

RM200234

Section 42A of the Resource Management Act 1991 - Planning Report Addendum

Resource Consent Application	
Applicant	Tararua Wind Power Limited
Property to which the proposal relates	379 Maitahi Road, Omamari, Lot 1 DP 201886 RT NA128C/467
Activity Description / Consent/s Sought	<p>The applicant has applied to Kaipara District Council for all necessary resource consents for the construction, operation and maintenance of up to 19 wind turbines within a defined project envelope on the property at 379 Maitahi Road.</p> <p>In particular, the applicant has sought resource consents for breaches of the following rules:</p> <p>Rule 10.11.5 - Maximum Height – Lighting structures and lightning arrestors would be over 18.5m in height. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 10.11.10 – Maximum Volume – Substation and switchyard buildings would be larger than 6.5m³. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 10.11.11 – Maximum Dimension. Substation and switchyard buildings would be larger than 3m. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 10.11.13 – Landscaping – Landscaping is not proposed. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 11.10.2 – Road Construction Not Undertaken by Council - Earthworks in the road reserve would exceed 5000m³. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 12.10.1a – Excavation and Fill – Earthworks in the project envelope would exceed 5000m³ and may occur within 6m from a wetland. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 12.10.5 – Maximum Height – Turbines and masts would be in excess of 10m in height.</p>

	<p>Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 12.10.6 – Height in Relation to Boundary. Turbines would intrude into recession planes. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 12.10.7 – Setbacks – Buildings may be within 30m of a wetland. Consequently, resource consent is required as a restricted discretionary activity.</p> <p>Rule 12.10.15 - Construction Noise and Temporary Activities – Construction noise may exceed permitted thresholds at 701 Babylon Coast Road. Consequently, resource consent is required as a discretionary activity.</p> <p>Rule 12.10.19 – Potentially Contaminated Land. Consent is sought under the NES for soil disturbance. Consequently, resource consent is required as a discretionary activity.</p> <p>Rule 12.10.20 – Contaminated Land Remediation. Consent is sought under the NES for soil disturbance. Consequently, resource consent is required as a discretionary activity.</p> <p>Rule 12.10.21 – Hazardous Substances. Volumes of hazardous substances on-site would not comply with the limits in Table 1 (Permitted Quantities) in Appendix 25D of the District Plan. Consequently, resource consent is required as a discretionary activity.</p> <p>Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES) – Although there is no record of HAIL activities having occurred within the project envelope, the potential for works to disturb former HAIL activities cannot be discounted. In light of this, and taking a precautionary approach, the applicant seeks resource consent for soil disturbance within the project envelope as a discretionary activity under Regulation 11 of the NES.</p> <p>Given the activities for which resource consent are sought are inextricably linked, “bundling” is considered appropriate, resulting in Discretionary Activity status overall.</p>
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Hearing Commissioner/s	Greg Hill (Chair) Ms Sheena Tepania Councillor Victoria del la Varis-Woodcock
Hearing Date	17 th and 18 th August 2021
Hearing Location	The Lighthouse – Dargaville Museum, 32 Mt Wesley Coast Road, Dargaville 0310

1. Scope of this Memo

This addendum addresses the proposed conditions of consent provided in the Planning Evidence from Richard Turner of Mitchell Daysh Ltd dated 2 August 2021.

2. Conditions of Consent

Having considered the various statements of evidence provided by the applicant and the Department of Conservation and having taken the advice of our specialists, I recommend amendments to the conditions of consent proposed in Mr Turner's evidence. These are shown as tracked changes below;

GENERAL

1. The construction, operation and maintenance of the Kaiwaikawe Wind Farm shall be undertaken in general accordance with the information provided in "Omamari Wind Farm – Resource Consent Applications and Assessment of Environmental Effects" dated 13 November 2020 and any other documentation relevant to the resource consent applications, including responses to requests for further information from the Kaipara District Council in accordance with Section 92 of the Resource Management Act 1991 (all held on Kaipara District Council file X). In the event of any conflict or discrepancy between these documents and the conditions of this resource consent, the conditions shall be determinative.
2. Pursuant to Section 125(1) of the Resource Management Act 1991, this resource consent shall lapse if not given effect to within 10 years of the commencement of this resource consent.
3. Pursuant to Section 134(1) of the Resource Management Act 1991, this resource consent may only be exercised by the consent holder, its successor, or any person acting under the prior written approval of the consent holder.
- 3A. The following definitions apply for the purpose of the conditions of this resource consent:
 - a. 'Project Site' means the area marked as the site boundaries on the map attached as Appendix A to this resource consent and dated 29 July 2021;

Commented [DD1]: Application Documents

Assessment of Environmental Effects prepared by Mitchell Daysh dated 13 November 2020
Transportation Assessment Report with appendices prepared by Stantec Ltd dated August 2020.
Construction Management Plan Framework prepared by Stantec Ltd dated September 2020.
Civil Assessment of Access Tracks and Hardstands prepared by Riley Consultants Ltd dated 6 November 2020.
Geotechnical Engineering Assessment prepared by Riley Consultants Ltd dated 6 November 2020.
Assessment of Landscape, Visual and Natural Character Effects with appendices prepared by Isthmus Ltd dated 11 November 2020.
Ecological Impact Assessment with an appendix prepared by Boffa Miskell Ltd dated 12 November 2020.
Noise Effects Assessment prepared by Marshall Day Acoustics Ltd dated 9 November 2020.
Archaeological Report prepared by Clough and Associates Ltd dated November 2020.
Preliminary Radio interference Assessment prepared by Kordia Ltd dated 6 November 2020.
Contaminated Land Preliminary Site Investigation prepared by Riley Consultants Ltd dated 6 October 2020.
Draft Earthworks and Construction Management Plan prepared by Riley Consultants Ltd dated 6 November 2020.
Economic Assessment prepared by NZIER Inc. dated 20 October 2020.
Shadow Flicker Assessment prepared by WSP Australia Pty Ltd dated 10 November 2020.
Aviation Assessment Report prepared by Peet Aviation Ltd dated October 2020.

Section 92 Further Information Responses

Memo prepared by Mitchell Daysh Ltd dated 14 June 2021
Appendix A (Part 1) – Memo prepared by NZIER Inc dated 23 February 2021
Appendix B (Part 2) - Memo prepared by NZIER Inc dated 11 June 2021.
Appendix B – Memo prepared by Isthmus Ltd dated 2 June 2021.
Appendix C – Memo prepared by Riley Consultants Ltd dated 14 June 2021.
Appendix D – Memo prepared by Riley Consultants Ltd dated 29 March 2021.
Appendix E – Memo prepared by WSP Australia Pty Ltd dated 25 March 2021.
Appendix F – Memo prepared by Marshall Day Acoustics Ltd dated 15 June 2021.
Appendix G – Email from Uber Group Ltd dated 9 June 2021.
Memo prepared by Boffa Miskel Ltd dated 29 June 2021
Cultural Impact Assessment (CIA) prepared by Te Roroa
Cultural Impact Assessment (CIA) Memo prepared by Mitchell Daysh Ltd dated 13 July 2021.

Commented [DD2]: Council has no objection to this condition but suggest it might be more appropriate as an Advice Note rather than a Condition.

b. 'Project Envelope' means the area marked as the project envelope boundaries (northern and southern clusters) on the map attached as **Appendix A** to this resource consent and dated 29 July 2021;

c. 'No Turbine Area' means the area marked as the no turbine area within the project envelope on the map attached as **Appendix A** to this resource consent and dated 29 July 2021; and

d. 'Transmission Corridor' means the area marked as the transmission corridor boundaries on the map attached as **Appendix A** to this consent and dated 29 July 2021.

4. The consent holder shall ensure that all contractors engaged to undertake activities authorised by this resource consent are made aware of the conditions of this resource consent relevant to their work area and the measures required for compliance with the conditions.

5. The consent holder shall notify the **Group Manager – Environmental Services**, Kaipara District Council as to the commencement date of construction works authorised as part of this resource consent, at least 15 working days before such works commence.

5A. The consent holder shall ensure that a copy of this resource consent is provided to Mana Whenua Kaitiaki (Te Roroa) within 10 working days of commencement of this resource consent. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the **Group Manager – Environmental Services**, Kaipara District Council.

6. The consent holder shall at all times construct, operate and maintain the Kaiwaikawe Wind Farm in accordance with all management plans submitted to, and certified by, the **Group Manager – Environmental Services**, Kaipara District Council as part of the conditions of this resource consent.

WIND FARM AND TURBINE CHARACTERISTICS

7. The maximum number of wind turbines in the Kaiwaikawe Wind Farm shall not exceed 19, of which up to 8 wind turbines may be located within the northern cluster and up to 11 wind turbines may be located within the southern cluster of the Project Envelope.

8. The maximum wind turbine height (to the vertically extended blade tip) shall be 220 metres above finished ground level.

9. The minimum height of the vertically extended blade tip of any wind turbine shall not be less than 30 metres above finished ground level.

Commented [DD3]: Resource Consents Manager – Kaipara District Council. All references throughout the proposed conditions to the Group Manager – Environmental Services should be amended accordingly.

10. All wind turbines utilised within the Kaiwaikawe Wind Farm (including any replacement wind turbines that are installed during the life of the wind farm) shall be of a similar size and type, and have three blades.
11. Lattice style pylon towers shall not be used for the wind turbines.
12. All wind turbines and turbine blades used within the Kaiwaikawe Wind Farm shall be finished with the same industry standard low reflectivity finishes and in an off-white colour.
13. Each wind turbine may include one externally housed transformer unit located adjacent to the base of the turbine. The maximum height of any externally housed transformer unit shall be 2.5 metres above finished ground level and the maximum building footprint shall not exceed 25 m².
14. All wind turbines, turbine platforms, hard stand areas and externally housed transformer units authorised as part of this resource consent shall be located within the Project Envelope. However, no wind turbines (defined as the base of the turbine tower) shall be located within the No Turbine Area.
15. All wind turbines within the Project Envelope shall be spaced so that an ellipse drawn around each wind turbine and oriented to the prevailing wind at 240 degrees from due north, with the long axis being four times the diameter of the rotor and the narrow axis being 2 times that diameter, does not overlap the ellipse drawn around any other wind turbine identified in the final turbine layout for the Kaiwaikawe Wind Farm required in accordance with Condition 31.
16. No wind turbines, turbine platforms or externally housed transformer units (but excluding hard stand areas) shall be established on any road reserve within the Project Envelope, except where the approval of the **Group Manager – Corporate Services**, Kaipara District Council has been provided in writing.
17. All wind turbines shall be set back at least 75 metres or one blade length, whichever is the greater, from the Project Site boundaries.
18. All wind turbines shall be set back a minimum of one blade length, plus 20 metres, from Stock Ponds P06, P21 and P68 as defined in Maps 5 and 6 of *“Omamari Wind Farm, Northland – Ecological Impact Assessment”* dated 12 November 2020.
19. All wind turbines shall be set back a minimum of one blade length, plus 20 metres, from QEII Covenant Area S-02-1235 as defined in Map 5 of *“Omamari Wind Farm, Northland – Ecological Impact Assessment”* dated 12 November 2020.

Commented [DD4]: General Manager Infrastructure Services. All references throughout the proposed conditions to the Group Manager – Corporate Services should be amended accordingly.

