

**BEFORE THE KAIPARA DISTRICT COUNCIL**

**IN THE MATTER**

of the Resource Management Act 1991 ("RMA")

**AND**

**IN THE MATTER**

of a resource consent application by Tararua Wind Power Limited under section 88 of the RMA for the Kaiwaikawe Wind Farm

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**LEGAL SUBMISSIONS IN REPLY ON BEHALF OF TARARUA WIND POWER LTD**

**2 March 2022**

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### 1. INTRODUCTION

- 1.1. When we opened the hearing in August 2021, we submitted that the resource consent sought should be granted because:
  - (a) The Kaiwaikawe Wind Farm (“KWF” or the “Proposal”) satisfies all requirements of the RMA, including under s104;
  - (b) Tararua Wind Power Ltd’s (“TWP”) evidence demonstrates that all aspects of the KWF have been carefully designed, and that there are avoidance and management measures in place to ensure that adverse effects are appropriately managed; and
  - (c) There can be no doubt that access to secure, sufficient and reliable renewable electricity is of critical importance to the social and economic wellbeing of Northlanders, and all New Zealanders.
- 1.2. The KWF is entirely consistent with the Government’s commitment to renewable energy, including as contained in the National Policy Statement for Renewable Electricity Generation 2011 (“NPSREG”) – being the only national policy statement of relevance to this Proposal. KWF is a significant opportunity to meet our national challenge of providing increased electricity generation capacity and security of supply in an

environmentally sustainable manner, whilst contributing to the country's decarbonised future. The Proposal is consistent with the Northland Regional Policy Statement ("RPS") and Kaipara District Plan, and both documents provide considerable policy support.

- 1.3. Since the hearing was adjourned in January 2022, representatives of TWP and the Director-General of Conservation ("DoC") have continued to engage constructively and positively in discussions aimed at reaching an agreed position on KWF. Whilst the discussions have been held on a confidential basis, we are pleased to advise the Panel that the discussions have concluded with DoC amending its position so that it is no longer in opposition to the grant of consent to KWF. This is a significant outcome given that DoC was the only submitter appearing at the hearing. Importantly, TWP and DoC have also reached agreement on a (limited) number of changes to the proffered set of conditions. This means that DoC is no longer seeking the imposition of conditions of consent it advanced in the hearing. The final set of proffered conditions are attached to these submissions as **Annexure A**.
- 1.4. As a consequence, it is no longer necessary to fully respond to DoC's earlier relief or conditions of consent that it is no longer pursuing. Having said that, we do briefly comment on some aspects of DoC's submissions and evidence given they are before the Panel and a limited reply is therefore appropriate.
- 1.5. The agreement reached with DoC means the Panel can have confidence in the final proffered conditions. The changes were canvassed with the s42A officers, and we understand that they do not have any concerns with the changes.
- 1.6. The Panel also can have considerable certainty with the assessment of ecological effects given that the baseline surveys for Australasian Bittern/matuku and Long-tailed bats that were undertaken on behalf of TWP over Spring 2021 have confirmed TWP's earlier assessments and expert opinion on Australasian Bittern numbers and the absence of bats. A requirement to undertake a baseline survey in spring was proffered by TWP and was always part of the proposed pre-construction process, although TWP elected to expand the scope of the surveys by including for example the Pamu West wetland. The surveys were exhaustive and responded meaningfully and substantively to DoC's earlier criticism of the sufficiency of ecological information within the Project Site. As an illustration of that, Ms Thurley in the January 2022 hearing accepted the Long-tailed bat baseline survey provided sufficient evidence that that species is not present within the Project Site and that the previously recommended conditions dealing with bats were no longer required. Since then, the remaining concerns of DoC have been fully addressed through the discussions between the parties.

