

**Before the Joint Freshwater Hearing Panel and Part 1 Schedule 1
Hearing Panel Appointed by Wellington Regional Council
to Hear Submissions on Proposed Change 1 to the Natural Resources
Plan for the Wellington Region (PC1)**

In the matter of: **the Resource Management Act 1991**

And: **Further Submissions Lodged on PC1
by Meridian Energy Limited**

**Statement of Evidence of Christine Anne Foster
Called by Meridian Energy Limited**

**HEARING STREAM 3
RURAL, VEGETATION CLEARANCE, EARTHWORKS**

4 May 2025

1. Introduction

- 1.1. My name is Christine Anne Foster. My qualifications, experience and role in assisting Meridian Energy Limited¹ are set out in my statement of evidence to Hearing Stream 1 dated 17 October 2024.
- 1.2. This statement of evidence is within my area of expertise as a resource management planner, except where I state that I rely on the evidence of others or evidence presented in the Council's section 42A reports and technical evidence. I have read the Code of Conduct for Expert Witnesses set out in the Environment Court 2023 Practice Note. I am aware of the obligations imposed on expert witnesses by the Code and agree to comply with the Code of Conduct. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

2. Scope of Evidence and Executive Summary

- 2.1 In this statement of evidence I address the recommendations of the s. 42A Reports that affect multiple further submission points made by Meridian. I have organised these by provision of concern to Meridian as follows:

In the s. 42A Report on Rural Land Use:

- 2.2 'High' and 'Highest Erosion Risk' Land: I support the proposed changes to the definition of 'high' and 'highest erosion risk' and the mapping to 'potential erosion risk', and use of the maps to inform and assist farm planning and determination of erosion treatment response.
- 2.3 Operative Policy P70: I agree that, provided the other amendments Mr Willis proposes are made, Policy P70 need not apply in the TAoP and TWT Whaitua.

In the s. 42A Report on Vegetation Clearance:

- 2.4 I support Mr Watson's proposed amendments as relates to renewable electricity generation and vegetation clearance.

In the s. 42A Report on Earthworks:

- 2.5 Definition of 'Earthworks' and proposed new permitted activity Rules WH.R24 and P.R23 for minor earthworks associated with infrastructure: I support the proposed permitted activity approach in principle and suggest amendments to address a gap and some consequential issues.
- 2.6 Operative Rule R106: Proposed Rules WH.R23 and P.R22 attempt to reinstate operative Rule R106 (a bespoke restricted discretionary activity rule for earthworks associated with

¹ 'Meridian'

renewable electricity generation activities). I recommend some amendments to better give effect to the higher order enabling policy framework for regionally significant infrastructure and renewable electricity generation activities.

2.7 Clause (g) of Proposed Rules WH.R23 and P.R22: I consider that the standard in clause (g) is unachievable and suggest alternative wording to address potential adverse sediment discharge effects in a practicable way.

2.8 Winter shutdown period: I support the deletion of proposed policies WH.P31 and P.P29. The winter shutdown period is retained as a standard in proposed restricted discretionary activity Rules WH.R23 and P.R22, with default to discretionary activity for non-compliance. I propose an alternative approach of addressing the adverse effects of winter earthworks as a listed discretionary matter, with an explicit focus on these effects.

2.9 I include in Attachment 1 the further amendments I propose, addressing these matters.

2.10 In the following statement, I have adopted the abbreviations used in the s. 42A Reports for the two Whaitua that are the subject of PC1: Te Awarua-o-Porirua (**TAoP**) and Te Whanganui-a-Tara (**TWT**).

3. Information Relied on

3.1 In preparing this statement of evidence, I have read and considered:

- (a) Publicly notified PC1;
- (b) The Te Awarua-o-Porirua Implementation Programme (2019) and Te Whanganui-a-Tara Implementation Programme (2021);
- (c) The Te Awarua-o-Porirua Whaitua Implementation Programme Ngāti Toa Rangatira Statement;
- (d) Te Mahere Wai o Te Kāhui Taiao (A Mana Whenua Whaitua implementation plan to return mana to our freshwater bodies) prepared for GWRC;
- (e) The section 32 report accompanying the publicly notified PC1;
- (f) The further submissions referenced later in this statement of evidence and the published summary of submissions and addenda (identifying errors and amendments to the published summary of submissions);
- (g) The Regional Policy Statement for the Wellington Region including the Council's decisions on submissions on and decisions version of RPS Change 1 publicly notified on 4 October 2024;
- (h) The three section 42A Hearing Reports prepared for Hearing Stream 3 by Gerard Willis (Rural Land Use), Shannon Watson (Vegetation Clearance) and Alisha Vivian (Earthworks) all dated 15 April 2025 (including Appendix 4 recommended amendments);
- (i) The statements of evidence and supplementary evidence of Dr Michael Greer dated 15 April 2025;
- (j) The two statements of evidence of James Blyth dated 15 April 2025, including Appendices A and B.

