

**IN THE MATTER** of the Resource Management Act 1991  
("RMA" or "the Act")

**AND**

**IN THE MATTER** of an application to **Kaipara District Council** for resource consent by **Tararua Wind Power Ltd (RM200234)** to construct, operate and maintain up to 19 wind turbines within a defined project envelope on the property at 379 Maitahi Road, Omamari, legally described as Lot 1 DP 201886. (Referred to as **Kaiwaikawe Wind farm**).

**JOINT WITNESS STATEMENT(JWS) OF EXPERTS IN RELATION TO  
AVIFAUNA AND PLANNING**

**12 OCTOBER 2021**

Expert Witness Conferencing Topic: Avifauna & Planning

Held on: 12 October 2021 at 8:30am

Venue: Via online video conference

Facilitator: Marlene Oliver

Admin Support: Polly Smith

**1. ATTENDANCE**

1.1 The list of expert participants is in the schedule at the end of this Statement. Their area of expertise (avifauna (A) or planning (P)) is indicated in that schedule.

**2. BASIS OF ATTENDANCE AND ENVIRONMENT COURT PRACTICE NOTE 2014**

2.1 All participants agree as follows:

- (a) Emma Williams was unavailable at short notice due to illness and therefore did not participate in this expert conference. Accordingly, items (a) and (b) in the agenda (section 3 below) where they are relevant to Emma's expertise and input will be discussed on 20/10/21.
- (b) All experts have agreed to a further expert conferencing session on 20/10/21 and the agenda for this session will cover any outstanding issues in the full suite of proposed conditions, including birds and long-tailed bats.
- (c) The Environment Court Practice Note 2014 provides relevant guidance and protocols for the expert conferencing session.

- (d) They will comply with the relevant provisions of the Environment Court Practice Note 2014.
- (e) They will make themselves available to appear at the hearing in person if required to do so by the Hearing Panel (as directed by the Hearing Panel's directions).
- (f) This JWS report is to be filed with the Hearing Panel.

### 3. **AGENDA – ISSUES TO BE CONSIDERED AT CONFERENCING**

3.1 The issues identified as forming the agenda for conferencing were:

- (a) Pre-Construction Surveying / Monitoring for Australasian Bittern;

Item (a) was not discussed on 12/10/21 as it requires input from Emma Williams.

- (b) Post Construction Monitoring and Management Responses;

This item was discussed on 12/10/21 but some aspects will be further discussed on 20/10/21.

- (c) Management of Stock Ponds;

- (d) Lizards;

- (e) Met Masts;

- (f) Lighting from the Concrete Batching Plant;

- (g) Requirement for a Design and Operations Report;

This item was not discussed on 12/10/21 and will be put on the agenda for 20/10/21.

### 4. **OUTCOMES OF EXPERT CONFERENCING**

4.1 The outcomes from Expert Conferencing on 12/10/21 are identified above in section 3 and in Attachment 1 provided with this JWS.

### 5. **PARTIES TO THIS JOINT WITNESS STATEMENT**

5.1 The participants to this Joint Witness Statement confirm that:

- (a) They agree with the outcomes of the expert conference as recorded in this statement. As this session was held online and there is an existing hearing timetable, in the interests of efficiency, it was agreed that each expert would verbally confirm their position to the Facilitator during the online conference. This is recorded in the schedule below; and
- (b) They agree with Section 2 above, being the Basis of Attendance and Environment Court Practice Note 201; and
- (c) They have read Appendix 3 of the Environment Court's Practice Note 2014 and agree to comply with it; and
- (d) The matters addressed in this statement are within their area of expertise.

**CONFIRMED ON 12 OCTOBER 2021**

<b>EXPERT NAME</b>	<b>PARTY</b>	<b>EXPERT'S CONFIRMATION (REFER PARA 5.1)</b>
Richard Turner P	Applicant	Yes
Stephen Fuller A	Applicant	Yes
Ueli Sasagi P	KDC	Yes
Dwayne Daly P	KDC	Yes
Della Bennet A	KDC	Yes
Maggie Burns P	DOC	Yes
Rhys Burns A	DOC	Yes

**KAIWAIKAWE WIND FARM**  
**PROPOSED CONDITIONS - EXPERT CONFERENCING TABLE – AVIFAUNA & PLANNING**  
**12 OCTOBER 2021**

Proposed Condition – 18 August 2021 (including any matters agreed between experts for TWPL and KDC, and matters agreed between TWPL, KDC and DOC prior to conferencing through circulation of conditions)	Department of Conservation Condition – 9 September 2021	TARARUA WIND POWER LIMITED RESPONSE	DEPARTMENT OF CONSERVATION RESPONSE	KAIPARA DISTRICT COUNCIL RESPONSE
<b>GENERAL</b>				
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.	2. Pursuant to Section 125(1) of the Resource Management Act 1991, this resource consent shall lapse if not given effect to within <u>5.10</u> years of the commencement of this resource consent.			
<b>SUPPORTING INFRASTRUCTURE</b>				
21. The maximum height of each temporary meteorological mast shall be no greater than the hub-height of the wind turbines that are to be installed. ... 23. The maximum height of the development / investigation meteorological mast shall be 120 metres above finished ground level. ... 25. The maximum height of each permanent meteorological mast shall be no greater than the hub-height of the wind turbines that are to be installed.	21. The maximum height of each temporary meteorological mast shall be no greater than the hub-height of the wind turbines that are to be installed <u>and cross-section dimensions will be no more than 10m x 10m.</u> ... 23. The maximum height of the development / investigation meteorological mast shall be 120 metres above finished ground level. ... 25. The maximum height of each permanent meteorological mast shall be no greater than the hub-height of the wind turbines that are to be installed <u>and cross-section dimensions will be no more than 10m x 10m.</u>		- 21 and 25 – RB agreed to the deletion of the DOC amendments relating to dimensions and accepts that the permanent masts are to be included in the Bird Collision Monitoring Programme.	
<b>PLANS <u>AND FINAL DESIGN AND OPERATION REPORT</u></b>				
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 Resource Consents Manager - Kaipara District Council with a set of final design drawings and accompanying detailed design report for the Kaiwaikawe Wind Farm. 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	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 <u>detailed Final dDesign and Operation rReport</u> for the Kaiwaikawe Wind Farm. 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			

<p>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;</p> <p>d. The location of cabling within the Connection Envelope;</p> <p>e. The layout and pavement composition of the internal access road network; and</p> <p>f. The location of all fill disposal sites to be utilised.</p> <p>The detailed design report for the Kaiwaikawe Wind Farm shall, as a minimum, include:</p> <p>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</p> <p>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."</p>	<p><u>transmission lines</u>, 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;</p> <p>d. The location of cabling within the Connection Envelope;</p> <p>e. The layout and pavement composition of the internal access road network; and</p> <p>f. The location of all fill disposal sites to be utilised.</p> <p><u>31AA.</u> The <u>detailed Final dDesign and Operation rReport</u> for the Kaiwaikawe Wind Farm shall, as a minimum, include:</p> <p><u>a.</u> A slope stability assessment of any cuts and fills that are required (and which are verified by a suitably qualified and experienced geotechnical engineer); <u>and</u></p> <p><u>b.</u> 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.";</p> <p><u>c.</u> <u>The final detailed design and operational parameters for the Kaiwaikawe Wind Farm, which shall be updated annually in accordance with Condition 31AB, including:</u></p> <p><u>i.</u> <u>Any changes made to the design of the wind farm from that set out in the Application documents to address the results from, and analysis of, the monitoring for Australasian bittern undertaken in accordance with Conditions 53 and 54C(a) and any changes set out in the Australasian Bittern Monitoring and Management Plan in accordance with Conditions 54A to 54D;</u></p> <p><u>ii.</u> <u>Any changes made to the operation of the wind farm from that set out in the Application documents to address the results from, and analysis of, the monitoring for Australasian bittern undertaken in accordance with Conditions 53 and 54C(a) and any changes set out in the Australasian Bittern Monitoring and Management Plan in accordance with Conditions 54A to 54D;</u></p>			
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	<ul style="list-style-type: none"> <li>iii. <u>Any changes to the operation of the wind farm or measures to address adverse effects as set out in the Baseline Survey Report in accordance with Condition 54H;</u></li> <li>iv. <u>Any changes made to the design of the wind farm from that set out in the Application documents to address the results from, and analysis of, the monitoring for Long-tailed bats undertaken in accordance with Condition 60D, as set out in the Long-Tailed Bat Monitoring and Management Plan in Condition 60C and/or the Turbine Survey Report prepared in accordance with Condition 60J;</u></li> <li>v. <u>Any changes made to the operation of the wind farm from that set out in the Application documents to address the results from, and analysis of, the monitoring for Long-tailed bats undertaken in accordance with Condition 60D, as set out in the Long-Tailed Bat Monitoring and Management Plan in Condition 60C and/or the Turbine Survey Report prepared in accordance with Condition 60J;</u></li> <li>vi. <u>Any responses to breaches of Mitigation Review thresholds and/or Immediate Review Thresholds for avifauna in Conditions 58Fa, 58J and/or 58R;</u></li> <li>vii. <u>Any responses to breaches of Mitigation Review thresholds and/or Immediate Review Thresholds for Long-tailed bats in Conditions 60C and/or 60D;</u></li> <li>viii. <u>Any changes to the operation or design of the wind farm as a result of one or more Australasian Bittern being found injured or deceased under Condition 55B(c);</u></li> <li>ix. <u>Any measures required as a result of bird of Long tailed bat mortality as set out in the Bird and Long-tailed Bat Collision Monitoring Plan under Condition 58E(c)</u></li> <li>x. <u>Any changes to the operation or design of the wind farm as a result of one or more Long-tailed bat being found injured or deceased under Condition 60D(Bbb); and</u></li> <li>xi. <u>Any recommendations by the expert panel for ongoing monitoring following the development of the wind farm or in response to the results of monitoring</u></li> </ul>			
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<p>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</p>	<p style="text-align: center;"><u>or any immediate review or urgent review in accordance with Condition 55B(b);</u></p> <p><u>31AB. The Final Design and Operation Report shall be updated annually to respond to the results of carcass monitoring undertaken in accordance with Conditions 55B and 60D; and any measures required to be undertaken to address adverse effects on avifauna and/or Long-tailed bats required by Conditions 54D, 55B, 58Fa and/or Condition 60D.</u></p> <p><u>31AC. At least 80 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall provide the expert panel with the draft Final Design and Operation Report required in accordance with Condition 31AA for review and comment.</u></p> <p><u>31AD. The expert panel shall provide its written comments (if any) on the draft Final Design and Operation Report to the consent holder within 20 working days of receipt of the report from the consent holder.</u></p> <p><u>31AE. The consent holder shall submit the Final Design and Operation Report, including all written comments provided by the expert panel 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 requirements in Condition 31AA(c).</u></p> <p><u>31AF. The first time the Plan is submitted, construction, including establishment works, cannot commence until the Plan has been certified by the Group Manager – Environmental Services, Kaipara District Council in accordance with the process outlined above</u></p> <p><u>31AG. A draft of all annual updates to the Final Design and Operation Report shall be provided to the Expert Panel for review and input prior to being provided to the Group Manager - Environmental Services, Kaipara District Council for certification, in accordance with the process set out in Conditions 31AC to 31AE.</u></p> <p><u>31AH. The consent holder shall provide a copy of the Final Design and Operation Report, and all updates to the report, to the Consultative Group for its information, within 20 working days of submission to the Group Manager - Environmental Services, Kaipara District Council.</u></p> <p><u>31ABB. 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.</u></p>			
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<p>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 Resource Consents Manager – Kaipara District Council.</p>	<p>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.</p>			
<p><b>EARTHWORKS AND CONSTRUCTION</b></p>				
<p><b><i>Earthworks and Construction Management Plan</i></b></p>				
<p>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 Resource Consents Manager - 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:</p> <ul style="list-style-type: none"> <li>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;</li> <li>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);</li> <li>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;</li> <li>d. Ensure control and / or mitigation of the adverse effects of any dust emissions;</li> <li>e. Minimise the effects, and introduction, of weeds;</li> <li>f. Ensure that fill disposal sites are contoured to generally reflect the surrounding landforms; and</li> <li>g. Rehabilitate and re-vegetate worked areas so that they are returned to pasture or their existing vegetative cover.</li> </ul>	<p>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:</p> <ul style="list-style-type: none"> <li>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;</li> <li>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);</li> <li>c. Minimise the overall area of disturbance so as to reduce the potential impact on any vegetation, wetlands, <a href="#">indigenous fauna</a> and potential archaeological features within the Project Site;</li> <li>d. Ensure control and / or mitigation of the adverse effects of any dust emissions;</li> <li>e. Minimise the effects, and introduction, of weeds;</li> <li>f. Ensure that fill disposal sites are contoured to generally reflect the surrounding landforms; and</li> <li>g. Rehabilitate and re-vegetate worked areas so that they are returned to pasture or their existing vegetative cover.</li> <li>h. <a href="#">Incorporation of measures in the Australasian Bittern Monitoring and Management Plan and Long-Tailed Bat</a></li> </ul>			