- 1.7. Whilst the focus of the hearing has largely been on Australasian Bittern, the Panel should keep in plain sight the wider context for considering this Proposal, and in particular the fact that no non-ecological matters remain in contention as between the parties who attended the hearing. In our experience of consenting seven other wind farms, having essentially a single issue in contention is unprecedented. Now due to the agreement reached between DoC and TWP, there remains no unresolved issues.
- 1.8. Although consideration of applications is not a 'numbers game', it is also worth remembering that:
- (a) Only eight submissions in opposition to the Proposal were filed (one of which was DoC which is no longer in opposition).
  - (b) Eight submissions in support of the Proposal were filed.
  - (c) DoC was the only submitter to attend the hearing.
  - (d) The s42A officers recommend the grant of consent. The only outstanding issue between TWP and KDC is whether conditions are required for Long-tailed bats, in the absence of Long-tailed bats being present in the Project Site (TWP agrees with DoC and says that the conditions are not needed following the baseline survey). The only other issue that was outstanding between KDC and TWP in the January 2022 hearing was an amendment to the objective to the Australasian Bittern Monitoring and Management Plan<sup>1</sup>. TWP understands the basis of the change and has incorporated the change in the final condition set.
  - (e) Te Roroa support the Proposal and have given their written approval.
  - (f) Consents have been granted by Northland Regional Council.
- 1.9. As we noted in our opening submissions, the Panel's assessment of the application requires an evaluation of the evidence presented. We return to briefly canvass several issues with the evidence on behalf of the DoC witnesses shortly, however, in summary we submit that Mr Fuller and Mr Turner's evidence should be preferred by the Panel. Both witnesses on behalf of TWP exhibited objectivity in their assessments and evidence and answered the Panel's questions fully. Both are highly experienced in the areas in which they gave evidence. Dr Bennett and Mr Daly for KDC concurred with their TWP counterparts.

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<sup>1</sup> As submitted by counsel for KDC at paragraphs 4.4 – 4.11 of legal submissions dated 21 January 2022.

1.10. In these submissions, we will address:

- (a) The weight to be applied to DoC's evidence;
- (b) Relevant effects management policy;
- (c) Sufficiency of information;
- (d) Australasian Bittern habitat;
- (e) Various miscellaneous matters; and
- (f) DoC's condition set, Long-tailed bat conditions and the final proffered condition set.

1.11. Overall, we submit that TWP's evidence demonstrates, and that the Panel can justifiably conclude, that the application should be granted in its entirety, subject to the final set of proffered conditions.

## **2. WEIGHT TO BE GIVEN TO DOC EVIDENCE**

2.1. In our opening submissions<sup>2</sup>, we raised concerns with aspects of the expert evidence being called on behalf of DoC and which we submitted went to the weight which should be given to that evidence. Having heard the evidence on behalf of DoC, those concerns remained - particularly with regard to the evidence of Dr Williams, Dr Burns, and Ms Burns.

### *No site visit by Dr Williams and Ms Burns*

2.2. Following a point of clarification by counsel, it transpired that the earlier confirmation in DoC's opening submissions and the witnesses' own oral answers on site visits were not entirely correct. This could have resulted in a material misunderstanding of Ms Burns and Dr Williams' knowledge of the Project Site and Project Envelope had a point of clarification not been raised. Ms Burns and Dr Williams confirmed at the January 2022 hearing, following questioning, that they had only viewed the Project Site from visiting public roads.<sup>3</sup>

2.3. The Panel will appreciate from its site visit that views from the public roads to the Project Envelope are limited and distanced. Large parts of the Project Envelope are not visible,

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<sup>2</sup> Paragraph 8.32.

<sup>3</sup> The exact locations visited by Dr Williams remain uncertain.

including the three farm ponds potentially to be removed. Whilst some areas may be potentially visible, they are distant. For example, Dr Williams and Ms Burns would have been in the order of 1km from the Project Envelope in the Southern Cluster.

- 2.4. Having not actually seen or only viewed features in the Project Envelope at a distance, unreserved opinions of both witnesses means that their evidence needs to be weighted accordingly.
- 2.5. This contrasts with Mr Fuller and his team whose avian assessments included:
  - onsite surveys for nearly 50 days, with vantage point surveys carried out by two teams, one week a month for 10 months (400 hours on site, or a total of 1500 person hours of survey effort) totaling nearly 400 hours<sup>4</sup>
  - followed by an additional 55.5 hours of dawn and dusk surveys (excluding set up/travel/training and the 747 hours of recorder data analysis) over 10 days for the 2021 spring Australasian Bittern baseline survey.
- 2.6. That level of assessment should provide considerable certainty to the Panel as to the basis of his opinion.

*Wind farm experience*

- 2.7. None of the DoC experts disclosed any wind farm experience, and in fact:
  - (a) Dr Williams confirmed that this hearing was her first RMA process;
  - (b) Ms Burns' evidence did not include any prior resource consent hearing experience; and
  - (c) Dr Burns' evidence also did not disclose any prior RMA hearing experience.
- 2.8. While a lack of resource consent experience does not disqualify a witness from expressing expert opinion, it does go directly to the weight that should be afforded to that witness's opinion.
- 2.9. In contrast, Mr Fuller has extensive wind farm experience (as described in paragraphs 6-13 of his evidence in chief) and we submit is one of the pre-eminent wind farm avian ecologists in the country. As we noted in our opening submissions, he has prepared ecological impact assessments and presented evidence for eight commercial wind farms