SUPPORTING INFRASTRUCTURE

20. Two temporary meteorological masts may be erected within the Project Envelope. The temporary meteorological masts shall be erected for a period not exceeding 12 months and shall be removed from the Project Envelope at the completion of this period.

Commented [DD5]: For compliance purposes, we recommend the condition require;

The consent holder shall inform the Resource Consents Manager – Kaipara District Council of the erection and removal of the masts within 15 working days of the masts first being erected and within 15 working days of the masts being removed from the project envelope.

21. The maximum height of each temporary meteorological mast shall be no greater than the hubheight of the wind turbines that are to be installed.

Commented [DD6]: The AEE states that there is to be 1 mast in the northern cluster and 1 mast in the southern cluster. The condition does not reflect this.

22. One development / investigation meteorological mast may be erected within the Project Envelope, prior to the commencement of all other construction works authorised by this resource consent (for the purpose of establishing further data on the wind resource across the Project Envelope). The development / investigation meteorological mast shall be removed within 12 months from the start of construction of the Kaiwaikawe Wind Farm.

Commented [DD7]: For compliance purposes, we recommend the condition require;

The consent holder shall inform the Resource Consents Manager – Kaipara District Council of the erection and removal of the mast within 15 working days of the mast first being erected and within 15 working days of the mast being removed from the project envelope.

23. The maximum height of the development / investigation meteorological mast shall be 120 metres above finished ground level

24. One permanent meteorological mast may be erected at each of the following locations:

747074 E 6024397 N

745253 E 6026922 N

Note: These two locations are intentionally located outside of the Project Envelope, but remain within the Project Site (Lot 1 DP 201886).

25. The maximum height of each permanent meteorological mast shall be no greater than the hubheight of the installed wind turbines.

26. One concrete batching plant, and associated temporary construction site offices, may be established at each of the northern and southern clusters of the Project Envelope. The maximum height of the concrete batching plants shall be 15 metres above finished ground level and the maximum working area associated with the concrete batching plants shall not exceed 7,500 m². The concrete batching plants shall be decommissioned and removed within six months of completion of construction works for the Kaiwaikawe Wind Farm.

Commented [DD8]: For compliance purposes, we recommend the condition require;

The consent holder shall inform the Planning Manager – Kaipara District Council of the removal of each of the concrete batching plants within 15 working days of the plants being removed from the project envelope.

27. One operations / maintenance facility may be established at either the northern or southern clusters of the Project Envelope. The maximum height of the operations and maintenance facility shall be 8 metres above finished ground level and the maximum building footprint shall not exceed 6,000 m².

28. One electricity substation / switchyard building may be established at each of the northern and southern clusters of the Project Envelope. The maximum height of the electricity substation /

switchyard buildings shall be 7 metres at finished ground level, with gantry structures and lighting / lightening arrestors not exceeding 20 metres above finished ground level. The maximum building footprint of the electricity substation / switchyard, inclusive of car parking, shall not exceed 4,800 m².

29. All supporting infrastructure to the Kaiwaikawe Wind Farm authorised as part of this resource consent may be located within the No Turbine Area.
30. The 33 kV electrical and fibre optic cable network linking the northern and southern clusters of the Project Envelope shall be located underground within the Transmission Corridor.

PLANS AND DESIGN REPORT

31. At least 40 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall provide the **Group Manager - Environmental Services**, Kaipara District Council with a set of final design drawings and accompanying detailed design report for the Kaiwaikawe Wind Farm **for certification**. The final design drawings shall, as a minimum, include:
 - a. The layout and spacing of the wind turbines;
 - b. The specifications of the wind turbines, turbine platforms, foundations and hard stand areas;
 - c. The location and specifications of all supporting infrastructure, including the location and design of any permanent stormwater controls, wastewater infrastructure and disposal fields and water supplies to be installed against the relevant engineering standards administered by the Kaipara District Council;
 - d. The location of cabling within the Transmission Corridor;
 - e. The layout and pavement composition of the internal access road network; and
 - f. The location of all fill disposal sites to be utilised. The detailed design report shall, as a minimum, include:
 - g. A slope stability assessment of any cuts and fills that are required (and which are verified by a suitably qualified and experienced geotechnical engineer) and
 - h. Hydraulic assessment of any stormwater infrastructure, including culvert inlet and outlet structures, demonstrating compliance with Kaipara District Council Engineering Standards 2011, and Auckland Council's *"Hydraulic Energy Management: Inlet and Outlet Design for Treatment Devices, July 2013."*

- 31A. The consent holder shall provide the planned staging of works for the Kaiwaikawe Wind Farm to Mana Whenua Kaitiaki (Te Roroa) at least 60 working days prior to the commencement of construction works authorised as part of this resource consent. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the **Group Manager - Environmental Services**, Kaipara District Council.
32. Within 40 working days of construction of the Kaiwaikawe Wind Farm being completed (or after each stage, if the Kaiwaikawe Wind Farm is constructed in stages), the consent holder shall provide the **Group Manager - Environmental Services**, Kaipara District Council with a set of asbuilt plans for the following:
- a. All wind turbines, turbine platforms and foundation areas;
 - b. The internal access road network;
 - c. The location of cabling within the Transmission Corridor;
 - d. All fill disposal sites;
 - e. All permanent supporting infrastructure; and
 - f. Engineering survey plans and sections of major earthworks.

EARTHWORKS AND CONSTRUCTION

Earthworks and Construction Management Plan

33. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit an Earthworks and Construction Management Plan to the **Group Manager - Environmental Services**, Kaipara District Council for certification that the plan meets the objectives in Condition 33(a) to (g). The Earthworks and Construction Management Plan shall be prepared by an experienced and appropriately qualified person and shall provide for the following objectives:

- a. Minimise the volume of earthworks required for the construction of the Kaiwaikawe Wind Farm and ensure slope stability of any cuts or fills that are required;
- b. Maximise the effectiveness of erosion and sediment control measures associated with earthworks by minimising sediment generation and sediment laden runoff (particularly in locations adjacent to the Maitahi Wetland / Waitakahuruhuru Stream and the Omamari Station Wetland and Shrubland Crossings);
- c. Minimise the overall area of disturbance so as to reduce the potential impact on any vegetation, wetlands and potential archaeological features within the Project Site;
- d. Ensure control and / or mitigation of the adverse effects of any dust emissions;

- e. Minimise the effects, and introduction, of weeds;
- f. Ensure that fill disposal sites are contoured to generally reflect the surrounding landforms; and
- g. Rehabilitate and re-vegetate worked areas so that they are returned to pasture or their existing vegetative cover.

34. In order to achieve the objectives established in Condition 33 above, the Earthworks and Construction Management Plan shall, as a minimum, address the following matters:

- a. An explanation of how the Earthworks and Construction Management Plan shall be implemented and the associated roles, responsibilities and contact details for the principal persons responsible for management during the construction period;
- b. A clear description of the planned staging of works and the description of earthworks in each stage, including detailed site plans;
- c. Detailed measures for subsoil drainage;
- d. Detailed measures for the infilling of stock ponds, which shall include:
 - i. Dewatering of the stock ponds in the presence of an ecologist;
 - ii. A fish 'muck-out' using standard accepted methods; and
 - iii. The transfer of any fish found in the stock ponds to suitable waterbodies in the project site (preferably within the same catchment).

dd. A Fish Recovery and Relocation Plan shall be prepared and submitted to the Resource Consents Manager, Kaipara District Council to prior to the dewatering and infilling of stock ponds. This Plan shall provide a detailed methodology on how to capture, store, and relocate indigenous fish species from the affected stock ponds. The Plan shall clearly identify all nominated relocation sites, which will be required to be surveyed to determine fish abundance prior to the works commencing.

- e. Confirmation of the volumes of cut, fill and unsuitable material;
- f. The location and design of fill disposal sites within the Project Envelope, which shall not be located in any of the following:
 - i. Areas that are excessively wet,

- ii. Gullies with perennial watercourses;
 - iii. Very steep slopes (> 28),
 - iv. Erosion prone land (land defined as land use capability units VIe17, VIe19, VIIe1 - VIIe10, VIIIe1 - VIIIe3, and VIIIs1),
 - v. Stock ponds with habitat for indigenous species.
- g. The engineering controls, supervision and certification that will be applied to each stage of development;
- h. The specific erosion, stormwater and sediment control measures that will be applied to each stage of earthworks, and particularly the measures that will be applied to minimise sediment generation and sediment laden runoff to the Maitahi Wetland / Waitakahuruhuru Stream and the Omamari Station Wetland and Shrubland Crossings;
- i. Ground stabilisation measures, particular for cut and fill slopes;
- j. The engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;
- k. The specific dust control measures that will be applied to each stage of earthworks and fill disposal sites;
- l. The location of the concrete batching plants within the Project Envelope, which shall be located at least 40 m from any wetland. In addition, the specific measures to contain / manage contaminant runoff and stormwater runoff from the concrete batching plants (e.g. bunds) shall be detailed;
- m. The measures to ensure that worked areas (excluding hard stand areas) are rehabilitated and re-vegetated as soon as practicable following earthworks, including:
- i. The identification of the vegetation or pasture types and re-vegetation material and techniques to be used for rehabilitation purposes;
 - ii. The programme and timing of re-vegetation and maintenance activities so that stabilised surface coverage of 80% is achieved;
 - iii. The retention of surface cover in order to reduce the effects from sediment-laden stormwater runoff;

Commented [DD9]: NES-FW requires discharge to be 100m from a wetland.

iv. Contouring of side-throw material and grading out or feathering of any cut / fill batters to merge with the landform contours, where appropriate; and

v. The identification of weed management activities to be undertaken.

n. Details on the frequency of inspections and monitoring of all stormwater, dust, erosion and sediment control measures throughout each stage of construction works, including details of the experienced and appropriately qualified person responsible for inspections and monitoring.

34A. The consent holder shall provide a copy of the final Earthworks and Construction Management Plan required in accordance with Condition 33 to Mana Whenua Kaitiaki (Te Roroa) within 5 working days of it being certified by the Kaipara District Council. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the **Group Manager - Environmental Services**, Kaipara District Council.

35. All earthworks required for the construction of the Kaiwaikawe Wind Farm shall be undertaken in accordance with the Auckland Council's "*Guidelines for Earthworks in the Auckland Region, 2016 / 005.*"

Contaminated Land

35A. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Detailed Site Investigation to the **Group Manager- Environmental Services**, Kaipara District Council for certification that the plan meets the objective in Condition 35A(a). The Detailed Site Investigation shall be prepared by a suitably qualified and experienced practitioner in contaminated land as required by the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011*. For any land within the Project Envelope confirmed by the Detailed Site Investigation as being contaminated and intended for disturbance, a Site Management Plan will be produced which shall provide for the following objective:

a. Ensure identified HAIL sites intended for disturbance within the Project Envelope will be appropriately remediated or managed prior to or during soil disturbance works, to minimise potential adverse effects on human health and the environment.

35B. In order to achieve the objective in Condition 35A(a), the Site Management Plan shall be prepared by a suitably qualified and experienced practitioner in general accordance with the Ministry for the Environment's "*Contaminated Land Management Guidelines #1: Reporting on Contaminated Sites in New Zealand (Revised 2011)*" and the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human*

Health) Regulations 2011 and shall specify the measures and monitoring that will be implemented in order to minimise potential effects on human health and the environment from the disturbance of contaminated soil or waste material on the site.

