

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 SARAH NEWALL – SITE CONTAMINATION

**MANAWATŪ-WHANGANUI REGIONAL COUNCIL, GREATER WELLINGTON
REGIONAL COUNCIL, TARARUA DISTRICT COUNCIL AND MASTERTON DISTRICT
COUNCIL**

15 March 2024

TABLE OF CONTENTS

| | | |
|----|---|----|
| A. | OUTLINE OF REPORT | 3 |
| B. | QUALIFICATIONS / EXPERIENCE | 3 |
| C. | CODE OF CONDUCT | 5 |
| D. | EXECUTIVE SUMMARY | 5 |
| E. | SCOPE OF REPORT | 6 |
| F. | BACKGROUND | 7 |
| G. | REVIEW OF APPLICATION | 8 |
| | Project and setting..... | 8 |
| | How contaminated land matters were addressed in the Application ... | 8 |
| | Site visit..... | 10 |
| | Preliminary Site Investigation..... | 11 |
| | Discharges of contaminants during construction..... | 16 |
| H. | CREATION OF HAIL SITES..... | 18 |
| I. | SUBMISSIONS | 18 |
| J. | CONDITIONS | 19 |

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 and improvement of a new wind farm on Mount Munro, located approximately 5km south of Eketāhuna. The project is known as the Mt Munro windfarm project (the **Mt Munro Project or Project**).
- 3 In this report I address contaminated land matters in relation to the resource consent applications lodged with Horizons and GWRC (the **Regional Councils**) and TDC and MDC (the **District Councils**).
- 4 While this report is pursuant to section 87F of the RMA, I have in accordance with section 42A(1A) and (1B) attempted to minimise the repetition of information included in the application and where I have considered it appropriate, adopt that information.

B. QUALIFICATIONS / EXPERIENCE

- 5 My name is Sarah Helen Newall. I am a Site Contamination Specialist with and Director of HAIL Environmental Limited. I have been with HAIL Environmental since February 2021.
- 6 I hold a Bachelor of Science with Honours (Geology) from Victoria University of Wellington and am certified through the Environmental Institute of Australia and New Zealand (EIANZ) Certified Environmental Practitioner scheme (CEnvP). I am a member of the Waste Management Institute of New Zealand (WasteMINZ) and the Australasian Land and Groundwater Association (ALGA).

- 7 I have over 16 years' experience in the New Zealand contaminated land industry. Throughout that time, I have worked for clients across a broad range of industries and disciplines, including but not limited to the oil industry, local and central government, defence, horizontal infrastructure and private developers.
- 8 I regularly advise on the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (the **NES-CS**), including obtaining and administering NES-CS consents over large sites and corridors and the preparation and oversight of management plans. This has come from previous work with Transmission Gully and the Hamilton section of the Waikato Expressway, and also with the New Zealand Defence Force (**NZDF**), where I led a project to obtain site-wide NES-CS consents for both RNZAF Base Ōhakea and Linton Military Camp. These sites also hold site-wide earthworks consents from Horizons and I continue to provide site contamination advice to NZDF in the context of these and the NES-CS consents.
- 9 Before entering the contaminated land industry, I was a compliance officer with Hawke's Bay Regional Council from 2004 to 2007. Part of my role with HAIL Environmental is providing regional, city and district councils with technical peer-review of site contamination matters associated with resource consent applications and compliance. I currently provide this service to Hawke's Bay Regional Council, Horizons, GWRC, Palmerston North and Napier City Councils, TDC, and Kapiti Coast, Horowhenua, Central Hawke's Bay, and Hauraki District Councils.
- 10 Most recently I have advised Horizons, GWRC, Horowhenua District Council and Kapiti Coast District Council on contaminated land matters associated with the proposed Ōtaki to North Levin Expressway, which involved producing a combined s87F/198D report, and evidence.
- 11 I am familiar with site and surrounding area. I visited the site along with other experts of the Regional Councils and District Councils on 21 June 2023. I have

also driven State Highway 2 between Hawke’s Bay and Wairarapa countless times.

