy P66: Minimising discharges to water or land	Objective O36, Objective 37
Policy P68: Discharges to land	
Policy P69: Promoting discharges to land	
Policy P83: Minimising adverse effects of stormwater discharges	
Policy P84: Managing land use impacts on stormwater	

- 427 These policies and objectives focus on land-based stormwater treatment prior to discharge and erosion and sediment control. As previously noted, I rely on the recommendations of Mr Pearce and Ms Ira in my assessment of these provisions. Subject to the recommendations of Mr Pearce including amended conditions, as noted above, I concur with the Applicant's approach to managing discharges associated with the proposed earthworks.
- 428 Taking the above into account I consider the aspects relating to discharges associated with earthworks to be consistent with the relevant policies and objectives listed above.

Contaminated Land	
Policy P68: Discharges to land	Objective O41, Objective 42
Policy P99: Discharges from contaminated land	
Policy P100: Discharges of hazardous substances	

429 The Applicant has not applied for any resource consents for contaminated land under the NESCS or any of the Regional Plans. However, potential areas of contamination are recognised, with the Applicant intending to avoid these areas during construction. I note the recommendations of Ms Newall, and the recommended condition to provide for accidental discovery and sitespecific protocols for identifying and addressing accidental spills or emergencies. I consider that it is consistent with the identified objectives and policies.

Section 87F Report – Mount Munro Windfarm Application

NRP PC1

Proposed Plan Change 1 of the Natural Resources Plan (NRP – PC1) was publicly notified by the Council on 30 October 2023. All rules in the NRP – PC1 have immediate legal effect under section 86B(3) of the Act. However, under section 88A of the Act, the activity status of a proposal is determined on the date an application is filed. The provisions of the NRP-PC1 will however be relevant for the substantive assessment, specifically consideration of the relevant objectives and policies under section 104(1)(b) assessment if the activity is affected by a provision or change in NRP-PC1. The proposal does not fall within the Whanganui-a-Tara or Te Awarua-o-Porirua Whaitua therefore amendments to Chapter 8 and 9 are not relevant. I consider that the amendments to Chapter 3 and 4 (Objectives and Policies) are not relevant to the Project and have therefore not been assessed further.

Summary of objectives and policies analysis under the Regional Plans

- 431 In general terms the Regional Council authors agree, subject to recommendations of the Regional Council's experts, that the Mt Munro Project is consistent with many of the objectives and policies in the One Plan, and the NRP. The exception are objectives and policies regarding tangata whenua values, water quality and freshwater ecology, where, on the information in the application and/or provided through submissions, and pending further information being sought or work underway, there is insufficient information to support a recommendation.
- 432 We anticipate being able to revisit this opinion once further information and clarification is provided by the technical experts.

District Plans

433 In Part C of this report Mr McGahan has assessed the Mt Munro Project against the objectives and policies of the relevant District Plans, namely the Combined Wairarapa District Plan, and the Tararua District Plan.

One Plan and NRP Rules

- 434 The Applicant has set out a detailed a rule assessment for each of the activities that make up the proposal. In addition, Tables 1 and 2 in my report set out in tabular form the consents applied for and the activity status for both regional plans and the NES-F. I generally concur with the rule assessment undertaken by Meridian and adopt it for the purposes of this report, with the clarifications set out below.
- 435 The Applicant, in their AEE, applied for a resource consent for the discharge to air under One Plan Rule 15-16 as a Controlled Activity. Rule 15-16 is a Permitted Activity, and the Applicant has confirmed that the Project will meet the standards in this rule and therefore does not require a resource consent.
- The Applicant has also applied for a resource consent under One Plan Rule 17-22 for the proposed culverts and bridge as a Restricted Discretionary Activity. Rule 17-22 applies to culverts and bridges that do not comply with Rule 17-10(j) and Rule 17-11(e). Meridian's assessment against Rule 17-10¹⁵⁴ demonstrates that the proposed culverts are unable to comply with both (c) and (j). The assessment against Rule 17-11¹⁵⁵ also set outs that the proposed bridge is unable to comply with both (c) and (e). The culverts and bridge therefore require resource consent under Rule 17-23 as a Discretionary Activity.

Overall Activity Status

437 Overall, when bundled, the activities for the Project are to be assessed as a discretionary activity under each Regional Council's plan and the NES-F.

¹⁵⁴ AEE page 58 and 59.

¹⁵⁵ AEE page 59 and 60.

Section 87F Report – Mount Munro Windfarm Application

Section 104(1)(c) Other Relevant Matters

- 438 With regard to other relevant matters, the Climate Change Response Act 2002 (CCRA) is a relevant consideration. The CCRA provides a framework by which New Zealand can develop and implement clear and stable climate change policies that contribute to the global effort under the Paris Agreement and that allow New Zealand to prepare for, and adapt to, the effects of climate change.¹⁵⁶
- 439 As discussed by Ms Ryan in her report, the Project has significant benefits to assist New Zealand in meeting renewable energy targets and targets for decarbonisation. There are, however, further opportunities for Meridian to ensure that carbon emissions are reduced on the Mt Munro Project compared to the business as usual case, through considering life cycle carbon in the design, construction, operation and end of life of the wind farm.
- 440 Another relevant matter is the Manawatū River Leaders Accord. This was established by iwi/hapū, local and central government, farming and industry leaders along with Massey University and environmental and recreational advocacy groups from around the Manawatū Catchment.¹⁵⁷ The main goal of the Accord is to improve the Manawatū River, the mauri of the Catchment, such that it sustains fish species, and is suitable for contact recreation in balance with the social, cultural and economic activities of the community.¹⁵⁸ The Project is within the Manawatū Catchment, and as discussed by Dr Forbes, there is uncertainty as to the extent of the potential effects of the proposal on the waterways. There are, however, works proposed to ensure fish passage is maintained, and earthworks will be managed in accordance with the GW Guidelines and discharge standards, which seek to ensure that water quality is maintained.

Section 87F Report – Mount Munro Windfarm Application

¹⁵⁶ Climate Change Response Act 2002, Section 3(1)(aa).

¹⁵⁷ https://www.manawaturiver.co.nz/about/

¹⁵⁸ https://www.manawaturiver.co.nz/about/

V. ASSESSMENT AGAINST RMA PROVISIONS

Section 104G - Consideration of activities affecting drinking water supply source water

441 Section 104G states:

When considering an application for a resource consent, the consent authority must have regard to—

- (a) the actual or potential effect of the proposed activity on the source of a drinking water supply that is registered under section 55 of the Water Services Act 2021; and
- (b) any risks that the proposed activity may pose to the source of a drinking water supply that are identified in a source water risk management plan prepared in accordance with the requirements of the Water Services Act 2021.
- 442 As discussed above, based on the report of Mr Thomas, drinking water supplies are unlikely to be affected by the Mt Munro Project provided appropriate management plans are in place.

Section 105

443 Section 105 states:

Where an application is for a discharge permit or coastal permit to do something that would otherwise contravene Section 15 (relating to discharge of contaminants), the consent authority must, in addition to the matters in Section 104(1) have regard to:

- (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects;
- (b) The Applicant's reasons for making the proposed choice; and
- (c) Any possible alternative methods of discharge, including discharge into any other receiving environment.

Section 87F Report – Mount Munro Windfarm Application

- 444 The proposal includes the discharge of sediment ancillary to the proposed earthworks and works in waterbodies, and discharge to air. The sensitivity of the receiving environment is addressed in the section 87F Reports of Dr Forbes, Mr Lambie, Mr Pearce, and Mr Curtis. Of note is Dr Forbes' view that the receiving environments are particularly sensitive to sediment deposition.
- In relation to section 105(1)(b) and (c), Meridian has not set out the reasons for the proposed choice of each discharge type or the possible alternative methods of discharge in the application. I therefore do not have sufficient information to determine whether the provisions of section 105 have been addressed for the Project.

Section 107

- 446 Section 107 of the Act addresses restrictions on the grant of certain discharge permits. This section provides that, except as provided in subsection (2), a consent authority must not grant a discharge permit allowing the discharge of a contaminant or water into water, or onto or into land in circumstances which may result in that contaminant entering water, if, after reasonable mixing, the contaminant discharged is likely to give rise to all or any of the following effects in the receiving waters:
 - (a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended material;
 - (b) Any conspicuous change in the colour or visual clarity;
 - (c) An emission of objectionable odour;
 - (d) The rendering of freshwater unsuitable for consumption by farm animals; and
 - (e) Any significant adverse effects on aquatic life.
- 447 Notwithstanding the above, under section 107(2), a discharge permit that allows any of the effects described in section 107(1) may be granted if the decision maker is satisfied that:

⁽a) exceptional circumstances justify the granting of the permit; or

- (b) the discharge is of a temporary nature; or
- (c) the discharge is associated with necessary maintenance work and that it is consistent with the purpose of the RMA to do so.
- Relying on Mr Pearce's and Dr Forbes' section 87F reports, measures have been recommended as conditions of consent that will manage and minimise the sediment and other discharges and will impose discharge standards to ensure the effects are not significant. The nature of the discharges resulting from land disturbance are temporary and will be established in order to manage the erosion and sediment effects of the land disturbance in accordance with the GW Guidelines. For the works in a waterbody, a condition is recommended to ensure that they only take place where the flow is diverted around the works so that the bed is dry to minimise any sediment discharge. For the above reasons, I therefore consider that the proposal will be consistent with Section 107 of the Act.

Part 2 Assessment: Sections 5 – 8

- 449 Section 104 is subject to Part 2. I have provided a summary of my views in relation to Part 2 below, in the event it is required.
- 450 The purpose of the RMA is to promote the sustainable management of the natural and physical resources. It aims to ensure that communities manage environmental resources sustainably, while benefiting from the well-being, health and safety they provide. The RMA requires that pursuit of an activity should only occur on the basis that it can achieve section 5 (a), (b) and (c). I consider that the matters of section 5 are supported by the conditions recommended as part of this report (set out in Part D).
- 451 I agree with Meridian's assessment as to the social, economic, and cultural benefits of electricity, which is to be generated as a result of the Mt Munro Project¹⁵⁹ and consider that the proposal as a whole is consistent with the matters contained in section 5. Given the uncertainty as to the level of effects that remains in relation to cultural effects and the loss and modification of

¹⁵⁹ AEE page 81.

stream habitat, there is a potential for an impact on soil and water in a manner which may conflict with aspects of Part 2. However, subject to further information being provided by the Applicant in relation to these matters (including an appropriate stream offset), where recommended conditions are complied with and appropriate offsetting packages implemented, it is my view that any environmental and cultural impact of the proposed activities could be managed appropriately. In that case, I consider the sustainable management of natural and physical resources would be promoted in accordance with the purpose of the RMA.

Section 6 – Matters of National Importance

- 452 I consider the relevant matters in section 6 to the Mt Munro Project are section 6(a), (c) and (e).
- 453 I am of the view that the Mt Munro Project has recognised and provided for the natural character of wetlands, as has been discussed previously in my report in paragraphs 212 and in Mr Lambie's report. However, it is unclear whether the Project has recognised and provided for the natural character of rivers, streams and their margins without further information being provided, and this is set out in Dr Forbes' report and has been discussed in paragraphs 213-214 of my report.
- 454 In terms of the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna, Mr Lambie advises that these areas are to be avoided.
- The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga has been recognised in the Application. A number of issues and recommendations have been made by iwi through the provision of CVA's and it remains unclear whether these have been resolved. I discuss this further below under s 8 matters.
- 456 As a consequence, at this time, I am unable to reach a view as to whether Meridian has recognised and provided for the matters in sections 6(e).

Section 87F Report – Mount Munro Windfarm Application

Section 7 – other matters

- 457 The application has not described how the continuing involvement of tangata whenua will be provided for, and how the Project provides for kaitiakitanga. I discuss this further below under Section 8 matters. Further information from the Applicant and/or iwi is required on these matters.
- 458 There remains uncertainty as to the freshwater ecology effects, particularly in relation to the adequacy of the proposed offset for stream habitat loss, and hydrology. This leaves me unable to determine whether the proposal is consistent with section 7(d) ecosystems, section 7(f) environmental quality and section 7(g) finite characteristics of natural and physical resources.
- 459 Mr Roa notes in his report that there are some issues with how the proposal has accounted for the effects of climate change in relation to the bridge and culvert designs. However, Mr Roa is of the view that this issue can addressed in design through consent conditions which have been included in Part D.
- 460 However, from a planning perspective, given the uncertainties I describe above, I am unable to reach a view as to whether particular regard has been given to the applicable matters in section 7 of the Act.

Section 8 – Treaty of Waitangi (Te Tiriti o Waitangi)

- 461 The proposal is within the rohe of Rangitāne o Tamaki nui-ā-Rua (ROTNAR), Rangitāne o Wairarapa (ROW), Ngāti Kahungunu ki Tamaki nui ā Rua (NKKTNAR) and Ngāti Kahungunu ki Wairarapa (NKKW).
- 462 NKKW expressed to the Applicant that they were satisfied with the plans for the proposed wind farm on Mt Munro.
- 463 CVA's were provided to the Applicant from ROW and ROTNR, and from NKKTNAR. These contained a number of issues and recommendations. The Applicant has stated that they have either worked with the recommendations or intend to continue to work on them with iwi. There have not been any updates provided as to how this has been progressed.

464 Without further information as to how the CVA's have been addressed and subject to any views of tangata whenua through this process, I am presently unable to reach a view from a planning perspective as to whether the principles of Te Tiriti o Waitangi have been integrated into the Mt Munro Project in design (including mitigation) and/or implementation.

W. CONCLUSION

- This report has analysed the relevant sections 104, 105, 107 of the RMA as required under section 87F. Conditions are recommended pursuant to sections 108 and 108AA below. This analysis includes the individual section 87F expert reports, which have been relied on in preparing this report, and are annexed to this report.
- Sections of the RMA that have not been referenced (106, 109, 110, 111 and 112) are not considered relevant to this proposal.

X. TERM

- 467 I have considered the lapse and expiry term(s) sought by Meridian. In recommending term(s), I have given consideration to Chapter 12, Policy 125 of the One Plan (which sets a common catchment expiry), Policy 5 of the NRP and the terms sought by the Applicant.
- 468 The Mt Munro Project is within the Mana_8d (Mākākahi) water management sub-zone of the One Plan. The Common Expiry Date is 01 July 2010.
- 469 Policy 12-5 provides for a 10 year extension within three years proper to the common catchment expiry date.
- 470 The Applicant has sought a 10 year lapse date for all consents in accordance with section 125 of the RMA, and for the land use consents to have an unlimited duration of consent in accordance with section 123(b) of the RMA. The Applicant has sought a term of 35 years for the land use consents sought for works within the beds of rivers, together with all associated diversions and discharges.

- 471 The Applicant seeks a 10 year lapse period to allow Meridian flexibility with commencement of the proposal so as to account for factors such as electricity demand and to allow "*a pipeline of potential generation activities to respond to the changing demand in New Zealand's electricity supply.*"¹⁶⁰
- 472 In my view, this is not justified. The Applicant has not provided sufficient justification as to why a 5 year lapse period would not be adequate in the circumstances.
- 473 I note that the Applicant confirmed that construction will take less than three years,¹⁶¹ which would allow this to occur within the standard five year lapse period. If the proposal takes longer than five years, the ability to apply for an extension under section 125 of the RMA would still remain available.
- 474 In Section SI have set out all of the potential adverse effects from the Project.
 I consider that extending the lapse date, and therefore providing more uncertainty regarding when construction will occur and how long it will take, has the potential to exacerbate these effects.
- 475 On this basis, my view is that a five year lapse period is appropriate for all consents.
- 476 In my view, the 35 year term for the works within the beds of rivers is appropriate as it will allow for the operation, ongoing use and maintenance of the culverts and permanent diversions under the NES-F (One Plan Rules 17-4 and 17-5 allow for the ongoing use and maintenance of structures to be carried out as permitted activities) for the life of the Project.
- 477 I do not consider the unlimited duration of consent for the land use consents to be justified. Some of the land use consents sought from both Horizons and GWRC include discharge permits for any ancillary discharges of sediment and, in accordance with s123(d), the duration of a discharge permit must be between 5 and 35 years from the date consent is granted. It is also appropriate, in my view, for all of the land use consents to have expiry dates which are aligned. The Applicant has indicated that the construction period

¹⁶⁰ RFI#1 Response, page 11.

¹⁶¹ RFI#1 Response, page 11.

Section 87F Report – Mount Munro Windfarm Application

for the proposal is likely to be within the vicinity of two to three years (weather dependent). I am therefore of the view that an expiry date of ten years is appropriate for the land use consents.

478 Should the decision maker be of the mind to grant the consent applications, I would recommend the following term(s) for these applications:

Section 87F Report – Mount Munro Windfarm Application

Table 1: MWRC Consents Sought

Activity	Consent Type	Duration	Lapse
A land use consent, a water permit and a discharge permit is sought pursuant to sections 9(2), 13, 14 and 15 of the RMA and Rule 13-7 of the One Plan for land disturbance and vegetation clearance (including any ancillary disturbance of the bed of a river, division of water and discharge of sediment) that is not in a 'rare', 'at-risk' or 'threatened' habitat and is: - within 5m of the bed of a permanently flowing river; or - within 5m of the bed of a river that is not permanently flowing and has a width greater than 1m.	Discretionary Activity	10 years	5 years
A land use consent, a water permit and a discharge permit is sought pursuant to sections 9(2), 14 and 15 of the RMA and Rule 13-6 of the One Plan for land disturbance and vegetation clearance in a Hill Country Erosion Management Area.	Restricted Discretionary Activity	10 years	5 years

Section 87F Report – Mount Munro Windfarm Application

Activity	Consent Type	Duration	Lapse
A land use consent, a water permit and a discharge permit is sought pursuant to sections 9(2), 13, 14 and 15 of the RMA and Rule 17-23 of the One Plan for the placement of three culverts in tributaries of the Mangaroa River and a tributary of the Mākākahi Stream, and a bridge over a tributary of the Mākākahi River (and associated disturbance, diversion, deposition and discharges).	Discretionary Activity	35 years	5 years
A land use consent is sought pursuant to sections 9(1) of the RMA and Regulation 45 of the NES-F for vegetation clearance, earthworks and land disturbance within or near natural wetlands for the purpose of constructing specified infrastructure.	Discretionary Activity	10 years	5 years
A land use consent is sought pursuant to sections 13 of the RMA and Regulation 71 of the NES-F for the placement of culverts in, on over, or under the bed of a river.	Discretionary Activity	35 years	5 years

Section 87F Report – Mount Munro Windfarm Application

Table 2: GWRC Consents Sought

Activity	Consent Type	Duration	Lapse
A discharge permit is sought pursuant to section 15 and Rule R42 of the NRP for a discharge to air from concrete batching plant and mobile aggregate crushing.	Discretionary activity	35 years	5 years
A land use consent, water permit and a discharge permit is sought pursuant to sections 9(2), 13, 14 and 15 of the RMA and Rule R142 of the NRP for the reclamation of ephemeral streams.	Discretionary Activity	35 years	5 years
A land use consent and a discharge permit is sought pursuant to sections 9(2) and 15 of the RMA and Rule R107 of the NRP for earthworks, vegetation clearance and the associated discharge of sediment.	Discretionary activity	10 years	5 years
A land use consent is sought pursuant to sections 9(1) of the RMA and Regulation 45 of the NES-F for vegetation clearance, earthworks and	Discretionary Activity	10 years	5 years

Section 87F Report – Mount Munro Windfarm Application

Activity	Consent Type	Duration	Lapse
land disturbance within or near natural wetlands for the purpose of constructing specified infrastructure.			
A land use consent is sought pursuant to sections 13 of the RMA and Regulation 71 of the NES-F for the placement of culverts in, on over, or under the bed of a river.	Discretionary Activity	35 years	5 years

Section 87F Report – Mount Munro Windfarm Application

- 479 In making the above recommendations, I have also considered Policy 12-5(b), the common catchment expiry dates, the balance between environmental protection and investment, and the provision of s128 reviews.
- 480 Finally, I note that on-going monitoring and annual reporting as conditions of the consent will be important to identify unanticipated adverse effects and to monitor the implementation of the proposed wetland offset and any freshwater offset that may be arrived at through the process.