- 35C. The consent holder shall ensure that any contaminated soil or waste material identified for offsite disposal is disposed of at a site that holds a resource consent or relevant authorisation to accept the relevant level of contamination identified at the site.

Construction and Cultural Monitoring

- 35D. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall make an invitation to Mana Whenua Kaitiaki (Te Roroa) to undertake the following:

- a. A blessing from a Kaumatua to ensure the 'state' of hau ora (holistic health) is maintained;
- b. Attend an onsite pre-works meeting with the consent holder and its main contractors; and
- c. Cultural monitoring of topsoil stripping and the removal of earth within the Project Envelope.

The consent holder shall facilitate and fund the resourcing associated with Mana Whenua Kaitiaki (Te Roroa) fulfilling the actions outlined in this condition.

NOISE

Construction and Maintenance Noise

36. Noise from all construction works associated with the Kaiwaikawe Wind Farm shall be measured and assessed in accordance with the requirements and limits of "*NZS6803:1999 Acoustics – Construction Noise*."

37. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Noise Management Plan to the **Group Manager - Environmental Services**, Kaipara District Council for endorsement acting in a technical certification capacity. The Construction Noise Management Plan shall be generally in accordance with Section 5 and the relevant annexures of "*NZS6803:1999 Acoustics – Construction Noise*", which detail the relevant types of construction to which the Construction Noise Management Plan is to apply (which shall include construction works associated with road upgrades / improvements), and the procedures that will be carried out to ensure compliance with the standard. The objectives of the Construction Noise Management Plan shall be to ensure construction works are:

a. Designed and implemented to comply with the requirements of "NZS6803:1999 Acoustics – Construction Noise" (with the exception of 701 Babylon Coast Road), as measured and assessed in accordance with the long term noise limits set out in the standard; and

b. Implemented in accordance with the requirements of section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise from construction works associated with the Kaiwaikawe Wind Farm does not exceed a reasonable level.

38. In order to achieve the objectives established in Condition 37 above, the Construction Noise Management Plan shall, as a minimum, address the following matters:

a. The operating hours for the construction works and any time restrictions on the operation of particular machinery and equipment;

b. Details on the machinery and equipment to be utilised during the construction works, and any required mitigation measures associated with the operation of the machinery and equipment;

c. Predictions of sound levels from the machinery and equipment to be utilised during the construction works;

d. Mitigation options for any exceedances of the requirements of "NZS6803:1999 Acoustics – Construction Noise" at 701 Babylon Coast Road (which may include temporary noise barriers);

e. Details on the noise monitoring programme to be undertaken during the construction works;

f. The procedure for the reporting of any exceedances of "NZS6803:1999 Acoustics – Construction Noise" to the **Group Manager - Environmental Services**, Kaipara District Council; and

g. The procedures for the reporting and logging of noise related complaints, including the need for additional monitoring following the receipt of noise complaints.

39. The Construction Noise Management Plan shall be prepared by an appropriately qualified and experienced acoustical consultant.

Operational Noise (Non-Wind Turbine Related)

40. Noise generated from all other activities within the Project Envelope, other than wind turbine operation and construction activities, shall not exceed the following limits when measured at, or within, the notional boundary of any dwelling in existence or consented at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under Section 114 of the Resource Management Act 1991 (excluding those dwellings on the property on which wind turbines are to be located, or where the property owner has provided their written approval and this approval has been provided to the **Group Manager – Environmental Services**, Kaipara District Council):

7.00 am to 7.00 pm	50 dB LAeq
7.00 pm to 10.00 pm	45 dB LAeq
10.00 pm to 7.00 am	40 dB LAeq and 70 dB LAFmax

Except where otherwise expressly provided for, noise shall be measured in accordance with the requirements of “NZS6801:2008 Measurement of Sound” and assessed in accordance with the requirements of “NZS6802:2008 Assessment of Environmental Sound”.

Note: Consented dwellings for the purpose of this condition means any dwelling authorised by a resource consent or building consent at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under Section 114 of the Resource Management Act 1991.

Operational Noise (Wind Turbines)

41. The wind turbines shall be designed, constructed, operated and maintained so that sound levels from the Kaiwaikawe Wind Farm comply with the requirements of “NZS6808:2010 Acoustics – Wind Farm Noise.” For the avoidance of doubt, this condition shall require the wind turbines to be designed, constructed, operated and maintained so that the Kaiwaikawe Wind Farm sound levels (LA90 (10 min)) shall not exceed the background sound (LA90 (10min)) plus 5 dB or a level of 40 dBA (LA90 (10 min)), whichever is the **greater/lesser**.

42. For the purpose of demonstrating compliance with Condition 41, wind farm sound shall be measured and assessed in accordance with “NZS6808:2010 Acoustics – Wind Farm Noise” at, or within, the notional boundary of any dwelling in existence or consented at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under Section 114 of the Resource Management Act 1991 (excluding those dwellings on the property on which wind turbines are to be located, or where the property owner has provided their written approval and this approval has been provided to the **Group Manager – Environmental Services**, Kaipara District Council).

Commented [DD10]: The proposed condition as written provides for up to 45dB if the background sound LA90 (10min) is 40dB.

Note: For the avoidance of doubt, and for the purpose of compliance with Condition 42, the "Reference Test Method" shall be adopted for testing whether the Kaiwaikawe Wind Farm has tonal special audible characteristics, as prescribed in Annex C to ISO 1996:2007, in accordance with Appendix B of "NZS6808:2010 Acoustics – Wind Farm Noise."

43. At least 20 working days prior to the commissioning of the first wind turbine authorised as part of this resource consent, the consent holder shall submit a Noise Management Plan to the **Group Manager – Environmental Services**, Kaipara District Council for certification that the plan meets the objectives in Condition 43(a) and (b). The objectives of the Noise Management Plan shall be to ensure:
- a. The operation of the Kaiwaikawe Wind Farm complies with the requirements of Condition 41 of this resource consent; and
 - b. Operational noise from the Kaiwaikawe Wind Farm is managed in accordance with the requirements of Section 16 of the Resource Management Act 1991, so as to adopt best practicable option to ensure the emission of noise from the Kaiwaikawe Wind Farm does not exceed a reasonable level.
44. In order to achieve the objectives established in Condition 43 above, the Noise Management Plan shall, as a minimum, address the following matters:
- a. An assessment of background sound levels in accordance with the requirements of "NZS6808:2010 Acoustics – Wind Farm Noise" prior to the commencement of any construction work;
 - b. Wind turbine selection, having regard to the sound power level predictions obtained in accordance with Section 6.2 and the special audible characteristics in Clause 5.4.1 of "NZS6808:2010 Acoustics – Wind Farm Noise";
 - c. Procedures for ensuring compliance with the noise conditions of this resource consent, including noise compliance testing, methods for addressing non-compliance, designated contact persons, and complaints procedures;
 - d. Procedures for addressing turbine malfunctions that cause material noise effects beyond typical operational noise;
 - e. Procedures for ensuring that the best practicable option is adopted to ensure the emission of noise from the operation of the Kaiwaikawe Wind Farm does not exceed a reasonable level;

f. Requirements for post construction noise monitoring and assessment; and

g. Provisions regarding the review, and updating, of the Noise Management Plan.

45. The Noise Management Plan shall be prepared by an appropriately qualified and experienced acoustical consultant.

Pre-Instalment Assessment

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- 45A. Prior to the installation of any wind turbine authorised as part of this resource consent, the consent holder shall provide a Noise Prediction Report to the **Group Manager - Environmental Services**, Kaipara District Council for certification in accordance with "NZS6808:2010 Acoustics – Wind Farm Noise" (in particular Sections 8.1 and 8.4.2). The Noise Prediction Report shall:

- a. Demonstrate, based on the sound power levels for the selected wind turbines, that the limits in Condition 41 of this resource consent can be complied with;
- b. Include the finalised 35 dBA contour for the Kaiwaikawe Wind Farm; and
- c. Identify the dwellings within the finalised 35 dBA contour to be measured and assessed in accordance with "NZS6808:2010 Acoustics – Wind Farm Noise".

Compliance Testing

46. A compliance assessment report shall be prepared in accordance with Section 8.4.1 of "NZS6808:2010 Acoustics – Wind Farm Noise" by an appropriately qualified and experienced acoustical consultant and shall be submitted to the **Group Manager, Environmental Services** – Kaipara District Council for certification within three months of electricity being generated from the last wind turbine to be commissioned.
47. The consent holder shall pay all reasonable costs associated with acoustic compliance testing or assessment undertaken in accordance with this resource consent.

TRAFFIC

Construction Traffic Management Plan

48. At least 30 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Traffic Management Plan to the **Group Manager - Environmental Services**, Kaipara District Council for certification

that the plan meets the objectives in Condition 48(a) to (f). The objectives of the Construction Traffic Management Plan shall be to:

- a. Ensure all specific legislative requirements and consent conditions in relation to construction traffic are adhered to;
- b. Encourage a culture of road safety awareness and commitment;
- c. Ensure best practice in transport safety;
- d. Ensure emergency services are not obstructed;
- e. Minimise disruption to the surrounding community, farming operations and rural services;
and
- f. Keep the local community informed of construction operations and encourage participation in maximising safety and minimising disruption.

49. In order to achieve the objectives established in Condition 48 above, the Construction Traffic Management Plan shall, as a minimum, address the following matters:

- a. The construction programme and the associated traffic volumes estimated for each construction phase;
- b. Driver protocols aimed at ensuring safe driving practices and full compliance with the law, including speed limits, appropriate following distances, observing engine braking restrictions, and affording priority to other traffic;
- c. The details of the intended traffic arrangements and provision for the delivery of overdimension and over-weight loads to the Kaiwaikawe Wind Farm;
- d. The nature and timing of any enabling / widening works to be implemented in the legal road reserve of Maitahi Road and Babylon Coast Road, as required by Conditions 52 and 52A;
- e. The traffic management measures to be implemented at intersections, level crossings, stock crossings and access points to local properties, including as a means to manage vehicle speeds in locations where sufficient sight lines are not available;
- f. Requirements for the monitoring of construction traffic;

g. Communication arrangements with residents, Kaipara District Council, Waka Kotahi, schools, marae, emergency services and other key stakeholders, including provision of prior notice of traffic arrangements and any road closures; and

h. The ongoing review and evaluation of the contents of the Construction Traffic Management Plan throughout the period of construction works.

50. The Construction Traffic Management Plan shall be prepared by a suitably experienced and qualified traffic engineer and in consultation with Waka Kotahi and the Group Manager – Engineering Services, Kaipara District Council.

51. The consent holder shall distribute copies of the Construction Traffic Management Plan to emergency services and landowners / occupiers with access to the local construction traffic routes at least 10 working days prior to the commencement of construction works authorised by this resource consent.

52. Subject to the results of a further transportation assessment once the specifications of the wind turbines are confirmed by the consent holder, the consent holder shall upgrade the intersection of State Highway 12 and Babylon Coast Road, and the intersection of State Highway 12 and Maitahi Road, and the site access layouts to safely accommodate all of the expected construction traffic that will utilise the intersection. The upgrade of the intersections shall be undertaken in accordance with Austroads Design Guidelines and the Kaipara District Council's Engineering Standards 2011 and prior to the commencement of principal construction works for the Kaiwaikawe Wind Farm.

Note: For the purpose of Conditions 52, 52A, 52B, 52C and 53, principal construction works means those construction works associated with any more than 15 vehicle movements in a day of which up to 4 movements may be heavy commercial vehicles (vehicles over 3,500 kg gross mass).