<p>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:</p> <p>35.</p> <ul style="list-style-type: none"> <li>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;</li> <li>b. A clear description of the planned staging of works and the description of earthworks in each stage, including detailed site plans;</li> <li>c. Detailed measures for subsoil drainage;</li> <li>d. Detailed measures for the infilling of stock ponds, which shall include: <ul style="list-style-type: none"> <li>i. Dewatering of the stock ponds in the presence of <del>an</del> <b>freshwater</b> ecologist;</li> <li>ii. A fish ‘muck-out’ using standard accepted methods; and</li> <li>iii. The transfer of any fish found in the stock ponds to suitable waterbodies in the Project Site (as identified by a <b>freshwater</b> ecologist).</li> </ul> <p><i>Note: Wildlife Permits under the Wildlife Act 1953 may be required in order to transfer any fish found during the dewatering of stock ponds.</i></p> </li> <li>e. Confirmation of the volumes of cut, fill and unsuitable material;</li> <li>f. The location and design of fill disposal sites within the Project Envelope, which shall not be located in any of the following: <ul style="list-style-type: none"> <li>i. Areas that are excessively wet,</li> <li>ii. Gullies with perennial watercourses;</li> </ul> </li> </ul>	<p style="color: green;"><u>Monitoring and Management Plan to achieve a zero net impact outcome as a result of construction on Australasian Bittern and Long-Tailed bats.</u></p> <p>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:</p> <ul style="list-style-type: none"> <li>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;</li> <li>b. A clear description of the planned staging of works and the description of earthworks in each stage, including detailed site plans;</li> <li>c. Detailed measures for subsoil drainage;</li> <li>d. Detailed measures for the infilling of stock ponds, which shall include: <ul style="list-style-type: none"> <li>i. Dewatering of the stock ponds in the presence of an ecologist;</li> <li>ii. A fish ‘muck-out’ using standard accepted methods; and</li> <li>iii. The transfer of any fish found in the stock ponds to waterbodies in the detailed measures proposed to capture and translocate native fish, koura and eels from the farm ponds prior to their draining and infilling in accordance with the permit obtained from the Ministry for Primary Industries</li> </ul> <p><i>Note: Wildlife Permits under the Wildlife Act 1953 may be required in order to transfer any fish found during the dewatering of stock ponds.</i></p> </li> <li>e. Confirmation of the volumes of cut, fill and unsuitable material;</li> <li>f. The location and design of fill disposal sites within the Project Envelope, which shall not be located in any of the following: <ul style="list-style-type: none"> <li>i. Areas that are excessively wet,</li> </ul> </li> </ul>			
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<p>iii. Very steep slopes (&gt; 28),</p> <p>iv. Erosion prone land (land defined as land use capability units VIe17, VIe19, VIIe1 - VIIe10, VIIIe1 - VIIIe3, and VIIIs1),</p> <p>v. Stock ponds with habitat for indigenous species.</p> <p>g. The engineering controls, supervision and certification that will be applied to each stage of development;</p> <p>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;</p> <p>i. Ground stabilisation measures, particular for cut and fill slopes;</p> <p>j. The engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;</p> <p>k. The specific dust control measures that will be applied to each stage of earthworks and fill disposal sites;</p> <p>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;</p> <p>m. The measures to ensure that worked areas (excluding hard stand areas) are rehabilitated and re-vegetated as soon as practicable following earthworks, including:</p> <p>i. The identification of the vegetation or pasture types and re-vegetation material</p>	<p>ii. Gullies with perennial watercourses;</p> <p>iii. Very steep slopes (&gt; 28 degrees),</p> <p>iv. Erosion prone land (land defined as land use capability units VIe17, VIe19, VIIe1 - VIIe10, VIIIe1 - VIIIe3, and VIIIs1),</p> <p>v. Stock ponds <del>used by</del> <del>with habitat for</del> indigenous <del>avifauna</del> species.</p> <p>g. The engineering controls, supervision and certification that will be applied to each stage of development;</p> <p>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;</p> <p>i. Ground stabilisation measures, particular for cut and fill slopes;</p> <p>j. The engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;</p> <p>k. The specific dust control measures that will be applied to each stage of earthworks and fill disposal sites;</p> <p>l. The location of the concrete batching plants within the Project Envelope, which shall be located at least <del>40</del> <u>100m</u> from any wetland <del>and shall ensure that no artificial light will spill into any wetland.</del> In addition, the specific measures to contain / manage contaminant runoff and stormwater runoff from the concrete batching plants (e.g. bunds) shall be detailed;</p> <p>m. The measures to ensure that worked areas (excluding hard stand areas) are rehabilitated and re-vegetated as soon as practicable following earthworks, including:</p> <p>i. The identification of the vegetation or pasture types and re-vegetation material and techniques to be used for rehabilitation purposes;</p>	<p>- 34(l) – All experts agree that the restriction on artificial light and the concrete batching plant should read: 'Any fixed artificial light associated with the concrete batching plant will be shielded and orientated over the work area, with the purpose being to minimise the potential for light spill onto any adjacent wetland'.</p> <p>- All experts agree this restriction should be deleted from condition 34(l) and inserted into condition 26.</p>	<p>-</p>	<p>-</p>
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<p>and techniques to be used for rehabilitation purposes;</p> <p>ii. The programme and timing of re-vegetation and maintenance activities so that stabilised surface coverage of 80% is achieved <u>within two months of the completion of earthworks in a particular location</u>;</p> <p>iii. The retention of surface cover in order to reduce the effects from sediment-laden stormwater runoff;</p> <p>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</p> <p>v. The identification of weed management activities to be undertaken.</p> <p>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.</p> <p>...</p>	<p>ii. The programme and timing of re-vegetation and maintenance activities so that stabilised surface coverage of 80% is achieved <u>within 12 months of the completion of earthworks at each location</u>;</p> <p>iii. The retention of surface cover in order to reduce the effects from sediment-laden stormwater runoff;</p> <p>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</p> <p>v. The identification of weed management activities to be undertaken.</p> <p>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.</p> <p>...</p> <p><u>35AA No earthworks shall be carried out between 1 May and 20 September, inclusive, in any year unless the works are undertaken in accordance with Conditions 6 and 7 of the consent holder's resource consent from the Northland Regional Council AUT.042456.01.01 granted on 5 May 2021.</u></p>			
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**EXPERT AVIFAUNA / LONG-TAILED BAT PANEL**

***Establishment of Expert Avifauna / Long-Tailed Bat Panel***

<p>52G. At least 80 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit the names and curriculum vitae of four independent experts with appropriate qualifications and experience in the monitoring of avifauna and long-tailed bat ecology and / or risk assessment to the Group Manager – Environmental Services, Kaipara District Council. Two of the experts shall be nominated by the Department of Conservation (Director, Operations, Northern North Island), and two shall be nominated by the consent holder.</p>	<p>52G. At least <del>80</del> <u>120</u> working days prior to <u>commissioning the monitoring required under Condition 53 the commencement of construction works authorised as part of this resource consent</u>, the consent holder shall submit the names and curriculum vitae of <del>four</del> <u>six</u> independent experts with appropriate qualifications and experience in the monitoring of avifauna and long-tailed bat ecology and / or risk assessment to the Group Manager – Environmental Services, Kaipara District Council. Two of the experts shall be nominated by the Department of Conservation (Director, Operations, Northern North Island), two shall be nominated by the consent holder <u>and two shall be nominated by the Group manager – Environmental Services, Kaipara District Council.</u></p>	<p>The following bullet points record the positions of the experts as they relate to this topic area. The bullet points do not necessarily correlate with the condition number that sits opposite. These matters will be referred back to the planning experts for detailed drafting.</p> <ul style="list-style-type: none"> <li>- RT and SF consider that separate panels for bird and bats are appropriate because of the lack of overlap in their ecology, and to ensure the expertise on the panel are suitably qualified and experienced.</li> <li>- RT and SF are accepting of the consent holder and DOC each nominating one expert to the Council for selection to panel membership.</li> </ul>	<ul style="list-style-type: none"> <li>- MB, RB and EW agree.</li> <li>- MB, RB and EW agree.</li> </ul>	<ul style="list-style-type: none"> <li>- DD, US and DB agree.</li> <li>- DB, US and DD agree.</li> </ul>
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<p>52H. Notwithstanding Condition 52G above, the two experts nominated by the Department of Conservation (Director, Operations, Northern North Island) may be employees of, or contractors to, the Department of Conservation.</p>	<p>52H. Notwithstanding Condition 52G above, the two experts nominated by the Department of Conservation (Director, Operations, Northern North Island) may be employees of, or contractors to, the Department of Conservation.</p>	<ul style="list-style-type: none"> <li>- RT agrees that the conditions should provide for KDC to confirm the nominated experts have appropriate qualifications and experience and can ask parties to resubmit a nominee if necessary. SF agrees.</li> </ul>	<ul style="list-style-type: none"> <li>- MB, RB and EW agree.</li> </ul>	<ul style="list-style-type: none"> <li>- DB, US and DD agree.</li> </ul>
<p>52I. The Group Manager – Environmental Services, Kaipara District Council shall select two experts from the names provided by the consent holder to form an expert panel in accordance with Condition 52J below. One expert must be from the names submitted by the Department of Conservation (Director, Operations, Northern North Island), and one expert must be from the names submitted by the consent holder.</p>	<p>52I. The Group Manager – Environmental Services, Kaipara District Council shall select <del>two</del> <u>three</u> experts from the names provided by the consent holder to form an expert panel in accordance with Condition 52J below. One expert must be from the names submitted by the Department of Conservation (Director, Operations, Northern North Island), and one expert must be from the names submitted by the consent holder, <u>and one from the names submitted by the Group manager – Environmental Services, Kaipara District Council. The Panel shall meet the following criteria:</u></p> <p>a) <u>At least one of whom shall be experienced in avifauna ecology, one of whom shall be experienced in long-tailed bat ecology and one of whom shall be a cryptic and wetland avifauna expert.</u></p> <p>b) <u>Be suitably qualified and have demonstrated expertise in their field.</u></p> <p>52IA <u>The Panel may co-opt other independent specialist members to assist in any of its functions for specified periods subject to the approval of the Group Manager – Environmental Services, Kaipara District Council.</u></p>	<ul style="list-style-type: none"> <li>- RT agrees that the conditions should clarify that where panel members cannot reach a consensus, that they should record their independent views to the consent holder and Council. SF agrees.</li> <li>- <u>RT considers the words in 52G to be suitable.</u></li> </ul>	<ul style="list-style-type: none"> <li>- MB, RB and EW agree.</li> </ul>	<ul style="list-style-type: none"> <li>- DB, US and DD agree.</li> </ul>
<p>52J. The consent holder shall establish the expert panel within five working days of the selection of the two experts by the Group Manager – Environmental Services, Kaipara District Council.</p>	<p>52J. The consent holder shall establish the expert panel within five working days of the selection of the <u>three</u> experts by the Group Manager – Environmental Services, Kaipara District Council <u>and selection will occur no later than 80 days prior to commissioning of monitoring required under Condition 53.</u></p>		<ul style="list-style-type: none"> <li>- MB agrees that 52I(b) can be deleted in the context that 52G appropriately captures the description of the nominated experts. However, further discussion is required as to if a cryptic and wetland avifauna expert is part of this panel.</li> </ul>	<ul style="list-style-type: none"> <li>- DD considers that the condition wording could be more generalized to reflect 'avifauna expert'.</li> </ul>
<p>52K. In the event that <del>either any</del> member of the expert panel is unable, for whatever reason, to continue in their role in accordance with the conditions of this resource consent, the party which nominated the expert shall submit <u>the two names</u> and curriculum vitae of a replacement expert with appropriate qualifications and experience in the monitoring of avifauna and long-tailed bat ecology and / or risk assessment to the Group Manager – Environmental Services, Kaipara District Council for approval.</p>	<p>52K. In the event that <u>either any</u> member of the expert panel is unable, for whatever reason, to continue in their role in accordance with the conditions of this resource consent, the party which nominated the expert shall submit <u>the two names</u> and curriculum vitae of a replacement expert with appropriate qualifications and experience in the monitoring of avifauna and long-tailed bat ecology and / or risk assessment to the Group Manager – Environmental Services, Kaipara District Council for approval.</p>			