Y. SUBMISSIONS

- 481 As mentioned in paragraphs 75-80 in Part A of this report, there were 73 submissions received when the application was publicly notified which covered a range of different issues. These issues have been addressed by the technical experts where they related to their relevant subject area, and have been considered as part of my assessment above.
- 482 I expect that the Applicant will provide an update on submissions prior to the hearing.

Z. CONDITIONS

- 483 A suite of conditions relating to all applications were suggested in the application¹⁶² and the further information response.¹⁶³ I have adopted some of these conditions (See Part D).
- 484 However, the authors of this report have made additions and changes where it was considered necessary, after taking into account the submissions and expert section 87F reports prepared by the technical advisors, in order to avoid, remedy or mitigate potential adverse effects and offset/compensate residual effects. In some cases, technical experts have also identified issues in section 87F reports which may need to be the subject of a condition following further information and/or discussion.
- 485 As there is some outstanding matters arising out of the Regional Councils technical reports, amended or additional conditions may be recommended

¹⁶² AEE Section 8 pages 121-138.

¹⁶³ RFI #1 Response.

on behalf of Horizons and GWRC. Further, it is anticipated that some refinement of the wording of the recommended conditions is likely as a result of evidence and/or conferencing of planning and technical experts.

Lauren Edwards

Joshua Pepperell

15 March 2024

Section 87F Report – Mount Munro Windfarm Application

Part C: District Matters

AA. INTRODUCTION

- 486 Part C focuses only on planning issues relevant to the District Councils providing an analysis of the resource management issues for the Mt Munro Project.
- 487 This section covers the following topics:
 - (a) Author Information (Qualifications/Experience, Code of Conduct);
 - (b) Permitted Baseline;
 - (c) Actual and Potential Environmental Effects;
 - (d) Statutory Assessment; and
 - (e) Lapse Date.
- 488 It concludes that while many aspects of the Project can be suitably managed through the recommended conditions provided in Appendix 23, there are some significant and/or more than minor adverse effects that have not been sufficiently addressed. There are also some gaps where further information is required.
- 489 Significant/more than minor adverse effects include:
 - (g) High adverse visual effects on 4 properties;
 - (h) Moderate-high adverse effects on landscape character within 4km of the site;
 - (i) Construction noise associated with the upgrade of Old Coach Road;
 - (j) Construction traffic noise generally for the residents of Old Coach Road; and
 - (k) General dust and nuisance air discharges.

- 490 Outstanding matters or gaps associated with the Project where further information is required include:
 - (a) How the significant/more than minor effects referenced above will be mitigated to the extent practicable, particularly for the high adverse visual effects on 4 properties and constriction traffic noise along Old Coach Road.
 - (b) Information on if the NES-CS is relevant to the Project; and
 - (c) Effects of proposed Old Coach Road upgrade on the Project, including noise and construction programme.
- 491 These significant effects and outstanding matters/gaps will need to be resolved, as they currently mean some effects are not adequately managed and there are a number of areas where the Mt Munro Project is not aligned with the relevant policy framework.

BB. AUTHOR INFORMATION

Qualifications / Experience

- 492 My name is Damien Ryan McGahan. I am a Principal at Aurecon New Zealand Limited (Aurecon), a multi-disciplinary consultancy firm which provides engineering, management and specialist technical services for public and private sector clients. I have been in that position since February 2012. Prior to 2012 I held the position of Associate – Planning at Beca Group. In total, I have over 24 years' experience as a planner.
- I hold a Bachelor of Social Sciences (Geography) (University of Waikato,
 1995) and a Masters of Resource and Environmental Planning (Massey
 University, 1997). I am a full member of the New Zealand Planning Institute.
- 494 My role at Aurecon involves statutory, policy and strategic planning, structure/master planning, the management of consultation projects, and consenting for major infrastructure in the transport (road and rail), renewable energy (wind and solar), industrial and recreational spaces. I also manage Aurecon's national 35-strong Environment & Planning team.

- 495 I have provided technical direction on a number of projects during my tenure at Aurecon, most recently focusing on renewable energy and major transport infrastructure projects including in the lower / central North Island. This has included carrying out the following roles and work:
 - Planning Lead for Te Rere Hau Wind Farm (2021 current), a twostaged project, with each stage referred under the COVID-19 Recovery (Fast-track Consenting) Act 2020. To date, only the main repowering application has been decided on by an Expert Consenting Panel;
 - Planning Lead for a confidential Solar Farm in the Waikato (2023 current);
 - (c) Planning Manager for Te Ahu a Turanga Alliance, the alliance which has been engaged by Waka Kotahi NZ Transport Agency to design and deliver Te Ahu a Turanga: Manawatū-Tararua Highway Project (2018 – 2021), involving confirmation of Notices of Requirement and obtaining all regional resource consents for the construction and operation of the new highway through the environment Court; and
 - (d) Resource Consents Lead for the Northern Corridor Improvements Project, a project of national significance which was lodged with the Environmental Protection Authority and considered by a Board of Inquiry. This involved obtaining regional resource consents, alterations to and new designations, along with other statutory approvals required for the construction of the project (2016 – 2018).
- 496 I have been engaged by TDC and MDC to provide planning expertise on an application by Meridian for resource consents associated with the construction, operation and maintenance of a new wind farm on Mount Munro. I first became involved in the project on behalf of the Councils in June 2023.
- 497 I am familiar with site and surrounding area. I visited the site along with other experts of the Regional Councils and District Councils on 19 June 2023.

Code of Conduct

- 498 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. This technical report has been prepared in accordance with that Code. In particular, unless I state otherwise, the opinions I express are within my area of expertise, and I have not omitted to consider material facts that might alter or detract from the opinions that I express.
- 499 I have addressed planning issues set out in sections 104 to 112 of the RMA to the extent that they are relevant to the application for the land use consents required from the District Councils.
- 500 There are some gaps in the information provided as part of this application.This is discussed in general under Section J.
- 501 Unless otherwise identified in the body of my report, I have all the information necessary to assess the application within the scope of my expertise and am not aware of any other gaps in the information or my knowledge.

Role in Te Rere Hau repowering project

- 502 I wish to note that I have been representing NZ Windfarms as the project manager / lead planner on Te Rere Hau Repowering project since September 2021. This has involved overseeing consenting processes under the COVID-19 Recovery (Fast-track Consenting) Act 2020 (FTA) since April 2022 and most recently, the lodgement of an application with the Environmental Protection Authority in October 2023 for an extension of the Te Rere Hau Windfarm. At the date of writing, a Panel is yet to be stood up to consider this application.
- 503 Meridian has since partnered with NZ Windfarms to deliver the ultimate Te Rere Hau Repowering project. Neither I or Aurecon was involved in the process to establish that partnership (which was confidential). I have considered my obligations as an expert witness and I do not consider there to be any conflict of interest which would prevent me from complying with

Section 87F Report – Mount Munro Windfarm Application

the Code. For completeness I record that NZ Windfarms remains Aurecon's client / direct point of contact for the remainder of Te Rere Hau Repowering (Aokautere Extension) process (post-lodgement to the EPA to decision), which will not directly involve Meridian. In addition, one of my colleagues is now the principal point of contact for the Te Rere Hau application process.

CC. PERMITTED BASELINE

- 504 Sections 95D(b) and 95E(2)(a) provide that when determining the extent of the adverse effect, Councils 'may disregard an adverse effect if a rule or national environmental standard permits an activity with that effect'. This permitted baseline test should only be used for credible (rather than fanciful) matters.
- 505 I note some elements of the proposal could reasonably be expected in isolation from the wider wind farm activity and could comply with permitted standards in the TDP and the CWDP. I have therefore applied the permitted baseline to the proposed permanent lighting from some small scale buildings¹⁶⁴ associated with the proposal (as such buildings and their lighting could be reasonably expected in a rural zone) and the transformers and lines for conveying electricity at a voltage up to and including 110kV across the proposed transmission site.
- 506 In terms of the wider wind farm activity, including the associated construction effects, I consider there is no permitted baseline to apply.

DD. ASSESSMENT OF APPLICATION

Actual and potential environmental effects

507 The assessment of actual and potential environmental effects below considers the key effects arising from the application that are within the jurisdiction of TDC and MDC. These actual and potential effects are considered to include:

Prepared by Lauren Edwards and Joshua Pepperell - Planning

¹⁶⁴ This would include buildings such as the Operations and Maintenance building. However, I note most lighting is clearly linked to the overall Mt Munro Project and would not be installed without it, so cannot form part of the permitted baseline.

Section 87F Report – Mount Munro Windfarm Application

- (a) Landscape and visual effects;
- (b) Effects on Tangata Whenua and cultural values;
- (c) Traffic and transportation effects;
- (d) Construction and operational noise;
- (e) Air discharges (dust) effects;
- (f) Earthworks and erosion and sediment control effects;
- (g) Contaminated land (human health) and hazardous substances effects;
- (h) Effects on archaeology and historic heritage;
- (i) Effects on highly productive land;
- (j) Effects on farming;
- (k) Effects on terrestrial ecology;
- (I) Stormwater and flooding effects;
- (m) Shadow flicker effects;
- (n) Lighting effects;
- (o) Natural hazard considerations;
- (p) Fire risk;
- (q) Aviation effects;
- (r) Telecommunications interference;
- (s) Health and social wellbeing; and
- (t) Positive effects.

Landscape and visual effects

- 508 The Mt Munro Project has the potential to result in adverse landscape and visual effects during both construction and operation. The Applicant has assessed these effects in their AEE,¹⁶⁵ a Landscape Effects Assessment (LEA),¹⁶⁶ and RFI#1 Response 1.¹⁶⁷ These effects were also commented on by a number of submitters, who raised issues such as general landscape and visual effects, turbine colour, and light pollution caused by turbine lighting.¹⁶⁸
- 509 Mr Josh Hunt of Narrative Landscape Limited has considered and assessed these effects on behalf of the Councils.
- 510 Mr Hunt concluded that the Applicant's LEA had used an appropriate methodology and has included appropriate descriptions of the landscape context, application site, proposal, and relevant statutory provisions. He considered the Applicant's landscape effects assessment comprehensive and noted the LEA had not attempted to diminish the potential visual effects of the proposal.
- 511 Mr Hunt noted that the Applicant's LEA was well reasoned and appropriately reflected the overall degree of landscape and visual amenity effects. He agreed with the Applicant's assessment of effects, specifically that:
 - (a) There would be moderate adverse effects on the existing landform and low adverse effects on existing vegetation during construction. This would drop to low adverse effects on the existing landform and a neutral impact on existing vegetation once the project was operational.
 - (b) Landscape character effects would start at low adverse and increase during the construction phase. Final effects during the construction phase would be moderate-high within 2km, low to moderate

¹⁶⁵ AEE, Section 5.3, page 89-96

¹⁶⁶ Appendix K: Mount Munro Wind Farm: Landscape Effects Assessment, prepared by Boffa Miskell, 12 May 2023

¹⁶⁷ Response to the Mt Munro Proposed Wind Farm Resource Consent Application Section92 Additional Information Request, pages 2-4 and 23-27.

¹⁶⁸ Submissions 2, 3, 6-11, 13, 17, 21-24, 30, 33-35, 37-39, 45, 42, 48, 50, 54-58, 61, 66 70, 71, 73.

Section 87F Report – Mount Munro Windfarm Application

between 2km and 5km, and low beyond 5km. These effects would persist during the Projects operation.

- (c) Effects on nearby ONFLs¹⁶⁹ would be low adverse during both construction and operation.
- (d) Visual effects for 28 specific properties within 2km varied between high and moderate-low, with 4 properties identified as having a high adverse effect.
- 512 I note visual and landscape effects are typically assessed using a 7-point assessment rating scale based on the industry's *Te Tangi a te Manu:* Aotearoa New Zealand Landscape Assessment Guidelines. This assesses the landscape and visual impact of a proposal from very low to very high (with other ratings being low; low-moderate; moderate; moderate-high; and high). While there is no direct parallel between these assessed impacts and the overall scale of effect under the RMA, I note that impacts assessed as moderate and above are generally considered more than minor, with high or very high ratings considered significant. For clarity, I have outlined my assessment of the effects the Project which will have:
 - (a) Significant, more than minor visual effects on 4 properties
 - (b) More than minor effects on landscape character within 2km of the Project site from construction onwards
 - (c) More than minor effects on the existing landform during construction
 - (d) Minor effects on landscape character during operation and on landscape character between 2km and 5km of the Project site
 - (e) Less than minor effects on nearby ONFLs and on landscape character beyond 5km of the Project site

¹⁶⁹ The Tararua State Forest Park and the skyline of the Tararua Ranges are identified as Regionally Outstanding Natural Features/Landscapes under Schedule G of the Horizons One Plan, and scheduled as a Natural Feature and Landscape in schedule 3.3 of the TDP. The Proposed Wairarapa Combined District Plan also schedules Pukaha Mt Bruce and the Tararua Forest Park as an Outstanding Natural Feature/Landscape.

Section 87F Report – Mount Munro Windfarm Application

Rural Character

513 Mr Hunt considers wind farms consistent with the anticipated character of the rural environment and considers the scale of the proposal can be readily integrated into the productive rural landscape. I further note TDP and the WCDP both acknowledge that wind farms may be located in rural zones or management areas if they can sufficiently maintain rural amenity and mitigate effects to a suitable level. The specific landscape and visual effects of the turbines, associated earthworks, and other aspects of the proposal are discussed below.

Natural Character

514 Mr Hunt notes that natural character is linked to water bodies and their margins and would include wetlands. He considers any natural character associated with the site from an experiential perspective to be limited due the water bodies and their margins being unable to be accessed and therefore experienced beyond the site boundaries. On this basis, he considers the Project to have a very low, or less than minor, adverse effect on potential experiential values. I concur with this assessment and the overarching assessment undertaken by Ms Edwards and Mr Pepperell regarding natural character values.

<u>Turbines</u>

- 515 Mr Hunt notes the chosen width of the Turbine Envelope Zone will help ensure turbines are spaced out along identified ridges, as the narrow width will inherently limit dense clustering and double stacking. I agree with this conclusion and consider there is limited ability for the Applicant to alter the layout in a material way from that applied for based on the zone approach.
- 516 Mr Hunt goes on to note that the scale of the turbines means that mitigation planting onsite will have limited effect. However, the Applicants LEA recommended that tree planting is offered to the 4 properties who may experience high visual (or significant) effects where existing screen planting is limited. While Mr Hunt is supportive of such an approach, as it will provide some visual buffering between these properties and the Project (although it

Section 87F Report – Mount Munro Windfarm Application

will not block views completely) it is reliant on obtaining third party approvals. I have seen no evidence that these approvals have been secured and therefore the level of effect remains at high (or significant) despite potential mitigation options being raised. This matter will need to be considered further by the Applicant in respect to those four properties.

- 517 With respect to the submissions on the turbines, Mr Hunt considers that the light grey colour of the turbines is both industry standard and appropriate. I agree with this conclusion and have included a condition to reflect this. In addition, Mr Hunt considers that if turbine transformers are not contained in the base of the turbine, then any externally housed transformer units should be of a neutral and visually recessive colour (e.g., brown/green) so that they blend in with the landscape. I agree and have proposed a condition to manage this outcome.
- 518 Regarding aviation lighting, Mr Hunt considers that this element will have a minor effect overall, although he notes this lighting is not proposed for all turbines, will have limited visibility when viewed from a position upwind of the turbines, will meet permitted activity standards, and be designed to limit lights being emitted downwards. I agree with his opinion given this lighting will be noticeable in the night sky at times.

<u>Earthworks</u>

- 519 The Mt Munro Project would include significant earthworks that could cause adverse visual effects. Mr Hunt supports the Applicant's offered condition to manage this through ensuring earthwork fill areas are finished with a maximum gradient of 1(vertical):3(horizontal), with engineered fill finished with a gradient of 1:2..
- 520 Mr Hunt notes that while there is a risk that the final earthworks design will cause unanticipated adverse effects through the flexible nature of the 'turbine envelope zone' approach, based on the information available to him, he is comfortable that the roading alignment generally minimises the need for excessive cuts by following the landform contour. In order to ensure the scale of earthworks cut and fill does not give rise to adverse effects

(through a change of design or location), Mr Hunt suggests the final earthworks design being confirmed with a Landscape Architect to ensure the fill disposal areas blend into the surrounding landform. I have recommended conditions be included on these matters.

Other aspects

- 521 The proposal includes some permanent buildings located close to site boundaries: a terminal substation visible to vehicles traveling along SH2, and an Operations and Maintenance building that could be viewed from an adjacent site,¹⁷⁰ where the owners plan to build a dwelling. The Applicant has offered mitigation planting to reduce potential visual effects from these buildings. Mr Hunt considers this an appropriate response and I concur with his assessment.
- 522 The location of the proposed concrete batching plant is unclear, as it could be located within either the Turbine Envelope or Turbine Exclusion Zone. If located too close to nearby residential properties (for example along Old Coach Road), the concrete batching plant may cause adverse landscape amenity effects. The Applicant has proffered a condition stating this plant will not be located in the laydown area, confirming it is likely to be located along the ridgeline. Mr Hunt considers this approach acceptable as it will ensure the concrete batching plant is located a sufficient distance from residential properties along Old Coach Road.

Cumulative landscape effects

523 I have considered the potential for cumulative landscape effects from the Mt Munro Project in light of the effects considered above. Mr Hunt is of the opinion that the proposal can be readily integrated into the wider productive/working rural landscape setting and that the Project's adverse landscape effects will have less than minor effects on landscape character beyond 5km of the Project site. Noting that fact there are no other wind

¹⁷⁰ 84588, 84579 State Highway 2, Eketahuna.

farms within 5km, I consider the potential for cumulative landscape effects to be less than minor.