C. CODE OF CONDUCT

12 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. I confirm that I have stated the reasons for the opinions I express in this report, and considered all the material facts I am aware of that might alter or detract from those opinions.

13 Statements expressed in this report are made within the scope of my expertise.

14 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.

D. EXECUTIVE SUMMARY

15 The key conclusions of my report include:

- (a) No consents (either district or regional) that may be required to regulate works on contaminated land as part of the Mt Munro Project have been included in the Application.
- (b) Mostly, I agree that they are not necessary. However, in my opinion, in one area of the site where earthworks may occur (the ‘super bin’ area) there is insufficient information to confirm that neither the NES-CS nor relevant contaminated land rules in the Horizons One Plan (**One Plan**) apply. As it currently stands, I cannot determine that a consent is not required for earthworks in that area.
- (c) Therefore, I recommend that a Detailed Site Investigation (**DSI**) be undertaken for the ‘super bin’ area. The findings of the DSI will inform ongoing NES-CS applicability, as well as the applicability (or not) of the relevant contaminated land rules in the One Plan.

- (d) The construction and operation of the windfarm will involve the use and storage of various hazardous substances, including bulk fuel. Based on the information provided in the Application, construction and operational phase discharges of contaminants (should they occur), should be appropriately managed through the implementation of management plans, conditions for which have been both proffered by Meridian, and proposed by the Councils.
- (e) In my opinion, the key concerns related to contaminants raised in submissions should be able to be mitigated through the implementation of the management plans proposed in this case.

E. SCOPE OF REPORT

16 My report focuses only on issues related to site contamination. It covers the following topics:

- (a) Meridian's proposed approach to addressing contaminated land matters associated with the Mt Munro Project;
- (b) The adequacy of the contaminated land technical assessment, and the additional information provided as part of the wider s 92 request for further information; and
- (c) The adequacy and completeness of the conclusions and recommendations in the Preliminary Site Investigation (**PSI**) in relation to identification and management of potentially contaminated land.

17 I have reviewed and relied on the information provided by:

- (a) Mt Munro Wind Farm, Resource Consent Application, Meridian, May 2023 (the **Application**) including the proffered conditions (**draft conditions**) and Assessment of Environmental Effects (**AEE**)
- (b) Observations during site visit on 21 June 2023 (**site visit**);

- (c) Preliminary Site Investigation – Mount Munro Proposed Windfarm. Tonkin + Taylor, 7 September 2023 (**the PSI**, provided as Appendix 16 to **RFI#1 Response 1**); and
- (d) Clarification of Meridian’s Response to the Mt Munro Proposed Windfarm Resource Consent Application Section 92 Additional Information Request dated 20 September 2023 (**RFI#1 Clarification request**) - Incite Resource and Environmental Management, 25 October 2023 (**RFI#1 Clarification Response**).
- (e) Response to 20 December 2023 Section 92 Additional Information Request (**RFI#2**) – Incite Resource and Environmental Management, 31 January 2024 (**RFI#2 Response 1**).

18 In preparing this report, I have also reviewed the section 87F report of Mr Kerry Pearce on Erosion and Sediment Control matters.

F. BACKGROUND

19 District and Regional Councils have different regulatory functions and instruments with respect to site contamination matters.

20 District Councils, whose role relates to the human health effects arising from site contamination, regulate specific activities on contaminated land to protect human health via the NES-CS. The activities regulated by the NES-CS include, but are not limited to, disturbing (and disposing of) soil and changing land use.

21 The NES-CS applies when one or more of the specific activities is proposed on a ‘piece of land’, and where that ‘piece of land’ is being, has been, or is more likely than not to have been, used for activities or industries featuring on the Ministry for the Environment (**MfE**) Hazardous Activities and Industries List (**HAIL**).¹

22 Regional Councils are concerned with the environmental effects arising from discharges of contaminants, and regulate these effects through rules in

¹ NES-CS, Regulations 5(1) to 5(7).

regional plans. For the Mt Munro Project, relevant rules may include, but may not be limited to, rules R51, R81, R82 and R83 of the Natural Resources Plan (**NRP**), and relevant One Plan rules may include, but may not be limited to rules 14-24 through 14-28.