4. S. 42A Report - Rural Land Use

High and Highest Erosion Risk Land and Woody Vegetation

- 4.1 Meridian's further submission supported or supported in part submissions that opposed or questioned the definition and mapping of land with 'highest erosion risk (pasture)' and 'highest erosion risk (woody vegetation)'. Meridian's concern is with the implications of the definition and the mapping for its established wind farms at West Wind and Mill Creek. Parts of both wind farms are located within catchments in the TAoP and TWT Whaitua. The wind farms occupy the highest parts of landforms within farmed land and parts of the wind farms are included in the mapped 'high' and 'highest erosion risk'.
- 4.2 In particular, Meridian is concerned with the requirement introduced through new policies (WH.P23 and P.P22) and Schedule 36 (requirements for Farm Environment Plans) that land with 'highest erosion risk' be addressed by *requiring* permanent woody vegetation cover on at least 50% of the 'highest erosion risk' land of a farm within 10 years. Meridian's concern is that mature woody vegetation (stands of tall trees) may conflict with the operation, maintenance and upgrading of the electricity generation activities within the wind farms.
- 4.3 Meridian's further submission requested deletion of the requirement for re-vegetation with woody vegetation, or amendment of the provisions to clarify that the requirement does not apply to renewable electricity generation.
- 4.4 At paragraph 322 of the s. 42A Report, Mr Willis agrees that *'woody vegetation establishing near wind turbines would be an undesirable outcome and ought not be required'*. For a range of reasons, explained in paragraphs 322 to 336 of the s. 42A Report, Mr Willis recommends:
- (a) Deletion of the 'high risk erosion risk' land maps;
 - (b) Re-naming the 'highest erosion risk land' map 'potential erosion risk';
 - (c) Using the 'potential erosion risk' land mapping as a guide to identifying erosion risk in farm environment plans;
 - (d) Allowing the determination of erosion risk and treatment response to be undertaken through farm environment plans; and
 - (e) Limiting the requirement for erosion risk treatment plans to areas greater than 20 ha in parts of FMUs that exceed the proposed visual clarity target attribute states;
 - (f) Amending Policies WH.P23 and P.P22 by amending clause (c) to focus on 'identifying' erosion risk and deleting the clause (c) (i) requirement for 50% woody vegetation cover.
- 4.5 I support Mr Willis' proposed amendments (as detailed on pages 9 & 10 and 22 & 23 of Appendix 4 to the s. 42A Report) as they relate to Meridian's renewable electricity generation activities, acknowledging that the amendments will apply to rural land use generally and not specifically renewable electricity generation.

4.6 I note that in the Schedule 36 proposed amendments to Table D1 (sediment loss and transport risk factors), 'Revegetation or regeneration of woody vegetation' is still listed as one of three mitigation responses to 'lack of deep rooting vegetation'. However, I do not read this as requiring the establishment of woody vegetation, in the way that publicly notified Policies WH.23 and P.P22 do. I read this as a potential response, with the actual response to be determined through the farm environment plan development. I also note Mr Willis' comment (on page 37 of Appendix 4) that this provision: *'does not, however, require full revegetation in natives (or total removal of stock). In practice, some of the potential erosion risk land will be pole planted rather than fully revegetated at a per ha cost of between \$2,500 and \$10,000 per hectare (based on Mr Peryer's cost estimates). Other land will be managed by modifying grazing practices or use of detention devices Furthermore, in TAO P, an E RTP² is only recommended to be required only in the Takapū part FMU rather than the full potential erosion risk area (on the basis that only in that part FMU is improvement in the visual clarity required to meet TAS). Outside of that area erosion treatment at the scale modelled is voluntary (but may be supported by GWRC over the 15-year period).* Meridian's wind farms lie outside the Takapū FMU.

Policy P70

4.7 Meridian's further submission supported WFF's S.193.033 request that Policy P70 remain relevant in all Whaitua including TAO P and TWT. Meridian's concern was with the TAO P and TWT policies that appeared to replace P70 (for example WH.P23 and P.P22 discussed above). Provided the amendments proposed by the reporting officers to these and other policies (discussed in the following sections of this statement of evidence) my opinion is that Policy P70 can reasonably be withdrawn from applying in the TAO P and TWT Whaitua.

5. S. 42A Report – Vegetation Clearance

Definition of Highest Erosion Risk Land

5.1 Mr Watson discusses in paragraphs 323 to 335 of his s. 42A Report the submission points and further submission points (including Meridian's) about the definition of 'highest erosion risk' land. His recommendation matches Mr Willis' recommendation, discussed in Section 4 of my statement of evidence above. For the reasons I discuss there I support his recommended amendments to the definition and maps (to refer to 'potential erosion risk').

Vegetation Clearance Rules and Retention of Operative NRP Rules

5.2 Meridian's further submission supported or supported in part submissions that opposed the proposed vegetation clearance rules and standards for TAO P and TWT. The further submission also supported retention of operative rules R104 and R106 in both the TAO P and TWT Whaitua. The further submission also opposed EDS's requests (S222.057 and S222.100) that vegetation clearance be made a controlled (not a permitted) activity. The further submission

² Erosion Risk Treatment Plan

also opposed EDS's requests (S222.057 and S222.099) and Forest and Bird's requests (S261.110 and S261.187) to limit permitted vegetation clearance to 200m².