52A. Prior to the commencement of principal construction works, the consent holder shall either widen Babylon Coast Road and Maitahi Road from their intersection with State Highway 12 to the respective accesses to the Kaiwaikawe Wind Farm so that they achieve a minimum width of 6 m (in accordance with the Kaipara District Council's Engineering Standards 2011) or implement traffic management measures to manage the traffic movements on Babylon Coast Road and Maitahi Road with consideration to the effects on the existing road users and adjacent properties (which shall be documented in the Construction Traffic Management Plan required in accordance with Condition 48 above).

52B. Prior to the commencement of principal construction works authorised as part of this resource consent, the consent holder shall provide a Pavement Impact Assessment prepared by a suitably qualified pavement engineer to

Commented [DD11]: General Manager Infrastructure Services. All references throughout the proposed conditions to the Group Manager – Engineering Services should be amended accordingly.

- a. Determine the current condition of the pavement on any local road to be utilised as a haulage route as part of the construction of the Kaiwaikawe Wind Farm; and
- b. Whether any strengthening works may be required to the identified local roads in order enable the construction activities authorised by this resource consent.

As part of the Pavement Impact Assessment of any haulage route, the consent holder shall prepare a monitoring plan to monitor and report on any damage to local roads, footpaths, berms, curbs or drains and other assets administered by the Kaipara District Council, as well as any third party assets that are established within road reserve.

52C. The consent holder shall arrange a pre-start meeting with the **Group Manager – Engineering Services**, Kaipara District Council prior to the commencement of principal construction works authorised as part of this resource consent, to discuss the findings of the Pavement Impact Assessment required in accordance with Condition 52B and to confirm the condition of the Kaipara District Council’s assets within the road reserve of the haulage route to be utilised. The consent holder shall then undertake the necessary strengthening / upgrade works to the local roads of the haulage route in accordance with the recommendations of the Pavement Impact Assessment.

52D. Should the results of the monitoring plan required in accordance with Condition 52B identify that damage has occurred to local roads, footpaths, berms, curbs or drains and other assets administered by the Kaipara District Council, as well as any third party assets that are established within road reserve, the consent holder shall notify the **Group Manager – Engineering Services**, Kaipara District Council within 24 hours of the discovery (or immediately where the damage presents a safety hazard). The costs of rectifying such damage and restoring the asset to its previous condition shall be met by the consent holder.

52E. Upon the completion of construction works authorised by this resource consent, the consent holder shall arrange a site meeting with the **Group Manager – Engineering Services**, Kaipara District Council to confirm the results of the Pavement Impact Assessment (and the associated monitoring plan) in order to determine whether any further works are required to rectify any damage and restore the asset to its previous condition.

52E. Prior to the commencement of any work authorised under this consent, the consent holder shall enter into a bond guaranteeing that in the event of damage to existing Council assets or abandonment of the work by the consent holder, that all existing Council assets will be returned to a condition at least equal to that which existed prior to the commencement of work. The bond shall be for the sum of \$100,000 and shall remain in full force and effect until such time as all work has been completed and any necessary remedial work completed to the satisfaction of Council. The bond shall be prepared by Council or Council’s solicitor at the consent holder’s expense. The bond will be released when all works associated with the bond are completed

to Council's satisfaction and inspections fees are paid (or alternatively the consent holder may request that inspection fees can be deducted from the bond refund).

52F. Prior to the commencement of principal construction works authorised as part of this resource consent, the consent holder shall obtain all necessary over-dimension and / or over-weight load permits from the relevant issuing authority(s) for any over-dimension or over-weight loads travelling to the Kaiwaikawe Wind Farm. The consent holder shall abide by the requirements of any such permit issued. The consent holder shall also provide the **Group Manager - Engineering Services**, Kaipara District Council with a copy of any over-dimension and / or overweight load permits issued.

*Note: The consent holder will be required to obtain approval from the **Group Manager - Engineering Services**, Kaipara District Council for any works within legal road reserve administered by the Kaipara District Council.*

ECOLOGICAL MONITORING AND MITIGATION PLAN / EXPERT ECOLOGY PANEL

53B – 53H [Adopted]

Commented [DD12]: As per the recommendation of the Department of Conservation provided in their evidence.

AUSTRALASIAN BITTERN MONITORING / MANAGEMENT

Objective 53AA. In exercising this resource consent, there shall be throughout the life of the project a "no net loss outcome" for Australasian bittern as a result of effects of the operation of the Kaiwaikawe Wind Farm]

Commented [DD13]: As per the recommendation of Department of Conservation provided in their evidence.

Baseline Survey of Australasian Bittern

53. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall (if it has not already done so) undertake a baseline survey, for one spring season, for the presence of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road, and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X). The purpose of the baseline survey is to:

a. Further the understanding of the relative abundance and distribution of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X);

b. Attempt to determine if Australasian Bittern are breeding during the baseline survey period;

c. Provide additional observations of Australasian Bittern behaviour at Maitahi Road crossings to confirm the potential design of additional traffic management requirements at these locations; and

d. Use the results of the baseline survey, where possible, to validate the modelled estimates of collision risk mortality.

The baseline survey shall be undertaken in accordance with the following protocols:

e. The survey method shall follow Department of Conservation monitoring protocols;

f. The survey shall involve at least five survey days and the utilisation of monitoring / recording equipment on site for at least four weeks, and shall be undertaken within the peak period of activity for Australasian Bittern (being the months of September, October and early November);

g. The survey method shall focus on male booming during breeding, and include:

- i. Call counts;
- ii. Acoustic recordings; and
- iii. Site observations.

h. The survey shall include any observations of breeding behaviour and / or juveniles if possible; and

i. The survey shall include any observations of activity around Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X), and any other areas of the Project Envelope where activity is observed.

[j. To further inform Australasian Bittern flight heights and paths, and to determine more accurate risk profiles, a tagging and tracking sample of both local and regional Australasian Bittern using GPS tags shall be undertaken during August-December.](#)

Australasian Bittern Monitoring and Management Plan

54A. At least 60 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall provide the Department of Conservation (Director, Operations, **Central** North Island) with the opportunity to review and provide comment on the draft Australasian Bittern Monitoring and Management Plan required in accordance with Condition 54C.

Commented [DD14]: Northern North Island, as per the Department of Conservation's evidence. All references throughout the proposed conditions should be amended accordingly.

54B. In the event that no written comments are received from the Department of Conservation (Director, Operations, Central North Island) on the draft Australasian Bittern Monitoring and Management Plan within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, Central North Island).

54C. The consent holder shall submit the Australasian Bittern Monitoring and Management Plan, including all written comments provided by the Department of Conservation (Director, Operations, Central North Island) and the consent holder's response to those comments, to the Group Manager - Environmental Services, Kaipara District Council for certification that the plan meets the objectives in Condition 54C(a) to (d). The Australasian Bittern Monitoring and Management Plan shall be prepared by an experienced and appropriately qualified person and shall provide for the following objectives:

Commented [DD15]: Changes are as per the Department of Conservations recommended Condition 54C provided in their evidence.

~~aa. The achievement of a no net loss outcome for Australasian bittern as a result of effects of the operation of the Kaiwaikawe Wind Farm, and avoidance as the primary approach to addressing adverse effects;~~

~~aaa. Determining measures to ensure adverse effects on Australasian bittern are avoided, measures to in the event any injury or mortality occurs, measures to ensure that changes are made to the construction methodology (including traffic management), design and/or operation, including curtailment, of the Kaiwaikawe Wind Farm in the event of Australasian bittern injury or mortality occurs as a result of its construction or operation;~~

Commented [DD16]: As per the recommendation of the Department of Conservation provided in their evidence.

a. Monitoring of the relative abundance, breeding, behaviour and distribution of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X) throughout the life of the Kaiwaikawe Wind Farm;

b. Validating or updating the collision risk assessment for Australasian Bittern at the Kaiwaikawe Wind Farm;

Commented [DD17]: As per the recommendation of the Department of Conservation provided in their evidence.

c. The creation or enhancement of no less than 2 hectares of wetland habitat, together with predator control, within the project site for Australian Bittern; and

~~d. The identification of potential further measures to avoid, remediate or mitigate adverse effects on Australasian Bittern in the event that it is established that the construction or operation of the Kaiwaikawe Wind Farm has an adverse effect on the population of Australian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road and~~

~~the Maitahi Wetland (as identified on the map attached as Appendix X to these conditions and dated X);~~

Commented [DD18]: As per the recommendation of the Department of Conservation provided in their evidence.

54D. In order to achieve the objectives established in Condition 54C above, the Australasian Bittern Monitoring and Management Plan shall, as a minimum, address the following:

a. Where there is sufficient data from the baseline survey, the assessment methodology to be utilised to validate the modelled estimate of collision risk mortality for Australasian Bittern (which shall also include updating the model with the details of the turbine technology selected for the Kaiwaikawe Wind Farm, and the final layout of the wind farm);

Note: For the purpose of Condition 54D(a), the collision risk mortality has been modelled at 1 mortality every 27.8 years assuming a population of 10 birds traversing the Kaiwaikawe Wind Farm once a week for six months, with 20% of traverses at a rotor swept height and at an avoidance rate of 95%.

b. The criteria or assessment methodology for determining whether the construction or operation of the Kaiwaikawe Wind Farm has resulted in the displacement of the population of Australasian Bittern;

c. The detailed measures proposed, and at what locations within the Project Site, to create ~~or enhance~~ 2 hectares of wetland habitat for Australian Bittern (including associated predator control measures);

d. The additional traffic / construction management measure that may need to be implemented along Maitahi Road in order to protect Australasian Bittern in the event the construction of the Kaiwaikawe Wind Farm has an adverse effect on the population of Australian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X); and;

e. The identification of additional habitat creation ~~/ enhancement~~ measures and / or predator control measures, and associated monitoring of such measures, that may need to be implemented by the consent holder in the event that the validated modelling of collision risk mortality for Australasian Bittern is greater than the modelled mortality specified in Condition 54D(a) and / or there is a trend of displacement of Australasian Bittern from the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X) as result of the operation of the Kaiwaikawe Wind Farm. The creation of additional habitat is to be at a ratio of not less than two hectares of additional wetland habitat, together with predator control, per confirmed Australasian Bittern fatality.

f. The criteria for determining when curtailment is necessary and details of the curtailment strategy.

54E. As part of the certification of the Australasian Bittern Monitoring and Management Plan in accordance with Condition 54C above, the **Group Manager – Environmental Services**, Kaipara District Council may seek advice and comment from ~~the expert ecology panel a suitably qualified, independent ecological expert~~ on the appropriateness of the methods proposed by the consent holder to achieve the objective of the Australasian Bittern Monitoring and Management Plan.

Baseline Survey Report

54F. Following the conclusion of the baseline survey required in accordance with Condition 53, the consent holder shall engage an experienced and appropriately qualified person to prepare a survey report that presents, summarises and analyses the data collected from the baseline survey against the relevant objectives of the Australasian Bittern Monitoring and Management Plan and the relevant matters set out in Condition 54D. The baseline survey report shall include an update of the collision risk assessment for Australasian Bittern and the collision risk mortality predictions outlined in Condition 54D(a). The consent holder shall provide the Department of Conservation (Director, Operations, **Central** North Island) with the opportunity to review and comment on the draft baseline survey report.