<p>52L. The role of the expert panel is to assist the Group Manager – Environmental Services, Kaipara District Council with the following:</p> <ul style="list-style-type: none"> <li>a. The provision of advice and assistance to the consent holder in respect of the consent holder’s responsibilities in accordance with this resource consent in relation to the monitoring and management of potential adverse effects on bird species (particularly Australasian Bittern) and long-tailed bats;</li> <li>b. The provision of oversight, and input into, the implementation of the conditions of this resource consent relating to the monitoring and management of potential adverse effects on bird species (particularly Australasian Bittern) and long-tailed bats on behalf of the Group Manager – Environmental Services, Kaipara District Council; and</li> <li>c. The provision of advice and assistance to the consent holder and the Group Manager – Environmental Services, Kaipara District Council in the event of any bird or bat mortality <u>events or</u> investigations.</li> </ul>	<p>52L. The role of the expert panel is to assist the Group Manager – Environmental Services, Kaipara District Council with the following:</p> <ul style="list-style-type: none"> <li>a. The provision of advice and assistance to the consent holder in respect of the consent holder’s responsibilities in accordance with this resource consent in relation to the monitoring and management of potential adverse effects on bird species (particularly Australasian Bittern) and long-tailed bats;</li> <li>b. The provision of oversight, and input into, the implementation of the conditions of this resource consent relating to <u>the final design and operation of the wind farm, and</u> the monitoring and management of potential adverse effects on bird species (particularly Australasian Bittern) and long-tailed bats on behalf of the Group Manager – Environmental Services, Kaipara District Council; and</li> <li>c. The provision of advice and assistance to the consent holder and the Group Manager – Environmental Services, Kaipara District Council in the event of any bird or bat mortality <u>events or</u> investigations.</li> </ul> <p><u>52M The consent holder shall provide the Panel with all records, raw data, plans, designs and other information that the Panel may request to undertake its review, and shall afford the Panel full access to the site at reasonable times. This includes the final Design and Operation Report and annual updates thereof.</u></p> <p><u>52MAA The Expert Panel shall endeavour to provide a consensus view where possible. Where a consensus view cannot be reached, Panel members shall provide their individual recommendations and advice.</u></p> <p><u>52MAB The consent holder shall prepare Terms of Reference (ToR) for the Expert Panel, which shall be provided in draft to the Department of Conservation (Director, Operations, Northern North Island) for written comments within 20 working days of receipt of the draft ToR. The consent holder shall provide the TOR which shall address any comments made by the Department of Conservation (Director, Operations, Northern North Island), to the Group Manager – Environmental Services, Kaipara District Council for certification prior to the Expert Panel exercising any of its functions under Conditions 52G to 52N.</u></p>			
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<p>52M. The consent holder shall meet the reasonable costs incurred by the expert panel in undertaking its duties as set out in Condition 52L above, subject to normal business practices of invoicing and accounting.</p>	<p>52MN. The consent holder shall meet the reasonable costs incurred by the expert panel in undertaking its duties as set out in Condition 52L above, subject to normal business practices of invoicing and accounting.</p>			
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**AUSTRALASIAN BITTERN MONITORING / MANAGEMENT**

***Baseline Survey of Australasian Bittern***

	<p>53AA For the purpose of this consent, Australasian Bittern Habitat (hereafter referred to as “bittern habitat”) shall be identified and mapped both within the Project Envelope and from the perimeter of the Project Envelope to a distance of 5km. Bittern habitat is defined as the following:</p> <p>a. <u>Breeding habitat includes any wetlands, seeps and saturated areas with one or more of the following vegetation types:</u></p> <ul style="list-style-type: none"> <li>i. <u>Carex sedgeland</u></li> <li>ii. <u>Rank grass &gt; 20 cm in height with ephemeral water</u></li> <li>iii. <u>Flaxlands</u></li> <li>iv. <u>Raupō reedland</u></li> <li>v. <u>Eleocharis sedgeland</u></li> <li>vi. <u>Rushes including but not limited to any Juncus spp &gt; 20 cm in height</u></li> <li>vii. <u>Wet Leptospermum scoparium scrub and shrubland &gt; 5cms water depths</u></li> <li>viii. <u>Baumea spp sedgeland</u></li> <li>ix. <u>Schoenoplectus spp sedgeland</u></li> <li>x. <u>Jointed rush dominant saltmarsh, including but not limited to: Juncus spp, Apodasmia similis, Schoenoplectus spp, Plagianthus quinqueflora herbfield</u></li> <li>xi. <u>Low sedgeland</u></li> <li>xii. <u>Mangrove forest and shrubland</u></li> <li>xiii. <u>Gleichenia spp, fernland</u></li> <li>xiv. <u>Empodisma spp sedgeland</u></li> <li>xv. <u>Peat bog</u></li> <li>xvi. <u>Salt marsh including but not limited to: Salicornia quinqueflora herbfield</u></li> <li>xvii. <u>Bolboscoenus caldwelii sedgeland</u></li> <li>xviii. <u>Salix spp forest and treeland</u></li> <li>xix. <u>Kahikatea swamp forest</u></li> <li>xx. <u>Red tussock</u></li> </ul> <p>b. <u>Non-breeding habitat includes any wetlands, seeps and saturated areas with one or more of the following vegetation types:</u></p> <ul style="list-style-type: none"> <li>i. <u>Carex sedgeland</u></li> <li>ii. <u>Rank grass &gt; 20 cm in height with ephemeral water</u></li> <li>iii. <u>Flaxlands</u></li> <li>iv. <u>Raupō reedland</u></li> <li>v. <u>Kahikatea swamp forest</u></li> <li>vi. <u>Rushes including but not limited to any Juncus spp &gt; 20 cm in height</u></li> <li>vii. <u>Thick floating water plants &gt; 10 cm in height, including but not limited to Glyceria spp; Mimulus spp; Water cress; Ludwigia spp; Myriophyllum spp</u></li> <li>viii. <u>Baumea spp sedgeland</u></li> </ul>			
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<p>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 <b>Appendix X</b> to these conditions and dated X). The purpose of the baseline survey is to:</p> <p>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 <b>Appendix X</b> to these conditions and dated X);</p> <p>b. Attempt to determine if Australasian Bittern are breeding during the baseline survey period;</p> <p>c. Provide <u>and map</u> additional observations of Australasian Bittern <u>and their</u> behaviour at Maitahi Road crossings to confirm the potential design of additional traffic management requirements at these locations; and</p>	<p>ix. <a href="#">Schoenoplectus spp sedgeland</a></p> <p>x. <a href="#">Jointed rush dominant saltmarsh, including but not limited to: Juncus spp, Apodasmia similis, Schoenoplectus spp, Plagianthus divaricatus</a></p> <p>xi. <a href="#">Low sedgeland</a></p> <p>xii. <a href="#">Mangrove forest and shrubland</a></p> <p>xiii. <a href="#">Schoenus pauciflorus sedgeland</a></p> <p>xiv. <a href="#">Gleichenia spp, fernalnd</a></p> <p>xv. <a href="#">Empodisma spp sedgeland</a></p> <p>xvi. <a href="#">Peat bog</a></p> <p>xvii. <a href="#">Salt marsh including but not limited to: Salicornia quinqueflora herbfield</a></p> <p>xviii. <a href="#">Bolboscoenus caldwelii sedgeland</a></p> <p>xix. <a href="#">Salix spp forest and treeland</a></p> <p>xx. <a href="#">Red tussock</a></p> <p>c. <a href="#">Any habitat type visited by an Australasian Bittern that has been tagged as required by the Australasian Bittern Tracking Programme in accordance with Condition 54.</a></p> <p>53. <del>During the three consecutive years immediately 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 monitoring survey; for one three spring seasons, for the presence of Australasian Bittern in bittern habitat the area around the Omamari Station Wetland in the vicinity of Maitahi Road, and the Maitahi Wetland (as identified on the map prepared in accordance with Condition 53AA) attached as Appendix X to these conditions and dated X). The purpose of the baseline monitoring survey is to:</del></p> <p>xxi. Further the understanding of the relative abundance and distribution of Australasian Bittern <a href="#">in bittern breeding habitat (as defined in condition 53AA and identified as part of the habitat mapping) within 5km of the project envelope the area around the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map prepared in accordance with Condition 53AA as identified on the map attached as Appendix X to these conditions and dated X).</a></p> <p>b. <del>Attempt to determine if Australasian Bittern are breeding during the baseline survey period;</del></p> <p>c. Provide <u>and map</u> additional observations of Australasian Bittern <u>and their</u> behaviour <del>at all Maitahi Road crossings</del> <a href="#">within the project site to confirm inform the potential design of additional traffic management and final design and</a></p>			
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<p>d. Use the results of the baseline survey, where possible, to validate the modelled estimates of collision risk mortality.</p> <p>The baseline survey shall be undertaken in accordance with the following protocols:</p> <p>e. The survey method shall follow Department of Conservation monitoring protocols <u>for Australasian Bittern “Protocols for the inventory and monitoring of the endangered Australasian Bittern (<i>Botaurus poiciloptilus</i>) in New Zealand”</u>;</p> <p>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);</p> <p>g. The survey method shall focus on male booming during breeding, and include:</p>	<p><u>operation of the wind farm. requirements at these locations;</u> and</p> <p>d. Use the results of the <u>baseline monitoring survey</u>, where possible, to <u>validate test</u> the modelled estimates of collision risk mortality.</p> <p>The <u>baseline monitoring survey</u> shall be undertaken in accordance with the following protocols:</p> <p>xxii. The <u>monitoring survey</u> method shall follow Department of Conservation monitoring Protocols <u>for Australasian bittern “Protocols for the inventory and monitoring of populations of the endangered Australasian bittern (<i>Botaurus poiciloptilus</i>) in New Zealand”</u>;<sup>1</sup></p> <p>xxiii. <del>The</del><u>Surveys shall use the Acoustic Triangulation method or Acoustic Recording Devices (Make and Model: DOC AR4) and remain consistent across years and survey periods. involve at least five survey nights and the utilisation of monitoring / recording equipment on site for at least four weeks, and shall be: Surveys are to</u> be undertaken within the peak period of <u>male booming</u> activity for Australasian Bittern <del>(being the months of September, October and early November)</del> <u>(being the period between 1 September and 7 November unless advised otherwise by the Department of Conservation (Director, Operations, Northern North Island)) and the daily time periods considered optimum for detecting bittern based on Williams et al., (2019)</u><sup>2</sup>, including:</p> <p>xxiv. <u>If recording devices are used, sound files must be processed according to the protocols outlined in O'Donnell &amp; Williams (2015). For each survey year, a minimum of 6, 15-minute sound files must be processed per survey location (three morning times and three evening times) as per the optimum times described in Williams et al (2019).</u></p>			
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<sup>1</sup> O'Donnell, C.F., Williams, E.M: 2015: *Protocols for the inventory and monitoring of populations of the endangered*

*Australasian bittern (*Botaurus poiciloptilus*) in New Zealand.* Department of Conservation Technical Series 38

<sup>2</sup> Williams, E. M., Armstrong, D. P., & O'Donnell, C. F. (2019). *Modelling variation in calling rates to develop a reliable monitoring method for the Australasian Bittern *Botaurus poiciloptilus*.* *Ibis*, 161(2), 260-271.