5.3 The point made in Meridian's further submission is that vegetation clearance is required not just for the limited purposes listed in the proposed rules WH.R17 and P.R16, but also for the operation and maintenance of regionally significant infrastructure (including its own wind farms). Meridian noted in the further submission that operative NRP Rule R104 provides for vegetation clearance of up to 2 ha in any 12-month period as a permitted activity. Meridian's further submission requested retention of the operative NRP rules or a larger area of permitted vegetation clearance for regionally significant infrastructure.

5.4 The suite of rules R101 to R107 was settled by consent in 2023 following mediation of appeals on the NRP, including appeal points raised by Meridian. Of particular importance to Meridian are Rule R104 (permitting up to 2ha of vegetation clearance in any 12-month period) and Rule R106 (a bespoke restricted discretionary activity provision for vegetation clearance associated with the use, development, operation, maintenance and upgrade of renewable electricity generation where the limits in R104 are not met). Proposed PC1 upended these recently settled rules and there did not appear to be an evidence-based reason for doing so. This has, essentially been confirmed by the s. 42A Report.

5.5 At paragraph 11, the s. 42A Report states: *'I have reviewed these submissions and the specific relief sought by these submitters alongside the evidence and best available information underpinning the PC1 provisions in accordance with clause 1.6 of the NPS-FM. Other than the TAoP Whaitua Implementation Programme (WIP) committee, which reviewed vegetation clearance rules as part of the WIP process and determined they were appropriate I cannot find any evidence the effectiveness and efficacy of the operative NRP provisions for vegetation clearance has been assessed. Other than in the context of urban development and riparian disturbance from flood protection activities and stock access, vegetation clearance was not an issue addressed in the TWT WIP report.'*

5.6 Mr Watson recommends that, instead of retaining operative Rule R104, the following amendments be made to the PC1 rules for vegetation clearance:

- (a) Rules WH.R17 and P.R16 replicate permitted activity R104 (up to 2ha vegetation clearance in any 12-month period); and
- (b) Rules WH.R18 and P.R17 replicate the bespoke restricted discretionary activity rule R106 for earthworks associated with renewable electricity generation activities; and
- (c) Rules WH.R19 and replicate the R107 default discretionary activity rule for vegetation clearance that does not meet the limits of the permitted or restricted discretionary activity rules.

5.7 The recommended amendments achieve the outcome requested in Meridian's further submission. That is, they restore the permitted activity and bespoke restricted discretionary activity provision of the operative NRP (although it involves what seems to be unnecessary repetition between chapters of the NRP). I note Mr Watson's point that the recommendations

of the Earthworks s. 42A Report separate the rules for earthworks from the vegetation clearance rules. This is clarified in the commentary in the table on pages 74 to 76. In my opinion, Mr Watson's recommended vegetation clearance rules address the issue Meridian raised, insofar as they relate to vegetation clearance.

6. S. 42A Report – Earthworks

Provision for Associated Discharges

6.1 Meridian's further submission supported submission points requesting that the permitted activity rules for earthworks should explicitly provide for earthworks '*and associated discharges*'. This is important because it is the discharge element that falls within the regional council's jurisdiction. The s. 42A Report recommends this minor amendment in the suggested wording for the 'minor earthworks' rules WH.R23A and P.R22A (as detailed on page 9 of Appendix 4 to the s. 42A Report. I support this element of the recommended wording.

Definition of 'Earthworks' and Proposed Rules WH.R23A and P.R22A

6.2 The operative NRP definition of 'earthworks' excludes the following activities (meaning they are not captured by the earthworks rules and standards):

- Cultivation of the soil for the establishment of crops or pasture, and
- The harvesting of crops, and
- Thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance, and
- The construction, repair, upgrade or maintenance of:
 - (i) Pipelines, and Electricity lines, and
 - (ii) Telecommunication structures or lines, and
 - (iii) Radio communication structures, and
 - (iv) Firebreaks or fence lines, and
 - (v) A bore or geotechnical investigation bore, and
- Repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft, and
- Maintenance of orchards and shelterbelts, and
- Domestic gardening, and
- Repair, sealing or resealing of a road, footpath, driveway, and
- Discharge of cleanfill material.

6.3 Publicly notified PC1 deleted the listed exclusions. Meridian's further submission supported submission points that requested reinstatement of the list of excluded activities. Meridian made the point in its further submission that retention of some of these exclusions is important to enable the development, operation, maintenance and upgrading of equipment and facilities necessary for renewable electricity generation activities (as intended by the NPS-REG and the NPS-ET).

6.4 At paragraph 72 the s. 42A Report notes that deletion of the listed exclusions was to comply with the National Planning Standards definition of ‘earthworks’ but that this has had the unintended consequence of requiring consents for these minor earthworks activities that are essential for infrastructure activities. The s. 42A Report acknowledges (paragraphs 69 and 70) that the following activities enable the operation, maintenance and upgrade of lifeline utilities and regionally significant infrastructure.