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<sup>4</sup> Mr Fuller EIC, paragraph 134 and 128 respectively.

in New Zealand, with avifauna collision or displacement risks being key considerations in each case.<sup>5</sup> Mr Fuller has also been involved in the design and implementation of bird studies at ten wind farm sites (in addition to KWF);<sup>6</sup> and has been involved with post construction monitoring at five sites where his predictions of likely species effects have been tested and confirmed.<sup>7</sup> The Panel will recall in the August 2021 hearing, Mr Fuller confirmed that his post construction experience at operational wind farms including the Waipipi and West Wind provided him confidence in his assessments. He also outlined his extensive ecological experience beyond wind farm applications.

- 2.10. Mr Turner has 21 years' experience as a planner with prior experience in consenting other wind farms and large/complex projects. Both Messrs Turner and Fuller's statements of evidence are thorough, considered and based on their years of relevant experience. It is submitted that their opinions should be preferred.

*Expression of 'absolute' opinion by Dr Williams*

- 2.11. Dr Williams, in particular, at times expressed her opinions in 'absolute' terms which, in our submission, does not exhibit the objectivity expected from an expert witness. Examples include:

- (a) *“without more information, the scale of effects is likely significant because matuku will be displaced and/or killed. The magnitude of the effects is potentially catastrophic for the Northland matuku population if rates of displacement and collisions are high. Given rates of decline are steep for matuku in other parts of the country, a catastrophic loss in Northland could be irreversible.”*<sup>8</sup> Dr Burns on the other hand noted in answers that of all the threats to Australasian Bittern, currently collisions with turbines are not a big component compared to other manmade structures including cars. In fact, there was no evidence of an Australasian Bittern ever being struck by a turbine (and as Mr Fuller noted Australasian Bittern are present in the locality of the Waipipi Wind Farm).
- (b) *“With a nationally critically threatened species such as the matuku, even a small number of deaths could contribute significantly towards the extinction of a population”*.<sup>9</sup>

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<sup>5</sup> Mr Fuller EIC, paragraph 8.

<sup>6</sup> Mr Fuller EIC, paragraph 9.

<sup>7</sup> Mr Fuller EIC, paragraph 10 and annexure E

<sup>8</sup> Dr Williams EIC, 4.11.

<sup>9</sup> Dr Williams EIC 12.2.

- (c) *“The accuracy of predictions depends entirely on the data that are put into the model. Unfortunately, the applicants (sic) collected no data that would be useful for making accurate predictions using this model”*.<sup>10</sup>
- (d) Describing the Band modelling undertaken by TWP as involving *“some critical assumptions that were flawed and would therefore make their predictions unsubstantiated guess work”*.<sup>11</sup>
- (e) Describing the KWF site as a matuku “stronghold”<sup>12</sup>. In response to questioning from the Panel, Dr Williams defined a “stronghold” as a concentration of matuku that is enough to have a chance of recovery, and further clarified that a stronghold is not an area where there is one or three matuku or an area that matuku do not use. On that basis much of Northland, Bay of Plenty, Waikato, Canterbury and the West Coast would similarly be strongholds. Dr Williams further opined that across “the whole network” there is a concentration of matuku with a chance of matuku surviving. The Panel confirmed with Dr Williams that in her opinion the whole of Northland is significant habitat for Australasian Bittern. Dr Williams also confirmed that DoC has not conducted an inventory of Australasian Bittern in Northland and so the numbers present in these habitats and within the region is unknown.

### *Incomplete analysis*

- 2.12. Ms Burns’ planning analysis does not cover the full extent of the applicable planning framework and adopts a minimalist approach to assessing the application against the relevant policy framework. In our submission, Ms Burns did not sufficiently provide a basis for preferring the DoC experts over the TWP experts where there was a point in contention. We submit that her evidence does not reflect the same level of detailed consideration and analysis as the evidence of Mr Turner.

## **3. RELEVANT EFFECTS MANAGEMENT POLICY**

- 3.1. Counsel for DoC maintained in the January 2022 hearing that the *“more stringent policy framework of the Kaipara District Plan should be applied to the proposal”*.<sup>13</sup> DoC’s own planning witness disagreed, as did all other planning witnesses and counsel. We addressed Policy 6.6.2 of the Kaipara District Plan at length in our 21 January 2022 further legal submissions.<sup>14</sup> In so doing we set out the reasons why Policy 6.6.2(b) does

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<sup>10</sup> Dr Williams EIC 16.8.