- 23 Both District Council and Regional Council roles with respect to site contamination are addressed in this report.

G. REVIEW OF APPLICATION

Project and setting

- 24 The concept and features of the proposed Mt Munro Project are comprehensively explained in the Application. The current land-use setting is also well described, Specifically, I refer to sections 1.2, 2.3 and 2.4 of the AEE. I adopt these descriptions and do not repeat them here.

How contaminated land matters were addressed in the Application

- 25 Contaminated land is referenced in two places in the Application.
- 26 Firstly, Section 3 'Planning Framework' states the following:

Lastly, consideration was given to [the NES-CS]. The NES-CS provides regulations for the disturbance of land that has had an activity identified in the Ministry for the Environment Hazardous Activities and Industries List (**HAIL**) undertaken on it. The Horizons Regional Council, Greater Wellington Regional Council and Tararua District Council hold databases identifying land where HAIL activities have been undertaken. None of the land included in this application has been identified as having had HAIL activities undertaken on it.

- 27 Secondly, Section 5.14 'Contaminated Land' states the following with my emphasis added:

As has been stated, the subject site is not identified as contaminated or potentially contaminated on any Council held database. However, **the HAIL activities include some aspects of**

pastoral farming such as livestock dips. As such, there is potential that during works contaminated land may be discovered.

In such an event, works will immediately cease in the affected area, the area will be isolated and a contaminated land specialist will be contacted to assess the unexpected contamination, delineate its extent and advise a suitable management or remediation approach for implementation.

- 28 Contaminated land was otherwise not mentioned in the Application, and consents under the NES-CS and/or contaminated land rules in the NRP and One Plan were not applied for, as Meridian did not consider them to be required. In this regard, I note that there was no specialist contaminated land assessment, such as a PSI, included with the Application.
- 29 I understand that Meridian used council records as the sole source of information regarding HAIL land uses/contaminated land matters. This approach was confirmed to me by Lynley Fletcher, Environmental Manager for Meridian, during the site visit.
- 30 In my experience there are limitations with such an approach. It is widely accepted in the contaminated land industry (and by the councils themselves) that council databases – which go by various names including ‘selected land use register’ (**SLUR**) in the case of GWRC, and ‘sites associated with hazardous substances (**SAHS**) in the case of Horizons – are rarely complete or exhaustive and should not be relied upon as the sole source or main line of evidence when undertaking site contamination assessments. This is particularly the case for rural sites, in my experience.
- 31 While the Application indicates that the Mt Munro Project site contains no HAIL land, the bolded text I set out in paragraph 27 (livestock dips) appears to be an acknowledgement from Meridian that there actually are HAIL land uses within the site.
- 32 If contaminated areas are encountered during works, Meridian proposes to address them as ‘unexpected discoveries’, with the requirement for a

procedure included as part of the proffered regional council conditions (9.g.viii).² There is no equivalent proffered district council condition.

33 I agree that having an unexpected discovery procedure is important and I consider it to be standard practice for large-scale earthworks projects such as the Mt Munro Project. I would expect the unexpected discovery procedure to apply to both regional and district council conditions.

34 However, in my view, an unexpected discovery procedure is not a substitute for identifying HAIL areas through site investigations. Rather, a procedure should be in place to address the sites/areas that realistically cannot be identified through an investigation, such as historic small-scale farm tips, which may not have a surface expression or be visible on aerial photographs.

Site visit

35 During the site visit on 21 June 2023, I observed the following potential HAIL activities or land uses at the Mt Munro Project site:

- (a) A 'super bin' on the main ridge: potential HAIL category A6 'fertiliser manufacture and bulk storage';
- (b) A sheep dip/spray unit adjacent to the proposed access road off Old Coach Road: potential HAIL category A8 'livestock dip or spray race operations';
- (c) Cropping land at the proposed laydown area off Old Coach Road: potential HAIL category A10 'persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds'; and
- (d) What appeared to be disused underground fuel storage tanks (UST), one had been converted to a water tank at the super bin site; another was sitting on a grassed area near the sheep dip/spray unit and its current use, if any, is unknown.