54G. In the event that no written comments are received from the Department of Conservation (Director, Operations, **Central** North Island) on the draft baseline survey report within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, **Central** North Island).

54H. The consent holder shall provide the baseline survey report, including all written comments provided by the Department of Conservation (Director, Operations, **Central** North Island) and the consent holder's response to those comments, to the **Group Manager – Environmental Services**, Kaipara District Council. Upon receiving the baseline survey report, the Group Manager – Environmental Services, Kaipara District Council may seek advice from ~~the expert ecology panel a suitably qualified, independent ecological expert~~, and then shall determine whether:

a. Any additional measures to avoid, remedy or mitigate adverse effects on Australasian Bittern, as identified in the Australasian Bittern Monitoring and Management Plan, are necessary during the construction of the Kaiwaikawe Wind Farm in the vicinity of Maitahi Road; and

b. Any of the additional habitat creation ~~/enhancement~~ measures or predator control measures identified in Condition 54D(e) as part of the Australasian Bittern Monitoring and Management Plan should be implemented (if at all) in the event that the modelled collision risk mortality for Australasian Bittern is greater than the modelled mortality specified in Condition 54D(a).

c. Redesign of the turbine layout should occur;

d. A curtailment strategy is necessary for any particular turbine(s).

Construction and Post-Construction Survey Report

54I. Surveys for the presence of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X), in accordance with survey methodology outlined in Condition 53 shall be repeated, each spring, throughout the construction of the Kaiwaikawe Wind Farm and for a further three spring seasons following the commissioning of the final turbine of the Kaiwaikawe Wind Farm.

54J. An annual monitoring report shall be prepared by an experienced and appropriately qualified person that presents, summarises and analyses the data collected in the preceding year of construction and post-construction monitoring. The consent holder shall submit the annual monitoring report to the **Group Manager – Environmental Services**, Kaipara District Council within 60 working days of the completion of each spring survey. A copy of the annual monitoring report shall also be provided to the Department of Conservation (Director, Operations, **Central** North Island).

54K. At the conclusion of the construction and post-construction surveying required in accordance with Condition 54I, the consent holder shall engage an experienced and appropriately qualified person to prepare a monitoring report that:

a. Presents, summarises and analyses the data collected from the construction and postconstruction surveys against the objectives of the Australasian Bittern Monitoring and Management Plan and the relevant matters set out in Condition 54D;

b. Considers whether any of the additional habitat creation ~~/enhancement~~ measures or predator control measures identified in the Australasian Bittern Monitoring and Management Plan should be implemented (if at all) in the event that it is established that the construction or operation of the Kaiwaikawe Wind Farm has had an adverse displacement effect on the population of Australian Bittern utilising the Omamari Station

Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as **Appendix X** to these conditions and dated X); and

c. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration. The consent holder shall provide the Department of Conservation (Director, Operations, Central North Island) with the opportunity to review and provide comment on the draft construction and post-construction monitoring report.

54L. In the event that no written comments are received from the Department of Conservation (Director, Operations, Central North Island) on the draft construction and post-construction monitoring report within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, Central North Island).

54M. The consent holder shall provide the construction and post-construction monitoring report, including all written comments provided by the Department of Conservation (Director, Operations, Central North Island) and the consent holder's response to those comments, to the **Group Manager - Environmental Services**, Kaipara District Council. Upon receiving the construction and post-construction monitoring report, the **Group Manager - Environmental Services**, Kaipara District Council may seek advice from ~~the expert ecology panel a suitably qualified,~~ ~~independent~~ ~~ecological expert,~~ and then shall determine whether:

a. Any of the additional habitat creation ~~/ enhancement~~ measures or predator control measures identified in the Australasian Bittern Monitoring and Management Plan should be implemented (if at all) as result of the construction or operation of the Kaiwaikawe Wind Farm having had an adverse displacement effect;

b. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration; and

c. There is a need to serve notice on the consent holder of its intention to review any of the conditions of this resource consent relating to Australasian Bittern in accordance with Sections 128 to 131 of the Resource Management Act 1991.

Bird Mortality Investigations

BITTERN COLLISION MONITORING PLAN

55AA. At least 60 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall prepare a draft Bittern Collision Monitoring Plan required in accordance with Conditions 55AC and 55AD below.

55AAA The consent holder shall provide the Department of Conservation (Director, Operations, Central North Island) with the opportunity to review and provide comment on the draft bittern condition monitoring plan.

55AAAA. In the event that no written comments are received from the Department of Conservation (Director, Operations, Central North Island) on the Bittern Collision Monitoring Plan within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, Central North Island).

55AAAAA. The consent holder shall provide the draft Bittern Collision Monitoring Plan, including all written comments provided by the Department of Conservation (Director, Operations, Central North Island) and the consent holder's response to those comments, to the Resource Consents Manager, Kaipara District Council. Upon receiving the Bittern Collision Monitoring Plan, the Resource Consents Manager Kaipara District Council may seek advice from the expert ecology panel.

55AB. The Resource Consents Manager, Kaipara District Council shall provide their written comments (if any) on the draft Bittern Collision Monitoring Plan to the consent holder at least 40 working days prior to the commencement of construction works authorised as part of this resource consent.

55AC. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit the Bittern Collision Monitoring Plan (including all written comments provided by the expert panel and the consent holder's response to those comments) to the Resource Consents Manager, Kaipara District Council to certify that the plan meets the objective in Condition 55AC(a). The Bittern Collision Monitoring Plan shall be jointly prepared by a suitably experienced and qualified avian expert and a suitably experienced and qualified biostatistician, and shall provide for the following objective:

a. Measure the rates of bird mortality from collisions at the Kaiwaikawe Wind Farm.

55AD. In order to achieve the objective established in Condition 55AC(a) above, the Bittern Collision Monitoring Plan shall describe the methods for recording the frequency of collisions resulting in mortality of bittern. These methods shall be statistically robust and include, but not be limited to, the following:

- (a) Calculating the probability and rate of bird carcass loss to scavengers, decomposition and other causes, taking into account temporal, environmental and other sources of variation;
- (b) Calculating the probability of carcass detection by searchers, which may include searching assisted by suitably-trained dogs, taking into account temporal, environmental, searcher identity and other sources of variation;
- (c) A data collection and analysis regime specifying the timing, location and duration of monitoring at a statistically derived number of wind turbines and wind monitoring masts. The purpose of the data collection and analysis regime is to ensure that a reliable estimate of bird strike mortality at all wind turbines and wind monitoring masts is obtained;
- (d) Methods to account for carcass loss and detection probability when estimating rates of mortality across the Kaiwaikawe Wind Farm;
- (e) Methods to accurately record the condition (partial, full or feather spot) and cause of death; and
- (f) Methods to record, and electronically store, audit and backup data.

In addition to the requirements specified in Condition 55AD, the Bittern Collision Monitoring Plan shall:

- (a) Specify that all carcasses found within the project site shall be labelled with a unique number, bagged and frozen for future reference and possible necropsy of bittern and other native bird species by a trained veterinarian, to determine cause of death, when this is not apparent. A copy of the associated data sheet for each carcass will be replicated, bagged and frozen with the carcass at all times. All carcass shall be photographed as found and mapped using GPS location on a detailed map of the search area showing the location of the wind turbines and associated facilities, such as internal access roads and wind monitoring masts; and
- (b) Identify additional measures that may be implemented by the consent holder, including curtailment, in order to avoid, remedy, mitigate and / or compensate for the potential adverse effects of the Kaiwaikawe Wind Farm on bittern in the event that the bittern mortality equals or exceeds the modelled fatality of more than 1 bird in 27.8 years.

55AE. As part of the certification of the Bittern Collision Monitoring Plan in accordance with Condition 55AC above, the Resource Consents Manager, Kaipara District Council may seek advice and comment from the expert ecology panel.

55AF. Bittern collision monitoring shall commence immediately following the date any wind turbine first generates electricity and continue for a period of ten years (or until an alternative date as determined by the expert ecology panel).

55AG. The consent holder shall submit an annual Bittern Collision Monitoring Report to the Resource Consents Manager, Kaipara District Council and the Department of Conservation (Director, Operations, Northern North Island) within 60 working days of the anniversary of the commencement of bird collision monitoring.

INVESTIGATION REPORT

55. In the event that an Australasian Bittern is found injured or deceased within the Project Envelope, then the consent holder shall notify the **Group Manager – Environmental Services**, Kaipara District Council and the Department of Conservation (Director, Operations, Central North Island) within 24 hours of becoming aware of the discovery.

Note: If a bird is injured, advice shall be sought immediately from the Department of Conservation Dargaville Area Office on 09 439 3450, or if after hours, on the emergency hotline (0800 DOC HOT or 0800 362 468) with regard to capture and care of the bird.

Wildlife Permits under the Wildlife Act 1953 will be required from the Department of Conservation for the uplift of any injured or deceased bird for necropsy, or otherwise any uplift will need to be undertaken by the Department of Conservation.

55A. The suitably experienced and qualified avian expert responsible for Australasian Bittern monitoring at the Kaiwaikawe Wind Farm shall undertake an investigation and complete a draft report on the possible cause of the injury or mortality of the Australasian Bittern within 10 working days of the necropsy report being made available to the consent holder.

55B. The consent holder shall consult with the Department of Conservation (Director, Operations, **Central** North Island) within five working days of their receipt of the draft report on the possible cause of the injury or mortality. The purpose of the consultation shall be to:

- a. Review and discuss the findings of the draft investigation report;
- b. Consider whether any additional monitoring is required to further consider the potential cause of injury or mortality; and
- c. Consider changes to the construction (including traffic management) methodology, curtailment of the operation of particular turbines, and depending on the stage of construction whether redesign of the turbine layout should occur, and whether any additional habitat creation ~~/enhancement~~ measures or predator control measures as identified in the Australasian Bittern Monitoring and Management Plan needs to be implemented by the consent holder.

Commented [DD19]: As per the Department of Conservation's evidence

55C. The consent holder shall submit the investigation report, including all comments received from the Department of Conservation (Director, Operations, **Central** North Island), to the **Group**

Manager – Environmental Services, Kaipara District Council within five working days of convening the consultation with the Department of Conservation in accordance with Condition 55B.

55D. The Consent Holder shall also advise the **Group Manager – Environmental Services**, Kaipara District Council of the actions undertaken in accordance with the Bittern Collision Monitoring Plan in response to the findings of the Investigation Report. The Resource Consents Manager, Kaipara District Council shall, upon receipt of the bird mortality investigation report and as a matter of urgency, but subject to any advice ~~from the expert ecology panel~~ ~~from a suitably qualified, independent expert, and determine~~ in consultation with the consent holder ~~whether:~~

a. Consider whether any additional monitoring is required and at what frequency / duration;

b. Any additional habitat creation ~~/enhancement~~ measures or predator control measures, as identified in the Australasian Bittern Monitoring and Management Plan, needs to be implemented by the consent holder; ~~and~~

~~bb. Consider changes to the construction (including traffic management) methodology, curtailment of the operation of particular turbines, and depending on the stage of construction whether redesign of the turbine layout should occur; and~~

c. There is a need to serve notice on the consent holder of its intention to review any of the conditions of this resource consent in accordance with Sections 128 to 131 of the Resource Management Act 1991.