<p>i. Call counts; ii. Acoustic recordings; and iii. Site observations.</p> <p>h. The survey shall include any observations of breeding behaviour and / or juveniles if possible; and</p> <p>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 <b>Appendix X</b> to these conditions and dated X), and any other areas of the Project Envelope where activity is observed.</p>	<p><u>xxv. If the Acoustic Triangulation method is used, observers must listen for booms for a full hour during each visit and must be positioned to provide optimum coverage of the habitat.</u></p> <p><del>g. The survey method shall focus on male booming during breeding, and include:</del></p> <p><del>xxvi.—Call counts;</del> <del>xxvii.—Acoustic recordings; and</del> <del>xxviii.—Site observations.</del></p> <p>xxix. The survey shall include any observations of breeding behaviour and / or juveniles if possible; and</p> <p>xxx. The survey shall <u>record and map any incidental observations of bittern within the Project Site and include any observation 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.</u></p> <p>xxxi. <u>Trail cameras must be installed at road crossings to establish baseline utilisation rates of these sites by bittern.</u></p>			
<p><b><u>Australasian Bittern Tracking Programme</u></b></p>				
	<p><u>54. To further inform Australasian Bittern mitigation, the Consent Holder shall design and implement a bittern tracking programme. The Tracking Programme shall be undertaken for the following periods:</u></p> <p>a) <u>for a minimum of 3 consecutive years immediately prior to wind farm construction; and</u></p> <p>b) <u>during the period construction starts until the wind farm is commissioned; and</u></p> <p>c) <u>for a minimum of 3 consecutive years following the date any wind turbine first generates electricity.</u></p> <p><u>54A. The Consent Holder will, in consultation with the Department of Conservation (Director, Operations, Northern North Island),</u></p>			

	<p><u>endeavour to maintain a sample of a minimum of 15 GPS tagged individual bitterns (a mix of birds caught locally and regionally) using Druid Lego GSM GPS tags. If Druid Lego GSM GPS tags cannot be used, the Consent Holder must consult with the Department of Conservation (Director, Operations, Northern North Island). The Tracking Programme shall be undertaken as follows:</u></p> <p>a) <u>The GPS tags must measure height profiles and flight paths in addition to location.</u></p> <p>b) <u>Capture attempts must be prioritised so that those birds that are the closest to the windfarm are caught first, but attempts should also be made to catch any birds within the region that are accessible provided access permissions and appropriate permits can be obtained.</u></p> <p>c) <u>Data collected from these tags must include sites of importance, flight paths, home range size and height.</u></p> <p><u>54B. All raw data shall be made available on request and annually to the Department of Conservation (Director, Operations, Northern North Island).</u></p>			
<b>Australasian Bittern Monitoring and Management Plan</b>				
<p>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 expert panel with the draft Australasian Bittern Monitoring and Management Plan required in accordance with Condition 54C for review and comment.</p> <p>54B. The expert panel shall provide its written comments (if any) on the draft Australasian Bittern Monitoring and Management Plan to the consent holder within 20 working days of receipt of the plan from the consent holder.</p> <p>54C. The consent holder shall submit the Australasian Bittern Monitoring and Management Plan, including all written comments provided by the expert panel 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:</p>	<p><del>54AC.</del> 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 expert panel with the draft Australasian Bittern Monitoring and Management Plan required in accordance with Condition 54C for review and comment.</p> <p><del>54BD.</del> The expert panel shall provide its written comments (if any) on the draft Australasian Bittern Monitoring and Management Plan to the consent holder within 20 working days of receipt of the plan from the consent holder.</p> <p><del>54CE.</del> The consent holder shall submit the Australasian Bittern Monitoring and Management Plan, including all written comments provided by the expert panel 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 (de). The Australasian Bittern Monitoring and Management Plan shall be prepared by an experienced and appropriately qualified person and shall provide for the following objectives:</p>			

<p>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 <b>Appendix X</b> to these conditions and dated X);</p> <p>b. Validating the collision risk assessment for Australasian Bittern at the Kaiwaikawe Wind Farm;</p> <p>c. The creation or enhancement of 2 hectares of wetland habitat, together with predator control, within the Project Site for Australasian Bittern; and</p> <p>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 Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as <b>Appendix X</b> to these conditions and dated X).</p> <p>54D. In order to achieve the objectives established in Condition 54C above, the Australasian Bittern</p>	<p><u>aa. The achievement of a zero net impact outcome for Australasian Bittern as a result of the operation of the Kaiwaikawe Wind Farm, and avoidance as the primary approach to addressing adverse effects;</u></p> <p><u>aaa. Specifying measures to ensure adverse effects on Australasian bittern are avoided, measures to ensure that changes are made to the construction methodology (including traffic management), design and/or operation of the Kaiwaikawe Wind Farm in the event of Australasian Bittern injury or mortality occurs as a result of its construction or operation.</u></p> <p>a. Monitoring of the <u>male breeding population relative abundance, breeding, behaviour and distribution and flight behaviour (via GPS tracking)</u> of Australasian Bittern <u>in all bittern habitat</u> within <u>5km of the project envelope the area around the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland</u> (as identified <u>on the map prepared in accordance with Condition 53AA</u> on the map attached as <b>Appendix X</b> to these conditions and dated <b>X</b>) <u>throughout the construction and operation of the Kaiwaikawe Wind Farm.</u></p> <p>b. <del>Validating</del> <u>Updating</u> the collision risk assessment for Australasian Bittern at the Kaiwaikawe Wind Farm;</p> <p>c. <del>The creation or enhancement of 2 hectares of wetland habitat, together with predator control, within the Project Site for Australasian Bittern; and</del></p> <p>d. The identification of potential further measures to avoid, remediate, <del>or</del> mitigate <u>or</u> compensate 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 <del>the population of</del> Australasian Bittern <u>or bittern habitat identified in the Project site (as identified on the map required in accordance with Condition 53)</u></p> <p>e. <u>Any bittern habitat that is removed or becomes unavailable to Australasian Bittern must be replaced with equivalent bittern habitat and must be in place and functional before the removal of any bittern habitat.</u></p>	<ul style="list-style-type: none"> <li>- RT agrees that Policy 4.4.1 of the RPS is the appropriate policy for the management plans but that all aspects of the policy should be available for consideration, being avoid, remedy, mitigate. The NPS REG also acknowledges the ability to offset or compensate for residual adverse effects.</li> <li>- RT considers that the conditions proposed by both parties include compensatory measures, there are other examples where these types of measures have been utilised for threatened and at risk species.</li> <li>- RT considers that the DOC conditions do currently provide for mitigation or compensation for the loss of Australasian Bittern, and it is unclear what the outcome would be if a collision did occur under the DOC condition and under the idea of no mortality. What happens next?</li> <li>- SF notes that there are other causes of death to bittern (traffic and starvation), and that controlling predators and enhancing wetlands may make a contribution to bittern survival.</li> <li>- SF considers that in relation to this wind farm proposal that there are opportunities included in the proposal to enhance habitat and control predators that will be beneficial to bittern.</li> <li>- RT queried why the 2 ha of wetland habitat creation had been deleted from the conditions (54Cc) by DOC and considers this measure to be compensation for the purpose of section 104(1)(ab) of the RMA and Policy C2 of the NPS REG.</li> </ul>	<ul style="list-style-type: none"> <li>- MB advised that DOC now propose an alternative wording to 'zero net impact'. The revised objective would be that any deaths of bittern is zero mortality as a result of the operation of the wind farm throughout the life of the wind farm.</li> <li>- The RMA statutory reference for this is Policy 4.4.1 RPS.</li> <li>- EW in support of the amended wording proposed by MB above advises that one mortality is considered to be 'more than minor' particularly as there is a low confidence that any loss can be made up by mitigation.</li> <li>- MB considers that offsetting and/or compensation is not appropriate for bittern due to their irreplaceability and vulnerability as cited in the definitions in the RPS (environmental biodiversity compensation (Point 8), biodiversity offsets (Point 9)).</li> <li>- MB considers that compensation for displacement is appropriate but not for bittern mortality. MB notes a discrepancy in the immediate review conditions 58FA and 58P where compensation is referred to for mortality. MB supports the condition in so far as it relates to other species, but not bittern.</li> <li>- MB does not necessarily object to this measure, however the scale is too small to be appropriate as compensation for bittern and does not represent a net gain as required under the RPS definition for compensation. EW and RB agree – acknowledging that it is a positive outcome for bittern and other birds, however is not enough to make up for any loss of bittern.</li> <li>- MB considers that the Applicant's condition 54Cc can be considered under section 104(1)(ab) of the RMA.</li> </ul>	<ul style="list-style-type: none"> <li>- DD and US agree that Policy 4.4.1 of the RPS is the appropriate policy.</li> <li>- DB supports an aim of no mortality, but accepts that this could be difficult.</li> <li>- DB supports compensation of any displaced birds.</li> <li>- DB considers that any mortality of bitterns is irreplaceable.</li> </ul>
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<p>Monitoring and Management Plan shall, as a minimum, address the following:</p> <p>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);</p> <p><i>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%.</i></p> <p>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;</p> <p>c. The detailed measures proposed, and at what locations within the Project Site, to create or enhance 2 hectares of wetland habitat for Australasian Bittern (including associated predator control measures);</p> <p>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 Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as <b>Appendix X</b> to these conditions and dated X); and</p>	<p><del>54D</del><b>E</b>. In order to achieve the objectives established in Condition 54C above, the Australasian Bittern Monitoring and Management Plan shall, as a minimum, <u>address satisfy</u> the following:</p> <p>a. Where there is sufficient data from the <u>baseline monitoring survey and GPS study Tracking Programme required under Conditions 53, 54AA and 54AAA, these data will assessment methodology to</u> be utilised to <u>validate update</u> 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);</p> <p><del><i>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%.</i></del></p> <p>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;</p> <p><del>c. The detailed measures proposed, and at what locations within the Project Site, to create or enhance 2 hectares of wetland habitat for Australasian Bittern (including associated effective predator control measures);</del></p> <p>c. The detailed measures proposed, and at what locations within the Project Site, to recreate any bittern habitat devalued, removed, or that bitterns are displaced from, at any point during construction or throughout the lifetime of the windfarm.</p> <p>d. The additional traffic / construction management measures <u>that may need</u> to be implemented along Maitahi Road in order to protect Australasian Bittern in the event the construction <u>activity of the Kaiwaikawe Wind Farm</u> has an adverse effect on <u>the population of</u> Australasian Bittern <u>utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland (as identified on the map attached as Appendix X to these conditions and dated X); and or bittern habitat identified in the Project site (as per the map produced in accordance with Condition 53AA).</u></p>			
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<p>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 <b>Appendix X</b> to these conditions and dated X) as result of the operation of the Kaiwaikawe Wind Farm.</p> <p>54E. [this condition is now intentionally blank]</p>	<p>e. The identification of additional habitat creation / enhancement measures and / or predator control measures, and associated monitoring of such measures, <del>that may need to be implemented by the consent holder in the event of any 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)</del> as result of the operation of the Kaiwaikawe Wind Farm.</p> <p><u>54FF.</u> <del>The first time the Plan is submitted, construction, including establishment works, cannot commence until the Plan has been certified by the Group Manager – Environmental Services, Kaipara District Council in accordance with the process outlined above.</del></p> <p>54EG. [this condition is now intentionally blank]</p>			
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**Australasian Bittern Baseline Survey Report**