<u>Summary</u>

- 524 Relying on the Applicant's LEA, and Mr Hunt's assessment, it is my view that the Mt Munro Project will lead to actual and potential adverse landscape and visual effects for the receiving environment and for specific receivers, which in some cases are deemed to be high / significant.
- 525 While potential adverse visual effects from permanent buildings, concrete batching, and new batter slopes can be mitigated through conditions the installation of up to 20 turbines and a new metrological mast will not be able to be completely mitigated through this consent, particularly for viewers within 2km and for 4 properties that have been assessed to be significantly affected.
- 526 While I accept that wind farms are consistent with the anticipated character of the rural environment from a regional and district plan policy perspective, this is subject to an Applicant being able to demonstrate that rural amenity is able to be sufficiently maintained and actual and potential adverse effects are able to be managed or mitigated to an appropriate level. I consider further evidence is required in order to better understand how effects for those properties that have a high / significant effect can be managed or mitigated to an appropriate level.

Effects on tangata whenua and cultural values

527 Ms Edwards provides a useful overview at paragraphs 217-231 of the Applicants assessment of cultural values, the effects of the Project and the nature of ongoing engagement and consultation undertaken. I adopt this summary for the purposes of my assessment. I note that submissions were received from local iwi, but some submissions identified cultural effects matters.¹⁷¹ Ms Edwards has responded to these submissions.

¹⁷¹ Submissions 8, 13, 16, 21, 40, and 41.

- 528 In terms of my assessment, I note that while the various documents authored by iwi included in the Application do not oppose the Mt Munro Project, there are a number of recommendations or requests that have been made which in my opinion have not been explicitly addressed within the Application. I note that aside from a proffered condition relating to accidental discovery (the intent of which I am comfortable with), in my experience there is otherwise a lack of direction within the broader proffered condition set as to how iwi will be engaged with in an ongoing matter and how residual cultural effects and / or recommendations have been or will be considered moving forward.
- 529 On the basis of the above analysis, I am unable to assess the project's actual or potential cultural effects or make recommendations on necessary conditions (where appropriate to do so) to mitigate any actual or potential effects on cultural values or matters of importance to iwi. While I acknowledge that there may be agreements in place with respect to ongoing engagement with specific iwi, it is unclear to me as to how the Applicant proposes to engage with those iwi who have identified an interest in the Project area in an ongoing way on the Project, particularly in respect of matters of cultural importance to them.

Traffic and transportation

530 The Mt Munro Project has the potential to give rise to adverse transport effects during both construction and operation of the wind farm. The Applicant assessed these effects in their AEE,¹⁷² Traffic and Transportation Effects Assessment (**Traffic Assessment**),¹⁷³ RFI#1 Response 1¹⁷⁴ and RFI#2 Response 3.¹⁷⁵ Ms Harriet Fraser of Harriet Fraser Traffic has assessed these effects on behalf of the Councils.

¹⁷² AEE, Section 5.5, page 99-102.

¹⁷³ Mount Munro Windfarm, Traffic and Transportation Effects Assessment by Tonkin & Taylor Ltd, May 2023.

Response to the Mt Munro Proposed Wind Farm Resource Consent Application Section92 Additional Information Request, pages 4-8 and 29-40.

¹⁷⁵ Further Response to 20 December 2023 Section 92 Additional Information Request, dated 23 February 2024, pages 2-3.

Section 87F Report – Mount Munro Windfarm Application

- 531 There were 50 submissions relating to the effects associated with traffic and transportation.¹⁷⁶ A number of submissions opposed the proposed construction traffic volumes and raised safety concerns for residents, pets, livestock, visitors and other users of roads that will be affected by the project. Specific concerns related to:
 - (a) impacts on traffic timing (e.g., during school pick-ups, weekends and nights);
 - (b) road maintenance/damage (including for Old Coach Road which is a gravel road);
 - (c) impacts on specific traffic routes (i.e., recreational cyclists using Opaki Kaiparoro Road, school bus routes, within Eketāhuna, known routes that would be potentially used for aggregate delivery);
 - (d) reduced accessibility for/to residents; and
 - (e) queries over the details included on traffic volumes (including contradictory traffic counts and an under-representation of traffic volumes on Old Coach Road).
- 532 I note that a high number of submissions raised the potential effects associated with air quality matters (in particular, dust generation resulting from increased traffic volumes, particularly on Old Coach Road). I address actual and potential effects and the submission points associated with dust generation at paragraph 574 onwards.
- 533 The Mt Munro Project will introduce a significant number of construction traffic movements to the surrounding roading network (including State Highway and local roads). The Project will introduce an estimated 100 light vehicle movements and 522 truck movements per day during construction. Once operational, the Applicant forecasts 8 light vehicle movements and 40 truck movements per day. The Project will include the

Section 87F Report – Mount Munro Windfarm Application

¹⁷⁶ Submissions, 1, 3, 5-8, 11, 13-15, 19-34, 36-38, 43-49, 51, 53, 56-57, 61-63, 65, 67-72.

construction/upgrading of internal access roads within the site and some improvements to public roads.

- 534 To help provide certainty regarding the number of proposed vehicle movements, Ms Fraser recommends conditioning the Applicant's confirmation that the Project's aggregate crusher will only crush materials sourced, rather than delivered, to the site. She also requires confirmation from the Applicant that fill required for bulk earthworks will not be imported onto the site, although I note this could be managed through recommended conditions if no information is provided.
- 535 The Applicant assessed traffic effects as being less than minor in their AEE, while the Traffic Assessment noted the proposal could be supported from a transport perspective and was consistent with New Zealand and international design guidelines. The Applicant's proposed mitigation for transport effects includes:
 - (a) Providing a Construction Traffic Management Plan;
 - (b) Upgrades to Old Coach Road;
 - (c) Potential upgrades of the SH2/Opaki-Kaiparoro intersection, and
 - (d) Provision of a Pavement Condition Survey and associated monitoring plan so local roads are assessed prior to construction and can be maintained to current conditions both during and post-construction and in some cases improved prior to construction.
- 536 These points are discussed further in paragraphs 530-552 below.
- 537 Ms Fraser considers the Mt Munro Project requires further mitigation to ensure effects and managed and mitigated to an acceptable level. Her s87F report highlights a number of matters that have not been sufficiently addressed in reporting to date. In particular, she highlights insufficient safety measures for managing increased traffic volumes along Old Coach Road.

Old Coach Road

- 538 Old Coach Road will be subject to significantly increased traffic volumes during construction. The Applicant has proposed seal widening along sections of the road (along with other upgrades such as vegetation removal, power pole relocation, bank cutting, extension of existing culverts, upgrades to existing road drainage) but not its entire length. Ms Fraser considers the entire length of the road should be widened to provide for two-way widths, and sealed, to ensure it can safely accommodate the projected 640 vehicle movements per day on top of existing vehicle (estimated at 60 per day) and stock movements that use this road.
- 539 I agree with her analysis on the basis of the significant increase in traffic along Old Coach Road and the need for a safe, efficient and reliable access. I would note however, that the Applicant will need to consider the implications of these works as they may cause additional effects that require mitigation but have not yet been considered. This includes potential noise impacts or extensions to the construction programme from widening Old Coach Road, the potential requirement for culvert extensions, as well as potential increases to traffic volumes or additional access control and monitoring. While aspects such as traffic access and monitoring can be appropriately managed through the Construction Traffic Management Plan (CTMP), which forms part of the recommended condition set, additional assessment and or conditions may be required to sufficiently manage other effects.
- 540 Ms Fraser notes that the Applicant's dust assessment¹⁷⁷ concludes Old Coach Road should be sealed to manage dust effects. She considers dust from the unsealed road surface may restrict visibility between road users and result in reduced sight lines to stock moving along or across the road. Ms Fraser therefore recommends the road is sealed during construction works, but notes TDC engineers have requested the reinstatement of a metal surface once the construction phase is complete, due to ongoing maintenance requirements. I note sealing the road will also be important for general dust management.

¹⁷⁷ RFI#2 Response 3, page 5-18, Mt Munro Dust Assessment, prepared by Tonkin + Taylor for Meridian Energy, dated February 2024.

Section 87F Report – Mount Munro Windfarm Application

- 541 Safety concerns were also raised in submissions, for example highlighting the fact that some current residents walk down Old Coach Road on a regular basis. Ms Fraser considers the application as lodged does not sufficiently provide for the safety of all road users, particularly given the extended construction timeframe and the high volume of vehicle movements. She has recommended a range of measures to increase safety for all road users and to reduce overall risk to an acceptable level. These include:
 - (a) Reducing vehicle speeds through a CTMP;
 - (b) Building a new lime footpath along Old Coach Road to increase pedestrian safety; and
 - (c) Restricting truck movements to daylight hours to reduce risks from unlighted intersections.
- 542 I agree the above measures represent a suitable way of mitigating some of the more than minor transport effects associated with the use of Old Coach Road, with the exception of restricting truck movements, which I consider will be too limiting given the nature of wind farm construction (requiring night-time deliveries of wind turbine infrastructure for example) and difficult to enforce. Instead, it is my view that truck movements should be kept within 7am-7pm where practicable and this should be considered as part of the CTMP. I have proposed conditions that reflect the mitigation measures I consider appropriate to adopt.
- 543 Local roads surrounding the site are used for stock movement. Ms Fraser has recommended providing stock fencing along Old Coach Road and establishing communication procedures between farmers and the Applicant to ensure stock can cross roads where required. I agree with her recommendations as they will help manage effects on nearby primary productive activities, which is the primary purpose of the underlying zone and management area. I have recommended these aspects are managed through conditions relating to the CTMP and the upgrade of Old Coach Road.

Construction / Haulage Routes

- 544 The applicant has proposed site access from Old Coach Road (the main site access, Kaiparoro Road (for the terminal substation site), and Opaki-Kaiparoro Road (for the transmission corridor). However, they have not confirmed which port will be used or where aggregate will be sourced.
- 545 As a way of managing some of this uncertainty, Ms Fraser recommends requiring heavy vehicles to access the site vis SH2 and Old Coach Road unless they are accessing the substation or transmission corridor site. This reflects the approach confirmed by the Applicant in RFI#2 Response 3¹⁷⁸ and will be confirmed via conditions.
- 546 Ms Fraser has considered the proposed construction routes and notes that while SH2 will experience a noticeable increase in traffic relating to the construction activity, this would remain within the expectations for a state highway. However, she has recommended additional improvement and safety measures for the construction / haulage routes. This includes briefing heavy vehicle drivers about the risks associated with high wind speeds (based on historic crash data), requiring vegetation removal within the road reserve at the intersection of SH2 with Opaki-Kaiparoro Road, and limiting truck movements to daylight hours, given the unlit nature of the state highway intersections with Old Coach Road, Opaki-Kaiparoro Road and Kaiparoro Road. I have already discussed the challenges with limiting truck movements and consider those same challenges arise with respect to this proposal of Ms Fraser. However, I support the requirement to brief heavy vehicle drivers on high wind speeds.
- 547 The Applicant has not confirmed how much additional aggregate will be brought to site or where this will be sourced. To manage this uncertainty, Ms Fraser recommends that haulage routes be confirmed within the CTMP, with associated conditions proposed to manage effects, so any necessary

Section 87F Report – Mount Munro Windfarm Application

¹⁷⁸ Further Response to 20 December 2023 Section 92 Additional Information Request, dated 23 February 2024, page 2.

pavement/structure surveys can be undertaken well ahead of construction. I agree with this recommendation.

Pavement and Structure Damage

548 The Applicant did not assess the potential of heavy vehicle activity damaging road pavements and bridge structures during construction, although they have proffered conditions that would require a Pavement Condition Survey to be undertaken, with local roads monitored and maintained during construction. Ms Fraser considers that there also needs to be similar survey required for potential damage to bridges and culverts. I have developed the Applicant's condition further to require a comprehensive Pavement Impact Assessment (including any structures) along identified haulage routes to be certified by Councils, to assess the routes and undertake any necessary improvements ahead of wind farm haulage activities and to monitor, maintain and ultimately rehabilitate the pre-existing or upgraded standard.

Other Matters

- 549 Ms Fraser notes there are some other measures that can be employed to further minimise and mitigate the effects of construction traffic, for example, minimising staff vehicle movements and requiring consultation with specific parties in the development of the CTMP. I agree with these recommendations and have incorporated these into the recommended conditions, although in my view it would be useful for the Applicant to provide information detailing how consultation with key stakeholders will occur.
- 550 It is Ms Frasers view that the Councils will need to review and approve the detailed design of site accesses, parking areas, vehicle turning, vegetation removal, and any temporary or permanent road upgrade, including of Old Coach Road, to ensure they meet relevant standards. I agree and have incorporated these recommendations into conditions.
- 551 Ms Fraser has also noted that New Zealand Transport Agency Waka Kotahi (Waka Kotahi) will need to review and approve detailed designs of any road temporary or permanent road upgrades, including the design of any right

turn bay. I note there are some transport matters that remain unclear, such as the effect the proposal will have on NZ Post delivery services, and on local school bus routes (which are not fixed and may need to use Old Coach Road in future), information on active transport along Old Coach Road, adequacy of forward sight lines, and if a right turn bay is required at the intersection of Old Coach Road and SH2. It would be useful for the Applicant to address these matters. I have recommended consultation with local schools and NZ Post during the preparation of the CTMP should be undertaken in terms of understanding the implications of the Project on those services.

<u>Summary</u>

552 Relying on Ms Frasers assessment and the recommended conditions, I consider that the transport effects of the proposal are able to be managed to an acceptable level. However, it will be necessary to confirm if there any additional effects (associated with any construction programme extensions) arising from the widened scope of the recommended upgrade of Old Coach Road, other potential haulage route upgrades that may be necessary, and intersection and site access improvements, that are yet to be assessed in full.

Construction and operational noise

553 The Applicant addressed actual and potential noise impacts in their AEE,¹⁷⁹ their Noise Effects Assessment (**NEA**),¹⁸⁰ RFI#1 Response 1,¹⁸¹ RFI#1 Clarification response,¹⁸² and RFI#2 Response 1.¹⁸³ Mr Nigel Lloyd of Acousafe Consulting and Engineering Limited assessed these effects of behalf of the Councils.¹⁸⁴

Section 87F Report – Mount Munro Windfarm Application

¹⁷⁹ AEE, Section 5.4 (pages 91-94).

¹⁸⁰ Mt Munro Windfarm Development Noise Effects Assessment by Marshall Day Acoustics, 11 May 2023.

 ¹⁸¹ Response to the Mt Munro Proposed Wind Farm Resource Consent Application Section
 92 Additional Information Request, pages 9-10 and 174-181.

¹⁸² Clarification of Meridian's Response to the Mt Munro Proposed Wind Farm Resource Consent Application s92 Additional Information Request, pages 4-5.

¹⁸³ Response to 20 December 2023 Section 92 Additional Information Request, pages 6-7 and 21-23.

¹⁸⁴ Section 87F Report – Nigel Lloyd – Noise.

There were 38 submissions that touched on noise: two supportive and the reminder opposed.¹⁸⁵ These covered noise effects of wind turbines on people, noise effects on animals, traffic noise, construction noise, completeness of the noise impact assessment, and mask whistle.

Construction Noise

555 The NEA notes that the TDP and CWDP control construction noise through NZS6803:1999. The duration of construction (over 2 years) means long-term construction noise limits apply for works along Old Coach Road and within the site.

<u>Old Coach Road</u>

- 556 There will be a significant increase in noise along Old Coach Road from the Project I note that Ms Fraser has recommended further upgrades along Old Coach Road, which may have noise implications that need to be assessed by the Applicant.
- 557 The Applicant proposes to manage effects of a road upgrade through a Construction Noise Management Plan(**CNMP**). Potential mitigation measures discussed include temporary relocation of residents when construction noise standards will be breached. It is unclear if such measures have been discussed or would be acceptable to potentially affected residents.
- 558 Mr Lloyd considers a CNMP necessary but notes the condition proffered by the Applicant is inadequate. This is because their CNMP only considers the noise from road upgrades, excluding both construction traffic, and construction works within the site itself. He considers the CNMP needs to be expanded and additional conditions applied to manage effects.
- 559 I agree the CNMP should address construction traffic, but note there is some uncertainty around these effects. Specifically:

¹⁸⁵ Submissions 1, 2, 3, 8, 9, 10, 11, 13, 15, 16, 17, 21, 22, 23, 28, 29, 30, 34, 35, 38, 41, 43, 44, 45, 47, 48, 49, 51, 54, 56, 61, 63, 66, 67, 68, 70, 72, 73.

Section 87F Report – Mount Munro Windfarm Application

- (a) It is currently unclear how construction traffic noise will be mitigated and how long it will last. The Applicant confirmed construction was anticipated to take 32 months in RFI#1 Response 1186, while the NEA describes the peak of construction as lasting for 8 months. The RFI#1 Response 1 breaks down the staging of different activities but based on the information provided to date it is not obvious to me when this 8 month peak would occur.
- (b) The specifics of how construction traffic noise will be mitigated during construction, including any peak, has also not been explicitly assessed. It is currently unclear to me how the Applicant proposes to manage these effects.
- 560 Mr Lloyd considers construction traffic noise will have significant effects, particularly if they persist for 32 months. He has suggested managing these through a CNMP that considers mitigation measure such as reduced speeds for heavy vehicles, road sealing and maintenance, driver/operator education, noise barriers, offers of noise insulation and ventilation of dwellings, and offers of relocation of residents for the period of construction or for respite.
- 561 I generally agree with Mr Lloyd and have incorporated his recommendations into the proposed condition set. However, for the reasons discussed in paragraph 542, I think it is preferable to manage truck movements associated with concrete batching through the CTMP rather than an individual condition restricting it to daylight operation only.

Section 87F Report – Mount Munro Windfarm Application

Site Construction Works

- 562 Mr Lloyd considers the concrete batching plant and rock aggregate crusher should be controlled through the lower District Plan noise limits because construction noise standards would result in an untenable level of noise if located within 35m of a dwelling (which would allow compliance with this standard). While I accept that these activities form part of the wind farm's construction, I agree the concrete batching plant and rock aggregate crusher should be subject to the more restrictive noise standard as:
 - (a) There is sufficient space within the site to allow this standard to be met;
 - (b) the construction activities require consent in their own right for not complying with the relevant definition/standard of 'temporary activity' in the TDP and WCDP,¹⁸⁷ and
 - (c) The objectives and policies of the TDP and WCDP (assessed in more detail in paragraphs 707-802 make it clear that mitigating effects and maintaining rural amenity from wind farms is an important consideration for determining the overall suitability of wind farms in rural zones.
- 563 Both the Applicant and Mr Lloyd have noted that some construction activities will only be undertaken in the daytime to ensure compliance with construction noise limits and minimise effects on the surrounding environment. I have incorporated limits on aggregate crushing, construction laydown area and internal road construction into the conditions, constraining these activities to weekday operations between 7am – 7pm.
- 564 The Mt Munro Project may include some rock blasting. The Applicant has assessed this activity and considers the blasting will be just audible if covered out correctly, proffering a Controlled Blasting Management Plan. Mr Lloyd agrees with their assessment, and has recommended conditions to manage

¹⁸⁷ Part 6.1 of the TDP, and Rule 21.1.16(a) of the WCDP.

this aspect of the Project, including the proffered management plan and restricting blasting to 9am-5pm Monday-Friday.