<sup>11</sup> Dr Williams EIC 16.9.

<sup>12</sup> There is no scientific definition of a “stronghold”.

<sup>13</sup> Further Submissions of Counsel for the Director-General dated 21 January 2022 at 3.4

<sup>14</sup> At paras 4.4 – 4.12.

not impose an avoidance effects management threshold for these applications and provided the various reasons why we submit that DoC's submissions on the point were misplaced and incorrect. We addressed the drafting issues with Policy 6.6.2 in our 21 January 2022 submissions including the internal inconsistencies with the policy.

#### 4. APPROACH TO S104 AND PART 2

- 4.1. We set out in our opening submissions the relationship between s104 matters and Part 2 and the considerable jurisprudence on that topic. Those submissions stand and we need not return to them. However, comment on one additional matter arising from counsel for DoC's 21 January 2022 submissions is warranted. It was submitted<sup>15</sup> by Ms Bradley that in the context of whether Policy 4.4.1 of the RPS applies to the Proposal it is appropriate or "*perhaps necessary*" to refer back to Part 2 in order to decide the appropriate level of "*environmental protection warranted, and whether consent should be granted or declined*".
- 4.2. Counsel for DoC argued that it is not consistent with Part 2 that Policy 4.4.1 of the RPS applies a different effects management threshold dependent on whether the application area is in or is outside of the coastal environment. With respect that rather misses the point that the 'avoid' policies of the New Zealand Coastal Policy Statement 2010 ("NZCPS") (for example policies 11 and 13) only apply to the coastal environment. The complaint about the RPS "setting a line" ignores the fact that it is the NZCPS that sets that line (and the Supreme Court in *King Salmon*<sup>16</sup> has confirmed that the NZCPS gives effect to Part 2). Simply put, the avoidance policies of the NZCPS do not apply throughout the motu and Policy 4.4.1 appropriately recognises that. There is no dispute that the Project Site is entirely located outside of the coastal environment and Mr Lister's assessment on this issue was uncontested.
- 4.3. Even if reference to Part 2 is undertaken, it is unclear how s5 – s7 would sustain an 'avoidance' or 'no mortality' effect management hierarchy in any event. In addition, Part 2 contains supportive provisions for renewable energy including ss5, 7(b) and (j) We therefore disagree reference back to Part 2 is required due to Policy 4.4.1 as suggested by counsel for DoC and note the following:

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<sup>15</sup> 21 January 2022 further legal submissions at 3.10.

<sup>16</sup> *EDS v New Zealand King Salmon Company* [2014] NZSC 38.

- (a) Policy 4.4.1 clearly applies to this Proposal – there is nothing contained within Policy 4.4.1 itself or the RPS to suggest otherwise. The policy is clear and unambiguous.
- (b) All planning witnesses, including Ms Burns, confirmed in the 12 October 2021 JWS that Policy 4.4.1 is a key policy to consider the Proposal against. Ms Burns, reconfirmed that opinion when giving evidence on 26 January 2022. Mr Turner also recognised the relevance of the NPSREG and its policy direction to decision makers, and both Mr Turner and counsel addressed the Panel on Policy 5.3.3 of the RPS which “allows” regionally significant infrastructure where, inter alia, it is consistent with Policy 4.4.1.

4.4. As outlined in our opening submissions, we accept that the Court of Appeal in *Davidson*<sup>17</sup> held that *King Salmon* does not apply to decisions on resource consents, and that recourse to Part 2 is permissible – and in some cases necessary – in the context of decisions on resource consents. The Court of Appeal held that while reference to Part 2 would “likely not add anything” where a plan has been prepared having regard to Part 2 and with a coherent set of policies designed to achieve clear environmental outcomes; if it appears that the plan has not been prepared in a manner that appropriately reflects the provisions of Part 2 (and/or has not been competently prepared), then it will be appropriate and necessary to refer to – and give emphasis to – Part 2. In other words, the extent to which Part 2 is relevant to the determination/outcome of a resource consent application will depend on the applicable RMA plans. There is no evidence that the RPS has not been competently prepared (bearing in mind it has been subject to Environment Court appeals) or that it fails to appropriately reflect Part 2.

4.5. The Panel will recall that Mr Turner’s statement in chief included a fulsome assessment of the RPS and addressed Part 2 for completeness on the basis that the Kaipara District Plan was made operative in November 2013 and pre-dates the most recent version of the RPS. Ms Burns did not undertake any analysis of Part 2 (and did not address Policy 6.6.2 of the District Plan) and legal submissions of DoC cannot fill that evidential vacuum. As noted above, Policy 4.4.1 of the RPS does not require resource to Part 2.