<p>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.</p> <p>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).</p> <p>The consent holder shall provide the draft baseline survey report to the expert panel for review and comment.</p> <p>54G. The expert panel shall provide its written comments (if any) on the draft baseline survey report to the consent holder within 20 working days of receipt of the report from the consent holder.</p> <p>54H. The consent holder shall provide the baseline survey report, including all written comments provided by the expert panel and the consent holder's response to</p>	<p><u>54FH.</u> Following the conclusion of <del>annual monitoring baseline survey,</del> 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.</p> <p>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).</p> <p>The consent holder shall provide the draft baseline survey report to the expert panel for review and comment.</p> <p><u>54GI.</u> The expert panel shall provide its written comments (if any) on the draft baseline survey report to the consent holder within 20 working days of receipt of the report from the consent holder.</p> <p><u>54HJ.</u> The consent holder shall provide the baseline survey report, including all written comments provided by the expert panel and the consent holder's response to those comments, to the Group</p>			
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<p>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 and comment from the expert panel on the report, and then shall determine whether:</p> <p>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</p> <p>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).</p>	<p>Manager – Environmental Services, Kaipara District Council. Upon receiving the baseline survey report, the Group Manager – Environmental Services, Kaipara District Council may seek advice and comment from the expert panel on the report, and then shall determine whether:</p> <p>a. Any additional measures to avoid, <del>remedy or mitigate</del> 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 <del>in the vicinity of Maitahi Road</del>; and</p> <p>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 <del>of displacement of Australasian Bittern that the modelled collision risk mortality for Australasian Bittern is greater than the modelled mortality specified in Condition 54D(a).</del></p>			
<p><b>Construction and Post-Construction Survey Report</b></p>				
<p>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 <b>Appendix X</b> to these conditions and dated X), in accordance with survey methodology outlined in Condition 53,<sup>3</sup> shall be repeated, each spring, throughout the construction of the Kaiwaikawe Wind Farm and for a further three spring season following the commissioning of the final turbine of the Kaiwaikawe Wind Farm.</p> <p>54J. An annual monitoring report shall be prepared by an experienced and appropriately qualified person that presents, summarise 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</p>	<p><del>54I. Surveys for the presence of male booming Australasian Bittern in wetlands envelope the area around the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as <b>Appendix X</b> to these conditions and dated X), in accordance with survey methodology outlined in Condition 53,<sup>4</sup> shall be repeated, each spring, throughout the construction of the Kaiwaikawe Wind Farm and for a further three spring season following the commissioning of the final turbine of the Kaiwaikawe Wind Farm.</del></p> <p>54JK. An annual monitoring report shall be prepared by an experienced and appropriately qualified person that presents, summarise 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</p>			

<sup>3</sup> And the supplementary survey method outlined in Condition 63 where the necessary approvals / agreements from the Department of Conservation are in place.

<sup>3</sup> And the supplementary survey method outlined in Condition 63 where the necessary approvals / agreements from the Department of Conservation are in place.

<p>each spring survey. A copy of the annual monitoring report shall also be provided to the expert panel <u>and the Department of Conservation (Director, Operations, Northern North Island).</u></p> <p>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:</p> <p>a. Presents, summarises and analyses the data collected from the construction and post-construction surveys against the objectives of the Australasian Bittern Monitoring and Management Plan and the relevant matters set out in Condition 54D;</p> <p>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 Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as <b>Appendix X</b> to these conditions and dated X); and</p> <p>c. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration.</p> <p>The consent holder shall provide the draft construction and post-construction monitoring report to the expert panel for review and comment.</p>	<p>the expert panel <u>and the Department of Conservation (Director Operations, Northern North Island).</u></p> <p>54KL. <del>Each year a</del>At the conclusion of the construction and post-construction surveying required in accordance with Condition 54J, the consent holder shall engage an experienced and appropriately qualified person to prepare a monitoring report that:</p> <p>a. Presents, summarises and analyses the data collected from the construction and post-construction surveys against the objectives of the Australasian Bittern Monitoring and Management Plan and the relevant matters set out in Condition 54D;</p> <p><del>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 Australasian Bittern the Omamari Station Wetland in the vicinity of Maitahi Road and the Maitahi Wetland (as identified on the map attached as <b>Appendix X</b> to these conditions and dated X); and</del></p> <p>bb. In the event that there are Australasian bittern displaced from bittern habitat the Consent Holder shall replace that habitat using a biodiversity offset in accordance with the <u>Government Guidance on Good Practice Biodiversity Offsetting. To account for the time lag between bittern being displaced from habitat and the gains from the offset benefiting bittern the Consent Holder shall contribute \$XX to the wetland management programme provided for in Condition 62F.</u></p> <p>c. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration.</p> <p>The consent holder shall provide the draft construction and post-construction monitoring report to the expert panel for review and comment.</p>			
<p>54L. The expert panel shall provide its written comments (if any) on the draft construction and post-construction</p>	<p>54LM. The expert panel shall provide its written comments (if any) on the draft construction and post-construction monitoring report to</p>			

<p>monitoring report to the consent holder within 20 working days of receipt of the report from the consent holder.</p> <p>54M. The consent holder shall provide the construction and post-construction monitoring report, including all written comments provided by the expert panel 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 and comment from the expert panel on the report, and then shall determine whether:</p> <p>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;</p> <p>b. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration; and</p> <p>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.</p>	<p>the consent holder within <del>20</del> 40 working days of receipt of the report from the consent holder.</p> <p>54MN. The consent holder shall provide the construction and post-construction monitoring report, including all written comments provided by the expert panel 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 and comment from the expert panel on the report, and then shall determine whether:</p> <p>a. Any of the additional habitat creation / enhancement measures <del>or predator control measures</del> identified in the Australasian Bittern Monitoring and Management Plan <del>will should</del> be implemented <del>(if at all) as result of the</del> if construction or operation of the Kaiwaikawe Wind Farm <del>is found to have</del> having had an adverse <del>displacement</del> effect;</p> <p>b. Considers whether any further post-construction survey effort, <del>aside from what is required in Condition 54AA</del>, for Australasian Bittern is necessary <del>(if any)</del>; and at what frequency / duration <del>and methods</del>; and</p> <p>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.</p>			
<p><b>Bird Mortality Investigations</b></p>				
<p>55. In the event that an Australasian Bittern is found injured or deceased within the Project <del>Site Envelope</del>, then the consent holder shall notify the Group Manager – Environmental Services, Kaipara District Council and the Department of Conservation (Director, Operations, Northern North Island) within 24 hours of becoming aware of the discovery.</p> <p><i>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.</i></p>	<p>55. In the event that an Australasian Bittern is found injured or deceased within the Project <del>Envelope Site</del>, then the consent holder shall notify the Group Manager – Environmental Services, Kaipara District Council and the Department of Conservation (Director, Operations, Northern North Island) within 24 hours of becoming aware of the discovery.</p> <p><i>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.</i></p>			



<p><i>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.</i></p>	<p><i>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.</i></p>			
<p>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.</p>	<p>55A. The suitably experienced and qualified avifauna 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 <a href="#">and the Department of Conservation (Director, Operations, Northern North Island).</a></p>			
<p>55B. The consent holder shall convene a meeting with the expert panel within 5 working days of their receipt of the draft report on the possible cause of the injury or mortality. The purpose of the meeting shall be to:</p> <ul style="list-style-type: none"> <li>a. Review and discuss the findings of the draft investigation report;</li> <li>b. Consider whether any additional monitoring is required to further consider the potential cause of injury or mortality; and</li> <li>c. Consider 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.</li> </ul>	<p>55B. The consent holder shall convene a meeting with the expert panel within 5 working days of their receipt of the draft report on the possible cause of the injury or mortality. The purpose of the meeting shall be to:</p> <ul style="list-style-type: none"> <li>a. Review and discuss the findings of the draft investigation report;</li> <li>b. Consider whether any additional monitoring is required to further consider the potential cause of injury or mortality; and</li> <li>c. Consider <a href="#">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</a> 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.</li> </ul>			
<p>55C. The consent holder shall submit the investigation report, including all comments received from the expert panel at the meeting, to the Group Manager – Environmental Services, Kaipara District Council within 5 working days of convening the meeting with the expert panel in accordance with Condition 55B.</p>	<p>55C. The consent holder shall submit the investigation report, including all comments received from the expert panel at the meeting, to the Group Manager – Environmental Services, Kaipara District Council within 5 working days of convening the meeting with the expert panel in accordance with Condition 55B.</p>			
<p>55D. The Group Manager – Environmental Services, Kaipara District Council shall, upon receipt of the <del>bird</del> <a href="#">Australasian Bittern</a> mortality investigation report and</p>	<p>55D. The Group Manager – Environmental Services, Kaipara District Council shall, upon receipt of the <del>bird</del> <a href="#">Australasian bittern</a> mortality investigation report and as a matter of urgency, but</p>			

<p>as a matter of urgency, but subject to any advice and comment from the expert panel, determine in consultation with the consent holder whether:</p> <p>a. <del>Consider whether</del> <u>Any</u> additional monitoring is required and at what frequency / duration;</p> <p>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</p> <p>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.</p>	<p>subject to any advice and comment from the expert panel, determine in consultation with the consent holder whether:</p> <p>a. <del>Consider whether</del> any additional monitoring is required and at what frequency / duration;</p> <p>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</p> <p>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.</p>			
<p><b>Supplementary Survey Methods</b></p>				
<p>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.</p> <p><i>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.</i></p>	<p><del>56. The consent holder, 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.</del></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>- RT considers that the standard monitoring that is proposed is adequate and that the GPS monitoring is an option available to the consent holder if it chooses to do so and obtains the necessary approval from DOC.</li> <li>- SF considers that current monitoring relates to potential construction effects on bittern in the Omamari and Waitahi wetlands and is appropriate for that task.</li> <li>- SF considers the risk of collisions with turbine blades to be low based on the terrain that the birds would be crossing, and our knowledge of large birds moving through these landscapes.</li> <li>- SF considers that at this site the risk to bittern from traffic is of greater concern than collision with turbine blades. For this reason, SF disagrees with EW that height is such a crucial factor.</li> <li>- SF noted, by reference to the Applicant's condition 54F, which required the Applicant to use the baseline data to update the collision risk model and that GPS tracking would supplement this as in condition 56. SF continues to support this approach.</li> </ul>	<p>Reading condition 56 with DOC conditions 54, 54A and 54B relating to GPS tracking:</p> <ul style="list-style-type: none"> <li>- MB agreed that DOC experts are agreeable to reviewing mandatory use of GPS tracking, acknowledging that the consent of other parties are required before an applicant or consent holder can use such methods.</li> <li>- MB considers it is appropriate to retain the details relating to the use of GPS tracking in the consent e.g. DOC conditions 54, 54A and 54B.</li> <li>- EW and MB consider that if approval is given then GPS tracking would be required.</li> <li>- EW considers that height data is crucial, and an alternative method would need to be sought that would satisfy that, if GPS tracking was not possible.</li> <li>- EW supports monitoring for a duration of three years. The monitoring methods being proposed are index methods which means that to show a population change would require multiple years.</li> <li>- EW supports GPS tracking for a duration of three years because the resources being relied on by bittern in different years are subject to environmental changes. This means that their movements will change and differ across years.</li> </ul>	<ul style="list-style-type: none"> <li>- US and DD agree that the use of GPS tracking should be optional, not mandatory, in the consent conditions.</li> <li>- DB considers that if a permit can be obtained, GPS tracking is supported for a minimum of one year but preferably for three.</li> </ul>