565 I am of the opinion that the measures and proposed conditions recommended by Mr Lloyd go some way to mitigating the actual and potential effects of the Project's construction. However I note that there are still some uncertainties associated with the construction programme and the nature of the effects associated with the upgrade of Old Coach Road, as well as more broadly from an overall traffic noise perspective. While there are also uncertainties associated with the proposed concrete batching plant and mobile aggregate crushing plant, I am comfortable that these effects can be readily managed through application of the appropriate noise standards and location of the activity within the site.

Operational Noise

- 566 Mr Lloyd considers the wind turbines are likely to comply with relevant noise standards and District Plan provisions, as well as meeting WHO recommendations for sleep. Notwithstanding this, he expects the wind farm noise would be the dominant background sound for about two thirds of the time for close neighbours. On this basis, I consider the noise effects of the turbines acceptable, although I acknowledge they will be noticeable.
- 567 To ensure the wind turbines comply with appropriate noise standards, Mr Lloyd has recommended an Operational Noise Management Plan, supported by a compliance testing report. I have incorporated these requirements into the recommended condition set.
- 568 Older wind turbines can create a low-frequency noise and specific tonality that are commonly known as 'special audible characteristics'. Mr Lloyd notes that modern turbines are designed to avoid the generation of tones and low frequency sounds, which can cause particular annoyance to receivers. Mr Lloyd therefore considers it unlikely that the wind turbines associated with the Project would have special audible characteristics. However, he recommends a condition to penalise special audible characteristics if they are present to reduce potential adverse noise effects. He notes this provides

a strong incentive for the applicant to avoid special audible characteristics as part of the design process and a safety net where wind farm sound levels would be reduced to accommodate any penalties that are applied. I agree with this approach and have incorporated it into conditions.

- 569 Mr Lloyd has reviewed information on the current meteorological mask, which many submitters complained about. The mast has been previously assessed to see if it complied with noise standards after complaints from surrounding properties, however, following on there is no evidence that options for reducing the whistle were explored. Mr Lloyd considers this approach inadequate and notes the problems may increase if a further meteorological mask is installed.
- 570 I note that the meteorological mask is a controlled activity (so cannot be refused in isolation). Mr Lloyd therefore recommends proactive management that will require the Applicant to investigate how to reduce potential noise effects and undesirable special audible characteristics, and then install the solution arrived upon. I support this approach and have recommended a condition to ensure this approach is implemented.

Other Matters

- 571 Mr Llyod notes that further mitigation may be required for construction traffic using Opaki-Kaiparoro Road (between Mt Munro Road and the northern end at SH2). He considers the Applicant will need to provide further information to ensure noise effects are assessed and understood. I further note that other currently unconfirmed haulage routes on local roads may create noise impacts as well.
- 572 The Applicant's NEA considers that noise performance standards should apply at the notional boundary of dwellings in the rural zone. Mr Lloyd notes this means that only areas within 20 metres of an existing dwelling will be protected, and that care needs to be taken with this approach when the wider property area is deserving on protection. Aside from a planned future property¹⁸⁸ located to the north of the proposed laydown area, he considers

¹⁸⁸ This was referenced within a submission.

it is appropriate to apply the noise conditions at the notional boundary of dwellings (either existing, consented, or able to be constructed as a permitted activity), although he notes it is inevitable that the aural environment will change in the general area.

<u>Summary</u>

573 Relying on Mr Lloyd's opinion and the conditions recommended by him, I consider most noise effects can be suitably managed. However, it is my view that further information is required to confirm the duration and mitigation of construction traffic noise associated with the Mt Munro Project, particularly for Old Coach Road.

Air Discharges (Dust)

- 574 The Mt Munro Project may cause potential adverse air quality effects, along with potential nuisance effects from dust. The Applicant initially provided information on dust as part of RFI#1 Response 1,¹⁸⁹ proffering a condition for a Dust Management Plan to help mitigate potential effects. Twenty-four submissions¹⁹⁰ subsequently raised this topic, covering issues such as:
 - (a) The dust effects/ location of the concrete batching plant and aggregate plant;
 - (b) Dust from traffic;
 - (c) Dust polluting water sources, rivers, buildings, gardens and land used for stock grazing;
 - (d) Adverse health effects (e.g. dust causing or exacerbating cancer, asthma, and hay fever); and
 - (e) Desired mitigation such as water and/or air filtration devices.

¹⁸⁹ Response to the Mt Munro Proposed Wind Farm Resource Consent Application Section 92 Additional Information Request, dated 7 September 2023, page 18-19 and 235-258 and 397-406.

¹⁹⁰ Submissions 1, 3, 8, 13, 14, 15, 17, 21, 23, 28, 29, 31, 33, 34, 41, 43, 50, 56, 62, 63, 65, 67, 68, and 71.

Section 87F Report – Mount Munro Windfarm Application

- 575 The Applicant subsequently provided a Dust Assessment to help address these concerns as part of RFI#2 Response 3.¹⁹¹
- 576 Mr Andrew Curtis of PDP Limited assessed these effects on behalf of the Councils,¹⁹² considering potential air quality effects, as well potential sources of dust including earthworks and construction, concrete batching and aggregate crushing, and use of the presently unsealed Old Coach Road.

<u>Air quality</u>

577 Ms Edwards has assessed the potential adverse air quality effects in paragraphs 104-112 of this report. I adopt and rely on her assessment to the extent it is relevant to the District Councils.

Earthworks and construction

- 578 Mr Curtis notes that exposed or unconsolidated surfaces within the Project Site have the potential to be source of dust, particularly given the volume of earthworks, the exposed location of earthworks along the ridges of Mt Munro, and the high recorded wind speeds that affect the site. However, he notes the isolated nature of the subject site reduces the potential for nuisance effects from dust for most sensitive receivers, aside from on Old Coach Road and in the area adjacent to the main haul road on the north site boundary.
- 579 Mr Curtis agrees with the Applicant that dust can be managed through a Dust Management Plan. The contents of this plan are discussed in paragraph 587-588 below.
- 580 I further note Ms Edwards has assessed erosion and sediment control measures in paragraphs 148-160.

¹⁹¹ Include ref once we get this back.

¹⁹² Include ref to s87F report.

Section 87F Report – Mount Munro Windfarm Application

Concrete batching and aggregate crushing

- 581 The Councils asked for further information on concrete batching and aggregate crushing as part of RFI#1. In response, the Applicant proffered a Concrete Batching Plant Management Plan along with the DMP discussed at paragraph 587.
- 582 Mr Curtis notes that there is the potential for the crushing and screening of aggregates to be a significant source of dust without appropriate mitigation. I agree with his view that potential adverse effects from this activity should be assessed as part of this application, and not deferred for a future contractor to obtain. This will allow for effects to be considered and managed holistically.
- 583 I note the Applicant's proffered Construction Batching Management Plan does not currently reference dust, but it provides a location for dust effects to be explicitly considered and addressed.
- 584 To effectively manage potential dust effects from concrete batching and aggregate crushing, Mr Curtis has recommended these matters are considered as part of the comprehensive DMP. I support this approach.

<u>Old Coach Road</u>

- 585 Mr Curtis considers the most significant source of dust to be Old Coach Road, which is presently unsealed. He agrees with the Applicant's Dust Assessment¹⁹³ that sealing this road would provide the most efficient mitigation.
- 586 I have incorporated a condition recommending this road is sealed, noting the consequential reduction in dust will have traffic safety benefits. Tararua District Council have confirmed that it will be necessary for the road to be returned to a metal surface at the end of construction.

¹⁹³ RFI#2 Response 3. Mt Munro Dust Assessment, prepared for Meridian Energy, dated February 2024.

Section 87F Report – Mount Munro Windfarm Application

Dust Management Plan Contents

- 587 I note the Applicant proffered a DMP in their first RFI#1, although Mr Curtis considers this DMP should be comprehensive to ensure effects are sufficiently managed.
- 588 This is reflected in the updated condition in Appendix 23, which contains more detailed provisions and reflects site-specific matters such as how effects on nearby stock are managed (e.g. vis maintaining/reinstating pastures, or coordinating with farmers so construction works do not occur when stock are in nearby paddocks if practicable).

<u>Summary</u>

589 Based on Mr Curtis's assessment and the recommended conditions (for sealing Old Coach Road and providing a Dust Management Plan), it is my opinion that the Project's potential adverse dust effects can be suitably managed.

Earthworks, Soil erosion and sediment

- 590 The construction of the Mt Munro Project requires substantial earthworks.
- 591 The Applicant provided information on the volume of earthworks required for the Project (with a maximum cut of 1,728,100 and fill of 501,300m³, and potential fill disposal sites within the site.
- 592 Neil Crampton of PDP Limited assessed this information on behalf of the Councils. He considered the information provided suitable. Mr Crampton also reviewed the Applicant's proposed methodologies to maximise fill stability.
- 593 I note Mr Hunt has considered the linked landscape and visual effects of these earthworks and fill sites in paragraph X of this report.
- 594 Land disturbance/earthworks effects were assessed by Kerry Pearce of Environmental Land Management Limited on behalf of the Councils and considered in Part B of this report.

Section 87F Report – Mount Munro Windfarm Application

595 I note The Project requires resource consent under Standard 5.1.5.3 of the TDP for earthworks, as well as triggering resource consent requirements under the Horizons One Plan and GWRC Natural Resources Plan. I have relied on Ms Edward's and Mr Pepperrell's assessment of these matters in Part B, noting Ms Edwards view that these effects can be appropriately managed so the effects will be less than minor.

Contamination (Human Health) and Hazardous Substances

596 Ms Sarah Newell, a contaminated land consultant, has assessed the resource consent applications on behalf of the Councils. She has considered the actual and potential effects associated with contaminated land and the housing of hazardous substances on-site, both during construction and during operation.

Contamination (Human Health)

- 597 I note that resource consents under the NESCS have not been sought as part of the Application.
- 598 However, Ms Newall identified potential activities on the Hazardous Activities and Industries List (**HAIL sites**) during her site visit, including a super bin within the proposed turbine envelope zone. The Councils then requested that a PSI to support the proposal.
- 599 The Applicant provided information on potential on-site contamination via a PSI in RFI#1 Response 1, which confirmed the HAIL sites Ms Newall identified. However, this PSI stated there would be no earthworks within these areas. Given the super bin was located within the turbine envelope zone, further information was requested to clarify how this area would be avoided.
- 600 Ms Newall notes both the footprint of the super bin and the surrounding area where unloading/transfer/loading and vehicle movements occurred should be considered a HAIL site, as it is common for fertilizer to be spilled around these areas. Given the surrounding area has not yet been tested and the boundaries of this HAIL site remain unconfirmed, Ms Newall cannot confirm how large an area needs to be excluded from any earthworks. This is an

information gap that will need to be managed. I (along with Ms Edwards) have recommended through the Site Specific Erosion and Sediment Control conditions, a requirement to define and set out exclusionary zones for various features, including potentially known contaminated sites which can be identified through soil sampling. I note there is the potential (depending on the size of the contaminated area) for there to be insufficient space within the turbine envelope zone to construct the necessary infrastructure, although I consider this unlikely.

- 601 The Applicant has offered an unexpected discovery procedure to manage any contaminated material discovered during works. Ms Newall agrees this is important, so I have included this as a condition
- 602 While the applicability of the NESCS remains unconfirmed, I have adopted the Applicant's proposed approach of managing the issue through this accidental discovery protocol. This protocol will include a cessation of work requirement if potentially contaminated land is found, so the Applicant can determine next steps. I also recommend the accidental discovery protocol is extended to the District Councils as well, given they are responsible for the NESCS and this has the potential to trigger a future consent requirement.

Hazardous substances

- 603 Submissions raised the potential of additional contamination from toxic sludge entering waterways or toxic substances from turbines.¹⁹⁴
- The proposal includes hazardous substances that trigger consent under the WCDP. I note that the use, handling and storage of these substances is primarily controlled through the Health and Safety at Work Act 2015 (specifically, under the Health and Safety at Work (Hazardous Substances Regulations) 2017) (the **HSWA**). My understanding is that the RMA's role is to consider additional effects these substances may have on the environment for matters that fall outside the HSWA, for example risks relating to their location in the wider environment and links to other

¹⁹⁴ Submissions 6, 7, and 8.

sensitive receivers. Given the location of the site, I consider the potential for spills the key risk that needs managing under the RMA.

605 Ms Newall has considered the risks posed by the hazardous substances included as part the Mt Munro Project and considers that the fuel storage and use should be documented in a management plan, for example, a Spill Contingency Management Plan (**SCMP**). The AEE also confirmed that a SCMP would be prepared, although this did not appear in the proffered condition set. I agree a SCMP is necessary and have therefore included this as part of the recommended conditions.

<u>Summary</u>

606 Relying on Ms Newall's advice and the conditions she recommends, I am confident that unexpected contamination and hazardous substances can be appropriately managed. However, I note the advice of Ms Newall that there remains a risk that there is a known site of interest, which has not yet been defined appropriately. Therefore, the applicability of the NESCS remains unconfirmed, with the potential need for a consent.

Archaeology and historic heritage

- 607 The Applicant addressed potential effects on archaeological and historic heritage in their AEE¹⁹⁵ and submitted Archaeological Assessment¹⁹⁶ and in a further information response.
- 608 I have reviewed the TPD, WCDP and Proposed WCDP. There are no archaeological sites on or adjacent to the Mt Munro Project site identified in any of the District Pan documents. I can also confirm there are no identified archaeological sites adjacent to the Mt Munro Project site.
- 609 I also note that the Rangitāne CVA stated Mt Munro is unlikely to contain Māori archaeological sites.
- 610 The Applicant's Archaeological Assessment notes:

¹⁹⁵ AEE, Section 5.9, page 113.

¹⁹⁶ Technical Assessment M: Mt Munro Wind Farm: Archaeological Assessment of Effects.

Section 87F Report – Mount Munro Windfarm Application

- (a) There are no archaeological sites recorded within the Mt Munro Project Site.
- (b) There is one potential archaeological site that may be affected by the Project. This relates to the footprint of a former 19th century house contained within the proposed site laydown area, where it is possible subsurface 19th century archaeological features remain.
- (c) The project should avoid excavations within the area of the original farmhouse if possible. If this is not possible, then an archaeological authority must be sought from Heritage New Zealand Pouhere Taonga (HNZPT) for works that will modify, damage or destroy an archaeological site, and groundworks within the area of the historic house should be subject to archaeological monitoring to identify and record any exposed archaeological features as mitigation for information loss.
- 611 The applicant also offered an Accidental Discovery Protocol condition to ensure any potential archaeological sites discovered during construction are appropriately managed. I note these conditions are standard for large projects and have been explicitly requested by the Rangitāne CVA and the Ngāti Kahungunu CVA (refer paragraphs 220 and 223. I agree an Accidental Discovery Protocol should be included as a condition.
- 612 In RFI#2 Response 1,¹⁹⁷ the Applicant has confirmed that they intend to seek a general Archaeological Authority from HNZPT for the construction laydown area, rather than the alternative of creating an exclusion zone within the proposed construction laydown area. I consider that this is appropriate in this instance, acknowledging the need to retain a level of flexibility in terms of the final laydown area layout.
- 613 While I accept the Applicant's approach to an accidental discovery protocol is appropriate, I consider the proffered condition needs to be substantially expanded to better reflect what the protocol covers (including not only

Prepared by Lauren Edwards and Joshua Pepperell – Planning

¹⁹⁷ Response to 20 December 2023 Section 92 Additional Information Request, dated 31 January 2024, page 11.

Section 87F Report – Mount Munro Windfarm Application

archaeological sites, but also sites of significance to iwi, in the event they are discovered or disturbed), and a process in the event of a discovery or disturbance. In addition, it is my opinion that the condition should also include a trigger whereby an Archaeological Authority obtained for any part of the site will override the accidental discovery protocol. These recommendations have been included in the condition.

- 614 Submissions also raised concerns around heritage values, commenting on potential impacts to an old 1881 bush cottage on Old Coach Road as well as other valued sites/places (e.g., Old Coach Road, Mt Bruce, Scandinavian settlements).¹⁹⁸
- 615 As previously noted, I have reviewed the TPD, WCDP and Proposed WCDP, and there are no identified archaeological sites indicated within these documents within or adjacent to the Project site.
- I understand that Eketāhuna (along with towns such as Norsewood and Dannevirke in the wider region) had many Scandinavian settlers, and that Pūkaha/ Mt Bruce has considerable value to the wider community. Given the distance between the site and nearby settlements, and Pūkaha/ Mt Bruce, I consider the Project unlikely to result in adverse effects on any specific historic feature associated with these locations. I also note that the Applicant's LEA (refer paragraph 511(c) has assessed the landscape and visual effects on both locations.
- 617 Based on the above analysis, and the updated proposed conditions, I consider that effects on archaeological values and historic heritage can be appropriately managed.

Terrestrial Ecology

618 The Mt Munro Project may cause adverse effects on terrestrial ecology during construction and operation, for example from earthworks, general construction operations and the operation of wind turbines themselves e.g., operational noise and lighting. There were 18 submissions relating to

¹⁹⁸ Submissions 13, 24, 37, 68 and 73.

terrestrial ecology, covering impacts on native birds, bats and insect life, noise and light pollution, and vegetation loss.¹⁹⁹ Mr James Lambie of Lambie Ecology assessed these effects on behalf of the Councils.

- 619 I note that the site does not contain any identified or mapped significant natural areas under the WCDP²⁰⁰ (and there are none within the TDP).
- 620 Mr Lambie considers that the effects envelope avoids significant areas of indigenous woody vegetation and any impacts on wetlands is limited to sites of negligible ecological value.
- 621 I note that territorial authorities have a responsibility for the maintenance of indigenous biological diversity under the RMA, and the TDP and WCDP policy framework requires consideration of ecological matters when considering new wind farms.²⁰¹ However, I note that regional council responsibilities are much more extensive, covering for the establishment, implementation and review of objectives, policies and methods for maintaining indigenous biological diversity, as well as the maintenance and enhancement of ecosystems in water bodies. On the basis of Mr Lambie's assessment and this overlap I have relied on the assessment of these matters by Ms Edwards and Mr Pepperell in paragraphs 189-199 of Part B.

Effects on highly productive land

- 622 The Applicant provided information and an assessment addressing the proposal's effects on highly productive land in a letter²⁰² forming part of RFI#2 Response 3.²⁰³
- 623 This information confirmed that there is some LUC2 and LUC3 land on the Project Site. The majority of this land will be avoided through the location of the proposed Turbine Envelope and Exclusion Zones (including a small tweak

¹⁹⁹ Submissions 5, 8, 11, 13, 17, 21, 24, 33, 40, 41, 44, 45, 47, 56, 57, 58, 61 and 68.

²⁰⁰ I note the TDP does not list any Significant Natural Areas, but Mr Lambie has confirmed he has checked Horizon's data as well.

²⁰¹ TDP, 5.37.4 and WCDP, 22.1.20.

²⁰² Letter to Horizons Regional Council regarding highly productive land on Mt Munro, dated 21 November 2023.

²⁰³ Further Response to 20 December 2023 Section 92 Additional Information Request, dated 23 February 2024, page 1.

Section 87F Report – Mount Munro Windfarm Application

to the location of one Turbine Exclusion Zone to ensure LUC3 land is avoided). However, approximately 1-1.25ha of LUC3 land will be permanently affected by the location of the proposed terminal substation and transmission lines.