- (a) repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft*
- (b) repair, sealing or resealing of a road, footpath, driveways*
- (c) thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance, and*
- (d) the construction, repair, upgrade or maintenance of pipelines, electricity lines and their support structures, telecommunication structures or lines, radio communication structures*

6.5 The s. 42A Report recommends creating a new permitted activity earthworks rule for these minor earthworks activities associated with infrastructure. This is detailed on pages 9 and 10 of Appendix 4).

Listed Exclusions in Operative NRP Definition	Proposed Permitted Activity Rules WH.R23A and P.R22A
<ul style="list-style-type: none"> (a) cultivation of the soil for the establishment of crops or pasture, and (b) the harvesting of crops, and (c) thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance, and (d) the construction, repair, upgrade or maintenance of: <ul style="list-style-type: none"> (i) pipelines, and (ii) electricity lines and their support structures, including the National Grid, and (iii) telecommunication structures or lines, and (iv) radio communication structures, and (v) firebreaks or fence lines, and (vi) a bore or geotechnical investigation bore, and (e) repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft, and (f) maintenance of orchards and shelterbelts, and (g) domestic gardening, and (h) repair, sealing or resealing of a road, footpath, driveway, and (i) discharge of cleanfill material. 	<ul style="list-style-type: none"> (a) thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance, and (b) (b) the construction, repair, upgrade or maintenance of: <ul style="list-style-type: none"> (i) pipelines, and (ii) electricity lines and their support structures, including the National Grid, and (iii) telecommunication structures or lines, and (iv) radio communication structures, and (v) firebreaks or fence lines, and (c) repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft;

6.6 The list of recommended permitted activity minor earthworks excludes bores including geotechnical investigation bores, which are typically important for regionally significant infrastructure. In my opinion, the list should include bores.

6.7 I support in principle the proposed permitted activity for minor earthworks associated with infrastructure. However, I question the need for some of the standards. These are activities which are not controlled currently under the current operative NRP earthworks rules. To the extent that these minor earthworks are associated with regionally significant infrastructure, this approach is consistent with operative NRP Objective O10 (*'Regionally significant infrastructure and renewable energy generation activities that meets the needs of present and future generations are enabled in appropriate places and ways'*). Operative NRP Policy P13 is also relevant: *'The use, development, operation, maintenance, and upgrade of Regionally Significant Infrastructure and renewable energy generation activities are provided for, in appropriate places and ways. This includes by having particular regard to:*

- (a) the strategic integration of infrastructure and land use, and*
- (b) the location of existing infrastructure and structures, and*
- (c) the need for renewable energy generation activities to locate where the renewable energy resources exist, and*
- (d) the functional need and operational requirements associated with developing, operating, maintaining and upgrading Regionally Significant Infrastructure and renewable energy generation activities.*

6.8 RPS Policy 39, as amended by decisions on Change #1, is also relevant:

Policy 39: Recognising the benefits from renewable energy and regionally significant infrastructure – consideration

When considering an application for a resource consent, notice of requirement or a change, variation or review of a *district or regional plan*, ~~particular regard shall be given to:~~

- (a) recognise and provide for the social, economic, cultural, and environmental benefits of energy generated from renewable energy resources and its transmission through the electricity transmission network; and
- (b) recognise the social, economic, cultural, and environmental benefits of other and/or regionally significant infrastructure, including where it contributes to reducing greenhouse gas emissions and provides for climate change mitigation, climate change adaptation and climate-resilience; and
- (c) have particular regard to protecting regionally significant infrastructure from incompatible subdivision, use and development occurring under, over, or adjacent to the infrastructure; and
- (d) recognise and provide for the operational need and functional the-need for renewable electricity generation activities to be in particular locations, including the need facilities to locate where the renewable energy resources exist; and
- (e) recognise the benefits of utilising the significant wind, solar and marine renewable energy resources within the Wellington Region and the development of the electricity transmission network to connect the renewable energy resource to distribution networks and end-users.

Explanation

Policy 39 recognises that renewable energy generation and *regionally significant infrastructure* can provide a range of environmental, economic, social and cultural benefits locally, regionally and nationally, including where it contributes to reducing *greenhouse gas emissions* as sought by Objective CC.3. These benefits are outlined in Policy 7.

6.9 It is appropriate, in my view, to consider the operational and functional needs of regionally significant infrastructure in formulating the proposed new minor earthworks rule for infrastructure. For example, for many forms of linear infrastructure (essential pipelines) a location aligned along or within a riparian margin is essential (e.g. stormwater pipes). Clause (a) of the proposed rule would trigger consents (which are not currently required) and does not consider operational and functional need in the way I consider the higher order objectives and policies demand. I do wonder at the complexity and practicability of the four proposed standards in the two rules.