Supplementary Survey Methods

56. The consent holder may, if it has received the necessary approvals / agreements from the Department of Conservation, undertake radio tracking of Australasian Bittern to supplement the baseline survey, and construction and post-construction surveys, in order to provide additional monitoring data on the movement of Australasian Bittern within the Project Envelope and the height at which they fly.

Note: Wildlife Permits under the Wildlife Act 1953 will be required from the Department of Conservation for radio tracking, unless the consent holder undertakes this monitoring in conjunction with the Department of Conservation.

Maitahi Road Management

57. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall establish ~~measures barrier fence~~ on both sides of Maitahi Road in the vicinity of Omamari Station Wetland that ~~are~~ suitable to minimise the potential crossing of Maitahi Road by Australasian Bittern. ~~All~~The barrier fence shall utilise 150 mm diameter netting and ~~measures~~ shall be retained until the completion of construction. ~~To determine what measures are appropriate, the consent holder shall give effect to the relevant recommendations of the Australasian Bittern Monitoring and Management Plan required by Condition 54D (particularly 54D(d)).~~

Commented [DD20]: Recommended changes based on the comments from the Department of Conservation provided in their evidence.

57A. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall establish signage adjacent to the Omamari Station Wetland in the vicinity of Maitahi Road to warn construction traffic of the potential for Australasian Bittern to be crossing in this area and that construction traffic is not to exceed a speed limit of 20 km/per hour along the length of road fenced off from the Omamari Station Wetland. The signage shall be retained until the completion of construction of the Kaiwaikawe Wind Farm.

58. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall ensure that all staff and contractors are given suitable training as part of site inductions to explain the behaviour of Australasian Bittern, and what to do if a bird is observed, or injured.

Note: The Department of Conservation (Director, Operations, Central North Island) shall be immediately notified in the event that an injured or deceased Australasian Bittern is discovered within the area around the Omamari Station Wetland in the vicinity of Maitahi Road.

LIZARDS

59. At least 40 working days prior to the commencement of vegetation clearance within the areas identified as:

- a. Scrub Revision in Pine Slash – V16 in Map 5 of “Omamari Wind Farm, Northland – Ecological Impact Assessment” dated 12 November 2020;
- b. Scrub and Rank Grass Margins of any pine plantation which extends into the Project Envelope; and
- c. The road reserve / margin adjacent to Maitahi Wetland Scientific Reserve

the consent holder shall submit a Lizard Management Plan to the **Group Manager - Environmental Services**, Kaipara District Council for certification that the plan meets the

objective in Condition 59A(d). The Lizard Management Plan shall be prepared by an experienced and appropriately qualified person and shall provide for the following objective:

d. The avoidance, remediation or mitigation ~~(to be addressed in order of priority)~~ of adverse effects of construction works on any lizard species in the areas identified in Condition 59(a) to (c);

59B. In order to achieve the objective established in Condition 59 above, the Lizard Management Plan shall address the following matters:

a. The detailed methodology proposed to survey for any lizard species in the areas identified in Condition 59(a) to (c);

b. The method of recording the number and species of any lizards required to be captured under the Lizard Management Plan; and

c. The location where captured lizards will be relocated, including the suitability of habitat in this location ~~or measures to be undertaken to ensure the habitat is suitable.~~

Note: Wildlife Permits under the Wildlife Act 1953 may be required in order to implement the Lizard Management Plan.

LONG-TAILED BATS

~~Objective 60AA. In exercising this resource consent, there shall be throughout the life of the project a “no net loss outcome” for long-tailed bats as a result of effects of the operation of the Kaiwaikawe Wind Farm.~~

Commented [DD21]: As per the recommendation of Department of Conservation provided in their evidence.

Baseline Long-Tailed Bat Survey

60. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall (if it has not already done so) undertake a further baseline survey for the presence of long-tailed bats within, and adjacent to, the Project Envelope. The purpose of the baseline monitoring is to:

a. Further the understanding of the whether long-tailed bats are present within, and / or adjacent to, the Project Envelope; and

b. If long-tailed bats are present within, and / or adjacent to, the Project Envelope, determine ~~activity levels at the proposed locations of each wind turbine (if possible) whether areas of activity vary by topography or habitat, valleys, saddles or ridgelines,~~

Commented [DD22]: As per the recommendation of the Department of Conservation provided in their evidence.

The baseline survey shall be undertaken in accordance with the following protocols:

c. The survey method shall follow standard bat monitoring protocols for sampling away from a roost (e.g. Sedgeley 2012, or subsequent updates, modified as necessary for the location);

d. The survey shall ~~be undertaken to coincide with the peak period of activity for bats (being November to April);~~ be undertaken for one full season (1 October-30 April), and

e. The survey method shall include 30 sample sites in general accordance with the locations identified on the map attached as **Appendix X** to these conditions and dated X.

f. Automatic Bat Monitor shall be placed at the following locations:

- At each proposed turbine location.
- At each location surveyed in 2019.
- Within 50 metres of all indigenous and exotic forested areas.

g. Climatic data including temperature, rain, wind speed and wind direction shall be recorded throughout the survey period.

h. If bat activity levels at or within 100 metres of any turbine prior to its commissioning exceeds two passes in any one night the Consent Holder shall provide for bat strike monitoring in the Bat Strike Monitoring Plan to identify and quantify any collision strike mortality at those turbine sites. In the event of bat strike monitoring at a turbine being required, it shall (as a minimum) be undertaken for twenty-four (24) months at each relevant turbine.

i. If bat activity levels at or within 100 metres of any turbine prior to its commissioning exceeds two passes in any one night the Consent Holder shall develop measures to minimise any risk of collision strike mortality at these turbines in collaboration with the Department of Conservation Bat Recovery Group. Such measures may include turbine curtailment strategies.

Long-Tailed Bat Monitoring and Management Plan

60A. At least 60 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall shall prepare a draft Long-Tailed Bat Monitoring and Management Plan required in accordance with Conditions 60C and 60D.

~~60AA~~ The consent holder shall provide the Department of Conservation (Director, Operations, **Central** North Island) with the opportunity to review and provide comment on the draft Long-Tailed Bat Monitoring and Management Plan—required—in accordance with Condition 60C.

60B. In the event that no written comments are received from the Department of Conservation (Director, Operations, Central North Island) on the draft Long-Tailed Bat Monitoring and Management Plan within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, **Central** North Island).

60C. The consent holder shall submit the Long-Tailed Bat Monitoring and Management Plan, including all written comments provided by the Department of Conservation (Director, Operations, **Central** North Island) and the consent holder's response to those comments, to the **Group Manager - Environmental Services**, Kaipara District Council for certification that the plan meets the objectives in Condition 60C(a) to (c). Upon receiving the draft Long-Tailed Bat Monitoring and Management Plan, the Resource Consents Manager Kaipara District Council may seek advice from the expert ecology panel.

~~60CC. The Resource Consents Manager, Kaipara District Council shall provide their written comments (if any) on the draft Long-Tailed Bat Monitoring and Management Plan to the consent holder at least 40 working days prior to the commencement of construction works authorised as part of this resource consent.~~

~~60CCC. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit the Long-Tailed Bat Monitoring and Management Plan (including all written comments provided by the expert panel and the consent holder's response to those comments) to the Resource Consents Manager, Kaipara District Council to certify that the plan meets the objectives in Condition 60CCC. The Long-Tailed Bat Management and Monitoring Plan shall be jointly prepared by a suitably experienced and qualified bat expert and a suitably experienced and qualified bio-statistician, and shall provide for the following objectives:~~

~~The Long-Tailed Bat Monitoring and Management Plan shall be prepared by an experienced and appropriately qualified person and shall provide for the following objectives:~~

~~aa. The achievement of a no net loss outcome for long-tailed bats as a result of effects of the operation of the Kaiwaikawe Wind Farm, and avoidance as the primary approach to addressing adverse effects;~~

a. Monitoring of the relative abundance and distribution of long-tailed bats within, and around, the Project Envelope throughout the life of the Kaiwaikawe Wind Farm;

b. Measure the extent of long-tailed bat mortality from collisions at the Kaiwaikawe Wind Farm (if necessary); and

Commented [DD23]: As per the recommendation of the Department of Conservation provided in their evidence.

c. The measures to mitigate or compensate for ~~more than minor~~ adverse effects on the local population of long-tailed bats from the operation of the Kaiwaikawe Wind Farm.

Commented [DD24]: As per the recommendation of the Department of Conservation provided in their evidence.

60D. In order to achieve the objectives established in Condition 60C above, the Long-Tailed Bat Monitoring and Management Plan shall, as a minimum, address the following:

a. The criteria or assessment methodology for determining whether the additional survey effort required in accordance with Conditions 60I is necessary in order to determine ~~more than minor~~ adverse effects on the local population of long-tailed bats from the operation of the Kaiwaikawe Wind Farm;

Commented [DD25]: As per the recommendation of the Department of Conservation provided in their evidence.

b. The survey methodology for the additional survey effort specified in Conditions 60I;

c. The methods for recording the frequency of collisions resulting in mortality for long-tailed bats in the event that carcass surveys are required around specific wind turbines in accordance with Condition 60L, which shall include:

i. Calculating the probability and rate of long-tailed bat carcass loss to scavengers, decomposition and other causes, taking into account temporal, environmental and other sources of variation;

ii. Calculating the probability of carcass detection by searchers, include searching assisted by suitably-trained dogs, taking into account temporal, environmental, searcher identity and other sources of variation;

iii. A data collection and analysis regime specifying the timing, location and duration of monitoring at a statistically derived number of wind turbines. The purpose of the data collection and analysis regime is to ensure that a reliable estimate of ~~bat~~ strike mortality at all wind turbines is obtained;

iv. Methods to account for carcass loss and detection probability;

v. Methods to accurately record the condition and cause of death; and

vi. Methods to record, and electronically store, audit and backup data.

In addition to the requirements specified above, the Long-Tailed Bat Monitoring and Management Plan shall:

a. Specify that all carcasses found within the project site shall be labelled with a unique number, bagged and frozen for future reference and possible necropsy by a trained veterinarian, to determine cause of death, when this is not apparent. A copy of the associated data sheet for each carcass will be

~~replicated, bagged and frozen with the carcass at all times. All carcasses shall be photographed as found and mapped using GPS location on a detailed map of the search area showing the location of the wind turbines and associated facilities, such as internal access roads and wind monitoring masts; and~~

~~b. Identify additional measures, including a turbine curtailment strategy, that may be implemented by the consent holder in order to avoid, remedy, mitigate and / or compensate for the potential adverse effects of the Kaiwaikawe Wind Farm on bats.~~

~~d. The tracking and recording methodology for all carcasses of long-tailed bats as part of the collision monitoring required in accordance with Condition 60L;~~

e. The methodology for calculating any contribution to a predator control programme that benefits long-tailed bats in the event that carcass surveys identify that the operation of the Kaiwaikawe Wind Farm is having a ~~an~~ more than minor adverse effect on the local population of long-tailed bats.

60E. As part of the certification of the Long-Tailed Bats Monitoring and Management Plan in accordance with Condition 60C above, the **Group Manager – Environmental Services**, Kaipara District Council may seek advice ~~and comment from~~ ~~the expert ecology panel a suitably qualified, independent~~ ~~ecological expert on the appropriateness of the methods proposed by the consent holder to achieve the objective of the Long-Tailed Bats Monitoring and Management Plan.~~

Baseline Survey Report

60F. At the conclusion of the baseline survey required in accordance with Condition 60, the consent holder shall engage an experienced and appropriately qualified person to prepare a survey report that:

a. Presents, summarises and analyses the data collected from the baseline survey against the relevant objectives of the Long-Tailed Bats Monitoring and Management Plan and the relevant matters set out in Condition 60D; and

b. Considers whether additional survey activity around the turbines in the vicinity of where bat activity was identified is required based on the assessment criteria set out in Condition 60D(a) of the Long-Tailed Bat Monitoring and Management Plan.

