

**IN THE ENVIRONMENT COURT  
WELLINGTON REGISTRY**

**I TE KŌTI TAIAO O AOTEAROA  
TE WHANGANUI-A-TARA ROHE**

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**ENV-2024-WLG-001**

**UNDER** the Resource Management Act 1991

**IN THE MATTER** the direct referral of applications for resource consents by  
under section 87G of the Act for the Mt Munro Wind Farm

**BY** **MERIDIAN ENERGY LIMITED**  
Applicant

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**STATEMENT OF EVIDENCE OF SUSAN IRA**

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

**OPERATIONAL WATER QUALITY**

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Dated: 23 August 2024

  
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## STATEMENT OF EVIDENCE OF SUSAN IRA

### A. INTRODUCTION

- [1] My name is Susan Ira. I am an environmental scientist specialising in stormwater management, water quality treatment approaches, catchment management planning, water sensitive design, and green infrastructure.
- [2] I prepared a report on the application required by s 87F of the Resource Management Act 1991 (**RMA**) on behalf of Manawātū-Whanganui Regional Council (**Horizons**) and Wellington Regional Council (**WRC**) Tararua District Council (**TDC**), and Masterton District Council (**MDC**) (the **Consent Authorities**) dated 15 March 2024 (**s 87F Report**).
- [3] In my s 87F Report, I reviewed the application from Meridian Energy Limited (the **Applicant** or **Meridian**) for resource consent applications lodged with the Consent Authorities for the Mt Munro Wind Farm (**Mt Munro Project** or **Project**) in relation to operational water quality. The s 87F Report provided recommendations to improve or further clarify aspects of the resource consent applications, including with regard to conditions, should the Court be minded to grant resource consents.
- [4] I confirm I have the qualifications and experience set out at paragraphs 5-10 of my s 87F Report.
- [5] On 1 and 5 August 2024, I participated in expert conferencing on operational stormwater management, resulting in a joint witness statement dated 5 August 2024 (the **Stormwater and Hydrology JWS**). I confirm the contents of the Stormwater and Hydrology JWS.

### B. CODE OF CONDUCT

- [6] I repeat the confirmation provided in my s 87F Report 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 evidence has been prepared in accordance with that Code. Statements expressed in this evidence are

within my areas of expertise, except where I state I am relying on the opinion or evidence of other witnesses.

**C. SCOPE OF EVIDENCE**

[7] My statement will cover the following:

- (a) The extent to which issues identified in my s 87F Report have been resolved through mediation, Meridian evidence, and expert conferencing; and
- (b) Conditions.

[8] In addition to the material that was reviewed for my s 87F Report, I have reviewed the following:

- (a) Statements of Evidence of Mr Maurice Mills (Civil Engineering Design) and Mr Tom Anderson (Planning), dated 24 May 2024 , on behalf of Meridian;
- (b) The proposed changes to conditions filed with Mr Anderson's evidence (the **Meridian conditions**);
- (c) Evidence of Janet McIlraith (s 274 party) dated 10 July 2024;
- (d) Evidence of Robin Olliver (s 274 party) dated 10 July 2024;
- (e) Evidence of Hastwell/Mt Munro Protection Society Inc. (s 274 party) dated 10 July 2024;
- (f) Evidence (Social Impact Report) of John Maxwell (s 274 party) dated 10 July 2024;
- (g) Evidence of Mr Andrés Roa (Operational Water Quantity), on behalf of the Consent Authorities; and
- (h) The proposed consent conditions attached to the evidence of Mr Damien McGahan on behalf of the Consent Authorities (the **August Proposed Conditions**).

**D. OUTSTANDING ISSUES**

- [9] The Project will create new impervious surfaces that could lead to the discharge of contaminants if unmitigated. While the proposed system of swales and filter strips, along with the use of constructed stormwater wetlands, can adequately mitigate the effects of the discharge of contaminants from impervious areas during the operational phase of the Project, the efficacy of these treatment devices is dependent on their location, design, construction and long term operation. My s 87F report therefore focused on the need for detailed design to be a condition of consent, along with a suite of recommended conditions.
- [10] Following mediation, expert conferencing, and review of the Meridian evidence, and Stormwater and Hydrology JWS, other than the reservation recorded at paragraph [12] below, I do not have any outstanding issues in terms of operational stormwater.
- [11] Mr Roa, Mr Mills and myself agreed on all issues raised in the s 87F report and agreed that these could be resolved via appropriate conditions of consent.<sup>1</sup> In particular, I was of the view that the proposed stormwater management approach (as understood through the application, further information and conferencing) is best practice.<sup>2</sup> Key to this conclusion is the agreed approach to conditions, which must include requirements to incorporate water sensitive design, water quality treatment to a standard of 75% TSS removal over a long term average basis, a suitable stormwater operation and maintenance plan, restrictions around the locations of fill disposal areas and the requirement for works associated with the Project to be subject to approval of detailed design.<sup>3</sup>
- [12] I note that a number of these conditions, and the agreed recommendations within the Stormwater and Hydrology JWS, are not included in the August Proposed Conditions. I understand that the Applicant maintains that the

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<sup>1</sup> Stormwater and Hydrology JWS, dated 15 August 2024.