## **5. NO APPLICATION FOR TRANSMISSION LINE BEFORE THE PANEL**

5.1. Counsel for DoC maintained that TWP should have accounted for effects that may arise from the construction and operation of the 66kV transmission line that will convey

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<sup>17</sup>R J Davidson Family Trust v Marlborough District Council [2018] NZCA 316.

electricity to Northpower's electricity substation in Dargaville, notwithstanding that there is no application before the Panel, no s92 request was made, and no s91 determination issued.

- 5.2. We had already addressed this issue in our opening submissions and 21 January 2022 further submissions, and we respond to several legal issues below.

*The transmission line is a discrete and separate activity*

- 5.3. Electricity lines and renewable energy generation facilities are treated differently under the Kaipara District Plan. Electricity lines are a permitted activity in all zones provided that they meet the relevant performance standard (see rule 10.11.3). The Rural zone anticipates renewable energy generation facilities.<sup>18</sup> The KWF is a discretionary activity.
- 5.4. As Mr Turner noted in his rebuttal statement<sup>19</sup>, the transmission line "*is a separate infrastructure that will ultimately be owned and operated by Northpower*". Section 104(1)(a) requires consideration of "*any actual and potential effects on the environment of allowing the activity*". The activity before the Panel is not a transmission line.
- 5.5. As counsel for TWP for the Waipipi Wind Farm (which counsel for DoC refer to support their argument), we confirm that a resource consent was required for the transmission line to Waverly as a discretionary activity. A separate resource consent application was made and processed together with the wind farm application, but two separate resource consents were issued – one for the wind farm and one for the transmission line. In the Waipipi Wind Farm, the effects of the transmission line were before that panel as a resource consent application had been applied for by TWP. Simply put, the South Taranaki District Council decision is not authority for the proposition advanced by counsel for DoC.
- 5.6. The uncontested evidence of Mr Turner is that the transmission line will be a permitted activity, whichever of the various routes available are ultimately selected. Ms Burns (rightly) advised the Panel that she did not support the imposition of conditions of consent on the KWF consent which purported to address effects of the transmission line.
- 5.7. Counsel for DoC nevertheless argued that cumulative effects including those of the transmission line are relevant (and conditions of consent were proposed) and placed reliance on *Southpark Corporation Limited v Auckland City Council*<sup>20</sup> and *Aquamarine*

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<sup>18</sup> Turner EIC, at pg 6.

<sup>19</sup> At page 5.

<sup>20</sup> A111/2000.

*Limited v Southland Regional Council*.<sup>21</sup> Neither decision is of material assistance and, with respect, the submissions of DoC with respect miss the point - the transmission line is not part of this proposal and is a separate and discrete activity, albeit a permitted activity.

- 5.8. *Southpark Corporation* is a decision on a preliminary issue dealing with appeals on an overhead electricity power line where the single line was (artificially) divided into sections based upon the activity status applying to it. Parts of the line which crossed the road were a discretionary activity, but where the line crossed private property it was a permitted activity. The applicant had sought a certificate of compliance for the permitted sections and a resource consent for the remainder. Both were declined by council.
- 5.9. The decision is generally referred to when considering the issue of bundling. The decision held at [28] that the two applications “*have to be treated separately*” – those parts which were permitted must have a certificate of compliance issued, but when considering the application for the remaining sections of the line, the Court would be obliged to have regard to any effects of the permitted line to the extent that they are cumulative to the effects arising from the line traversing the road. That is an entirely different situation from the KWF Proposal. TWP has not artificially ‘sliced and diced’ its application in the same manner as the applicant in *Southpark* – the KWF and the future Northpower transmission line are distinct and different activities. In our submission *Southpark* does not assist the Panel in its determination as there is no application for the transmission line before the Panel.
- 5.10. *Aquamarine* is also a preliminary issue decision involving a declined application to establish a freshwater exporting venture in Doubtful Sound. The Court was asked to determine whether the discharges of ballast water in the coastal marine area was a relevant issue given no resource consent was sought for the passage of vessels as they had a common law right of passage.
- 5.11. The Court concluded such effects were relevant and to exclude such effects would result in no conditions being imposed on that aspect of the activity. The discharges were “*reasonably foreseeable effects of allowing the activities for which consent is sought*”. Had TWP adopted a similar approach to effects as the applicant in *Aquamarine* by, for example, not considering traffic effects or displacement effects of filling in the farm ponds both of which do not trigger a requirement for consent then *Aquamarine* may have some relevance. But as TWP has comprehensively considered the effects of *this application*

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<sup>21</sup> (1996) 2 ELRNZ 361.

the decision does not assist the Panel.