- 624 The Applicant has confirmed the Land Use Capability mapping is of sufficient scale to determine effects and considers this reduction "minimal to insignificant" from a district level as:
 - (a) The majority of the site will continue to be used for primary production; and
 - (b) The project represents a 0.00013% reduction of highly productive land within the district.²⁰⁴
- 625 Based on the information received to date, I agree effects on highly productive land are likely to be less than minor within Tararua and Masterton districts. However, I note that the Applicant's assessment has not yet been peer reviewed as it was received in late February, meaning there was insufficient time for it to be considered for the purpose of this s87F report. This peer review is still being completed. My view may change if the future peer review raises concerns with the information presented.

Effects on Farming Activities

626 The Mt Munro Project Site is located in a rural management area (Tararua District) and a rural zone (Masterton District). The surrounding land use is primarily pastoral farming. A number of submitters²⁰⁵ raised concerns in relation to the impact of the Project on farming activities, particularly those farms immediately adjacent the Project site. Concerns raised included the restriction the wind farm would place on aerial spraying (meaning it would be harder to control weeds and pests and apply fertilizer) and effects on stock (including water quality effects from dust, difficulty crossing Old Coach Road, and noise impacts).

 ²⁰⁴ This figure is based on the Applicant's calculations of Tararua District containing 78,272ha (17.9%) of highly productive land and 46,353ha (10.6%) of LUC3 land.
 ²⁰⁵ Submissions 3, 13, 34, 44, 47, 49, 73.

Section 87F Report – Mount Munro Windfarm Application

- 627 The Applicant responded to these concerns in RFI#2 Response 1 and RFI#2 Response 3, which included (as I have indicated) a NPS-HPL report prepared by AgFirst. The Councils are obtaining expert advice regarding the AgFirst report.
- 628 AgFirst responded to some of the reserve sensitivity concerns on land-based primary production, confirming:
 - (a) The subject site will continue to be used for land-based primary production once the wind farm is constructed, ensuring meaning weeds and pests will still be controlled and fertiliser applied; and
 - (b) Weed and pest control can be managed via ground-based applications, as can fertilizer application on flat-gentle hill country.
- 629 AgFirst also noted that aerial spreading technology is typically used to apply fertilizer to steep hill country. They did not directly address concerns raised by submitters that the wind turbines would prevent them from aerial spraying their own land, however I agree there are other available options to and this issue can be managed.
- 630 Ag first also noted that nearby livestock are unlikely to be impacted by the installation of the wind farm due to noise limits being met, and livestock being removed from paddocks while wind farm construction works are being undertaken. However, construction works are likely to infringe some noise limits (particularly along Old Coach Road, and no evidence has been provided on how/if livestock from surrounding paddocks will be removed.
- 631 While there remain some uncertainties, and with the Council's peer review of the AgFirst assessment to be confirmed, my preliminary view is that potential effects on neighbouring farming and rural production activities can be appropriately managed.

Lighting

- 632 The proposal will include new lighting during both construction and operation. The Applicant's AEE²⁰⁶ provides some commentary on lighting, with an assessment of lighting effects, including a supporting technical report by Stephenson & Turner (the **S&T Report**), provided within RFI#1 Response 1.²⁰⁷ Submissions raised concerns about light pollution from aviation lights, impacts on Dark Sky Reserves, and adverse health effects (including sleep deprivation).²⁰⁸ Mr John Mckensey of LDP Limited assessed these effects of behalf of the Councils.
- 633 I note that the proposed lighting complies with operative TDP and WCDP standards, although the permitted baseline can only be applied to some smaller buildings (for example, the Operations and Maintenance building) as most lighting required is clearly linked to the overall Mt Munro Project and would not be installed without it.
- 634 The S&T Report assessed construction and operational lighting has having less than minor adverse effects. Mr Mckensey largely agrees with this assessment, with the only exception relating to aviation obstruction lighting.
- 635 Mr Mckensey notes that aviation obstruction warning lights would be necessary for the Mt Munro Project. This includes both low intensity lighting, which would be static and located at half the nacelle height, and medium intensity lighting, which would flash and be located on top of the turbine nacelle.
- 636 Mr McKensey notes any affect from Low Intensity Aviation Lights will be negligible, but Medium Intensity Lighting may affect some observers' enjoyment of the night sky. In this view, this would cause minor adverse

²⁰⁶ AEE, Section 4.6.5, page 83.

²⁰⁷ Response to the Mt Munro Proposed Wind Farm Resource Consent Application Section 92 Additional Information Request, dated 7 September 2023, page 8-9, 26-27 and Assessment of Environmental Effects for Proposed Lighting submitted as part of that further information request, pages 135-172.

²⁰⁸ Submissions 8, 13, 17, 21, 34, 35, 37, 41, 44, 47, 48, 49, 56, and 61.

effects. I note Mr Hunt also assessed aviation lighting from a landscape and visual perspective and agrees effects will be minor.

- 637 To minimise potential adverse effects, Mr McKensey has recommended conditions to limit the luminous intensity of the Aviation Warning Lights, and ensure that lighting installed will represent the practical minimum to comply with CAA requirements. I have incorporated these recommendations into the proposed conditions.
- 638 Mr Mckensey also notes that the S&T report did not consider headlight sweep during the Project's operational phases or along Opaki-Kaiparoro Road during construction. He considers these effects to be less than minor given nighttime vehicle use is likely to be infrequent during operation, there are no dwellings directly opposite SH2, and the transport of aggregate and access to construct the transmission line are likely to be daytime activities. I accept this view.
- 639 Mr Mckensey has reviewed the proposed Wairarapa Combined District Plan, which requires all outdoor lighting to have a colour temperature no greater than 3000k. He notes 4000k lighting is proposed for the concrete batching plant, and considers this appropriate as it would allow better monitoring of the concrete mix colour. I accept this view, noting information provided with the application suggests the concrete batching plant will only be in use for XX. I have therefore recommended a condition that explicitly provides for this 4000k limit..
- 640 Relying on Mr Mckensey's advice and the conditions he proposes, I consider the lighting effects of the proposal to be acceptable.

Shadow Flicker

641 The Applicant addresses shadow flicker effects in the main AEE, including offered conditions²⁰⁹ and the Applicant's LEA.²¹⁰ Submissions raised general concerns around shadow flicker, as well as focusing on its timing, location,

²⁰⁹ AEE, Section 5.3.5 (pages 95-96) and Section 8.1 (page 129).

²¹⁰ Appendix K: Mt Munro Wind Farm: Landscape Effects Assessment, pages 43-44, 66-80, and 94.

Section 87F Report – Mount Munro Windfarm Application

and potential adverse health effects.²¹¹ Ms Claire West assessed these effects on behalf on the Councils.

- 642 Ms West and the Applicant's LEA agree that the Mt Munro Project will cause shadow flicker effects on nearby properties.
- 643 Ms West and the Applicant's LEA also both reference the Draft National Wind Farm Development Guidelines 2010 created by the Environment Protection and Heritage Council, Australia (the **EPHC Guidelines**) as a way of managing effects and determining acceptable levels of shadow flicker. Ms West agrees the EPHC Guidelines set a modelled limit of 30 hours per year, but notes they also set a limit of 30 minutes per day which should be applied. I have therefore included both limits within the recommended conditions.
- 644 Some submitters were concerned about adverse health effects that could be caused by shadow flicker. This was only briefly addressed in the Applicant's second s92 response.²¹² Ms West notes that she is not an expert on human health, but that the EPHC Guidelines have investigated the matter and concluded there is currently no published scientific evidence to positively link wind turbines with adverse health effects. Based on this evidence, I have not recommended changes to the Application or specific conditions to manage potential adverse health effects.
- 645 I note the exact level of effect will be dependent on the shape and the location of the turbine, the weather, the time of day, and the present of barriers (such as vegetation). The flexibility sought by the Applicant could change the location and shape of turbines, and any additional planting provided may increase the number of barriers present on a given site. I have therefore included a Pre-instalment Assessment condition that will assess the final design to determine the overall level of effects, as these may change from what was presented in the Applicant's LEA.
- 646 It is possible that the final design will result in shadow flicker effects that exceed the acceptable limits of 30 hours per year and 30 minutes per day.

²¹¹ Submissions 11, 16, 30, 34, 38, 41, 44, 45, 47, 48, 49, 67, 68.

²¹² Further Response to 20 December 2012 Section 92 Additional Information Request, Social Wellbeing and Health Effects Assessment, page 37-40.

Section 87F Report – Mount Munro Windfarm Application

The Applicant has proposed using an automated curtailment strategy to ensure turbines meet the relevant shadow flicker limit. Ms West considers this appropriate. I have included conditions to provide for this curtailment.

647 Relying on Ms West's views and the conditions she recommend, I consider shadow flicker effects to be acceptable.

Effects associated with natural hazards

- 648 The Applicant briefly addressed overall natural hazard risk in RFI#1 Clarification response²¹³ and discussed seismic considerations within their Civil Engineering Report. There were six submissions that raised concerns around earthquakes specifically, noting previous seismic activity in the area, the proximity of nearby fault lines, and the lack of technical assessments covering this issue in detail.²¹⁴ Mr Neil Crampton considered the risk from specified natural hazards (including earthquakes, liquification and landslides/instability) for the Councils.
- 649 Mr Crampton notes that there are active faults in the region, although none within the site. He notes the proposal has identified relevant seismicity considerations and these should be addressed through the Mt Munro Project's detailed design. For example, NZS 1170.5:2004 requires comprehensive geotechnical investigation at each turbine site to inform the seismic design of the structures. Given this will be comprehensively addressed at the detailed design stage, I have not recommended specific conditions for this.
- 650 In terms of liquefication, Mr Crampton considers that the in-situ greywacke rock presents no liquefaction hazard, and as such the liquefaction risk to the proposed turbines, infrastructure and the majority of the road network is very low. To ensure other facilities (such as the terminal substation and the Operations & Maintenance Building) are not located on potentially

 ²¹³ Clarification of Meridian's Response to the Mt Munro Proposed Wind Farm Resource Consent Application s92 Additional Information Request, page 6.
 ²¹⁴ Submissions 8, 13, 21, 24, 37, and 48.

²¹⁴ Submissions 8, 13, 21, 34, 37, and 48.

liquefiable ground, he recommends investigation and monitoring that will inform the detailed design. I have recommended this as a condition.

- 651 Mr Crampton has also considered the potential for landslides and the risk of new instability from the proposal. He considers these risks can be suitably managed through proposed cut slope angles and/or specific stabilisation measures (through material clearance, slope batter reprofiling/benching, localised drainage controls, localised slope stabilisation methods). Mr Crampton is of the view that these matters can be appropriately addressed as part of detailed design. I have recommended conditions that allow for this.
- 652 I note the risk of fire is discussed below.
- 653 Relying on Mr Crampton's advice, I consider effects can be suitably managed provided the conditions recommended are included.

Fire Risk

- 654 The Applicant addressed potential fire risks in RFI#2 Response 1.²¹⁵ Three submissions highlighted fire risk. Matters raised included the need for adequate firefighting water supply, suitable access for emergency vehicles, and a fire risk management strategy. Concerns about effects on surrounding properties and pollution from fire events were also raised.²¹⁶
- The Applicant explained how fire risk at Harapaki wind farm was managed, and explained similar measures would be used at Mt Munro. These measures include creation of an Emergency Fire Response Plan, building design (materials, fire suppressions systems, aggregate), water availability, the use of fire extinguishers, and restriction on hot works.
- 656 I note many of these measures would not be managed through the RMA, but under other legislation. However, I accept that the presence of the wind farm could pose a fire risk to the wider environment, and this should be managed to the extent relevant under the RMA. As such, I currently recommend (as a minimum):

²¹⁵ Second section 92 response, question 8, page 4.

²¹⁶ Submissions 9, 41, and 69.

- (a) FENZ are invited to input into the Community Liaison Group.
- (b) Internal access roads are a suitable size and gradient for fire trucks (as recommended by Ms Fraser in her s87F report).
- 657 I also note that the Applicant has stated they will work with FENZ to discuss the concerns raised in their submission. I would consider it useful to understand how these discussions have progressed to ensure fire risk is sufficient mitigated.

Aviation

- 658 The Applicant addressed the potential of adverse effects on aviation in the main AEE,²¹⁷ their Radio Compatibility Assessment (Technical Assessment N),²¹⁸ and RFI#1 Response 1.²¹⁹ Potential adverse effects and submissions relating to aviation lighting are considered under paragraphs 632-637 above. There were no submissions received on this topic.
- 659 Wind farms (specifically wind turbines and wind monitoring masks) have the potential to cause adverse effects to aviation by creating a hazard to other aircraft. This is primarily regulated through the Civil Aviation Act 1990, which requires wind farms to obtain approval under the Civil Aviation Rules Part 77. These Rules set out requirements for mitigating the impact of objectives and activities that could pose a hazard in airspace. There is no need for the RMA to replicate these regulations.
- 660 However, to ensure the proposal considers and incorporates these rules into the design, I have recommended conditions requiring engagement with the Civil Aviation Authority (**CAA**), and recommend the inclusion of an advice notes stating the works must obtain the necessary approval from CAA to proceed. This approach should ensure any adverse effects on navigable

²¹⁷ AEE, Section 5.11, page 109.

²¹⁸ Mt Munro Wind Farm, Radio Compatibility Assessment Report, pages 14-15.

²¹⁹ Response to the Mt Munro Proposed Wind Farm Resource Consent Application Section 92 Additional Information Request, dated 7 September 2023, page 11 and Assessment of Environmental Effects for Proposed Lighting submitted as part of that further information request, pages 18-22.

Section 87F Report – Mount Munro Windfarm Application

airspace from the Project are sufficient managed, without unnecessarily duplicating existing legislation.

Telecommunications interference

- 661 Wind farms have the potential to cause electromagnetic interference to broadcast or other radio communication signals.
- 662 The Applicant assessed the potential of radio interference in the main AEE²²⁰ and supporting Radio Compatibility Assessment Report (**RCA**).²²¹ Their report considered fixed radio linking services, wide area coverage services, and aeronautical navigation. The RCA concluded that the indicative layout is not expected to cause any harmful interference effects to these services, although it recommended consultation with CAA.
- 663 Mr Dahhan has provided advice to inform my review of these matters and agreed with the RCA's overall methodology and conclusions. However he noted there was a potential that shifting the turbines within the Turbine Envelope Zone could cause interference to wide area coverage services such as broadcast television and radio, wireless broadband, and cellular services. He has therefore recommended a pre-construction condition to require the Applicant to assess the finalised layout and confirm it will not cause any issue.
- 664 Mr Dahhan also noted that wind turbines have the potential to cause interference to the operation of meteorological or weather radar through reflection or scattering of radar signals. However, he considers it unlikely the nearest meteorological radar station will be affected by the project as it is located over 100km from the Mt Munro Project site.
- 665 No submissions were raised on this topic.
- 666 Based on Mr Dahhan's memorandum and recommended pre-construction condition, I consider potential electromagnetic interference effects can be avoided through the design of the Mt Munro Project.

²²⁰ AEE, Section 5.10, pages 108-109.

²²¹ Mt Munro Wind Farm, Radio Compatibility Assessment Report, pages 5-13 and 15.

Section 87F Report – Mount Munro Windfarm Application

Health and Social Wellbeing

- 667 The Applicant did not provide an assessment of health and social wellbeing effects as part of their submitted application, aside from briefly commenting on the positive benefits Meridian's Community Fund in their AEE.²²² However, they provided an assessment/commentary on these effects Social Wellbeing and Health Assessment Memo (Social/Health Effects Memo) in RFI#2 Response,²²³ following a large number of submissions on this topic.
- I note there were 23 submissions that raised the potential for the Mt Munro Project to have adverse effects on health.²²⁴ Specific concerns raised included adverse health effects linked to dust (asthma & other respiratory illnesses, cancer); shadow flicker, lighting and noise (headaches, migraines, sleep deprivation); the stress and anxiety created by the project, particularly during consenting and construction; and potential interactions with existing health conditions (autism, heart issues).
- 669 The Social/Health Effects Memo classified these concerns as relating to the three project stages: the consenting process, construction, and operation. It considered the Project did not give rise to any material adverse health effect on the basis that the consenting process should not be considered an adverse effect of the proposal; noise and dust from Old Coach Road would be well managed during construction; operational noise would comply with NZS6808, and shadow flicker would be appropriately managed.
- 670 I agree that the consenting process should not be considered an adverse effect of the proposed activity.
- 671 The effects of noise, dust and shadow flicker have been assessed elsewhere in this report. I note that:

Assessment of Environmental Effects on behalf of Meridian Energy Limited, Section 5.1.3, pages 87-88

²²³ Proposed Mount Munro Wind Farm – Social Wellbeing and Health Effects Assessment, Incite, dated 22 February 2024.

Submissions 6, 7, 8, 9, 13, 19, 21, 23, 30, 31, 33, 37, 38, 40, 43, 46, 47, 56, 57, 61, 67, 68, and 71.

Section 87F Report – Mount Munro Windfarm Application

- (a) Mr Curtis has considered the risk of dust on human health, noting the risk is extremely low if appropriate mitigation is provided. I have included conditions to mitigate the potential effects of dust including temporarily sealing Old Coach Road and developing a comprehensive DMP.
- (b) Ms West explicitly notes that the EPHC Guidelines for shadow flicker were unable to positively link wind turbines with adverse health effects.
- (c) Mr Llyod has not commented on the health risks associated with noise. However the conditions I have recommended will ensure construction and operational noise from the Project does not exceed limits set by relevant standards, and appropriate mitigation will be provided (such as temporarily relocating residents) when limits will be breached.
- 672 I therefore agree that the Mt Munro Project does not appear to give rise to any adverse health effects.
- 673 There were also 20 submissions that relating to social wellbeing and impacts on the community.²²⁵ Specific concerns included the lack of a social impact assessment; insufficient consultation, consideration, and benefits to the local area and Eketahuna; and the overall impacts of construction. Three submissions were positive, saying it would be an asset to the community that would provide economic benefits.
- 674 I agree that the Application as lodged would result in both positive and adverse social effects, although many adverse social effects can be suitably mitigated during construction through the conditions recommended in Appendix 23. The Applicant did not provide detailed information on their consultation process but I note the consenting process provides opportunities for community input into the Project

²²⁵ Submissions 8, 10, 11, 12, 13, 14, 16, 36, 37, 43, 44, 46, 47, 48, 49, 53, 60, 68, 70, and 73.

Positive effects

- 675 The Applicant assessed the positive effects of the Application in their AEE.²²⁶ In summary, they consider the Mt Munro Project will:
 - (a) Create significant national benefits through powering the equivalent of 42,000 homes and helping New Zealand meet its climate change commitments;
 - (b) Provide local and regional benefits through employment opportunities during construction and operation, and funding opportunities via their "Power Up Community Fund"; and
 - (c) Provide local benefits through improvements to Old Coach Road and existing farm tracks, thereby improving safety and erosion control.
- 676 Submitters also commented on the proposal's positive effects, including its importance for climate change, and social/economic benefits for Eketahuna and the wider community.²²⁷ However, I note that some submitters²²⁸ disagreed with the suggested regional/local benefits, questioning the overall number of jobs and benefits for the wider community.
- 677 I concur with the Applicant's assessment of the positive effects of the Mt Munro Project, subject to any recommendations of the technical experts I have described earlier in this report and noting submitters have challenged some of the regional/local benefits. Generally speaking, however, I adopt the description of positive effects as part of my report.