² Section 8.2, AEE.

36 I note that there may have been other potential HAIL activities or land uses in areas of the site that were not visited.

37 Based on my observations during the site visit, and Meridian's acknowledgement that there may be HAIL land uses within the Mt Munro project site, I recommended that Meridian be requested to undertake a PSI, and any additional assessment as recommended by the investigation.

38 The final wording of the Councils' request, as included in RFI#1 dated 6 July 2023 , was as follows:

...please have a PSI, and any subsequent assessment recommended by the PSI, undertaken by a suitably qualified and experienced practitioner (SQEP) in accordance with Ministry for the Environment (MfE) Contaminated Land Management Guideline (CLMG) Nos 5 'Site investigation and analysis of soils' and 1 'Reporting on contaminated sites in New Zealand', both revised 2021. As well as the site area, the PSI should also consider adjacent activities or land uses that may have had or be having an effect on the site. The findings of the PSI, and any subsequent assessment recommended by the PSI, will allow you to determine additional consenting requirements under the [NES-CS] and/or the regional plans.

Preliminary Site Investigation

39 The PSI was completed by Tonkin + Taylor Limited (T+T). It appeared to be in general accordance with CLMGs 1 and 5 and I consider the signatory to be a suitably qualified and experienced person.

40 The PSI identified the same potential HAIL uses as I did during the site visit.³ In addition, the PSI identified a further fuel tank. However, as it will be well outside the proposed works area and will remain in its current use, it is not considered relevant and is not discussed further.

³ At paragraph 35 above.

- 41 I adopt the findings of the PSI relating to the identification, risk assessment and regulatory requirements associated with the HAIL uses, with the exception of the 'super bin'.
- 42 For context, bulk storage of fertiliser is considered a HAIL use due to elevated levels of cadmium in some source rock used to make superphosphate fertilisers. Further, before it was banned, DDT, which was used to control grass grub, was commonly blended with superphosphate fertilisers, to achieve wide-spread application.
- 43 Super bins are generally located adjacent to air strips used for aerial top-dressing. Fertiliser is brought to site and placed in the bin, either in bags or in bulk (un-packaged). It is mechanically transferred (using a tractor with front-end-loader, or similar) to the loader (which typically comprises a hopper, conveyor belt and discharge funnel) and loaded into the aircraft. As there are several parts to the process and mobile mechanical plant is involved, there are several opportunities for spillage and tracking of fertiliser to occur. In addition, fertiliser that inadvertently became damp was rendered unusable as it would no longer flow. I am aware of instances where waste fertiliser has been dumped near super bins. Therefore, it is not only the footprint of the super bin structure that should be considered HAIL, but (until proven otherwise) the surrounding area(s) where unloading/transfer/loading and vehicle movements occur(ed) should be as well.
- 44 The PSI assessed the 'super bin' as a potential source of contamination, and that contamination may exist in its surrounding soils. However, the PSI also stated, with my emphasis added, that *"the proposed development will not result in disturbance of soils **in this area**"*.
- 45 The plans provided in the Application⁴ show the super bin within the 'turbine envelope zone',⁵ with an access track quite nearby. The drawings are at a

⁴ Appendix A: Civil Design Plan Set.

⁵ The turbine envelope zone is where the turbines must be located. Supporting infrastructure can be located in the turbine envelope zone, or the turbine exclusion zone.

large scale, so it is not possible to interpret the actual location of the access track in relation to the super bin (and therefore *vice versa*).