<sup>2</sup> Stormwater and Hydrology JWS, pages 3-4.

<sup>3</sup> Stormwater and Hydrology JWS, pages 4-5.

Project will meet the permitted activity standards in the Regional Plans of Horizons and WRC. I address this issue further below.

#### **E. RESPONSE TO SECTION 274 PARTY EVIDENCE**

[13] I have reviewed the section 274 party evidence and no additional matters relating to long term operational water quality have been raised that were not addressed in my s 87F report.

[14] I understand that the section 274 parties have questioned how rainfall intensity and duration have been factored into the design of the stormwater management systems and culverts.<sup>4</sup> This was addressed in the Operational Stormwater JWS.<sup>5</sup> Mr Roa addresses this issue in his evidence.

#### **F. CONDITIONS**

[15] The Operational Stormwater JWS recommended the following additional conditions be included as part of the consent:

- (a) A condition requiring a standard of 75% total suspended solids removal over a long term average basis for the treatment of operational stormwater.<sup>6</sup>
- (b) A condition which requires consideration of water sensitive design where practical (as per the Auckland Council GD04 WSD guideline document, 2015).<sup>7</sup>
- (c) A condition requiring the development of an operation and maintenance plan.<sup>8</sup>
- (d) A requirement for fill disposal areas to be located clear of any flood plains, flood prone areas or overland flow paths.<sup>9</sup>

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<sup>4</sup> I understand that this was also a matter identified for response following mediation.

<sup>5</sup> Stormwater and Hydrology JWS, item 4, page 4.

<sup>6</sup> Stormwater and Hydrology JWS, item 4, page 4.

<sup>7</sup> Stormwater and Hydrology JWS, item 5, page 4.

<sup>8</sup> Stormwater and Hydrology JWS, item 6, page 4.

<sup>9</sup> Stormwater and Hydrology JWS, item 7, page 4.

- (e) That condition CM1(a)(iii) should be updated to include a requirement that the work be subject to approval of detailed design documentation showing that the stormwater quantity and quality objectives are satisfied, including adequate sizing of primary and secondary stormwater infrastructure, management of scour, erosion and flood risks, and protection of waterways.<sup>10</sup>

[16] We also noted in the Stormwater and Hydrology JWS that condition WC1 (requirement to provide as-builts) was not included in the list of conditions circulated for the conference. However, all parties agreed that it does still apply to the operational stormwater management expert discussion and should be included in the final set of conditions.<sup>11</sup>

[17] I have reviewed the August Proposed Conditions. I understand that the above condition recommendations have not been agreed between the planning experts, and have not been included due to the scope of the application. That is, resource consents for stormwater have not been required.<sup>12</sup> Instead, the August Proposed Conditions require the Applicant to demonstrate compliance with the relevant standards in construction and operation of the Project.<sup>13</sup> I emphasise my view that the condition recommendations are considered best practice for the mitigation of contaminants discharged from impervious areas and that an operation and maintenance management plan, at minimum, is required to ensure any adverse stormwater effects are managed in the long term. This was supported through the Stormwater and Hydrology JWS.<sup>14</sup>

## **G. CONCLUSION**

[18] Following mediation, expert conferencing and review of the Meridian evidence, and Stormwater and Hydrology JWS there are no issues which remain following the preparation of my s 87F Report. It has been agreed

<sup>10</sup> Stormwater and Hydrology JWS, item 8, page 5.

<sup>11</sup> Stormwater and Hydrology JWS, at page 5.

<sup>12</sup> Statement of Evidence – Lauren Edwards (Planning) 23 August 2024 at [56]. See also Statement of Evidence – Tom Anderson (Planning), 24 May 2024 at [91], [94-95].

<sup>13</sup> August Proposed Conditions, Condition CM1(b)(3)-(4).

<sup>14</sup> Stormwater and Hydrology JWS, at page 4, item 6.

that the issues raised in my s 87F Report can be resolved via appropriate conditions of consent.

**23 August 2024**

**Susan Ira**