- 5.12. Counsel for DoC also referred the Panel to the High Court decision of *Marlborough District Council v Zindia*<sup>22</sup> which related to an appeal against a decision of the Environment Court to cancel an abatement notice requiring certain commercial forestry operations to cease. In that case the High Court considered an argument on the permissibility of bundling permitted activities with those requiring resource consent. The High Court found, having considered the *Aley* and *Bayley* decisions, that a resource consent application must be considered holistically, and that the local authority is not required to determine whether each aspect of an activity should be granted individually. We take no issue with that analysis and note that this is exactly the approach taken by TWP with its application. For example, whilst noting that the infilling of stock ponds is a permitted activity, it has not ignored that activity or even claimed effects of displacement are not relevant even though they arise from a permitted activity – indeed it has proposed conditions of consent to address any displacement effects. However, *Zindia* is not authority for the proposition that the transmission line (a separate and discrete activity) must be considered ‘holistically’ with *this Proposal* (being the KWF Proposal).

## **6. SUFFICIENCY OF INFORMATION UNDER S104(6) OF THE RMA**

- 6.1. The submissions and evidence of DoC relating to the sufficiency of ecological information must now be seen in light of the amended position of DoC.
- 6.2. DoC is no longer seeking the imposition of its January 2022 condition set and as such does not seek a further three years of baseline monitoring. Mr Fuller and Dr Bennett disagreed that further baseline surveys was required in any event.
- 6.3. For completeness it is noted that TWP rejects any suggestion that there is insufficient information before the Panel and that the applications should be declined under s104(6) of the RMA because:
- (a) The Council accepted the application for processing.<sup>23</sup>
  - (b) The Panel also now has the benefit of comprehensive responses to information requests by the Council.<sup>24</sup>

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<sup>22</sup>(2019) 21 ELRNZ.

<sup>23</sup> S88(3) of the RMA.

<sup>24</sup> S104(7) of the RMA states: “In making an assessment on the adequacy of the information, the consent authority must have regard to whether any request made of the applicant for further information or reports resulted in further information or any report being available”.

- (c) The Council s42A report raises no issues with the adequacy of information, instead describing the applicant's application and assessment of effects as detailed and comprehensive.<sup>25</sup>
- (d) The applications have also been subject to independent peer reviews as part of the s42A Report process.
- (e) 15 witnesses prepared comprehensive evidence on behalf of TWP, covering the full spectrum of relevant effects.
- (f) The information before the Panel was more than sufficient for it to make an informed decision on the applications and included extensive and detailed draft management plans.<sup>26</sup>

6.4. Additionally, the spring baseline surveys that were undertaken contributed to the information before the Panel. The surveys were comprehensive and detailed, and enabled Mr Fuller to proceed to draft thorough draft management plans. Mr Fuller's Australasian Bittern Survey Report noted that:

- (a) 55.5 hours of observations were carried out over a 10-day period;
- (b) 13 Acoustic Recording Devices ("ARD") were deployed for 28 days;
- (c) Observations and ARDs covered Omamari Station, Maitahi and Pamu West wetlands;
- (d) Infra-red cameras were installed at two sites at the Maitahi Road crossing capturing 1477 image (including of pests/predators);
- (e) The surveys were complemented by seven ARDs deployed by DoC outside of the Project Site in the Maitahi Wetland Reserve and Omamari Wildlife Management Reserve.

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<sup>25</sup> S42A report paragraph 86, 142, 164. At paragraph 149 the report states: "In summary, the applicant has provided a detailed assessment supported by the appropriate specialist reports that address the relevant matters."

<sup>26</sup> In *RJ Davidson Family Trust v Marlborough District Council* [2016] NZEnvC 81 the Environment Court stated at paragraph: "Clearly the power to decline on the basis of inadequate information should be exercised reasonably and proportionately in all the circumstances of the case. The power is also discretionary - that is shown by the use of the word "may" - so the consent authority may grant consent even if it lacks sufficient information. An example may be if there is a proposal for adaptive management to respond to uncertainties." At paragraph 37 the Court went on to comment, with respect to s104(6): "Does that mean that an Appellant must either in its AEE or in its evidence '... pre-empt all possible arguments made by opponents, in order to disprove alleged effects'? The answer is "no" for two reasons. First, the relevant effects should usually have been identified in the relevant plan, as should what the plan expects to be done about them... Second, it is impossible to prove (or disprove) a future event, simply because it has not happened yet. The most that can be established is a probability or likelihood that an effect may (or may not) occur." An early decision commenting in information requirements for applicants is *AFFCO NZ Ltd v Far North District Council* (No 2) [1994] NZRMA 224(PT) (see paragraphs 13-16). We submit that the KWF applications clearly meet the requirements identified in that case.