- 46 The PSI does not assess, delineate or define the 'area' potentially impacted by contaminants associated with the super bin (that is, the 'piece of land' in the context of the NES-CS), with only an indicative location of the access track provided. I am therefore not comfortable with the inference in the PSI that no contaminated soil would be disturbed, and that the NES-CS (and potentially regional council rules) would not apply.
- 47 Put simply, Meridian does not know the extent of 'the area', if any, it needs to avoid. Without understanding the 'area' to avoid, the undertaking within the PSI (and subsequent communications) by Meridian to not disturb the 'super bin' area⁶ was not, in my view, sufficient to affirm that the NES-CS and/or relevant rules of the NRP and/or One Plan do not apply.⁷
- 48 Further information was sought from Meridian in the RFI#1 Clarification request:

8. Please confirm whether you consider the following resource consent requirements are triggered:

g. National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 Regulation 11 - on the basis that there will disturbance of soil on a relevant piece of land, for a duration longer than allowed for within the Regulation 8 Permitted Activity standard, and without a DSI provided (to meet Regulation 9 or 10) – noting that earthworks will occur in locations identified as HAIL sites (e.g., by the 'super bin' that contained fertiliser) in the submitted PSI. The PSI says no earthworks will occur, but the submitted Fill Disposal Area Plan & other proposal documents suggest otherwise.

⁶ Section 2.2, Preliminary Site Investigation, Tonkin + Taylor, September 2023, page 5.

⁷ Section 6.2.1, Preliminary Site Investigation, Tonkin + Taylor, September 2023, page 17

49 The RFI#1 Clarification response C stated, with my emphasis added:⁸

While the 'super bin' is located within the Turbine Envelope Zone, the earthworks are proposed to be managed within this zone so that this **area** is avoided. The fill plan included in Appendix 1 has been updated to show no earthworks in the 'super bin' area.

50 The updated fill plan contained in Appendix 1 to the RFI #1 Clarification response is still at a large scale and the location of the super bin is not marked. However, my interpretation of the plan, which I have magnified in Figure 1 below (my addition shown by the yellow circle below) is that there will be a 'cut batter slope' (shown in red beneath the tip of the yellow arrow) immediately adjacent to the super bin structure.

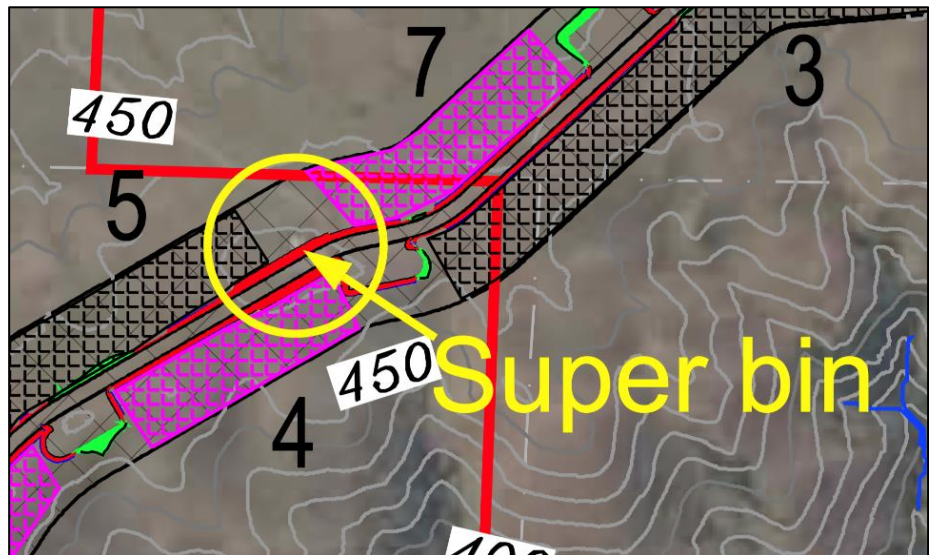


Figure 1: Potential 'cut batter slope' on Updated Fill Plan

51 Further clarification of the location of the 'super bin' in relation to earthworks was sought in RFI#2:

2. Please provide a plan showing the location of the 'super bin' identified in the PSI within the turbine envelope zone and confirm that earthworks (for example, associated with internal roads) avoid this area.

⁸ RFI#1 Clarification response at page 6.

52 The plan provided in RFI#2 Response 1 (see Figure 1 produced below) did not offer any further context regarding earthworks location relative to the super bin. It simply reiterated previous advice.