60H. The consent holder shall provide the baseline survey report, including all written comments provided by the Department of Conservation (Director, Operations, Central North Island) and the consent holder's response to those comments, to the **Group Manager – Environmental**

Services, Kaipara District Council. Upon receiving the baseline survey report, the **Group Manager – Environmental Services**, Kaipara District Council may seek advice from the expert ecology panel ~~a suitably qualified, independent ecological expert,~~ and then shall determine whether:

a. Additional survey activity around the turbines in the vicinity of where bat activity was identified is required in accordance with the assessment criteria set out in Condition 60D(a) of the Long-Tailed Bat Monitoring and Management Plan.

Turbine Survey Report

60I. In the event that it is determined by the **Group Manager – Environmental Services**, Kaipara District Council that a survey around specific wind turbines is required in accordance with Condition 60H above, then this survey shall be undertaken by the consent holder between the period of November and April and in accordance with the methodology outlined in Condition 60D(b) as part of the Long-Tailed Bats Monitoring and Management Plan. 60J. At the conclusion of the wind turbine survey required in accordance with Condition 60I, the consent holder shall engage an experienced and appropriately qualified person to prepare a monitoring report that:

a. Presents, summarises and analyses the data collected from the wind turbine survey against the relevant objectives of the Long-Tailed Bats Monitoring and Management Plan and the relevant matters set out in Condition 60D; and

b. Considers whether carcass monitoring around specific wind turbines is required based on the assessment criteria set out in Condition 60D(b) as part of the Long-Tailed Bat Monitoring and Management Plan.

60K. The consent holder shall provide the turbine survey report, including all written comments provided by the Department of Conservation (Director, Operations, Central North Island) and the consent holder's response to those comments, to the **Group Manager – Environmental Services**, Kaipara District Council. Upon receiving the turbine survey report, the **Group Manager – Environmental Services**, Kaipara District Council may seek advice the expert ecology panel ~~from a suitably qualified, independent ecological expert,~~ and then shall determine whether:

a. Carcass monitoring around specific wind turbines is required in accordance with the assessment criteria set out in Condition 60D(a) of the Long-Tailed Bats Monitoring and Management Plan.

Long-Tailed Bat Carcass Monitoring

- 60L. In the event that it is determined by the **Group Manager – Environmental Services**, Kaipara District Council that carcass monitoring around specific wind turbines is required in accordance with Condition 60K above, then this monitoring shall be undertaken by the consent holder between the period of November and April, and for two seasons, and in accordance with the methodology outlined in Condition 60D(c) as part of the Long-Tailed Bats Monitoring and Management Plan.
- 60M. At the conclusion ~~of the conclusion~~ of the carcass monitoring required in accordance with Condition 60L, the consent holder shall engage an experienced and appropriately qualified person to prepare a monitoring report that:
- a. Presents, summarises and analyses the data collected from the carcass monitoring and considers whether the operation of the Kaiwaikawe Wind Farm is having ~~ana more than minor~~ adverse effect on the local population of long-tailed bats, and, if necessary, ~~sets out a turbine curtailment strategy and / or~~ the extent of the contribution required to a predator control programme that benefits long-tailed bats in accordance with the methodology set out in Condition 60D(e) as part of the Long-Tailed Bats Monitoring and Management Plan.
- 60N. The consent holder shall provide the carcass monitoring report, including all written comments provided by the Department of Conservation (Director, Operations, **Central** North Island) and the consent holder's response to those comments, to the **Group Manager – Environmental Services**, Kaipara District Council. Upon receiving the turbine survey report, the **Group Manager – Environmental Services**, Kaipara District Council may seek advice from ~~the expert ecology panel a suitably~~ **qualified, independent ecological expert**, and then shall determine whether:
- a. The operation of the Kaiwaikawe Wind Farm is having ~~ana more than minor~~ adverse effect on the local population of long-tailed bats and whether ~~turbine curtailment and / or~~ a contribution to a predator control programme that benefits long-tailed bats is required by the consent holder in accordance with the calculation methodology set out in Condition 60D(e) of the Long-Tailed Bat Monitoring and Management Plan.
610. The consent holder shall contribute to a predator control programme that benefits long-tailed bats on a per annum basis (and CPI adjusted from the date of the first contribution) in accordance with the determination made by the **Group-Manager – Environmental Services**, Kaipara District Council as part of Condition 60N above. The consent holder shall provide

written verification of the contribution to the **Group Manager – Environmental Services**, Kaipara District Council within 10 working days of the payment being made to the programme annually.

Consultation with the Department of Conservation

60P. The consent holder shall provide the Department of Conservation (Director, Operations, Central North Island) with the opportunity to review and provide comment on ~~all~~the draft monitoring reports ~~as~~required in accordance with ~~the~~Conditions ~~of this consent 60F, 60J and 60M~~.

60Q. In the event that no written comments are received from the Department of Conservation (Director, Operations, Central North Island) on the draft reports identified in Conditions ~~60P, 60F, 60J and 60M~~ within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, Central North Island).

Bat Roost Inspections

61. If bats are identified in the Project Envelope as part of the baseline survey required in accordance with Condition 60F, then prior to the removal of any trees over 15 cm diameter at breast height with potential roost features the consent holder shall engage a suitably qualified person to determine whether they hold active bat roosts (nests). No trees with active bat roosts (nests) shall be removed until nests are confirmed as being vacant by the suitably qualified person.

GENERAL REPORT OF BIRD AND BAT CARCASSES

~~61A. The consent holder shall record and report any evidence of bird and bat strikes. Should a bird or bat species that is nationally critical, nationally endangered, nationally vulnerable or in serious decline as listed in the New Zealand Threat Classification System (<https://nztes.org.nz/home>) be found injured or dead at the site, the Department of Conservation (Director, Operations, Central North Island) is to be notified immediately. The bird shall be photographed as found and the location noted on a map of the site.~~

Commented [DD26]: As per the recommendation of the Department of Conservation provided in their evidence.

STOCK PONDS

Stock Pond Infilling

62. As far as practicable, draining or modifying any stock ponds with vegetated margins (e.g. breeding habitat) shall occur outside the breeding season of Australasian Bittern, Spotless Crane, Dabchick and Australasian Coot (being 1 September to 28 February).

62A. If a stock pond with a vegetated margin needs to be drained ~~or modified~~ during the period identified in

Condition 62 above, a survey shall be undertaken prior to works by a suitably experienced ornithologist to determine if a nest or nests are present. If a nest of any of the species identified in Condition ~~6234~~ is located, that stock pond shall not be drained or modified until the ~~chick(s) has left the nest. nest has ceased to be occupied. No indigenous nesting birds shall be harmed in any potential nesting habitat (including scrub reversion in pine slash) as a result of the Kaiwaikawe Wind Farm~~

Commented [DD27]: As per the recommendation of the Department of Conservation provided in their evidence.

Commented [DD28]: As per the recommendation of the Department of Conservation provided in their evidence.

62B. In the event that the blade tip of any wind turbine will be located within 200 metres of Stock Ponds 45, 70 ~~and~~ 89 as defined in Maps 5 and 6 of "Omamari Wind Farm, Northland – Ecological Impact Assessment" dated 12 November 2020, then at least 60 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall provide the Department of Conservation (Director, Operations, Central North Island) with the opportunity to review and comment on the draft Ecological Mitigation and Management Plan required in accordance with Condition 62D.

62C. In the event that no written comments are received from the Department of Conservation (Director, Operations, **Central** North Island) on the draft Ecological Monitoring and Management Plan within 20 working days of it being provided by the consent holder, the consent holder may assume that no written comments will be forthcoming from the Department of Conservation (Director, Operations, Central North Island).

62D. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent shall submit an Ecological Mitigation and Management Plan to the **Group Manager - Environmental Services**, Kaipara District Council for certification that the plan meets the objective in Condition 62D(a). The Ecological Mitigation and Management Plan shall be prepared by an experienced and appropriately qualified person and shall provide for the following objective:

a. Create ~~or enhance~~ at least 2.2 ha of wetland habitat for Pied Shag and Black Shag to compensate for the loss of the 1.1 ha of habitat in Stock Ponds 45, 70 and 89 that are to be infilled.

62E. The Ecological Monitoring and Management Plan shall, as a minimum, address the following matters:

a. A clear description of the timing of any restoration works proposed relative to the infilling of the stock ponds;

b. The detailed measures proposed to ~~enhance the habitat values of the identified wetland area, including via the implementation of stock fencing; create and maintain the wetland and provide the habitat values of the identified wetland area, including via the implementation of stock fencing and pest control.~~

Commented [DD29]: As per the recommendation of the Department of Conservation provided in their evidence.

c. A planting plan for the proposed 2.2 ha of wetland habitat, which includes details on the proposed indigenous plant species to be planted and intended planting quantities / densities;

d. Requirements for monitoring of, and reporting on, the success of the wetland habitat works (including plant survival rates); and

e. The method and timeframes for the long term protection of the wetland habitat.

ARCHAEOLOGY

63. In order to minimise the effects of construction works on any koiwi, taonga or archaeological features within the Project Envelope, the consent holder shall implement the following protocols:

Accidental Discovery Protocols (ADP) – Archaeological Sites (excluding human remains)

a. If archaeological remains or buried cultural deposits are encountered at any time, such as layers of shell midden, charcoal rich or burned soils, oven stones or artefacts, and an archaeologist and Mana Whenua Kaitiaki are not present, the consent holder should cease work in the immediate vicinity of the remains and Te Roroa Whatu Ora & Manawhenua Trusts and Heritage New Zealand shall be contacted for advice on how to proceed.

Where human remains are suspected:

a. The consent holder must take steps immediately to secure the area in a way that ensures human remains are not further disturbed. The contractor shall advise the consent holder or proponent of the steps taken.

b. The project archaeologist will determine whether the remains are potentially human.

c. The consent holder shall notify the Police, Heritage New Zealand, Mana Whenua (who will in turn, notify their nominated kaumatua) and Mana Whenua Kaitiaki (if not present for cultural monitoring) within 12 hours of the suspected human remains being disturbed, or otherwise as soon as practically possible.

d. Excavation of the discovery site shall not resume until the Police, Heritage New Zealand, Environs, and Mana Whenua representatives have each given the necessary approvals for excavations to proceed.

64. The consent holder shall provide an opportunity for a representative of Te Roroa to be present on site during any examinations of archaeological deposits of potential significance to iwi.

AIR TRAFFIC SAFETY

65. The consent holder shall advise the Civil Aviation Authority at least three months prior to the commissioning of the first wind turbine as part of the Kaiwaikawe Wind Farm of the finalised co-ordinates of the sites where the wind turbines are to be installed.

66. The Kaiwaikawe Wind Farm shall be lit with aviation obstacle as required by the Civil Aviation Authority under Civil Aviation Rules, Part 77.19 Determination (or its equivalent rule) at the time of commissioning of the wind farm.