Summary of actual and potential effects on the environment

678 After reviewing the AEE and accompanying technical assessments, the mitigation proposed by way of monitoring and conditions, the technical reviews undertaken by the TDC and MDC's section 87F experts, and having considered the matters raised in submissions, I consider that with the recommended conditions in Appendix 23 many aspects of the Project can be

²²⁶ AEE, Section 5.1, page 85-88.

²²⁷ Submissions 2, 10, 12, 52, 59, 60, 64,

²²⁸ For example, submissions 33, 37, 73.

suitably managed but there remain some significant and/or more than minor adverse effects that have not been sufficiently addressed, and some gaps that must be resolved. Specifically:

- (a) Significant/more than minor adverse effects include:
 - i. High adverse visual effects on 4 properties;
 - ii. Moderate-high adverse effects on landscape character within 4km of the site;
 - iii. Construction noise associated with the upgrade of Old Coach Road; and
 - iv. Construction traffic noise generally for the residents of Old Coach Road.
- (b) Outstanding matters or gaps associated with the Project where further information is required include:
 - How the significant/more than minor effects referenced above will be mitigated to the extent practicable, particularly for the high adverse visual effects on 4 properties and construction traffic noise along Old Coach Road.
 - ii. If contaminated land around the super bin can be successful avoided
 - iii. Effects of proposed Old Coach Road upgrade on the Project, including noise and construction programme.
 - iv. The information provided for highly productive land and reserve sensitivity for land-based primary production need to be reviewed by an expert for the Council to determine if it is suitable.

EE. STATUTORY ASSESSMENT

- 679 The Applicant provided a brief statutory assessment within their AEE.²²⁹ It was supported by Appendix G which listed (but didn't assess) objectives and policies from relevant statutory documents.²³⁰
- 680 The Councils requested a comprehensive updated planning assessment of the proposal against all relevant national, regional and district planning instruments in RFI#1,²³¹ to ensure the statutory assessment reflected the additional information requested and was completed in sufficient detail. The Applicant did not provide this, stating they had not identified the need for further resource consents while responding to the s92 request, so did not consider it necessary.²³² I note further reasons for consent were identified within the subsequent request for clarification sent to the Applicant from Ms Edwards.²³³
- 681 Ms Edwards' email also asked the Applicant to comment on the draft NPS for Natural Hazard Decision Making.²³⁴ They provided a brief assessment of the Mt Munro Project against this NPS on 25 October 2023.²³⁵
- 682 The Applicant provided a high-level assessment against the NPS for Highly Productive Land on 21 November 2023.²³⁶ The Councils requested further information in RFI#2 to clarify key matters relating to this NPS.²³⁷
- 683 In RFI#2, the Councils requested a thorough assessment of the application against the proposed Wairarapa Combined District Plan which was notified in October 2023.²³⁸ The Applicant provided an assessment as part of RFI#2 Response 1.

²²⁹ AEE, Section 9, pages 144-151.

²³⁰ AEE, Appendix G: Relevant Statutory Document Objectives and Policies.

²³¹ First Section 92 Request, question 116, page 27.

²³² First Section 92 Response, question 116 response, page 20.

²³³ First Section 92 Clarification Request, question 8.

²³⁴ First Section 92 Clarification Request, question 9.

²³⁵ First Section 92 Clarification Response, question 9.

²³⁶ HPL Letter, dated 21 November 2023.

²³⁷ Second 92 request, question 18, page 4.

²³⁸ Second 92 request, question 28, page.

Section 87F Report – Mount Munro Windfarm Application

- 684 I consider the Applicant's statutory assessment insufficient as:
 - (a) The Statutory Planning Appendix intended to identify relevant objectives and policies contains gaps. For example, it misses objectives and policies that relates to contaminated sites for TDP and transportation and hazardous substances for WCDP.
 - (b) The statutory assessment within the AEE lacks detail and contains errors (for example, it states that the relevant noise standards will be met, which is not reflected in the Applicant's own noise reporting.)²³⁹
- 685 To assess the Mt Munro Proposal, I have therefore completed a full statutory assessment of the proposal against the relevant statutory provisions outlined in Part A, paragraph X that I considered to be relevant to district matters. This is provided in paragraphs 81-83 below.

National Environmental Standards (NES)

- 686 From District Council perspective I consider the applicable NES's for this proposal to be the NES's for Air Quality and the NES for Assessing and Managing Contaminants in Soil to Protect Human Health.
- 687 I note that the NES for Freshwater and the NES for Sources of Human Drinking Water have been considered and assessed in Part B of this report.

NES for Air Quality (NES-AQ)

688 The NES for Air Quality came into effect on 8 October 2004 and was amended on 1 June 2011. Ms Edwards and Mr Pepperell have assessed this NES in Part B of their report, and I have relied on their assessment.

NES for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS)

689 The NESCS came into effect on 1 January 2012. It is presently unclear if the NESCS is relevant to the proposal. . This is due to uncertainty relating to a

²³⁹ Mt Munro Windfarm Development Noise Effects Assessment, 11 May 2023.

super bin site within the proposed Turbine Envelope Zone. While the proposal can avoid the super bin footprint, Ms Newall notes there is potential for the surrounding land to be contaminated, as the process of moving fertiliser typically results in spillage and tracking of the surrounding area. However, the Applicant has not tested the surrounding land to determine if it is contaminated, meaning it is impossible to tell if sufficient space remains to construct the infrastructure required.

690 While no applications for resource consent have been lodged for activities involving contaminated land by the Applicant, the present uncertainty as to its application (including the potential consent trigger identified by Ms Newall) and the fact contaminated land may be disturbed during construction, means, in my view, the NESCS is a relevant consideration.

National Policy Statements (NPS)

- 691 In my view, the NPS for Renewable Electricity Generation and the NPS Highly Productive Land are relevant from a District Council perspective.
- 692 I note that the NPS for Freshwater Management has been considered and assessed in Part B of this report, and that the NPS for Indigenous Biodiversity does not apply to the development of renewable electricity generation assets.

NPS for Renewable Electricity Generation

- 693 The NPS for Renewable Electricity Generation (**NPS-REG**) came into force on 13 May 2011. I note that the Ministry of Business, Innovation and Employment (MBIE) and the Ministry for the Environment (MfE) released a proposed NPS-REG (**Proposed NPS-REG**) in April 2023, with consultation closing in June 2023. However, it is unclear if or when amendments will be made.
- 694 I have reviewed and assessed the proposal in detail against the NPS-REG (and the proposed NPS-REG)below. In my view, the Mt Munro Project is consistent with the objective and many policies of the NPS-REG, as:

- (a) The project will result in the development and operation of a new wind farm, helping New Zealand meet its current target of net-zero emissions by 2050 and creating national, regional and local benefits;²⁴⁰
- (b) The AEE provides information on how the subject site was chosen, which includes the Class 1 wind resource and access to the national grid; and
- (c) Many of the adverse effects created on the environment (such as shadow flicker) will be reversible if the wind farm is decommissioned in future.
- 695 Policy C2 of the NPS-REG relates to residual environmental effects that cannot be avoided, remedied or mitigated, directing decision-makers to have regard to offsetting measures, including those that benefit the local environment and affected communities. Positive effects of the proposal have been considered in paragraphs 232-236 of this report. However, as I have described in this report, the Mt Munro Project contains a number of gaps where, in my opinion, effects have not been mitigated to the extent practicable, resulting in residual environmental effects which have not yet been resolved.

NPS for Highly Productive Land

- 696 The NPS for Highly Productive Land (NPS-HPL) came into force on 17 October 2022. I note the NPS-HPL is currently under review by the MfE but there has been no formal announcement of the timing for any updates.
- 697 I have reviewed and assessed the proposal against the NPS-HPL. In summary:
 - I agree the Mt Munro project should be considered specified infrastructure (as renewable generation activities are recognised as regionally significant in the NPS-REG);

²⁴⁰ NPS-REG objective & policies A-B.

- (b) The Applicant has confirmed the Project has a functional need to be located on Mt Munro. I agree with their assessment, subject to any information emerging through the consent process, as the wind resource at the site is Class I and within relatively close proximity to national grid infrastructure for the transmission of power that is generated. These represent functional requirements for a wind farm to be located in a particular location.
- (c) This means the proposal can be considered under 3.9(2)(j)(i), and is therefore not an inappropriate use provided the tests in clause 3.9(3) are met.
- 698 The tests in clause 3.9(3) relate to ensuring that any use or development on highly productive land minimise or mitigate losses within the district and avoid or otherwise mitigate actual or potential reserve sensitivity effects on land-based primary production.
- 699 Relying on the information the Applicant has provided I note:
 - (a) Land based primary production will continue on the wider project site, including on the other areas of LUC2 and 3 land.²⁴¹
 - (b) The applicant has amended their design (moving the Turbine Exclusion Zone, and shifting the location of the Operational and Maintenance building and associated activities) to reduce impacts on LUC3 land within the site.
 - (c) The overall reduction to highly productive land within Tararua District will be 0.00013%. There is no reduction to highly productive land within Masterton District.
 - (d) The Councils have not yet received independent advice on reverse sensitivity.
- 700 Based on the information received to date, I agree the Mt Munro Project meets the tests under clause 3.9(3) and is therefore consistent with the NPS-

Ref comments from the applicant. This was also confirmed in submission 10, confirming the owner will endeavour to retain the viability of the farm as a sheep and beef unit.

Section 87F Report – Mount Munro Windfarm Application

HPL. However, I note that review of the Applicant's assessment has not been concluded in the time available since receipt of the information. My view may change if a future peer review raises concerns with the information presented, and I will update the parties if that is the case.

Proposed NPS for Natural Hazard Decision-making

- 701 The proposed National Policy Statement for Natural Hazard Decision-Making (proposed NPS-NHD) aims to direct how decision-makers consider natural hazard risk in planning decisions relating to new development under the RMA. The final NPS has not yet been released, meaning the document and its provisions are subject to change.
- 702 I have reviewed the proposal in detail against the proposed NPS-NHD, as this may become a relevant consideration in future.
- 703 The proposed NPS-NHD requires decision-makers to consider the level of natural hazard risk, considering both the likelihood of an event and risk tolerance. In my view, the overall risk level is moderate because the Project Site is approximately 4km away from the active Wairarapa Fault, the Applicant has confirmed some gullies onsite have a high wildfire risk profile (although the majority of the site has a low rural wildfire risk), and there will be more people onsite during construction.
- This risk profile of the site will reduce once construction is completed, as the site is large and sparsely populated, and most infrastructure will be installed a significant distance from the site boundaries.
- 705 The proposed NPS-NHD requires development in moderate risk areas to mitigate these risks, so they are as low as reasonably practicable. Mitigation can be achieved to ensure the Project is consistent with the proposed NPS-NHD through:
 - (a) Building the Mt Munro Project to the appropriate seismic standards;
 - (b) Minimising fire risks through good design and with the right stakeholder input (e.g., FENZ); and

Section 87F Report – Mount Munro Windfarm Application

(c) Ensuring the development does not increase flooding risks for others.

Regional Planning Documents

706 The Horizons Regional Policy Statement, Horizons One Plan, Greater Wellington Regional Policy Statement, and Greater Wellington Natural Resource Plan have been assessed in Part B by Ms Edwards and Mr Pepperell. I agree with and have adopted their assessments.

Tararua District Plan

- 707 I have assessed the application against relevant TDP provisions below.
- 708 I agree with the Applicant that the 2.3.3.1-2 and 2.3.4.1-2 rural objectives and policies are relevant to the Project.

Section 2.3 – Rural Land Use Management

2.3.3.1 (maintain vitality and	Policies 2.3.3.2 (compatibility of
character of the District's rural	activities in a rural setting); 2.3.4.1
areas); 2.3.4.1 (ensure a high level	(avoid, remedy or mitigate actual
of environmental quality and	or potential adverse effects of
amenity throughout the rural	activities within rural areas)
areas)	

- 709 Objective 2.3.3.1 seeks to maintain the vitality and character of the district's rural areas, allowing for activities which require a rural location where effects are compatible with the surrounding area and the environmental results sought for Rural Management Areas. Objective 2.3.4.1 focuses on environmental quality and amenity, seeking to manage effects and to maintain/enhance rural character and amenity levels.
- 710 The Applicant outlined the site selection process in their AEE, showing the Mt Munro Project had an functional need to locate in this rural area.
- 711 The operation of a wind farm will not prevent land-based primary production on the site or in the surrounding area, although construction works will

temporarily restrict this activity on the site. I have also recommended conditions in Appendix 23 that will minimise potential effects on stock, for example through explicit provision for liaison with local farmers for stock crossings within the CTMP.

- 712 I have assessed the effects of the proposal earlier in this report. While many of the Project's actual or potential adverse environmental effects can be avoided, remedied or mitigated through the mitigation proposed and the conditions recommended in Part D (for example via placing conditions on concrete batching and aggregate crushing to manage noise), there are some outstanding matters and gaps which in my opinion, have not been sufficiently assessed, including:
 - (a) The project will have significant (high) adverse visual effects on four properties surrounding the site. The Applicant's LEA recommended mitigation planting on these properties but has not provided evidence on any agreement reached.
 - (b) It is unclear how the Applicant has/will incorporate recommendations from the submitted CVAs, meaning there is not enough information to assess potential cultural effects.
 - (c) Construction traffic noise will have significant adverse effects, and proposed road upgrade works mean the duration and mitigation proposed to manage this noise along Old Coach Road is unclear.
 - (d) Dr Forbes has identified gaps in the freshwater biodiversity assessment. These gaps mean there is uncertainty regarding how the loss of terrestrial vegetation within riparian margins should be managed.
- 713 Mr Hunt considers wind farms to be consistent with the anticipated character of the rural environment. I agree with his view and note that the TDP Rural Management Area explicitly notes that wind farms are a "viable and legitimate land use" within rural areas, but are classified as a discretionary activity to ensure their effects can be fully considered. As such it is my view that the Mt Munro Project is consistent with 2.3.3.1-2 (covering

Section 87F Report – Mount Munro Windfarm Application

activities in rural areas). However, without further information, I am unable to determine the Project's consistency with 2.3.4.1-2 (covering environmental quality and amenity). This is particularly linked to the impact the effects outlined in paragraph X will have on amenity values.

714 The Applicant did not assess objectives and policies under Section 2.5 – Natural Hazards. Given the site is located within 4km of an active fault, and the Applicant's Civil Assessment as well as various submissions considered seismic considerations and earthquakes, I consider these provisions relevant.

Section 2.5 – Natural Hazards

Objectives 2.5.2.1 (reduce risk	Policies 2.5.2.2(b) (reduce risk by
and effects of natural hazards	minimising development intensity in
of people, property and	hazard prone areas and implementing
infrastructure)	mitigation measures)

715 The Project Site may experience natural hazard risks as it is located 4km from an active fault and appears to have experienced landslides in the past.

Section 2.6 – Amenity and Environmenta	al Quality

Objectives 2.6.2.1 (maintain and/or	Policies 2.6.2.2 (managing adverse
enhance amenity values and	effects on amenity values through
environmental quality for present	environmental standards); 2.6.3.2
and future generations); 2.6.3.1	(encourage protection and
(protect heritage resources);	conservation); 2.3.4.2(a)
2.6.4.1 (protects natural features	(identification of outstanding natural

and landscapes, and areas of	features and landscapes); 2.6.4.2(b)
indigenous vegetation and habitats	(identification of significant
of indigenous fauna from	indigenous vegetation and habitats);
inappropriate use and subdivision);	2.6.4.2(c) (protection of these
2.6.6.1 (waterbodies and their	features from inappropriate
margins)	development and use); 2.6.6.2
	(natural character, riparian
	management, public access)

- 716 Based on the information provided by the Applicant, Mr Crampton considers the Project can adequately address these risks through detailed design (as, for example, New Zealand Standard NZS 1170.5:2004 requires comprehensive geotechnical investigation at each turbine site).
- 717 Relying on Mr Crampton's and my own assessment and noting that the overall intensity of development is very low, with turbines located a significant distance from the site boundary, I consider the Project consistent with the objectives and policies of 2.5.2.1-2.
- The Applicant identified objective and policy 2.6.6.1-2, relating to waterbodies and their margins, as relevant the Project. I agree but also consider other amenity and environmental quality provisions applicable, as the Project may affect amenity values and the proposed construction laydown area contains a potential archaeological site.
- 719 I have discussed the Project's adverse effects above. The majority can be satisfactory managed through the conditions recommended in Appendix 23, with some exceptions such as visual effects for specific properties, and the extent of construction traffic noise on Old Coach Road during construction which Mr Lloyd considers significant.
- 720 The TDP notes that adverse effects of an activity vary depending on the character and community expectations within an existing area. While I consider wind farms consistent with rural character, it is clear from submissions they are not supported by many nearby residents. There are also four properties that will experience significant visual effects.

Section 87F Report – Mount Munro Windfarm Application

- 721 The Project Site does not contain any significant heritage resources. Only one potential archaeological site has been identified. This Applicant has confirmed that they will acquire an archaeological authority for this site and I considered that to be appropriate.
- 722 I note the Project lies outside any identified Outstanding Natural Features or Landscape, and I agree with the Applicant's LEA and Mr Hunt's assessment that the effects on features in the wider area are low and insignificant.
- 723 Ms Edwards has assessed potential ecological effects on territorial ecology in paragraphs 189-199 of this report and freshwater ecology in paragraphs 161-173. I agree with her analysis.
- 724 Relying on Ms Edwards, Mr Hunt and Dr Forbes's opinion, I consider some of the Project inconsistent with the above objectives and policies, particularly in relation to the amenity of residents along Old Coach Road during construction, waterbodies and their margins, natural character, and visual effects on specific properties.
- I concur with the Applicant that objectives and policies 2.8.3.1-2 and 2.8.4.1relating to transport and electricity generation from renewable sources, are relevant. I have considered these topics separately given their overall importance to the project.

Section 2.8 – Network Utilities and Infrastructure

Objectives 2.8.3.1 (ensure safe,	Policies 2.8.3.2(h) (avoidance,
efficient and effective operation of	remediation or mitigation of
the transportation network);	adverse effects of transportation
	activities on the environment)

726 Ms Fraser has recommended a range of conditions to ensure the Mt Munro Project can be supported from a transport perspective, including requiring:

Section 87F Report – Mount Munro Windfarm Application

- Heavy vehicles to access roads leading to site access points from SH1,
 thereby reducing effects on local roads and following the roading
 hierarchy referenced by policy 2.8.3.2(a);
- (b) Internal roads, parking, loading and manoeuvring areas are built to acceptable standards through requiring certification of final designs, consistent with policy 2.8.3.2(b); and
- 727 Old Coach Road improvements (widening, sealing, fencing, pedestrian pathway), a Construction Traffic Management Plan, and a comprehensive Road Pavement Surveys, to mitigate adverse effects, and ensure consistency with policy 2.8.3.2(h).While the measures and conditions outlined in paragraph X above ensure the Proposal is consistent with a number of relevant policies, I note Ms Fraser considers there are outstanding transport matters that need to be addressed to ensure effects are sufficiently understood and managed. These outstanding matters mean I am unable to fully determine consistency with the 2.8.3.1-2 transportation objectives and policies.