<b>Maitahi Road Management</b>				
57.	Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall establish a barrier fence on both sides of Maitahi Road in the vicinity of Omamari Station Wetland that is suitable to minimise the potential crossing of Maitahi Road by Australasian Bittern. The barrier fence shall utilise 150 mm diameter netting and shall be retained until the completion of construction.	57.	Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall establish a barrier fence on both sides of Maitahi Road in the vicinity of Omamari Station Wetland that is suitable to minimise the potential crossing of Maitahi Road by Australasian Bittern. The barrier fence shall utilise 150 mm diameter netting and shall be retained until the completion of construction.	
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.	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.  <i>Note: The Department of Conservation (Director, Operations, Northern 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.</i>	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.  <i>Note: The Department of Conservation (Director, Operations, Northern 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.</i>	
<b>BIRD AND LONG-TAILED BAT COLLISION MONITORING</b>				
<b><i>Bird and Long-tailed bat Collision Monitoring Plan</i></b>				
58A.	At least 60 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit the draft Bird Collision Monitoring Plan required in accordance with Conditions 58C and 58D below to the expert panel for review and comment.	58A.	At least 60 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit the draft Bird <a href="#">and Long-tailed Bat</a> Collision Monitoring Plan required in accordance with Conditions 58C, <del>58ca</del> and 58D, below to the expert panel for review and comment.	[For the purposes of discussion on 12/10/21 this topic is being considered in relation to birds only. It is acknowledged that the cross referencing to other conditions will need to be reviewed before conditions are finalised.] - 58A all parties agreed.
58B.	The expert panel shall provide its written comments (if any) on the draft Bird Collision Monitoring and	58B.	The expert panel shall provide its written comments (if any) on the draft Bird <a href="#">and Long-tailed Bat</a> Collision Monitoring and	- 58B – MB agrees to the applicant’s wording.

<p>Management Plan to the consent holder within 20 working days of receipt of the plan from the consent holder.</p> <p>58C. The consent holder shall submit the Bird Collision Monitoring Plan, including all written comments provided by the expert panel and the consent holder's response to those comments, to the Group Manager – Environmental Services, Kaipara District Council to certify that the plan meets the objective in Condition 58C(a). The Bird Collision Monitoring Plan shall be jointly prepared by a suitably experienced and qualified avian expert and a suitably experienced and qualified bio-statistician, and shall provide for the following objective:</p> <p>a. Measure the rates of bird mortality from collisions at the Kaiwaikawe Wind Farm.</p>	<p>Management Plan to the consent holder <del>within at least 20 40</del> working days <del>of receipt of the plan from the consent holder prior to the commencement of construction works authorised as part of this resource consent.</del></p> <p>58C. <del>At least 20 working days prior to the commencement of construction works authorised as part of this resource consent</del> <del>the</del> consent holder shall submit the Bird <del>and Long-tailed Bat</del> Collision Monitoring Plan, including all written comments provided by the expert panel and the consent holder's response to those comments, to the Group Manager – Environmental Services, Kaipara District Council to certify that the plan meets the objective in Condition 58C(a). The Bird <del>and Long-tailed Bat</del> Collision Monitoring Plan shall be jointly prepared by a suitably experienced and qualified <del>avian</del> <del>fauna</del> expert, <del>bat expert</del> and an <del>independent</del> suitably experienced and qualified bio-statistician, and shall provide for the following objective:</p> <p>a. Measure the rates of bird <del>and long-tailed bat</del> mortality from collisions at the Kaiwaikawe Wind Farm.</p> <p><del>58CC</del> <del>The detail for design and implementation of the Bird and Long-tailed bat Collision Monitoring Plan established by condition 58C above is set out in a Bird and Long-tailed bat Collision Monitoring Framework attached to these conditions as Appendix XX.</del></p>	<p>- RT agrees with the inclusion of wording in the final sentence 'define a search area relevant to the height and rotor span of the turbines'.</p> <p>- 58D(c) All parties agreed: 'A data collection and analysis regime specifying the timing,</p>	<p>- 58C – MB agrees to the applicant's wording.</p> <p>- RB agrees that 58CC can be deleted.</p>	
<p>58D. In order to achieve the objective established in Condition 58C above, the Bird Collision Monitoring Plan shall describe the methods for recording the frequency of collisions resulting in mortality for all bird species. These methods shall <del>define a search area relevant to the height and rotor span of the wind turbines</del>, be statistically robust and include, but not be limited to, the following:</p> <p>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;</p> <p>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;</p> <p>c. A data collection and analysis regime specifying the timing, location and duration of monitoring at</p>	<p>58D. In order to achieve the objective established in Condition 58C above, the Bird <del>and Long-tailed Bat</del> Collision Monitoring Plan shall describe the methods for recording the frequency of collisions resulting in mortality for all bird species <del>and Long-tailed bats</del>. These methods shall <del>define a search area relevant to the height and rotor span of the turbines</del>, be statistically robust and include, but not be limited to, the following:</p> <p>a. Calculating the probability and rate of bird <del>and Long-tailed bat</del> carcass loss to scavengers, decomposition and other causes, taking into account temporal, environmental and other sources of variation;</p> <p>b. Calculating the probability of carcass detection by searchers, which may include searching assisted by suitably-trained dogs <del>(and for Long-tailed bats will include searching assisted by suitably trained dogs)</del>, taking into account temporal, environmental, searcher identity and other sources of variation;</p> <p>c. A data collection and analysis regime specifying the timing, location and duration of monitoring <del>at a statistically derived</del></p>	<p>- 58D(c) All parties agreed: 'A data collection and analysis regime specifying the timing,</p>		

<p>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;</p> <p>d. Methods to account for carcass loss and detection probability <u>taking into account temporal, environmental and other sources of variation</u> when estimating rates of mortality across the Kaiwaikawe Wind Farm;</p> <p>e. Methods to accurately record the condition (partial <u>carcass, entire carcass, full</u> or feather spot) and cause of death; and</p> <p>f. Methods to record, and electronically store, audit and backup data.</p> <p>58E. In addition to the requirements specified in Condition 58D, the Bird Collision Monitoring Plan shall:</p> <p>a. Specify that all carcasses shall be photographed as found, <u>labelled with a unique number</u>, 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</p> <p>b. Identify additional measures that may be implemented by the consent holder in order to avoid, remedy or mitigate for the potential adverse effects of the Kaiwaikawe Wind Farm on threatened and at-risk bird species in the event that the bird mortality effects for any species is considered to be more than minor.</p>	<p><del>number of wind turbines and wind monitoring masts.</del> The purpose of the data collection and analysis regime is to ensure that a reliable estimate of bird <u>and Long-tailed bat</u> strike mortality <u>through all seasons and environmental conditions</u> at <u>all each</u> wind turbines and wind monitoring masts is obtained;</p> <p>d. Methods to account for carcass loss and detection probability <u>taking into account temporal, environmental and other sources of variation;</u> when estimating rates of mortality across the Kaiwaikawe Wind Farm;</p> <p>e. Methods to accurately record the condition (partial <u>carcass, full entire carcass</u>, or feather spot) and cause of death; and</p> <p>f. Methods to record, and electronically store, audit and backup data.</p> <p>58E. In addition to the requirements specified in Condition 58D, the Bird <u>and Long-tailed Bat</u> Collision Monitoring Plan shall:</p> <p>aa. <u>Specify that searches must occur along transects with search coverage recorded by GPS and searcher track maps reported in the monitoring reports required under conditions 58Fc-58Fe.</u></p> <p>a. Specify that all carcasses shall be photographed as found, <u>labelled with a unique number</u>, 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</p> <p>b. Identify additional measures <del>that may to</del> be implemented by the consent holder in order to avoid, remedy <del>or</del> mitigate <u>or and compensate</u> for the potential adverse effects of the Kaiwaikawe Wind Farm on threatened and at-risk bird species <del>in the event that the bird mortality effects for any species listed in Condition 58Fa equals or exceeds the Mitigation Review Threshold for the individual species is considered to be more than minor and</del></p> <p>c. <u>Specify the methodology that will be utilised to identify applicable turbines for the purpose of Condition 58Nb below.</u></p>	<p>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 <u>through all seasons and a range of environmental conditions</u> at all wind turbines and wind monitoring masts is obtained'</p> <p>- 58D – All agreed to wording for (d, e, f) as shown in the Applicant's column.</p> <p>-58E(aa) – All parties agreed: 'Specify that search coverage at each turbine is recorded by GPS tracking'.</p> <p>- 58E(a) amended wording is agreed.</p>	<p>- 58E(b) – MB agreed to retain Applicant's wording.</p> <p>- 58E(c) – MB agrees to delete.</p>	
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**Bird and Long-tailed Bat Collision Monitoring**

58F. Bird collision monitoring shall commence immediately following the date any wind turbine first generates electricity and continue for a period of two years (or until an alternative date as determined by the Group Manager – Environmental Services, Kaipara District Council in accordance with Condition X) and at the frequencies specified in the Bird Collision Monitoring Plan.

58F. Bird and long-tailed bat collision monitoring shall commence immediately following the date any wind turbine first generates electricity and continue for a period of ~~two~~ ten years (or until an alternative date as determined by the Group Manager – Environmental Services, Kaipara District Council in accordance with Condition ~~X~~ 58G) and at the frequencies specified in the Bird and Long-tailed Bat Collision Monitoring Plan.

58FA Mitigation Review thresholds and Immediate Review Thresholds for each species shall be as follows:

Species	Conservation Status	Mitigation (based on a 5-year rolling annual mean of bird mortality adjusted in accordance with Condition 58D)	Immediate Review Threshold (based on actual bird mortality recorded over a 12-month period between 1 June and 31 May)
<b>Nationally Critical or Nationally Endangered Species</b>			
Australasian bittern	Critical	n/a	1
Long-tailed bat	Critical	0.5	2
Any other nationally critical or nationally endangered species		0.5	2
<b>Nationally Vulnerable Species</b>			
Lesser Knot	Vulnerable	2	5
Banded dotterel	Vulnerable	2	5
Wrybill	Vulnerable	2	5
Any other nationally vulnerable species		2	5
<b>At Risk or other species</b>			
Red-billed gull	Declining	5	10

- 58F – All parties agree to a monitoring period of five years.

- RT advised that he was involved in the drafting of the Waipipi conditions and presented evidence on their consistency with the policy framework. He advised that they were developed to satisfy Policy 11 of the NZCPS and its focus on the avoidance of adverse effects on threatened and at risk species. The policy context for the KWF is different, and Policy 4.4.1 of the RPS has a focus on ensuring no more than minor adverse effects on threatened and at risk species, such that copying the Waipipi conditions is not directly applicable.
- RT notes that a number of other wind farms around NZ have bird collision monitoring conditions without this type of table, and require assessment and engagement with expert panels at various stages of the monitoring cycle to determine whether adverse effects that are more than minor etc are occurring and require management. This is the condition framework that RT has proposed in this instance.
- RT does not accept that condition 58FA and the suite of conditions that relate to it (58FA – 58FE and 58L – 58Q) are appropriate.