6.5. The baseline surveys were *additional* to the extensive assessments Mr Fuller and his team at Boffa Miskell undertook prior to lodgment which amounted to nearly 50 days of onsite surveys, with vantage point surveys totaling nearly 1500 person hours.<sup>27</sup> In totality, the evidence (and associated reports) of Mr Fuller demonstrates a significant body of scientific assessment undertaken by Mr Fuller and his colleagues<sup>28</sup> which is more than sufficient for the Panel to rely upon and make a decision under s104. As noted above, Dr Bennett provided additional comfort to the Panel on the sufficiency of information before the Panel, and both Dr Bennett and Mr Mackay acknowledged the comprehensive nature of Mr Fuller's additional surveys and draft management plans.

#### *DoC's adjournment relief*

6.6. DoC no longer seeks the adjournment of the application. This is welcomed by TWP as the need to respond to the challenges of climate change are real and pressing. All species face the prospect of climate change effects and as a significant renewable energy project, KWF has a meaningful contribution to make to New Zealand's decarbonised economy.

6.7. The case for TWP is that the effects on Australasian Bittern have been appropriately assessed, and avoidance and mitigation measures proposed. The level of risk has been refined and calculated as one bird every 240 years based on a 95% avoidance rate, or one bird every 600 years based on a 98% avoidance rate.<sup>29</sup> Mr Fuller has set out a range of variables to the Band modelling as a sensitivity test. Even then, based on Mr Fuller's evidence those modelled results do not pose a level of unacceptable risk. Further baseline surveys prior to considering the application are not warranted in our submission.

## **7. AUSTRALASIAN BITTERN HABITAT IN NORTHLAND**

7.1. Figure 2 in our 21 January 2022 further submissions (Map 19<sup>30</sup> of Mr Fuller's supplementary evidence dated 21 January 2022) is illustrative of the potential Australasian Bittern habitat in Northland. The figure places the KWF site into context and confirms that much of Northland would not be capable of hosting a wind farm if the

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<sup>27</sup> Mr Fuller EIC, paragraph 134 and 128 respectively.

<sup>28</sup> Ms Bradley orally opined that Mr Fuller was not qualified to express an opinion on Bittern as he was not a Bittern expert. Mr Fuller has appropriately qualified himself as an expert in avifauna and on risks to and effects on avifauna including Bittern by windfarms. In addition, Mr Fuller recorded the team of experts who have assisted him and reviewed his assessments – these include Dr Keesing, Dr Leigh Bull, Dr Lee Shapiro (cryptic bird specialist), and Dr John Craig.

<sup>29</sup> See Annexure B to Fuller Supplementary statement, at page 18.

<sup>30</sup> Page 40.

approach adopted previously by DoC was applied consistently throughout the region (or any forms of infrastructure if zero mortality is required).

- 7.2. Dr Williams confirmed to the Panel that she agreed with Mr Fuller's potential habitat maps, noting that there are significant areas of potential Australasian Bittern habitat in Northland. Dr Williams maintained the KWF was proposed within a "hotspot" and "stronghold" (neither term having any scientific definition). Dr Williams appears to have based those conclusions on the number of birds identified by the Spring survey. However, there was no relative comparison of the number of Australasian Bittern at the Project Site with the other areas of potential Australasian Bittern habitat in Northland, presumably based on the fact that - as Dr Williams confirmed - numbers in Northland are unknown.
- 7.3. Finally, Mr Fuller has made the point on several occasions that the presence of a species does not equate to collision risk.<sup>31</sup> Many species of birds co-exist with wind farms with no collision mortalities recorded over many years of observation. Some species, due to specific behavioral traits (for example juvenile harriers), do suffer from collisions from time to time. Mr Fuller is confident that Australasian Bittern fall within the first group and has presented his reasoning for this in both his evidence and in the Baseline Survey Report (Review of Band Modelling). In our submission, to exclude windfarm development from large parts of Northland simply because Australasian Bittern are also present in the region is not a scientific approach to ecological impact assessment.

## **8. OTHER MATTERS**

### *Te Roroa*

- 8.1. Following the August 2021 hearing, TWP entered into a Mana Enhancing Agreement with Te Roroa. Following that, Te Roroa provided their written approval to Council. TWP looks forward to its partnership with Te Roroa and the initiatives that the KWF will provide.