6.10 Clause (d) of proposed Rules WH.R23A and P.R22A requires that there be nil discharge of sediment or flocculant. For reasons I discuss in further detail in paragraphs 6.15 to 6.21 below, I consider this requirement is unachievable. Proposed clauses (b) and (d) seem to address much the same issue (managing sediment) and clause (c) could, in my opinion, be addressed by a single standard requiring that erosion and sediment are controlled to prevent or minimise adverse effects. This could be achieved, for example, by adopting similar wording to standard (v) from the other permitted activity rule (the less-than-3000m² rules WH.R23 and P.R22) requiring the use of erosion and sediment control measures to prevent and manage sediment discharge. I suggest in paragraph 6.21 below a slight variation to this wording, to overcome the potential for 'prevent' to be read as requiring avoidance of all discharges. I suggest this same clause could replace the four standards recommended for the minor infrastructure earthworks Rules WH.R23A and P.R22A:

'erosion and sediment control measures shall be used to prevent, to the extent practicable, and otherwise minimise the a-discharge of sediment and debris from earthworks and/or flocculant into a surface water body, the coastal marine area, or onto land that may enter a surface water body or the coastal marine area, including via a stormwater network. where a preferential flow path connects with a surface water body or the coastal marine area, including via a stormwater network.

6.11 In my opinion, this would better give effect to the higher order policy direction for regionally significant infrastructure and renewable energy generation activities. I detail my proposed amendments to these rules in Attachment 1 to this statement of evidence.

6.12 I also note that the proposed minor infrastructure earthworks rules do not capture sizeable earthworks associated with infrastructure (i.e. larger than the 3,000 m² permitted by Rules WH.R23 and P.R22). These more significant earthworks would be captured by the permitted activity rules WH.R23 and P.R22 that are subject to the 3000m² area limit. This

means most sizeable earthworks associated with infrastructure will require consent as a restricted discretionary activity under rules WH.R24 and P.R23, which I discuss next.

- 6.13 I cannot see, in the proposed amended provisions, a clear default rule for non-compliance with proposed Rules WH.R23A and P.R22A. It would be helpful if the s. 42A Reporting Officer could clarify what the intended consent pathway is for non-compliance with these rules.

Retention of Restricted Discretionary Activity Rule R106 for Earthworks Associated with Renewable Electricity Generation

- 6.14 As noted earlier, Meridian's further submission supported submission points requesting the retention of Rule R106 which provides for the use of land, and associated discharges of sediment associated with the use, development, operation, maintenance and upgrade of renewable energy generation. As I have earlier stated, this was an important rule settled by consent between GWRC and parties through mediation as recently as 2023. Rule R106 is a restricted discretionary activity rule. The recommendations of the Earthworks s. 42A Report, that earthworks associated with infrastructure will require consent as a restricted discretionary activity under Rules WH.R24 and P.R23, attempts to restore the earthworks component of Rule R106.

- 6.15 However, Rules WH.R24 and P.R23 include different standards from Rule R106. Of particular concern is standard (b) – the winter shutdown requirement, which I discuss in paragraph 6.22 to 6.25 below. Also, proposed Rules WH.R24 and P.R23 do not include as discretionary matters the benefits of renewable electricity generation (as Rule R106 does). In my opinion, Rules WH.R24 and P.R23 need amendment to draw in the particular matters relevant for renewable electricity generation from Rule R106 and to address the winter shutdown requirement.

Proposed Rules WH.R23 and P.R22 Clause (g)

- 6.16 Clause (g) of publicly notified PC1 requires that *'there is no discharge sediment from earthworks and/or flocculant into a surface water body, the coastal marine area, or onto land that may enter a surface water body or the coastal marine area, including via a stormwater network.'* This clause is shown as deleted re-numbered clause (c) (iv) in the recommended amendments to these policies on page 8 of Appendix 4.

- 6.17 Meridian's further submission supported submission points that considered clause (g) to be unachievable and unreasonable. It is my opinion, based on my own experience being associated with large infrastructure and construction projects, that it is impossible to prevent all discharges of sediment or flocculant from construction earthworks sites. Every effort should be made (and required by the regulatory authority) to prevent such discharges. But, in my opinion, it is not possible to avoid absolutely all discharges, including very minor discharges.

6.18 The s. 42A Report recommends splitting the permitted activity provision for earthworks into two rules:

- (a) one pair for general earthworks and associated discharges (proposed Rules WH.R23 and P.R22 as detailed on pages 7 and 8 of Appendix 4 to the s. 42A Report); and
- (b) a second (new) pair for earthworks and associated discharges from earthworks associated with infrastructure (proposed new Rules WH.R23A and P.R22A)

6.19 The proposed general earthworks rule deletes clause (g) (shown as deleted clause (c) (iv) on page 8 of Appendix 4). I support this proposed deletion. The proposed infrastructure minor earthworks rule retains the clause (g) standard as new clause (d) (refer page 10 of Appendix 4). It may be that the 3000m² area limit on general earthworks provides some comfort that any discharges of sediment or flocculant into a surface water or coastal receiving environment may have minor scale and minor effects. Requiring an avoidance approach, with absolutely nil discharge of sediment or flocculant, remains unachievable in my opinion for larger earthworks projects typically associated with infrastructure. I am not suggesting that there should be no controls on the potential for sediment discharge. I agree these should be controlled. My concern is that the avoidance approach of clause (d) is as unachievable as it is for general earthworks (where it has been deleted).