67. No later than 5 working days after the construction of all wind turbines is completed (or after each stage, if the Kaiwaikawe Wind Farm is constructed in stages), the consent holder shall submit a registered surveyor's determination of the height and position of the wind turbines to the Civil Aviation Authority. The consent holder shall also submit proof of compliance with the aviation obstacle lighting standards. All correspondence to the Civil Aviation Authority in relation to this condition shall be copied to the General Manager – Environmental Services, Kaipara District Council.

68. Should the consent holder decide not to proceed with the construction of the Kaiwaikawe Wind Farm, the consent holder shall notify the Civil Aviation Authority within 5 working days of its decision.

COMMUNICATION SERVICES

69. Prior to the commencement of construction, the consent holder shall submit details of the final layout of the wind turbines to Airways Corporation, Northpower and any known Internet Service Providers known in the area. A copy of this correspondence shall be provided to the Consents Manager – Kaipara District Council.

70. Prior to finalising the locations of the wind turbines, the consent holder shall undertake an independent assessment, prepared by a person qualified in fixed radio services to confirm that the turbines are located outside of the fixed radio high capacity links in the area and do not degrade the performance of the three fixed radio links identified in the area.

SHADOW FLICKER

71. The consent holder shall ensure that shadow flicker effects at any dwelling in existence or consented at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under Section 114 of the Resource Management Act 1991 (excluding those dwellings on the property on which wind turbines are to be located, or where the property owner has provided their written approval and this approval has been provided to the **Group Manager - Environmental Services**, Kaipara District Council) arising from the operation of the Kaiwaikawe Wind Farm shall be no greater than a modelled limit of 30 hours per year as defined in the Environmental Protection and Heritage Council *"Draft National Wind Farm Development Guidelines"*, EPHC, Adelaide 2010, modelled to 10 times the turbine diameter. The consent holder may use a curtailment strategy to achieve the modelled limit of 30 hours per year.

Note: Consented dwellings for the purpose of this condition means any dwelling authorised by a resource consent or building consent at the date of notice of the decision on the resource consent applications for the Omamari Wind Farm under Section 114 of the Resource Management Act 1991.

72. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Pre-Instalment Shadow Flicker Assessment to the **Group Manager - Environmental Services**, Kaipara District Council. The PreInstalment Shadow Flicker Assessment shall be prepared by an appropriately qualified consultant and shall take account of the design details of dwellings B84, B85, B86 and B95 (as identified in Figure 2.3 of *"Omamari Wind Farm - Shadow Flicker Assessment"* dated November 2020) and the ground details between the turbines and the dwelling. The PreInstalment Shadow Flicker Assessment shall demonstrate that the proposed number, layout, type and operation of wind turbines (including the curtailment strategy for turbines if necessary) to be used at the Kaiwaikawe Wind Farm will be managed to comply with the shadow flicker limits specified in Condition 71 above.

HAZARDOUS SUBSTANCES / CONTAMINANTS

73. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Contaminant Spill Contingency Management Plan to the **Group Manager - Environmental Services**, Kaipara District Council for certification that the plan meets the objectives in Condition 73(a) and (b). The Contaminant Spill Contingency Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objectives:

a. Ensure measures are implemented at the Kaiwaikawe Wind Farm in order to minimise the potential risk, and effects, of a spill of hazardous substances, fuels or other contaminants;
and

b. The use, handling or storage of hazardous substances during the construction, operation and maintenance of the Kaiwaikawe Wind Farm complies with the requirements of Hazardous Substances and New Organisms Act 1996 and its associated regulations.

74. In order to achieve the objectives established in Condition 73 above, the Contaminant Spill Contingency Management Plan shall, as a minimum, address the following matters:

a. The identification of designated bulk fuel storage, contaminant storage facilities and refuelling locations;

b. Measures to ensure that all contaminant storage or designated re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants;

c. Requirements for all mobile fuel tankers to carry spill kits;

d. Details on the contents of the spill kits;

e. Records of the names of operators trained in spill response and remediation;

f. Measures to ensure that all machinery is regularly maintained in such a manner so as to minimise the potential for leakage of contaminants;

g. Measures to ensure that no machinery is cleaned, stored or refuelled within 20 metres of the bed of any water body;

h. Measures to ensure that all contaminants are removed from the site at the end of the construction works, except for those required for the on-going maintenance and operational activities at the Kaiwaikawe Wind Farm;

i. Details of an internal and external notification procedure in the event of a spill of contaminants; and

j. The identification of measures to be undertaken to remediate a contaminant spill, including instructions for removing and disposing of contaminated material in a manner suitable to ensure no further contamination occurs.

75. The transformers and radiators in the electrical substation / switchyard building shall be located on pedestal foundations and enclosed by bunds. The bunds must be designed with sufficient capacity to retain all of the oil utilised in each of the transformers.

76. Electric and magnetic field levels at the Project Site boundaries shall not exceed the limits in the International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines endorsed by the New Zealand Ministry of Health.

FIRE MANAGEMENT

77. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Fire Management Plan to the Group Manager - Environmental Services, Kaipara District Council for certification that the plan meets the objectives in Condition 77(a). The Fire Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objective:
- a. Ensure measures are implemented on the site of the Kaiwaikawe Wind Farm in order to minimise the potential risk, and effects, of fire.

78. In order to achieve the objective established in Condition 77 above, the Fire Management Plan shall, as a minimum, address the following matters:

- a. The identification of potential sources of combustion and fire during the construction, operation and maintenance of the Kaiwaikawe Wind Farm;
- b. Measures to minimise or prevent the potential for fire during the construction, operation and maintenance of the Kaiwaikawe Wind Farm;
- c. Sources of water for fire-fighting purposes and / or fire retardants across the site of the Kaiwaikawe Wind Farm;
- d. Protocols for the management of different fire events (e.g. grass fires, mechanical fires) across the site of the Kaiwaikawe Wind Farm; and
- e. Training procedures for all site staff and contractors.

COMMUNITY CONSULTATION / COMMUNICATION

79. The consent holder shall establish and publicise a toll free telephone number so that members of the public may raise matters with, or make an enquiry of, the consent holder during the construction of the Kaiwaikawe Wind Farm. The toll-free telephone number shall be established at least 10 working days prior to the commencement of construction works authorised as part of this resource consent, and shall be maintained until the completion of construction works. The toll-free telephone number shall be publicised by the following means:

- a. Via the consent holder's website or social media;

- b. Via an advertisement in the Kaipara Lifestyler;
- c. Via the signage erected along the margin of Babylon Coast Road and Maitahi Road (subject to the approval of the Kaipara District Council); and
- d. As part of the Construction Traffic Management Plan distributed to landowners / occupiers with access to the local construction traffic routes.

80. At least 40 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall establish and co-ordinate a Consultative Group for the Kaiwaikawe Wind Farm. Subject to Condition 84 below, this group is to be consulted, as a minimum, at least 6 monthly during the construction phase and over the first 2 years of the operation of the Kaiwaikawe Wind Farm. Thereafter, the frequency of consultation is to be determined by a majority of the Consultative Group itself. Individual Consultative Group members may, with the agreement of the **Group Manager - Environmental Services**, Kaipara District Council, call meetings at shorter intervals to deal with any interim matters that need to be addressed before the next scheduled meeting.

81. The objective of the Consultative Group is to facilitate information flow between the consent holder's management team and the community, and will be an on-going point of contact between the consent holder and the community. The functions of the Consultative Group shall also include acting as a forum for relaying community concerns about the construction and ongoing operation of the Kaiwaikawe Wind Farm to the consent holder's on-site management team, developing acceptable means of addressing (where possible) and managing those concerns, and reviewing the implementation of measures to resolve and manage community concerns.

82. The consent holder shall be responsible for convening the meetings of the Consultative Group and shall cover the direct costs associated with the establishment and operation of the meetings. The consent holder shall be responsible for the keeping and distribution of the Consultative Group's minutes to all participants in the Consultative Group. A person independent of the consent holder shall chair the meeting. The chair shall be appointed by the **Group Manager - Environmental Services**, Kaipara District Council.

83. The consent holder shall notify its intention to establish a Consultative Group for the Kaiwaikawe Wind Farm project by public notice. The consent holder shall invite, as a minimum, the following parties to participate in the Consultative Group:

- a. A representative of property owners and occupiers on local roads identified for use by construction traffic;

b. An elected representative of the Kaipara District Council;

c. A delegate of the Department of Conservation;

d. A representative from Te Roroa; and

e. Local residents.

No owner or occupier of any property on which the Kaiwaikawe Wind Farm is located may be a member of the Consultative Group. The consent holder shall not be in breach of this condition if any one or more of the parties specified above do not wish to be members of the Consultative Group or to attend any particular meeting.

84. The Consultative Group shall cease to exist when a 75% majority of the Consultative Group vote that it is no longer necessary.

COMPLAINTS

85. The consent holder shall maintain and keep a Complaints Register to record any complaints about construction works and operation of the Kaiwaikawe Wind Farm received by the consent holder in relation to traffic, noise, dust, communications interference, shadow flicker or any other environmental effects. The register shall record, where this information is available, the following:

a. The date, time and duration of the incident that resulted in the complaint;

b. The location of the complainant when the incident was detected;

c. The possible cause of the incident; and

d. Any corrective action taken by the consent holder in response to the complaint, including the timing of the corrective action.

86. The Complaints Register shall be available to staff and authorised agents of the Kaipara District Council, and to members of the Consultative Group, at all reasonable times upon request. Complaints received by the consent holder that may infer non-compliance with the conditions of this resource consent shall be forwarded to the **Group Manager - Environmental Services**, Kaipara District Council within 48 hours of the complaint being received.

DECOMMISSIONING AND SITE REHABILITATION

87. If any of the wind turbines cease to generate electricity for a continuous period of more than 24 months, the consent holder shall remove from the site all above ground structures associated with the operation of that wind turbine (including the turbine tower, wind turbine generator and externally housed transformer unit). The site of each wind turbine generator shall be restored and re-vegetated as pasture within 12 months of any wind turbine being removed.

REVIEW

88. Pursuant to Sections 128 to 131 of the Resource Management Act 1991, the Kaipara District Council may one year after the commencement of this resource consent, and at five yearly intervals thereafter (except as provided for by Conditions 54M and 55D), serve notice on the consent holder of its intention to review any or all of the conditions of this resource consent for any of the following purposes:

- a. To review the effectiveness of the conditions of this resource consent in avoiding, remedying or mitigating any adverse effects on the environment that may arise from the exercise of this resource consent;
- b. To address any adverse effects on the environment which have arisen as a result of the exercise of this resource consent that were not anticipated at the time of commencement of this resource consent, including addressing any issues arising out of complaints; and
- c. To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this resource consent.

CHARGES

89. The consent holder shall pay to the Kaipara District Council:
- a. All required administration charges fixed by the Kaipara District Council pursuant to Section 36 of the Resource Management Act 1991 in relation to the administration, monitoring and inspection of this resource consent; and
 - b. All other charges authorised by regulations.

3. Conclusion

Pursuant to Sections 104 and 104D of the Resource Management Act 1991, it is recommended that the resource consent application can be granted by the Commissioners, subject to the recommended conditions of consent.

Commented [DD30]: Specific references to be confirmed following confirmation of conditions (if consent is to be granted). Conditions relating to monitoring of Australasian Bittern and Long Tailed Bat should be referenced here so allow Council to initiate a review under S128 at any time in the event that monitoring reveals an adverse effect (net loss) on these species.