Section 2.8 – Network Utilities and Infrastructure

2.8.4.1 (recognition of the	2.8.4.2(a) (recognise the local, regional and	
potential of the rural	national benefits to be derived from the	
management area to	development of renewable energy	
provide for renewable	resources, and wind farms, in particular);	
electricity generation and	2.8.4.2(b) (remedy, mitigate or avoid,	
windfarms)	where possible, the actual and potential	
	adverse effects on the environment on wind	
	farms, particularly in respect of amenity	
	values, landscape, ecology, noise and	
	traffic).	

728 The objectives and policies, relating to electricity generation, seek to recognise the potential of the District's Rural Management Area for renewable electricity generation and wind farms by noting the local, regional

and national benefits, and avoiding, remedying, and mitigating adverse effects where possible.

- 729 I agree with the Applicant's assessment of the Project's benefits, as set out in paragraph 232.
- 730 Policy 2.8.4.2(b) seeks to manage effects where possible, specifically highlighting the potential for significant effects associated with amenity values, landscape ecology, noise and traffic. In relation to these matters, I note:
 - (a) Some noise and traffic effects can be appropriately managed through the recommended conditions in Appendix 23. While I consider effects more than minor on some parties particularly those associated with construction noise on Old Coach Road (see detail below), the balance of construction related activities can be appropriately managed.
 - (b) Construction traffic noise will have a significant, more than minor effect along Old Coach Road.
 - (c) Dr Forbes has identified gaps relating to freshwater ecology matters. This could influence the assessment of effects upon natural character and how vegetation in riparian margins need to be managed.
 - (d) The Applicant considers the Project will have more than minor (moderate-high) adverse effects on landscape character for receivers within 2km. Noting that the Project site will cause less than minor (low) adverse effects on Outstanding Natural Features and Landscapes, and Mr Hunt considers the Project consistent with rural character, and the shape of the Turbine Envelope Zone ensures the Turbines will be spaced across the ridgeline, I do not believe further mitigation could be provided.
 - (e) The Applicant also notes the Project will have significant (high) adverse visual effects on 4 properties. They have recommended

Section 87F Report – Mount Munro Windfarm Application

planting to mitigate these effects but have not provided evidence showing how this can be achieved. Without further information, it is unclear to me if/how the Applicant can mitigate these effects.

- 731 Given the outstanding questions relating to construction traffic noise, visual effects and ecology, I am unable to determine consistency with the TDP 2.8.4 objectives and policies for renewable electricity generation.
- 732 The Applicant did not assess objectives and policies under Section 2.9 Waste Management and Hazardous Substances. Given the proposal includes hazardous substances and the potential for the Project to generate construction waste, it is my view that these provisions are relevant.

Section 2.9 – Waste Management and Hazardous Substances

Objectives 2.9.2.1 (minimise the	
amount of waste generated); 2.9.4.2	i
(appropriate use, storage and	
transport of hazardous substances);	(
2.9.5.1 (avoid adverse health or	1
environmental effects as a result of	(
inappropriate activities occurring on	
contaminated sites)	â

Policy	icy 2.9.4.2(a) (minimis			imise
adverse		effects		from
hazardo	us	substa	nces	by
encouraging appropriate				
management); Policy 2.9.5.2(a)				
(encourage site remediation to				
reduce	the	risk	to	an
acceptable level)				

- 733 Ms Newall has assessed the hazardous substances proposed and considers they can be appropriately managed through a Spill Contingency Management Plan, which will address matters such as spill response and storage location and help minimise potential risk. Ms Edward agrees this is necessary and I have incorporated this requirement into the recommended condition set.
- 734 While the Applicant has not conclusively provided information on how they will avoid the super bin area within the Turbine Envelope Zone, Ms Newall has confirmed that as a minimum, an accidental protocol must be in place. Additional requirements to identify exclusion zones have also been proposed

as part of the Site Specific Erosion and Sediment Control framework. Provided these conditions are imposed, it is my view the Project will meet objective 2.9.5.1 and policy 2.9.5.2.

- 735 The Applicant has not included specific measures to minimise the amount of waste generated during construction, however I consider that this matter can be adequately dealt with via a requirement to outline its waste minimisation strategies as part of the development of the CEMP and this has been included in conditions.
- 736 With the imposition of the conditions referenced above, I consider the proposal is generally consistent with Section 2.9 of the TDP.
- 737 I concur with the Applicant that the 2.10.2 objectives and policies relating to Tangata Whenua participation are relevant. I have also assessed the Mt Munro Project against objectives and policies relating to 2.103 Māori Resource Management Values given the Project Site is located within an area of interest of four iwi.

Section 2.10 – Treaty of Waitangi and Māori Resource Management Values

Objectives 2.10.2.1 (take into	Policy 2.10.2.2(a) and 2.10.2.2(b)
account the principles of The Treaty	(encourage the participation of
of Waitangi); 2.10.3.1 (recognises	tangata whenua in planning
and provides for Māori values)	through a positive working
	relationship); 2.10.3.2(a)
	(providing for the relationship of
	tangata whenua and their
	culture and traditions with their
	ancestral lands, water, sites,
	wāhi tapu, and other taonga,
	and have regard to kaitiakitanga)

Section 87F Report – Mount Munro Windfarm Application

- 738 The Applicant has engaged directly with relevant iwi groups. This is evident through the CVAs received from Ngāti Kahungunu ki Tamaki nui a Rua, Rangitāne o Tamaki nui-ā-Rua and Rangitāne o Wairarapa, and a letter from Ngāti Kahungunu ki Wairarapa.
- 739 It is unclear to me however, how some of the issues and recommendations included in the CVAs have been incorporated into the wider Project and the proffered conditions to ensure that the values and aspirations of iwi are recognised and are provided for.
- 740 While the Applicant has engaged the relevant iwi authorities, in my view the Project needs to demonstrate how that engagement has recognised and provided for the relationship of tangata whenua and their culture and traditions to confirm consistency with the relevant objectives and policies of Section 2.10 of the TDP.

Combined Wairarapa District Plans

- 741 The following is an assessment of the proposal against the objectives and policies of the Combined Wairarapa District Plan.
- 742 The Applicant identified the Rur1 objective and associated policies as having relevance to the Project. I agree but also consider the Rur2 objectives and policies relevant, given land-based primary production is proposed to continue on the Project Site.

Chapter 4 – Rural Zone	
Objective Rur1 (Protection of Rural Character & Amenity);	Rur1 Policies (a-e); Rur 2 Policies (a-f)
Objective Rur2 (Provision for	
Primary Production and Other	
Activities)	

743 The Rur1 and Rur2 objectives seek to provide for primary production and other activities in the rural zone, while seeking to maintain and enhance

amenity values, recognise attributes that contribute to rural character, and manage effects.

- 744 I note the WCDP defines rural character as including:
 - (a) Openness and predominance of vegetation;
 - (b) Productive working landscape;
 - (c) Varying forms, scale and separation of structures associated with primary production activities;
 - (d) Ancillary living environment, with an overall low population density; and
 - (e) Self-serviced allotments.
- 745 Mr Hunt has considered the Project and is of the view that it is consistent with the anticipated character of the rural environment, noting (subject to recommended conditions) that the scale of the Project can be readily integrated into the productive rural landscape. I further note that the majority of the Project site will remain open and productive.
- The operative WCDP plan recognises that wind farms will be appropriate in parts of the rural environment, provided effects can be appropriately avoided, remedied or mitigated. The effects of the Proposal have been assessed comprehensively above. The assessment confirms that while many effects of the proposal can be suitably managed, there are some outstanding matters and gaps that need to be resolved (for example, uncertainties around the extent of contamination and use local roads used for haulage activities within Masterton District).
- 747 Notably, the Applicant's LVA considers there will be a high adverse impact on landscape within 2km of the project site, and high visual effects for 4 of the surrounding 36 dwellings (with other dwellings experiencing moderatehigh to low-moderate effects). The scale of the Project means only limited mitigation can be provided.

- 748 While I consider the Project includes attributes that contribute to rural character, it is my view that further information is required on how effects will be managed to confirm consistency with these policies.
- 749 I agree with the Applicant that the TW1 objective and policies are relevant.

Chapter 8 – Tangata Whenua	
Objective TW1 (Recognition of Values & Traditional Relationships)	TW1 Policies (a-c);

- 750 The TW1 objective seeks to recognise and provide for the cultural values and relationship of Tangata Whenua and take account the principles of the Treaty of Waitangi. It is supported by policies to recognise Tangata Whenua values, have particular regarding to the exercise of kaitiakitanga, and protect waahi tapu, site of cultural importance and other taonga.
- 751 The Applicant has engaged directly with Rangitāne o Tamaki nui-ā-Rua, Rangitāne o Wairarapa, Ngāti Kahungunu ki Tamaki nui a Rua and Ngāti Kahungunu ki Wairarapa, submitting two CVAs from three iwi groups, and providing one letter in support of the proposal. This shows the Applicant has taken Tiriti principles into account and sought to understand relevant Tangata Whenua values and the importance of the Project Site and area.
- 752 However, there is uncertainty associated with how the information provided by tangata whenua has been incorporated into the application and proffered condition set. This means I am unable to confirm that Tangata Whenua values have been appropriately recognised as part of the Project.
- 753 The Applicant did not identity Objective Lan1 and its policies as relevant to the Project. In my view these provisions should be considered for completeness as Tararua Forest Park, an Outstanding Natural Landscape, was assessed within the Applicant's LEA.

Chapter 9 – Landscape	
Objective Lan1 (Outstanding Landscape & Natural Features)	Lan1 Policies (b-d, f)

- The Lan1 objective seeks to identify and protect the Wairarapa's outstanding landscapes and natural features from the adverse effects of inappropriate use and development.
- 755 I note the Project site is not located within an Outstanding Natural Feature or Landscape. The only relevant outstanding landscape close to the Project site with Masterton District is Tararua Forest Park, which is approximately 8.7km to the southwest.²⁴²
- 756 In their LEA, the Applicant noted there would be intervisibility between the Tararua Forest Ranges and the site, but considered overall effects to be low as they are well separated, the larger landform of the ranges will remain dominant, and the proposal will not adversely affect any recognised recreation, historic or scenic characteristics.
- 757 I consider the Project is not inconsistent with Objective Lan1 and its supporting policies.
- 758 I agree with the Applicant that the Bio1 objective and policies are relevant.

Chapter 11 – Biodiversity	Indigenous	
Objective Bio1 diversity)	(Biological	Bio Policies (c-e)

²⁴² Tararua Forest Park is contained is listed as an Outstanding Landscape in Appendix 1.1 of the WCDP (and numbered Olm01).

Section 87F Report – Mount Munro Windfarm Application

- 759 The Bio1 objective seeks to maintain and enhance the biological diversity of indigenous species and habitats within the Wairarapa. Supporting policies relate to areas of indigenous vegetation or habitats where there may be significant biodiversity value and support the protection of natural habitats on private land.
- 760 Mr Lambie's evidence considers that the Mt Munro Project avoids any effect on potentially significant areas of terrestrial vegetation or habitat of flora and fauna, and considers the proposal will maintain at a minimum, and likely enhance, biodiversity values on site.
- 761 I also note the majority of vegetation removal will not occur within Masterton District, instead being linked to construction within the turbine exclusion zones in Tararua District. Offsetting for lost natural inland wetlands may occur within either district.
- 762 Given Mr Lambie considers the Project may result in enhanced biodiversity values on the site, I consider the proposal consistent with Objective Bio1.
- 763 The Applicant did not identity Objective NH1 and its policies as relevant to the Project. I have considered these provisions given the site is located within 4km of an active fault, and the Applicant's Civil Assessment as well as various submissions considered seismic matters and the potential for earthquakes.

Chapter 14 – Natural Hazards	
Objective NH1 (Areas at Significant Risk from Natural Hazards)	NH1 Policies (a-f)

764 Objective NH1 and the majority of supporting policies relate to areas subject to significant natural hazard risk. I concur with the Applicant that the site is not subject to significant natural hazard risk, and therefore the bulk of these objectives and policies do not apply.

Section 87F Report – Mount Munro Windfarm Application

- 765 Supporting policy NH1(c) relates to managing new activities to minimise potential adverse effects from natural hazards. Mr Crampton notes earthquake risk can be managed through constructing the Project to appropriate seismic standards, and that this will be an inherent part of the detailed design process.
- 565 Supporting policy NH1(e) relates to managing hazardous substances in areas subject to natural hazards to manage potential adverse effects. Ms Newall has assessed the proposed hazardous substances and recommended the Applicant prepare a Spill Contingency Management Plan to reduce the risk of spills.
- 767 Based on the advice and recommendations from Mr Crampton and Ms Newall, and the requirement for a Spill Management Plan, it is my view that the Project is broadly consistent with policies NH1€ a€(e).
- 768 The Applicant did not identity Objective Haz1 & 2 and its policies as relevant to the Project. I have assessed them as the quantity of hazardous substances triggered the need for resource consents under the WCDP, and contaminated land has been identified within the Turbine Envelope Zone.

Chapter 15 – Hazardous Substances	
Objective Haz1 (Adverse Effects of Hazardous Substances); Objective Haz2 (Contaminated Land)	Haz1 Policies (a-c); Haz2 Policies (a-d);

769 Objective Haz1 seeks to protect the natural and physical environment from adverse effects of hazardous substances, while Haz2 seeks to ensure the adverse effects from redeveloping contaminated land are avoided or remedied.

Section 87F Report – Mount Munro Windfarm Application

- 770 Prior to construction, Ms Newall has agreed a Spill Contingency Management Plan should be developed to minimize and manage the risk of spills from hazardous substances. Once the wind farm is constructed, the Applicant has confirmed that hazardous substances will be appropriately managed to ensure the full volume of substances with the substations will be able to be safety drained. Provided bunding is also provided for transformers located within the turbine envelope zone, I consider the proposal to be consistent with Objective Haz1.
- 771 In relation to Objective Haz2, the Applicant has identified an area of contaminated land within the turbine envelope zone (associated with a super Bin). The Applicant has indicated that construction works will avoid this area. However, Ms Newall considers the surrounding land is likely to be contaminated as well, with spillage known to be common when loading and unloading fertilizer. This means the extent of the potentially contaminated land is unclear. I note that the location of the Super Bin is located in Tararua District, but located close to the boundary with the Masterton District. On current information, this means it is unclear as to whether the potentially contaminated land extends into Masterton District.
- 772 In light of this uncertainty, I consider the Applicant will need to clarify the location of the contaminated soil before consistency with Objective Haz2 can be confirmed.
- I agree with the Applicant that the NUE2 objective and policies are relevant.

Chapter 16 – Network Utilities and Energy	
Objective NUE2 (Energy Generation and Efficiency)	NUE2 Policies (b-f)

774 Objective NUE2 seeks to move the Wairarapa towards a sustainable energy future by encouraging energy efficiency and the generation of energy from

Section 87F Report – Mount Munro Windfarm Application

renewable sources. Polices provide additional direction on how this should be achieved, covering matters such as:

- (a) recognising local, regional and national benefits;
- (b) providing for renewable energy while, as far as practicable, avoiding, remedying or mitigating the adverse effects, particularly of large scale facilities; and
- (c) recognising technical and operational requirements of energy generation and its benefits when setting and implementing appropriate environmental standards to manage effects.
- 775 The significant national benefits of the Project, as well as the regional and local benefits, have been addressed in paragraphs 232-236, covering policy NUE2(b).
- The effects of the Mt Munro Project have been assessed above. Many effects can be avoided, remedied or mitigated to acceptable levels through construction and operation. There are some outstanding matters that need to be addressed, but the most significant relate to matters managed by the Regional Councils (such as freshwater ecology) and to traffic (particularly on Old Coach Road, which is not located in Masterton District). Other gaps in the information supporting the Application also remain in relation to the use of roads in Masterton District (specifically what haulage routes will be used) and how significant adverse visual effects will be managed on specific properties. As a result, I am unable to fully assess the proposal against policy NUE2(d). I am unable to conclude on the actual and potential effects of the Project on cultural values based on my earlier assessment.
- 777 The Applicant provides a summary of the site selection process in their AEE and outlines operational requirements of the activity within information provided on highly productive land. I agree these show a functional need for the site.

- Overall, I consider the Mt Munro Project is largely consistent with Chapter
 15 of the WCDP, but further detail is required to address some effects,
 including those associated with traffic and cultural values
- 779 The Applicant did not identity Objective TT1 and its policies as relevant to the Project. I have assessed these provisions as the Mt Munro Project may use local roads within the Masterton District as haulage routes, particularly Opaki-Kaiparoro Road.

Chapter 17 – Transport	
Objective TT1 (Managing the Road Network)	TT1 Policies (a-g)

- 780 Objective TT1 seeks to maintain the safe and efficient operation and development of the road network from the adverse effects of land use while maintaining the network's ability to service the current and future needs of the Wairarapa. This is achieved through a range of supporting policies, discussed in more detail below.
- Policy TT1(a) relates to establishing and following a road hierarchy within the Wairarapa. While access to the site is primarily from Tararua District, there is the possibility that construction traffic (particularly associated with aggregate) will use Opaki-Kaiparoro Road. The Applicant has confirmed they will not use Opaki-Kaiparoro Road between its intersection with Mt Munro Road and its southern most intersection with SH2, and this will be confirmed through conditions. Ms Fraser has also recommended a condition to prevent heavy vehicles from using the northern section of this road (instead relying to SH2) to preserve the road hierarchy. This has an additional benefit of reducing construction traffic along a local road that incorporates the Tararua Traverse Cycle Ride, consistent with Policy TT1(e).
- The Applicant has also proffered a condition requiring a pavement survey.This has been expanded to ensure consistency with policy TT2(b), by ensuring

heavy vehicle traffic will not adversely impact on the safe and efficient functioning of the road network within Masterton District.

- 783 Relying on Ms Fraser's assessment and when considering the majority of the transport effects are likely to occur within Tararua District, I consider the Project consistent with the relevant provisions in Chapter 17 subject to the mitigation and proposed conditions in Part D.
- 784 I agree with the Applicant that the GAV1 objective and policies are relevant.

Chapter 19 values) – Genera	al amenity	
Objective Amenity Va	GAV1 llues);	(General	GAV1 Policies (a-b, d-h)

- Objective GAV1 seeks to maintain and enhance those general amenity values which make the Wairarapa a pleasant place in which to live and work or visit.
 This objective is supported by a range of policies relating to noise, vibration, lighting, visual effects, dust, odour, and visual effects.
- 786 Policy GAV1(a) relates to temporary activities, which must be under 12 months and comply with construction noise limits to meet the permitted activity standards in the CWDP. The Mt Munro Project does not comply with this standard.
- 787 Policies GAV1(b) and (d) relates to noise and vibration. Mr Lloyd has recommended more restrictive noise controls on aggregate crushing and concrete batching to minimise effects on surrounding sites, and a range of conditions to manage construction and operational noise. With these conditions in place, Mr Lloyd expects noise effects within Masterton District to be acceptable.
- 788 Lighting has been assessed in paragraphs 632-639, and will comply with operative WCDP permitted activity standards. Aviation lighting and associated skyglow has been reduced to the extent practicable by conditions restricting the luminous intensity of Aviation Warning Lights and only the

practical minimum necessary to achieve CAA requirements will be installed. Mr McKensey has also recommended a condition to manage the light colour temperature. I therefore consider the proposal consistent with policies GAV1(e-f).