6.20 At paragraph 116, the s. 42A Report appears to agree – there it states: *‘I agree that it is impracticable to require no discharges of sediment from earthworks sites and have made recommendations in Section 3.4.2 below to provide for inevitable discharges associated with earthworks undertaken at all scales. This amendment also addresses the unintended consequences identified in paragraph 86, and ensures earthworks associated discharges are assessed under the activity related provisions.’* However, this opinion is carried through into the wording of the general earthworks (under 3000m²) only, and not into the proposed new infrastructure earthworks rule.

6.21 In my opinion, the impracticability of avoiding all inadvertent sediment discharge applies equally to smaller earthworks construction sites (i.e. the general earthworks rule for areas less than 3000m²) as for larger infrastructure projects (the ‘all scales’ referred to in paragraph 116).

6.22 If clause (d) is retained in the infrastructure rule, it is my opinion that the wording should be changed as follows (or similar) to recognise the impracticability of requiring absolutely nil uncontrolled discharge, and the importance of controlling and minimising the potential for sediment discharge. I also consider that, if the following clause is included, the other three standards in the rule could reasonably be deleted (the following clause, in my opinion, does the same job):

(d) *erosion and sediment control measures shall be used to prevent to the extent practicable, and otherwise to minimise, the ~~there is no~~ discharge of sediment and debris from earthworks and/or flocculant into a surface water body, the coastal marine area, or onto land that may enter a surface water body or the coastal marine area, including via a*

~~stormwater network, and erosion and sediment control measures shall be used to prevent a discharge of sediment where a or preferential flow path connects with a surface water body or the coastal marine area, including via a stormwater network.~~

- 6.23 I have been in discussion with Caroline Horrox (who I understand is presenting evidence to Hearing 3 for Wellington Water Limited) and understand Ms Horrox will be proposing an additional clause (bb) specifying that the 3,000 square metre limit applies to individual component areas of earthworks within a wider site. I support in principle this additional amendment.

Proposed Policies WH.P31 and P.P29 and Rules WH.R24 (b) and P.R23 (b) - Winter Earthworks Shutdown

- 6.24 Meridian's further submission supported submission points requesting deletion of the pair of policies that directed that earthworks over 3000m² must be shutdown from 1 June to 30 September each year. The shutdown policy would prevent earthworks construction for four months of the year.

- 6.25 The s. 42A Report recommends deletion of these policies (page 6 of Appendix 4. I support deletion of Policies WH.P31 and P.P29. I note that the winter shutdown requirement is retained in clause (b) of both rules, even without the policy support. The clause (b) requirement is amended to apply only where the earthworks are located within a part FMU where the proposed target attribute state for suspended fine sediment in tale 8.4 is not met. The s. 42A Report's reason for this approach is set out in paragraph 157 as follows:

'I have recommended changes to provisions which recognise that earthworks within part FMU's where suspended sediment loads are above baselines, pose lesser risk to impact overall environmental outcomes than those within part FMU's currently not meeting target attribute states. These amendments will allow works in winter within part FMU's where target attribute states for suspended sediment are met, to apply for resource consent under the restricted discretionary rule and therefore only be subject to assessment against the specified matters of discretion.'

- 6.26 As publicly notified, proposed PC1 Rules WH.R25 and P.R24 would require consent as a non-complying activity for any earthworks within the winter shutdown period. In my experience, the challenges associated with heavy rainfall on construction earthworks sites is not confined to the four-month winter period that is the focus of PC1. In my opinion, proposed Policies WH.P31 and P.P29 are an unnecessarily blunt and simplistic approach to managing the effects of earthworks. Meridian supported submission points that opposed the policies and the non-complying activity status. The s. 42A Report recommends amending this to discretionary activity. In my experience, the practical reality is that decisions on applications for consent for earthworks focus on conditions to ensure appropriate management and mitigation. This will be the case whether an application is for discretionary

or restricted discretionary activity consent. The purpose of the policy and rule framework should be to guide decision making in this circumstance in as specific a manner as possible.

6.27 In my opinion, the combined effect of the proposal to limit the winter shutdown to parts of FMUs that do not meet suspended sediment TAS, deletion of the policy direction that required compulsory winter shutdown, and requiring consent as a discretionary (not non-complying) activity does moderate the punitive approach of the publicly notified PC1. However, it does not restore the restricted discretionary activity status for renewable electricity generation activities region-wide that was provided by operative Rule R106. I agree that it is appropriate to carefully consider the potential adverse effects of sediment discharge from earthworks on sediment-sensitive receiving environments (i.e. those that do not meet the TAS). This could be achieved by specifying this requirement as a listed discretionary matter. Proposed clause (a) already sets a minimum standard for turbidity.