Figure 1: Image showing turbine envelope zone (blue lines and hashed area) in relation to the 'super bin' area

As stated in the response to the Section 92 Additional Information Request dated 25 October 2023, while the 'super bin' is located within the Turbine Envelope Zone, the earthworks are proposed to be managed within this zone so that this area is avoided. Part of the purpose of the envelope approach is that when areas are constrained or need to be avoided, such as the 'super bin' area, there is scope to do so.

53 As a consequence, in my opinion the following matters have not been satisfactorily resolved through the RFI process:

- (a) Whether a 'piece of land' associated with the 'super bin' exists and if so, what area it covers;
- (b) Whether the 'piece of land', if one exists, will be intersected by earthworks associated with the access track, and if so; and
- (c) Whether the NES-CS and/or relevant discharge rules of the One Plan will apply.

54 If earthworks were to intersect with the super bin ‘piece of land’ (the area of which is currently unknown), this would appear to require a discretionary activity consent under reg 11(1) of the NES-CS, as:

- (a) The PSI assessed the ‘super bin’ [HAIL category A6 ‘fertiliser manufacture and bulk storage’] as a potential source of contamination, and that contamination may exist in its surrounding soils, and is therefore a potential ‘piece of land’.
- (b) Regulation 5(7)(a)–(c) of the NES-CS applies to a ‘piece of land’ that is, has, or more likely than not has been subject to a HAIL use.
- (c) Meridian has stated that works will avoid the ‘super bin area’ (which has to be considered the same as the ‘piece of land’), yet there has been no investigation to delineate the ‘piece of land’/area to avoid, so there is no way to confirm that contaminated soil (if present) will not be disturbed.
- (d) Meridian has not demonstrated that/how it will/can comply with the permitted activity standards in regulation 8(3) of the NES-CS.
- (e) No DSI has been provided, so the activity would default to a discretionary activity status, pursuant to reg 9(1) of the NES-CS.

55 As such, I would recommend that Meridian complete a DSI of the ‘super bin’ area, to determine the applicability of the NES-CS to that area.

56 Any DSI should also assess the applicability of relevant contaminated land rules in the One Plan (including but not necessarily limited to Rules 14-27 (f) and potentially 14-24(c). These rules deal with discharges from the excavated material and will assist with determining appropriate re-use options.

Discharges of contaminants during construction

57 Section 2.4.13 of the AEE ‘Use of Contaminants’ and Section 5.5 of Appendix F to the Application ‘Construction Water Management Plan (CWMP) and Effects Assessment’ lists the ‘non-sediment contaminants’ that will be used

during construction as *'adhesives, asphalt paving, cleaning products, concrete, flocculants, sanitary waste, and vehicle and equipment use'*.

58 The management approach to using these materials is set out in Table 5 of the CWMP, and appear reasonable, in my opinion.

59 Bulk fuel storage is not included in either of the lists described above.⁹ Further, Table 4 in Section 5.5 of the CWMP 'Non-sediment contaminants' states that *'...for this project no bulk fuel storage is expected and mobile refuelling will occur'*.

60 However, section 2.4.7 of the AEE 'Temporary Concrete Batching' states that *'an on-site diesel fuel storage facility of approximately 3,000 litres may also be required to service the batching plant'*, and section 2.4.8 of the AEE 'Temporary Fuel Storage', and 2.10 of Appendix C to the application (Ecological Assessment) states that a 30,000 L diesel tank will be located either *'within the turbine envelope or turbine exclusion zones'*.

61 Section 8.3.3 of the Ecological Assessment, 'Construction – Contaminant release' assesses the *'potential for fuel spills into waterways to be highly unlikely'* as it is *'assumed that [the 30,000 L tank] will not be located, nor will machinery be refuelled, within 50 m of any waterway'*.

62 I am of the view that fuel storage and use, including 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, the Spill Contingency Management Plan (SCMP),¹⁰ or a broader 'Hazardous Substance Management Plan'. I note that the SCMP is referenced in the AEE, but has not been carried over to the draft conditions.