- 789 The Applicant and Mr Hunt consider the Mt Munro Project will have high (more than minor) visual effects on dwellings within 2km, with adverse effects reducing as you move away from the site, dropping to low (less than minor) 5km away. Policy GAV1(g) applies if the more than minor effect is unacceptable when considered against other policies related to a particular activity or environmental zone. I have noted the following in relation to this matter:
 - (a) The Proposal is not located within, nor will it adversely affect, any Outstanding Natural Feature or Landscape;
 - (b) Wind farms form part of the anticipated character of the rural zone;
 - (c) There is an functional need for the site, which contains dwellings within 2km; and
 - (d) Many effects have already been mitigated to the extent practicable through the conditions recommended in Appendix 23, although there remain gaps that need to be addressed (for example in relation to construction traffic noise).
- 790 The Applicant has suggested mitigation for the 4 dwellings that will experience high (significant, more than minor) visual effects. However, no information has been provided on if/how this mitigation will be provided. In relation to Policy GAV1(h), Mr Curtis considers a robust Dust Management Plan and the temporary sealing of Old Coach Road can appropriately manage adverse dust effects from affecting sensitive activities/receivers.
- 791 Given the gaps associated with the application (particularly in relation to construction traffic noise and visual effects) I consider further information is required before I can determine if the Project will be consistent with Chapter 19.

Section 87F Report – Mount Munro Windfarm Application

Proposed Combined Wairarapa District Plan (2023)

- 792 The Applicant assessed the Project against the Proposed Combined Wairarapa District Plan (**Proposed CWDP**) in RFI#2 Response 1.
- 793 The Applicant notes the Energy chapters says:

The provisions within this chapter apply on a district-wide basis. As such, the rules in the zone and district wide chapters do not apply to renewable electricity generation unless specifically stated within a rule or standard in this chapter. The objectives and policies in district-wide overlay chapters and the objectives, policies and rules of the subdivision chapter apply to renewable electricity generation where applicable.

They have therefore only assessed the Energy chapter of the plan given the site does not have overlays or is being subdivided.

- 794 In my view, this is contrary to how the plan should be interpreted. While the rules may not be applicable, the objectives and policies for most District-Wide Chapters remain relevant. This view is supported by the chapter on How the Plan Works, which confirms all objectives and policies in the District Plan "should be read and achieved in a manner consistent with the [District Wide] strategic objectives", and that other (non overlay) district-wide matters apply generally across the district.
- 795 I have assessed the Mt Munro Project against all the most relevant district wide objectives and policies, as well as the general rural zone. Overall, I consider the proposal is:
 - (a) Consistent with the Ecosystems and Indigenous Biodiversity chapter,
 Natural Hazards chapter, Transport chapter, and Light Chapter
 - (b) Not inconsistent with the Natural Features and Landscape chapter
 - (c) Not consistent with the Contaminated Land chapter

- 796 More information is required to determine consistency with the General Rural Zone, Tangata Whenua chapter, Hazardous Substances chapter, Energy Chapter, and Noise chapter.
- 797 I have also provided a more detailed review of the Energy chapters below given its significance to the Mt Munro Project.

ENG – Energy	
ENG-01 (Benefits of renewable electricity generation); ENG-02 (Adverse Effects of renewable energy generation)	

- 798 I disagree with the Applicant's view that the Project is consistent with the relevant objectives and policies of the Energy Chapter.
- 799 I agree that the Project is consistent with the objectives of the energy chapter. The benefits of the Project have been recognised in paragraphs 232, and the operational or locational constraints noted, while considering how the activity has been designed and located to minimise adverse effects.
- 800 However, it is my view that the Project is not fully consistent with ENG-P4, which requires the appropriate management of a range of matters, including traffic generation, visual effects, safety and noise. The gaps in the Project (for example relating to the duration and mitigation of construction traffic noise, or the mitigation of significant adverse effects) require additional information to determine the scale of effect, and how/if it can be mitigated.

Summary of objectives and policies analysis under the District Plans

801 In general terms I agree, subject to recommendations arising from review of the Application by Councils technical experts and my analysis of the District Plan framework, that the Mt Munro Project is consistent with many of the objectives and policies in the TDP, the CWDP and proposed CWDP. The exceptions include objectives and policies regarding tangata whenua values, general amenity (associated with the construction phase and presence of turbines to nearby residences), network utilities (specifically the transportation network), contaminated land and hazardous facilities management where, on the information in the application and/or provided through submissions, and pending further information being sought or work underway, there is insufficient information to reach a conclusion as to whether the provisions are met.

802 I anticipate being able to revisit this opinion once further information and clarification is provided by the technical experts.

Other matters [the consent authority] consider relevant

803 I consider the Climate Change Response Act 2002, the Emissions Reduction Plan, and iwi management plans relevant to the Project and have assessed these below.

Climate Change Response Act

- 804 The Climate Change Response Act 2002 (CCRA) puts in place a legal framework to enable New Zealand to meet its international obligations under the United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement.
- 805 The purpose of the CCRA reflects the need for New Zealand to meet these international obligations, and provides for a greenhouse gas emissions trading scheme and levies, both on specified synthetic greenhouse gases in motor vehicles and other goods. CCRA section 5Q sets out a net zero carbon target for emissions by 2050, while Section 5X specifies that emissions budgets must be set and met to meet these targets. A key implementation method for meeting these targets is emission reduction plans (required by Section 5ZG) which set out the relevant plans and strategies for achieving the relevant emissions budget (noting the current Emissions Reduction Plan is assessed below).
- The Project is broadly consistent Section 3(1)(aa)(i) of the CCRA's purpose:to contribute to the global effect under the Paris Agreement to limit the

global average temperature increase to 1.5oC Celsius above pre-industrial levels. This is because the proposal will increase renewable energy generation within the New Zealand, helping the country reduce reliance on fossil fuels. I therefore consider the Project consistent with the outcomes sought by the CCRA.

Emissions Reduction Plan

- 807 The Emissions Reduction Plan (ERP) is a statutory plan released under the Climate Change Response Act. The plan sets the direction for climate action for the next 15 years, laying out targets and the actions required to meet them. The plan includes sections on supporting climate action across the whole economy and within key sectors and industries. This notes that New Zealand needs to phase out fossil fuels and massively ramp up renewables in a range of industries, including electricity generation.
- 808 The most relevant chapter is on "Energy and Industry" that notes New Zealand's long term vision is to have a highly renewable, sustainable and efficient energy system by 2050. Benefits of decarbonising the energy sector include reducing reliance on goal fossil fuel markets, reducing costs through energy efficiency and clean technology, and creating high-wage job opportunities. However, the ERP notes that New Zealand will need 70% more renewable energy to electricity process heat and transport, and decarbonise the economy. This requires accelerating development of new renewable electricity generation across the economy. Most actions in the plan relate to matters that governments can control (for example, setting action plans to decarbonise industry, and setting targets for the wider energy system). However, the chapter notes achieving the vision set out in this chapter is ultimately dependent on the actions of the private sector - including electricity generators who will build/expand renewable electricity generation.
- 809 Given this Project will construct a new wind farm and help achieve government energy targets, it will help give effect to the current Emissions Reduction Plan.

Section 87F Report – Mount Munro Windfarm Application

Te Tapere Nui-o-Whāonga: Cultural and Environmental Management Plan

- 810 Te Tapere Nui-o-Whāonga: Cultural and Environmental Management Plan (**Te Tapere Nui-o-Whāonga**) is intended to document and articulate the cultural values, principles and associations of Rangitāne o Tamaki nui-ā-Rua with the natural world, but is not intended to be a replacement for direct engagement.
- 811 I have reviewed Te Tapere Nui-o-Whāonga for context given the uncertainty regarding cultural effects associated with the Project.
- 812 The plan covers a range of topics, including wind farms. Te Tapere Nui-o-Whāonga notes Rangitāne "accept the importance of wind farms in reducing Aotearoa's reliance on fossil fuels. However, the development and operation of wind farms should not adversely impact on te taiao, including through loss of habitat, bird strike, earthworks and subsequent impacts on soil erosion and waterways, and on sites of significance such as Te Ahu a Turanga."
- 813 Issues such as habitat loss, bird strike, earthworks, soil erosion and waterways are being considered throughout this process, particularly in Part B of this report. However, I note there are gaps relating to these matters, particularly in relation to freshwater ecology. I recommend the Applicant speaks to Rangitāne o Tamaki nui-ā-Rua directly about these aspects of the Project.

Part 2 Assessment: Section 5-8

814 Section 104 is subject to Part 2. I have provided a summary of my views in relation to Part 2 below, in the event it is required.

Section 5 – Purpose

815 Section 5 identifies that the purpose of the RMA is to promote the sustainable management of natural and physical resources.²⁴³

²⁴³ This means enabling people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety through using and developing these resources while sustaining the potential of natural and physical resources to meet the

Section 87F Report – Mount Munro Windfarm Application

- The actual and potential effects on the environment of the Project have been addressed in detail in the evidence of the technical experts and summarised in my planning evidence and that of Ms Edwards and Mr Pepperell (with respect to regional consenting matters).
- 817 I agree with Meridian's assessment as to the social, economic, and cultural benefits of electricity, which is to be generated as a result of the Mt Munro Project and I acknowledge that the broader legislative and policy framework is supportive of renewable energy. Based on the evidence of the technical experts however I am of the view that many of the potential adverse amenity related effects generated by the Project, particularly during the construction phase, remain uncertain and require further response from the Applicant.
- 818 While I have recommended conditions to avoid, remedy and mitigate adverse effects, based on the gaps highlighted earlier in this report, I consider further information is required to better understand the nature of some effects and confirm mitigation and therefore determine if the application can successfully achieve the purpose of the Act.

Section 6 – Matters of National Importance

819 Section 6 of the RMA identifies matters of national importance which shall be recognised and provided for. I consider the following to be relevant:

> 6(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;

> 6(e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;

> 6(f) the protection of historic heritage from inappropriate subdivision, use, and development;

reasonably foreseeable needs of future generations, safeguarding the life-supporting capacity of the environment, and avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Section 87F Report – Mount Munro Windfarm Application

- 820 As indicated, there are no identified significant natural areas within either district. Mr Lambie has recommended that indigenous vegetation and habitats of indigenous fauna are avoided.
- 821 The Applicant has engaged with Rangitāne o Wairarapa, Rangitāne o Tāmaki nui-ā-Rua, Ngāti Kahungunu ki Wairarapa, and Ngāti Kahungunu ki Tāmaki nui-ā-Rua. I consider the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga has therefore been recognised in the application. A number of issues and recommendations have been made by iwi through the provision of CVA's and at the time of writing this report it is unclear whether these have been resolved. I discuss this further below under s 8 matters. As a consequence, I am unable to reach a view as to whether Meridian has recognised and provided for the matters set out in sections 6(e).
- 822 Analysis of the Project in respect of historic heritage indicates that archaeological values within the Project extent are low. I consider the proposal adequately provides for the protection of historic heritage through the proposed development of an accidental discovery protocol and nominated approach to seek a general Archaeological Authority from HNZPT in relation to a potential archaeological site within the proposed construction laydown area.

Section 7 – Other Matters

823 Section 7 identifies other matters to which regard shall be had under the RMA. I consider the following other matters to be relevant:

7(a) kaitiakitanga;

7(aa) the ethic of stewardship;

7(b) the efficient use and development of natural and physical resources;

7(c) the maintenance and enhancement of amenity values;

7(f) maintenance and enhancement of the quality of the environment:

Section 87F Report – Mount Munro Windfarm Application

7(j) the benefits to be derived from the use and development of renewable energy

- The application has not described how the continuing involvement of iwi will be provided for, and how the Project provides for kaitiakitanga. I discuss this further below under Section 8 matters. Further information from the Applicant and/or iwi is required on these matters.
- 825 With respect to section 7(b), the proposed works specifically relate to the efficient use and development of a natural resource (being the Class 1 wind resource), while also maintaining the underlying lands productive rural land use. The project results in a very small loss (0.0013%) of the districts LUC Class 3 land resource.
- 826 There are a number of amenity and associated environmental effects associated with the construction phase of the Project which have been considered. These include construction noise associated with the upgrade of Old Coach Road, construction noise generally for residents of Old Coach Road (for the duration of the Project); the visual effects of the project, particularly on residents <2km from Mt Munro and on 4 properties that retain a high or significant level of adverse effect in terms of visual amenity; general dust and nuisance air discharges. While mitigation has been proposed by the Applicant, Council's technical advisors and through proposed conditions of consent, I am of the opinion some gaps with respect to the Projects impact on amenity values remain (particularly the extent / duration of the construction activity for residents on Old Coach Road and general maintenance of the environment, including the local roading network). As a consequence, I am unable to reach a view as to whether Meridian has recognised and had regard to the matters set out in sections 7(c) and (f).
- 827 I consider the Project is aligned to and has had particular regard to the benefits from the use and development of renewable energy (section 7(j)).

Section 8 – Treaty of Waitangi

828 Section 8 of the RMA requires all persons exercising functions and powers under the RMA to take into account the principles of the Treaty of Waitangi.

- 829 The proposal is within the rohe of Rangitāne o Tamaki nui-ā-Rua (ROTNAR), Rangitāne o Wairarapa (ROW), Ngāti Kahungunu ki Tamaki nui ā Rua (NKKTNAR) and Ngāti Kahungunu ki Wairarapa (NKKW). NKKW expressed to the Applicant that they were satisfied with the plans for the proposed wind farm on Mt Munro.
- 830 CVA's were provided to the Applicant from ROW and ROTNR, and from NKKTNAR. These contained a number of issues and recommendations. The Applicant has stated that they have either worked with the recommendations or intend to continue to work on them with iwi. There have not been any updates provided as to how this has progressed.
- 831 Without further information as to how the recommendations and issues raised in the CVA's have been addressed and subject to any views of tangata whenua through this process, I am presently unable to reach a view from a planning perspective as to whether the principles of Te Tiriti o Waitangi have been integrated into the Mt Munro Project in design (including mitigation) and/or implementation.

Conclusion to assessment of application

832 While the Project does find strong support at a national, reginal and district policy level, based on the preceding assessment, I am unable to confirm that the Project is entirely consistent with the statutory framework, including Part 2 of the Act.

FF. LAPSE DATE

833 The Applicant requested a 10-year lapse date for all district consents, rather than the standard 5 years. The AEE²⁴⁴ stated the longer lapse period would *"provide* sufficient *flexibility for full implementation of the proposed activity"*, with RFI#2 Response 1²⁴⁵ explaining this would allow Meridian *"a pipeline of potential generation activities to respond to the changing demand in New Zealand's electricity supply."*

²⁴⁴ AEE, Section 2.4.19, page 36.

²⁴⁵ Second section 19 response, dated 31/01/2024, question 27, page 11.

Section 87F Report – Mount Munro Windfarm Application

- 834 I note the Applicant confirmed in RFI#1 Response 1²⁴⁶ that construction will take less than three years, allowing them to construct the wind farm within the standard 5-year lapse period. If the proposal takes longer than 5 years, an application can be made under section 125 of the RMA to extend this date if specified criteria are met.
- 835 Some submissions discussed the stress the resource consent process has caused members of the community to date, and paragraphs X-X of this report outline the potential adverse effects from construction. I consider extending the lapse date, and therefore providing more uncertainty regarding when construction will occur and how long it will take, will unnecessarily exacerbate these effects.
- 836 However, I accept the Applicant has a detailed design to complete before construction and there seems to be the possibility for the construction programme to be extended (for example if winter works authorisations are not received or more significant upgrade works are required). These matters may need to be considered further through this process, which may change my current view that the most appropriate lapse date for all consents is 5 years.

GG. CONCLUSION

837 This report has analysed the relevant sections of 104 of the RMA as required under section 87F. Conditions are recommended pursuant to sections 108 and 108AA below. This analysis includes the individual section 87F expert reports, which have been relied on in preparing my report, and are annexed to this report.

Damien Ryan McGahan

15 March 2025

Section 87F Report – Mount Munro Windfarm Application

²⁴⁶ First section 92 response, dated 7 September 2023, questions 44-45, page 11.

Part D: Conditions

- A suite of conditions relating to all applications were suggested in the application.²⁴⁷ Additional conditions were offered in subsequent responses or further information, specifically RF#1 Response 1 (received 7 September 2023), RFI#1 Clarification Response (received 25 October 2023) and RFI#2 Response 3 (received 23 February 2023).
- 839 While we have incorporated the majority of these conditions as the base of the recommended condition suite, we have in a number of cases reworked some of them as a result of technical assessment and for structural and / or clarity reasons.
- 840 With that said, it is important to note that due to the complexity of the Application, an assessed lack of information with respect to the actual and potential effects of the Project (in several areas) and the nature of submissions raised we have recommended a much extended and comprehensive suite of conditions.
- 841 In summary, the recommended conditions propose:
 - (a) a Logical topic or themed based structure;
 - (b) A clear management plan structure, management plan objectives and definition of what the management plans are required to include, and an associated management plan certification process;
 - (c) Conditions which set bottom lines, for actual and potential effects which are both well understood and for those actual and potential effects where technical advisors and planners consider there are gaps in assessment. Specific areas of focus for the recommended conditions have included:
 - i. Freshwater ecological values;

Section 87F Report – Mount Munro Windfarm Application

²⁴⁷ Assessment of Environmental Effects on behalf of Meridian Energy Limited, May 2023, prepared by Incite, Section 8, pages 126-143.

- ii. Consideration of cultural values on any ongoing interactions with relevant Iwi;
- iii. Earthworks and geotechnical stability during construction;
- iv. Landscape character and visual effects close to the Project Site;
- v. Effects on the transportation network during construction;
- vi. Construction noise associated with road upgrades (particularly along Old Coach Road);
- vii. Construction traffic noise generally for the residents of Old Coach Road;
- viii. General dust and nuisance air discharges associated with earthworks, but also activities including the Concrete Batching Plan and the Mobile Aggregate Crushing Plant.
- 842 Additional inclusions such as a conditions schedule glossary and common terms and abbreviations have been recommended.
- Taking into account the submissions, the expert section 87F reports prepared by the Council's technical advisors and based on our own experience in the development of conditions we have recommended conditions that we consider are important to ensure that any actual and potential effects of the Project can either be avoided, remedied or mitigated to an acceptable level or offset where there are residual adverse effects.
- As there are some outstanding matters where further information is required on the matters raised by Councils technical s87F reports, amended or additional conditions may be recommended on behalf of the Councils. Further, it is anticipated that some refinement of the wording of the recommended conditions is likely as this process continues.

Damien Ryan McGahan

Lauren Edwards

Joshua Pepperell

15 March 2024

Section 87F Report – Mount Munro Windfarm Application