- MB agrees that five years is appropriate for all species except bittern, and this needs to be discussed with EW.

- MB and RB advised that the table in condition 58FA is based on, but is modified, similar conditions in the resource consent for the Waipipi Wind Farm (Taranaki).
- MB agrees that the KWF site is not in the Coastal Environment and therefore the NZCPS does not apply.
- MB agrees that RPS Policy 4.4.1 is the relevant RMA policy framework for the KWF site and proposal.
- MB acknowledges the difference in policy context, but would like to review the applicability of transferring Waipipi type conditions to the KWF.
- All agree to a further expert conferencing session to consider this suite of conditions on 20/10/21.

- US and DD do not support condition 58FA and the suite of conditions that relate to it (58FA – 58FE and 58L -58Q) as currently drafted.
- US and DD do not consider that the site is in the Coastal Environment and therefore the NZCPS is not relevant.
- US and DD agree that RPS Policy 4.4.1 is the relevant policy framework.

		New Zealand pipit	Declining	5	10		
		Spotless crake	Declining	5	10		
		Marsh crake	Declining	5	10		
		Fernbird	Declining	5	10		
		Banded rail	Declining	5	10		
		Eastern bar-tailed godwit	Declining	5	10		
		Pied oystercatcher	Declining	5	10		
		New Zealand dabchick	Recovering	5	10		
		Pied shag	Recovering	5	10		
		Black shag	Naturally Uncommon	5	10		
		Australian coot	Naturally Uncommon	5	10		
		Little black shag	Naturally Uncommon	5	10		
		Any other At Risk species		5	10		
		Any international migratory bird that doesn't breed in New Zealand	Migrant	5	10		
		<p><i>Note: the conservation status specified in Condition 58FA is that stated in the most recent publications of "Conservation status of New Zealand Birds" and "Conservation status of New Zealand Bats", New Zealand Threat Classification Series, Department of Conservation, Wellington.</i></p>					
		<p>58FB. In the event that the conservation status of any of the individual bird species listed in Condition 82 changes as a result of an amendment to the New Zealand Threat Classification as published by the Department of Conservation, then the Mitigation Review Threshold and Immediate Review Threshold for the new, relevant threat classification shall apply.</p>					
		<p>58FC. A draft annual monitoring report shall be jointly prepared by a suitable experienced and qualified avian expert, a suitable experienced and qualified Long tailed bat expert, and an independent suitably experienced and qualified bio-statistician, and be provided to the expert panel for review and comment within 20 working days of the anniversary of the commencement</p>					

<p>58G. On the second anniversary of the date any wind turbine first generates electricity the consent holder shall commission a bird collision monitoring review report by a suitably experienced and qualified avian expert and a suitably experienced and qualified bio-statistician that:</p> <p>a. Reviews the results of the monitoring required in accordance with the Bird Collision Monitoring Plan and considers whether mortality effects for any threatened and at-risk species are more than minor;</p> <p>b. Considers whether the monitoring required in accordance with the Bird Collision Monitoring Plan needs to continue, and if so at what frequency; and</p> <p>c. Considers whether any additional avoidance, remediation or mitigation measure, as identified in the Bird Collision Monitoring Plan, needs to be implemented by the consent holder in the event that mortality effects for any individual threatened or at-risk species are more than minor.</p>	<p><u>of bird and long-tailed bat collision monitoring. The annual monitoring report shall present, summarise and analyse the data collected in the preceding year and report on the operation of the Kaiwaikawe Wind Farm against the objective of the Bird and Long-tailed bat Collision Monitoring Plan and the mortality thresholds for the individual species set out in condition 58Fa.</u></p> <p><u>58FD. The consent holder shall submit the annual monitoring report (including all comments from the expert panel and the consent holder's response to those comments) to the Group Manager – Environmental Services, Kaipara District Council within 60 working days of the anniversary of the commencement of bird and long-tailed bat collision monitoring. A copy of the annual monitoring report shall also be provided to the Department of Conservation (Director, Operations, Northern North Island).</u></p> <p><u>58FE Upon receiving the annual monitoring report the Group Manager – Environmental Services, Kaipara District Council may seek advice and comment from the expert panel on the data presented in the report and the operation of the Kaiwaikawe Wind Farm against the objective of the Bird and Long-tailed Bat Collision Monitoring Plan and the mortality thresholds for the individual species set out in Condition 58Fa above.</u></p> <p><u>Bird and Long-tailed Bat Collision Monitoring Review</u></p> <p>58G. On the <del>second</del> <u>fifth</u> anniversary of the date any wind turbine first generates electricity the consent holder shall commission a bird <u>and long-tailed bat</u> collision monitoring review report by an <u>independent</u> suitably experienced and qualified avian expert, an <u>independent</u> suitably experienced and qualified bat expert, and a suitably experienced and qualified bio-statistician that:</p> <p>a. Reviews the results of the monitoring required in accordance with the Bird <u>and Long-tailed Bat</u> Collision Monitoring Plan <del>and considers whether mortality effects for any threatened and at-risk species are more than minor;</del></p> <p>b. Considers whether the monitoring required in accordance with the Bird <u>and Long-tailed bat</u> Collision Monitoring Plan needs to continue, and if so at what frequency; and</p> <p>c. Considers whether any additional avoidance, remediation or mitigation measure, as identified in the Bird <u>and Long-tailed bat</u> Collision Monitoring Plan, needs to be implemented by the consent holder in the event that mortality for any <del>individual threatened or at-risk species are more than minor</del> <u>species listed in Condition 58Fa has equalled or exceed the</u></p>	<ul style="list-style-type: none"> <li>- RT considers that the timeframe in condition 58G is not agreed and will be reconsidered on 20/10/21 because of the overlap with DOCs proposed conditions related to condition 58FA.</li> <li>- 58H – 58P – deferred for consideration on 20/10/21 because of the interrelationship with other monitoring conditions.</li> </ul>	<ul style="list-style-type: none"> <li>- All agreed the reference to the description of the experts should be consistent with previous JWS.</li> <li>- MB agrees to deletion of DOCs proposed changes to conditions 58K and 58Q.</li> </ul>	
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<p>58H. The consent holder shall submit the draft bird collision monitoring review report to the expert panel for review and comment. The expert panel shall provide its written comments (if any) on the draft bird collision monitoring review report to the consent holder within 20 working days of receipt of the report from the consent holder.</p> <p>58I. The consent holder shall submit the bird collision monitoring review report, including all comments from the expert panel and the consent holder’s response to those comments, to the Group Manager – Environmental Services, Kaipara District Council within 20 working days of the receipt of written comments from the expert panel. <u>A copy of the bird collision monitoring report shall also be provided at the same time to the Department of Conservation (Director, Operations, Northern North Island).</u></p> <p>58J. The Group Manager – Environmental Services, Kaipara District Council shall review the bird collision monitoring review report, subject to any advice from the expert panel, and determine whether:</p> <p>a. The monitoring required in accordance with the Bird Collision Monitoring Plan needs to continue, and if so at what frequency;</p> <p>b. Any additional avoidance, remediation or mitigation measure, as identified in the Bird Collision Monitoring Plan, needs to be implemented by the consent holder in the event that mortality effects for any individual threatened or at-risk species are more than minor; and</p> <p>c. There is a need to serve notice on the consent holder of its intention to review any of the ecological management / mitigation / compensation conditions of this resource consent in accordance with Sections 128 to 131 of the Resource Management Act 1991 where there is not an agreement between the consent holder and the expert panel as to the need for, or quantum of, any additional ecological management / mitigation / compensation.</p>	<p><del>Mitigation Review</del> <u>mortality threshold for the individual species.</u></p> <p>58H. The consent holder shall submit the draft bird <u>and Long-tailed bat</u> collision monitoring review report to the expert panel for review and comment. The expert panel shall provide its written comments (if any) on the draft bird <u>and Long-tailed bat</u> collision monitoring review report to the consent holder within 20 working days of receipt of the report from the consent holder.</p> <p>58I. The consent holder shall submit the bird <u>and Long-tailed bat</u> collision monitoring review report, including all comments from the expert panel and the consent holder’s response to those comments, to the Group Manager – Environmental Services, Kaipara District Council within 20 working days of the receipt of written comments from the expert panel. <u>A copy of the bird and Long-tailed bat collision monitoring review report shall also be provided at the same time to the Department of Conservation (Director, Operations, Northern North Island).</u></p> <p>58J. The Group Manager – Environmental Services, Kaipara District Council shall review the bird <u>and Long-tailed bat</u> collision monitoring review report, subject to any advice from the expert panel, and determine whether:</p> <p>a. The monitoring required in accordance with the Bird <u>and Long-tailed Bat</u> Collision Monitoring Plan needs to continue, and if so at what frequency;</p> <p>b. Any additional avoidance, remediation <del>or</del> mitigation <u>or compensation</u> measure, as identified in the Bird <u>and Long-tailed bat</u> Collision Monitoring Plan, needs to be implemented by the consent holder in the event that mortality <del>effects for any individual threatened or at-risk species are more than minor</del> <u>for any species listed in Condition 58Fa has equalled or exceeded the mortality Threshold for the species;</u> and</p> <p>c. There is a need to serve notice on the consent holder of its intention to review any of the ecological management / mitigation / compensation conditions of this resource consent in accordance with Sections 128 to 131 of the Resource Management Act 1991 where there is not an agreement between the consent holder and the expert panel as to the need for, or quantum of, any additional ecological management / mitigation / compensation.</p>			
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<p>58K. Where there is agreement between the consent holder and the expert panel over the need for, or quantum of, any additional avoidance, remediation or mitigation measure, the consent holder shall implement such agreement.</p>	<p>58K. <del>Where there is agreement between the consent holder and the expert panel over the need for, or quantum of, any additional avoidance, remediation or mitigation measure,</del> <u>The consent holder shall implement such agreement all recommendations of the expert panel.</u></p>			
<p><b>Immediate Review</b></p>				
	<p><u>58L</u> In the event that the bird and long-tailed bat collision monitoring required in accordance with the Bird and Long-tailed Bat Collision Monitoring Plan and Condition 58F identifies that the mortality of any individual bird species listed in Condition 58Fa has equalled or exceeded the Immediate Review Threshold for that individual species, then the consent holder shall:</p> <p>(a) <u>Notify the Group Manager – Environmental Services, Kaipara District Council and the expert panel within 24 hours of becoming aware of the exceedance; and</u></p> <p>(b) <u>Immediately suspend the operation of the applicable wind turbine(s), as identified by the suitably experienced and qualified avian expert responsible for bird collision monitoring at the Kaiwaikawe Wind Farm or the suitably experienced and qualified bat expert responsible for bat collision monitoring at Kaiwaikawe Wind Farm.</u></p> <p><u>58M</u> The suitably experienced and qualified avian or bat expert responsible for bird or bat collision monitoring at the Kaiwaikawe Wind Farm shall undertake an investigation and complete a draft report on the possible cause of the species mortalities within 10 working days of the consent holder notifying the Group Manager – Environmental Services, Kaipara District Council. The draft report shall be immediately provided to the expert panel for review and comment.</p> <p><u>58N</u> The consent holder shall convene a meeting with the expert panel within five working days of their receipt of the draft report on the possible cause of the species mortalities. The purpose of the meeting shall be to:</p> <p>(a) <u>Review and discuss the findings of the draft species mortality investigation report;</u></p> <p>(b) <u>Consider whether any additional monitoring is required to further consider the potential cause of species mortality;</u></p>			