63 I note that the discharge of sediment and flocculants during earthworks and is addressed in Mr Pearce's s 87F report.¹¹ Mr Pearce also acknowledges the

⁹ As listed in paragraph 57 above.

¹⁰ The SCMP is referred to in section 5.13 of the AEE.

¹¹ Section 87F Report of Kerry Pearce – Erosion and Sediment Control (15 March 2023) at 39-40.

undertakings in the Application around management of discharges from the concrete batching plant.¹²

H. CREATION OF HAIL SITES

64 The construction and operation of the wind farm will involve the creation of some HAIL activities, some of which should be captured on GWRC's SLUR or Horizons' SAHS, depending on their location. This should be a matter that the Regional Councils keep under review with Meridian. At the very least, I am of the view that the proposed substations and potentially the operation and maintenance/services building may need to be captured on SLUR or SAHS, depending on the volumes and classifications of substances they contain.

I. SUBMISSIONS

65 There were three (3) submissions which could be considered to raise concerns about contamination matters.

66 Two of the submissions (6 and 7) were identical and raised concerns about the *'threat of contamination of waterways during large rainfalls, bringing toxic sludge to the valley below polluting not just the waterways but also the land'*.

67 It was not clear what the submitter considers the source or cause of the 'toxic sludge' to be, or whether their concern relates to the construction or operational phase of the windfarm, or both.

68 A third submission (8) provided further detail in regard to concerns regarding contamination from (it seems) construction and operation of the turbines. In particular:

...the risk of toxic run off seeping into the ground is high as is the risk of accidents during and after construction ...

When the batching plant is decommissioned and the sludge 'disposed of' in one of the 'overburden disposal areas', there is

¹² At 44.

concern that these may leak toxic residue into our waterways and impact water quality now and in the future.

Turbines all require large quantities of oil and observations from the windfarms on the Tararua ranges are that a good number leak oil. No provision has been made for this ...

Wind turbines also contain toxic substances that can leak into the ground ...

...during construction there is diesel, cement additives, oil, rubber from tyres etc.

69 I am unable to comment on the likelihood or risk of leakage from the turbines or other equipment as that is not my area of expertise. However, my experience with other (and larger scale) construction project is that such risks (including of resultant contamination) can be adequately managed through robust construction management (including decommissioning) and operational maintenance procedures. In this case, these matters will be documented in the suite of project management plans, such as:

- (a) Construction Environmental Management Plan (proffered by Meridian), including sub-plans referenced therein;
- (b) Spill Contingency Management Plan (proffered by Meridian);
- (c) Concrete Batching Plant Management Plan (proffered by Meridian);
and
- (d) Operation and Maintenance Plan (not proffered by Meridian, but I would recommend this).

J. CONDITIONS

70 In the absence of information advising otherwise, my view remains (as I set out above) that activities within the 'super bin' area would likely fall to be assessed as a discretionary activity under the NESCES. I therefore recommend that the Applicant prepare a DSI to investigate this.

- 71 In my opinion, there should be conditions relating to the accidental discovery of contamination and hazardous substance storage/spill response. Currently accidental discovery is addressed through proffered condition 9.g.vii, which requires a ‘measures relating to the discovery of potentially contaminated land’ to be included in Specific Environmental Management Plans (SEMP) for ‘a given location or locations’. These plans should also require potentially known contaminated sites to be defined and set out for the purposes of avoidance. Further, while a ‘Spill response plan’ is mentioned in the application, it was not offered by the Applicant. My preference would be a ‘Hazardous Substance Management Plan’ with includes a section addressing spill response.
- 72 I recommend that there is a ‘works completion’ condition around removal of the bulk fuel storage tanks and Councils’ expectations around reinstatement. In my opinion, following the removal of the tanks, Meridian should undertake soil sampling to determine whether remedial works are required, which should be complete as necessary with validation sampling reported to the Councils. There should also be an advice note that the NES-CS may apply to the removal of the fuel tanks, if they fit the definition of ‘fuel storage system’ described in Regulation 3 of the NES-CS.

Sarah Newall

15 March 2024