6.28 Given the enabling RPS and NRP objectives and policies for regionally significant infrastructure and renewable electricity generation, this alternative approach should be considered at least for these activities. In my opinion, the alternative wording I propose below could also work effectively for all earthworks:

Rules WH.R24 and P.R23: Earthworks – Restricted Discretionary

Earthworks and the associated discharge of sediment and/or flocculant into a **surface water body** or coastal water, or onto or into land where it may enter a **surface water body** or coastal water, including via a **stormwater network**, that does not comply with Rule [WH.R23/P.R22] is a restricted discretionary activity, provided the following conditions are met:

- (a) the ~~water quality concentration of total suspended solids~~ in the discharge from the **earthworks** shall not exceed ~~and~~
- (b) ~~earthworks shall not occur between 1st June and 30th September in any year where works are located within a Part Freshwater Management Unit where the target attribute state for suspended fine sediment in Table 9.2 is not met.~~

Matters for discretion

1. The location, area, scale, volume, duration and staging and timing of works
2. The design and suitability of erosion of sediment control measures including consideration of hazard mitigation and the risk of accelerated soil erosion associated the staging of works and progressive stabilisation
3. The placement and treatment of stockpiled materials on the site, including requirements to remove material if it is not to be reused on the site
- ~~4. The proportion of unstabilised land in the catchment~~
4. The adequacy and efficiency of stabilisation devices for sediment control

5. Where earthworks are proposed to occur between 1st June and 30th September in any year within a Part Freshwater Management Unit where the target attribute state for suspended fine sediment in Table 9.2 is not met:
 - (i) the potential effects of discharges of sediment on suspended sediment concentrations in any surface water receiving environment; and
 - (ii) the need for restrictions on any earthworks activities during the period 1st June to 30th September to avoid or minimise adverse effects on surface water receiving environments; and
 - (iii) requirements for site preparation and mitigation measures in the period preceding 1st June to 30th September
6. Any adverse effects on:
 - (i) groundwater, surface water bodies and their margins, particularly surface water bodies within sites identified in Schedule A (outstanding water bodies), Schedule B (Ngā Taonga Nui a Kiwa), Schedule C (mana whenua), Schedule F (ecosystems and habitats with indigenous biodiversity), Schedule H (contact recreation and Māori customary use) or Schedule I (important trout fishery rivers and spawning waters)
 - (ii) group drinking water supplies and community drinking water supplies
 - (iii) mauri, water quality (including water quality in the coastal marine area), aquatic and marine ecosystem health, aquatic and riparian habitat quality, indigenous biodiversity values, mahinga kai and critical life cycle periods for indigenous aquatic species
 - (iv) the natural character of lakes, rivers, natural wetlands and their margins and the coastal environment
 - (v) natural hazards, land stability, soil erosion, sedimentation and flood hazard management including the use of natural buffers
7. Duration of the consent
8. Preparation required for the close-down period (from 1st June to 30th September each year) and any maintenance activities required during this period ...

6.29 Framed in this way, it is my opinion that a restricted discretionary activity rule would provide an appropriate focus on the effects of concern, enabling the relevant Whaitua policies to be considered. In my opinion, this provides a clearer and more specific policy focus than the full discretionary activity approach proposed by the s. 42A Report (for all earthworks, not just renewable electricity generation).

6.30 I note that the s. 42A Report recommends amendment to Policies WH.P29 and P.P27, by adding the following text (refer page 4 of Appendix 4): '*(e) minimising works required during the close down period (from 1st June to 30th September each year)*'. Meridian did not have any further submission points on these two policies. However, the proposed clause (e) was not part of the publicly notified PC1 provisions at that time. In my opinion, the issue is not about minimising, but *managing* earthworks at this time (and at all times, particularly during challenging weather) so as to *minimise adverse effects*. In my opinion, this reality should be reflected in clause (e) if that is inserted into the policies. Also, with the deletion of Policies WH.P31 and P.P29, there is no policy basis for the expression 'close-down period'. I suggest alternative wording as follows or similar:

The ~~risk-adverse effects~~ of sediment discharges from earthworks shall be managed by:

- (a) requiring retention of ~~uncontrolled~~ soil and sediment on the land using good management practices for erosion and sediment control measures that are appropriate to the scale and nature of the activity,

...

- ~~(e) minimising works required during the close-down period (from 1st June to 30th September each year)~~ ensuring appropriate management and mitigation measures are in place to manage earthworks during heavy and prolonged rainfall events, including during the period 1st June to 30th September each year.

7. Conclusion

- 7.1 For the reasons explained in the foregoing sections, I propose the further amendments to the recommendations in Appendix 4 to the three s. 42A Reports. These are suggestions based on the information available to me at this time. I am sure others may have alternative suggestions and that the wording could be improved. I will revisit my suggestions in light of other amendments that may be proposed in the evidence of others.

Christine Foster
4 May 2025

ATTACHMENT 1

FURTHER AMENDMENTS TO PROVISIONS RECOMMENDED IN THE S. 42A REPORTS

In the following suggested amendments:

Red text (~~struck through~~ or underscored) indicates amendments recommended in the s. 42A Reports.

Blue text (~~struck through~~ or underscored) indicates further amendments proposed by Christine Foster (called by Meridian Energy Limited).