	<p>(c) <u>Consider whether any additional mitigation and / or compensation, needs to be implemented by the consent holder; and</u></p> <p>(d) <u>Consider whether it is appropriate for the applicable wind turbine(s) suspended in accordance with Condition 58N(b) to re-commence operations, and whether there is a need for further controls on the interim operation of the relevant wind turbines (e.g. limiting operations at particular times of the day / season or in particular wind / weather conditions).</u></p> <p><u>58O The consent holder shall submit the bird and Long-tailed bat mortality investigation report (including all comments from the expert panel from the meeting and the consent holder's response to those comments) to the Group Manager – Environmental Services, Kaipara District Council within five working days of convening a meeting with the expert panel in accordance with Condition 58P. A copy of the bird or Long tailed bat mortality investigation report shall also be provided to the Department of Conservation (Director, Operations, Northern North Island).</u></p> <p><u>58P The Group Manager – Environmental Services, Kaipara District Council shall, upon receipt of the bird or Long tailed bat mortality investigation report and as a matter of urgency, but subject to any advice from the expert panel, determine in consultation with the consent holder whether:</u></p> <p>(a) <u>It is appropriate for the applicable wind turbine(s) suspended in accordance with Condition 58N(b) to re-commence operations, and whether there is a need for further controls on the interim operation of the relevant wind turbines (e.g. limiting operations at particular times of the day / season or in particular wind / weather conditions);</u></p> <p>(b) <u>Consider whether Any additional monitoring is required and at what frequency;</u></p> <p>(c) <u>Any additional mitigation and / or compensation, needs to be implemented by the consent holder; and</u></p> <p>(d) <u>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 where there is not an agreement between the consent holder and the expert panel as to the matters specified in Conditions 58R(a) to c).</u></p>			
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	<p><u>58Q</u> The consent holder shall implement all recommendations of the expert panel.</p>			
<p><b>LIZARDS</b></p>				
<p>59. At least 40 working days prior to the commencement of vegetation clearance within the areas identified as:</p> <ul style="list-style-type: none"> <li>a. Scrub Revision in Pine Slash – V16 in Map 5 of “Omamari Wind Farm, Northland –Ecological Impact Assessment” dated 12 November 2020;</li> <li>b. Scrub and Rank Grass Margins of any pine plantation which extends into the Project Envelope; and</li> <li>c. The road reserve / margin adjacent to Maitahi Wetland Scientific Reserve</li> </ul> <p>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:</p> <ul style="list-style-type: none"> <li>d. The avoidance, remediation or mitigation of adverse effects of construction works on any lizard species in the areas identified in Condition 59(a) to (c);</li> </ul> <p>59B. In order to achieve the objective established in Condition 59 above, the Lizard Management Plan shall address the following matters:</p> <ul style="list-style-type: none"> <li>a. The detailed methodology proposed to survey for any lizard species in the areas identified in Condition 59(a) to (c);</li> <li>b. The method of recording the number and species of any lizards required to be captured under the Lizard Management Plan; and</li> <li>c. The location where captured lizards will be relocated, including the suitability of habitat in this location.</li> </ul>	<p>59. At least 40 working days prior to the commencement of vegetation clearance within the areas identified as:</p> <ul style="list-style-type: none"> <li>a. Scrub Revision in Pine Slash – V16 in Map 5 of “Omamari Wind Farm, Northland –Ecological Impact Assessment” dated 12 November 2020;</li> <li>b. Scrub and Rank Grass Margins of any pine plantation which extends into the Project Envelope; and</li> <li>c. The road reserve / margin adjacent to Maitahi Wetland Scientific Reserve</li> </ul> <p>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:</p> <ul style="list-style-type: none"> <li>d. The avoidance, remediation or mitigation of adverse effects of construction works on any lizard species in the areas identified in Condition 59(a) to (c);</li> </ul> <p>59B. In order to achieve the objective established in Condition 59 above, the Lizard Management Plan shall address the following matters:</p> <ul style="list-style-type: none"> <li>a. The detailed methodology proposed to survey for any lizard species in the areas identified in Condition 59(a) to (c);</li> <li>b. The method of recording the number and species of any lizards required to be captured under the Lizard Management Plan; and</li> <li>c. The location where captured lizards will be relocated, including the suitability of habitat in this location.</li> <li>d. <u>The measures taken, including intensity and duration, to increase the ability of lizards to survive at the relocated site(s)</u></li> </ul>		<ul style="list-style-type: none"> <li>- 59(c) – All parties agreed: ‘The location where captured lizards will be relocated, including the suitability of habitat in this location and any measures to support the ability of lizards to establish and survive in these locations.’</li> </ul>	

<p>Note: <i>Wildlife Permits under the Wildlife Act 1953 may be required in order to implement the Lizard Management Plan.</i></p>	<p>e. <u>Any monitoring, including methods, intensity and duration that will occur at relocated site(s) for lizards.</u></p> <p>Note: <i>Wildlife Permits under the Wildlife Act 1953 may be required in order to implement the Lizard Management Plan.</i></p>	<ul style="list-style-type: none"> <li>- 59(e) – Wording for this condition is not agreed between the experts.</li> <li>- 59(e) – RT does not consider that monitoring is necessary and SF has advised of the general difficulties associated with undertaking such monitoring at other projects.</li> </ul>	<ul style="list-style-type: none"> <li>- 59(e) - RB clarified that the intention was that any monitoring would be considered if a significant population of ‘at risk or threatened species’ are being relocated.</li> </ul>	<ul style="list-style-type: none"> <li>- 59(e) – US and DD raised concerns in relation to DOCS position: what is meant by the words ‘significant population’; what is the purpose of the monitoring given there is no benchmark or follow up for the monitoring; and the practical difficulties relating to the monitoring of lizards which are difficult to detect.</li> </ul>
<p><b>GENERAL REPORT OF BIRD AND BAT CARCASSES</b></p>				
<p>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 (<a href="https://nzctcs.org.nz/home">https://nzctcs.org.nz/home</a>) be found injured or dead at the site, the Department of Conservation (Director, Operations, Northern North Island) is to be notified immediately. The bird shall be photographed as found and the location noted on a map of the site.</p>	<p>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 (<a href="https://nzctcs.org.nz/home">https://nzctcs.org.nz/home</a>) be found injured or dead at the site, the Department of Conservation (Director, Operations, Northern North Island) is to be notified immediately. The bird shall be photographed as found and the location noted on a map of the site.</p>			
<p><b>STOCK PONDS</b></p>				
<p><b><u>Stock Pond drainage, infilling and other modification</u></b></p>				
<p>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).</p> <p>62A. If a stock pond with a vegetated margin needs to be drained <u>or modified</u> 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 31 is located, that stock pond shall not be drained or modified until the chick(s) has left the nest.</p> <p>62B. In the event that the blade tip of any wind turbine will be located within 200 metres of Stock Ponds 45, 70 <u>or and</u> 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, Northern North Island) with the</p>	<p>62. As far as practicable, <u>any</u> draining or modifying any stock ponds with vegetated margins (<del>e.g. and which provide potential</del> breeding habitat) shall occur outside the breeding season of Australasian Bittern, Spotless Crane, Dabchick and Australasian Coot (being 1 September to 28 February).</p> <p>62A. If a stock pond with a vegetated margin needs to be drained <u>or modified</u> 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 31 is located, that stock pond shall not be drained or modified until the <del>chick(s) has left the nest</del> <u>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</u></p> <p>62B. In the event that the blade tip of any wind turbine will be located within 200 metres of Stock Ponds 45, 70 <u>and or</u> 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, Northern North Island) with the opportunity to review</p>	<p>RT and SF to review condition 62 with a view to specifying which ponds are relevant.</p>	<ul style="list-style-type: none"> <li>- MB confirms her agreement to the last sentence of DOCS proposed condition 62A to be deleted.</li> </ul>	

<p>opportunity to review and comment on the draft Ecological Mitigation and Management Plan required in accordance with Condition 62D.</p> <p>62C. In the event that no written comments are received from the Department of Conservation (Director, Operations, Northern 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, Northern North Island).</p> <p>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:</p> <p>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.</p> <p>62E. The Ecological Monitoring and Management Plan shall, as a minimum, address the following matters:</p> <p>a. A clear description of the timing of any restoration works proposed relative to the infilling of the stock ponds;</p> <p>b. The detailed measures proposed to enhance the habitat values of the identified wetland area, including via the implementation of stock fencing;</p> <p>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;</p>	<p>and comment on the draft <u>Ecological Wetland</u> Mitigation and Management Plan required in accordance with Condition 62D.</p> <p>62C. In the event that no written comments are received from the Department of Conservation (Director, Operations, Northern 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, Northern North Island).</p> <p><u>62CC. Only Stock Ponds 45, 70 or 89 as referred to in Condition 62B above may be infilled as part of the project. No other stock ponds or wetland areas may be infilled or drained.</u></p> <p>62D. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent shall submit an <u>Ecological Wetland</u> 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:</p> <p>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.</p> <p>62E. The <u>Ecological-Wetland</u> Monitoring and Management Plan shall, as a minimum, address the following matters:</p> <p>a. A clear description of the timing of any restoration works proposed relative to the infilling of the stock ponds <u>45, 70 and/or 89</u>;</p> <p>b. The detailed measures proposed to <u>create-enhance and maintain the wetland and provide the</u> habitat values <u>of the identified-wetland-area</u>, including via the implementation of stock fencing <u>and pest control</u>;</p> <p>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;</p>	<p>- All experts agree that condition 62Da reads: 'Create or enhance at least 2.2 ha of wetland habitat for Pied Shag, Black Shag and Dabchick to compensate for the loss of the 1.1 ha of habitat in Stock Ponds 45, 70 and 89 that are to be infilled'.</p> <p>- RT and SF agree to adopt DOCs proposed wording of 52Ea. And that the '45, 70 and/or 89' should read as '45, 70 or 89'.</p> <p>- All experts agree that condition 62Eb reads: 'The detailed measures proposed to create or enhance, and maintain, the wetland habitat, including via the implementation of stock fencing and animal pest control'.</p>	<p>- MB advised that she is happy for condition 62CC of the DOC set of conditions to be deleted.</p> <p>- MB advised that she is happy for the title in conditions 62D and 62E to be 'Ecological Mitigation and Management Plan'.</p>	
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<p>d. Requirements for monitoring of, and reporting on, the success of the wetland habitat works (including plant survival rates); and</p> <p>e. The method and timeframes for the long term protection of the wetland habitat.</p>	<p>d. Requirements for monitoring of, and reporting on, the success of the wetland habitat works (including plant survival rates); and</p> <p>e. The method and timeframes for the long term protection of the wetland habitat.</p> <p><u>62F</u> The consent holder shall contribute \$XX per annum to a wetland management programme administered or endorsed by the Department of Conservation (Director, Operations, Northern North Island) from the date any wind turbine first generates electricity, and until such time as the Kaiwaikawe Wind Farm is decommissioned. The purpose of the contribution is to compensate for the mortality predictions of the individual species identified in Condition 58Fa (with the exception of Australasian Bittern). The consent holder shall provide written verification of the contribution to Group Manager – Environmental Services, Kaipara District Council within 10 working days of the payment being made to the programme annually.</p> <p><u>62G</u> In addition to Condition 62F, the consent holder shall make a one-off contribution of \$XX to the wetland management programme administered or endorsed by the Department of Conservation (Director, Operations, Northern North Island) from the date any wind turbine first generates electricity in order to assist with establishment and administration costs for the programme. 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.</p> <p><u>62H</u> In the event that the wetland management programme administered or endorsed by the Department of Conservation ceases the consent holder shall contribute the \$XX per annum required in accordance with Condition 62F and the one-off contribution of \$XX required in accordance with Condition 62G to any other wetland management programme administered or endorsed by the Department of Conservation (Director, Operations, Northern North Island).</p>		<p>- 62F, 62G and 62H – MB confirms that DOC are no longer pursuing these conditions and they can be deleted.</p>	