

Before Independent Hearings Commissioners
appointed by the Northland Regional Council

under: the Resource Management Act 1991

in the matter of: an application by Meridian Energy Limited for resource consents for earthworks, associated stormwater diversion and discharges, vegetation clearance, and wetland removal for the construction of a solar farm at Ruakākā, Northland (APP.045356.01.01)

between: **Meridian Energy Limited**
Applicant

and: **Northland Regional Council**
Consent Authority

Summary statement – Stephen Fuller (Ecology – wetlands restoration)

Dated: 5 August 2024

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SUMMARY STATEMENT OF STEPHEN FULLER

INTRODUCTION

- 1 My full name is Stephen Andrew Fuller.
- 2 My qualifications, experience and confirmation I will comply with the Code of Conduct are set out at paragraphs 2 to 10 of my statement of evidence.

SUMMARY OF EVIDENCE

- 3 I have been asked by Meridian Energy Limited (*MEL*) to provide evidence focused on wetland restoration in relation to MEL's Ruakākā solar farm project (the *Proposal*).

Wetland Restoration

- 4 My evidence relates specifically to the feasibility of restoring, enhancing, and constructing two large wetland systems that will meet offsetting objectives for the Proposal.
- 5 It is proposed to:
 - 5.1 Enhance an existing 2ha wetland within modified and grazed dune slacks in Site 1B/1C, and expand this wetland to the east by 7.05 ha; and
 - 5.2 Construct a new wetland system in Site 3 within improved pasture. It will have an area of 11.73 ha.
- 6 These are certainly large projects that will require careful design. In particular they will need the collection of hydrological data to inform excavation depth, seasonality of ground water levels, any necessary ongoing water management, and plant selection.
- 7 However, there is precedent for the construction of wetlands of this size for the offsetting of large infrastructure projects. I was personally involved in such a project at the MacKays to Peka Peka Expressway. For this project we constructed 5 wetlands ranging from 4.8 to 12 ha, and with a combined area of 21.5 ha. These wetlands were formed in greenfield sites within sand and peat landscapes on the Kapiti Coast.
- 8 For these works, we drew on the guidance provided by a number of national agencies, as well as our own experience on smaller projects in the same area. These wetlands were constructed in 2016, planted between May and November 2016, had a complete cover by late 2017 and were signed off as successfully meeting all mitigation requirements in April 2021, 5 years after completion of planting.

- 9 In those five years we saw a complete vegetative cover form, the commencement of natural successions as a result of minor variations in hydrological conditions across the sites, the natural colonisation of these wetlands by a range of plants that we did not plant; a process that is ongoing, and the arrival and use of these new habitats by fish and birds.
- 10 In my evidence I provide photographic examples of these wetlands, their construction, planting, and speed of recovery. To accompany this summary statement, I have prepared a powerpoint with these examples.
- 11 I also note in my evidence that there is an example of a large constructed wetland at Ruakākā on the margin of Site 3. This stormwater pond contains approximately 5.5 ha of planted wetland and open water habitat. Because it's a stormwater retention pond by necessity it has features necessary for that purpose. But within the series of treatment and retention ponds are a range of depths from open water to shallow margins which appear to have been planted in appropriate native species. Australasian bittern was seen using this pond during my site visit. I also provide photographs of this pond in my powerpoint.
- 12 Overall, with good design and implementation, and ongoing management, I am confident that the enhancement works proposed in Site 1B/1C and the construction of new wetlands proposed in Sites 1 and 3 can achieve the stated objectives.

5 August 2024

Stephen Andrew Fuller