1. Proposed Rules WH.R23A and P.R22A:

Amend the wording to include bores in the list of permitted activities and simplify the listed standards as one standard as follows or similar:

Earthworks and the associated discharge of sediment and/or flocculant into a surface water body or coastal water or onto or into land where it may enter a surface water body or coastal water, including via a stormwater network, associated with:

- (a) thrusting, boring, trenching or mole ploughing associated with cable or pipe laying and maintenance, and
- (b) (b) the construction, repair, upgrade or maintenance of:
 - (vi) pipelines, and
 - (vii) electricity lines and their support structures, including the National Grid, and
 - (viii) telecommunication structures or lines, and
 - (ix) radio communication structures, and
 - (x) firebreaks or fence lines, and
 - (xi) a bore or geotechnical investigation bore, and
- (c) repair or maintenance of existing roads and tracks, and airfield runways, taxiways, and parking aprons for aircraft;

is a permitted activity provided the following conditions are met:

- (a) ~~the earthworks shall not occur within 5m of a surface water body or the coastal marine area, and~~
- (b) ~~soil or debris from earthworks is not placed where it can enter a surface water body or the coastal marine area, including via a stormwater network, and~~
- (c) ~~the area of earthworks must be stabilised within six months after completion of the earthworks, and~~
- (d) erosion and sediment control measures shall be used to prevent to the extent practicable, and otherwise to minimise, the ~~there is no~~ discharge of sediment and debris from earthworks and/or flocculant into a surface water body, the coastal marine area, or onto land that may enter a surface water body or the coastal marine area, including via a stormwater network, and erosion and sediment control measures shall be used to prevent a discharge of sediment where a or preferential flow path connects with a surface water body or the coastal marine area, including via a stormwater network.

2. Proposed Rules WH.R24 and P.R23:

Amend the wording by:

- Deleting condition (b); and
- Inserting a new discretionary matter (5) addressing the adverse effects of winter earthworks; and
- Inserting an additional discretionary matter (7) requiring consideration of the benefits of renewable electricity generation, drawing in the equivalent discretionary matter from operative Rule R106, as follows or similar:

Earthworks and the associated discharge of sediment and/or flocculant into a **surface water body** or coastal water, or onto or into land where it may enter a **surface water body** or coastal water, including via a **stormwater network**, that does not comply with Rule [WH.R23/P.R22] is a restricted discretionary activity, provided the following conditions are met:

- (a) the ~~water quality concentration of total suspended solids~~ in the discharge from the **earthworks** shall not exceed ~~and~~
- (b) ~~earthworks shall not occur between 1st June and 30th September in any year where works are located within a Part Freshwater Management Unit where the target attribute state for suspended fine sediment in Table 9.2 is not met.~~

Matters for discretion

1. The location, area, scale, volume, duration and staging and timing of works
2. The design and suitability of erosion of sediment control measures including consideration of hazard mitigation and the risk of accelerated soil erosion associated the staging of works and progressive stabilisation
3. The placement and treatment of stockpiled materials on the site, including requirements to remove material if it is not to be reused on the site
- ~~4. The proportion of unstabilised land in the catchment~~
4. The adequacy and efficiency of stabilisation devices for sediment control
5. Where earthworks are proposed to occur between 1st June and 30th September in any year within a Part Freshwater Management Unit where the target attribute state for suspended fine sediment in Table 9.2 is not met:
 - (i) the potential effects of discharges of sediment on suspended sediment concentrations in any surface water receiving environment; and
 - (ii) the need for restrictions on any earthworks activities during the period 1st June to 30th September to avoid or minimise adverse effects on surface water receiving environments; and
 - (iii) requirements for site preparation and mitigation measures in the period preceding 1st June to 30th September
6. Any adverse effects on:
 - (vi) groundwater, surface water bodies and their margins, particularly surface water bodies within sites identified in Schedule A (outstanding water bodies),

Schedule B (Ngā Taonga Nui a Kiwa), Schedule C (mana whenua), Schedule F (ecosystems and habitats with indigenous biodiversity), Schedule H (contact recreation and Māori customary use) or Schedule I (important trout fishery rivers and spawning waters)

- (vii) group drinking water supplies and community drinking water supplies
- (viii) mauri, water quality (including water quality in the coastal marine area), aquatic and marine ecosystem health, aquatic and riparian habitat quality, indigenous biodiversity values, mahinga kai and critical life cycle periods for indigenous aquatic species
- (ix) the natural character of lakes, rivers, natural wetlands and their margins and the coastal environment
- (x) natural hazards, land stability, soil erosion, sedimentation and flood hazard management including the use of natural buffers

- 7. For earthworks associated with renewable electricity generation activities, the benefits to be derived from the use and development of renewable energy
- 8. Duration of the consent

~~8. Preparation required for the close-down period (from 1st June to 30th September each year) and any maintenance activities required during this period~~

- 9. Monitoring and reporting requirements

3. Proposed Policies WH.P29 and P.P27:

Amend the wording as follows or similar:

The ~~risk~~adverse effects of sediment discharges from earthworks shall be managed by:

- (a) requiring retention of uncontrolled soil and sediment on the land using good management practices for erosion and sediment control measures that are appropriate to the scale and nature of the activity,

...

- ~~(e) minimising works required during the close-down period (from 1st June to 30th September each year)~~ ensuring appropriate management and mitigation measures are in place to manage earthworks during heavy and prolonged rainfall events, including during the period 1st June to 30th September each year.