### *Ecological Impact Assessment - Table 40: assessment of level of effect*

- 8.2. Counsel for DoC relied on Table 40 in the Ecological Impact Assessment submitted as part of the AEE to suggest that Mr Fuller had identified moderate adverse construction effects on Australasian Bittern and therefore the application failed to meet the direction

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<sup>31</sup>See for example Fuller EIC at [169] and Rebuttal statement at [11] and [15].

of Policy 4.4.1 of the RPS. Following questions from counsel for TWP, Mr Fuller confirmed to the Panel that:

- (a) The scale of effects noted in Table 40 are in accordance with the Environmental Institute of Australia and New Zealand (EIANZ) Guidelines for Ecological Impact Assessment (which Mr Fuller co-authored).
- (b) The level of effects under the EIANZ Guidelines do not directly equate to the same level of effect under the RMA and that Table 40 does not show a moderate level of adverse effect under the RMA but rather as Mr Fuller explained, is intended to alert the assessor to the need to consider appropriate mitigation, remedy measures or offset where the effects cannot be avoided. That is what Mr Fuller's assessment went on to do.
- (c) In addition, Table 40 does not account for any further assessments undertaken since its preparation, additional mitigation or avoidance proposals (for example the no turbine areas), the reassessment of the Band Collision Risk model using updated inputs derived from the baseline surveys or the completion of a draft Australasian Bittern Management and Monitoring Plan which also benefitted from the findings of the baseline survey.

#### *Wetland enhancements*

8.3. It appeared to counsel that during the January 2022 hearing that may have been some confusion as to the full extent of the wetland habitat creation/enhancement proposals. To avoid any confusion, we note that TWP is proposing:

- 2ha of wetland habitat (with predator control) under condition 79(c).
- Under condition 123(a) a **further** 2.2ha of created or enhanced wetland habitat aimed at pied stilt, black shag, and dabchick (also with predator control) is required; and
- In addition to those 4.2ha areas, condition 80(e) also requires additional habitat creation or enhancement and predator control if the collision risk mortality is greater than that specified in condition 80 or if there is a trend of displacement from Omamari Station, Maitahi or Pamu Farm West wetlands.

8.4. Additionally, the Australasian Bittern Management Fund has been substantially increased to \$640,000. In the context of the limited funding that Mr Soole confirmed is available to the Omamari Wetland Reserve, the TWP enhancements and the

Australasian Bittern Management Fund which is to go towards DoC and iwi initiatives/ programmes will be a significant contribution to Australasian Bittern and other avifauna and their environments. More than doubling the Fund will provide greater economies of scale and positive conservation outcomes.

- 8.5. Questioning from the Panel put to the DoC's witnesses highlighted the counterfactual if consent is declined – the environment will not benefit from any of the substantial enhancements and predator control proposed by TWP and the flora and fauna will remain under constant threat from pests.

*The precautionary principle/approach*

- 8.6. Counsel for DoC's opening submissions made various references to the precautionary principle. We do not intend to traverse this matter at any length given the change in position of DoC, other than to submit that this Proposal does not involve sufficient scientific uncertainty as to warrant the application of the principle. We also note that Policy 6.1.2 of the RPS *requires* the adoption of the precautionary approach only in the context of effects of climate change and introducing genetically modified organism to the environment.
- 8.7. Notwithstanding the above, Mr Fuller has commented that in applying the Band Model to Australasian Bittern, whenever data was limited the corresponding input values used were always conservative, and a conservative overall avoidance rate was used<sup>32</sup>. As data has improved, more accurate input values have been able to be confirmed and applied and that process was set out in the Baseline Survey Report - Review of Band Modelling. This is consistent with good practice.

*The Board of Inquiry HMR decision*

- 8.8. There were various references to the 2011 Hauauru ma Raki Wind Farm Board of Inquiry decision ("HMR") during the hearing. Senior counsel for TWP and Ms Bradley were counsel before that Board of Inquiry hearing. Counsel notes that the HMR project was considerably different to KWF, both factually and from the perspective of the relevant policy framework that applied to that site (being in the coastal environment). HMR extended along 34km of the west coast of the North Island between Port Waikato and Te Akau. 180 turbines were originally proposed together with two 220kV transmission lines for which notices of requirement were issued over private and public land, and a

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<sup>32</sup> See Fuller Rebuttal at [18, 115, 119, 120].

quarry. The number of turbines were reduced by Contact Energy to 168 (all of which were consented by the Board). The site was located within a migratory flyway for eight bird species that travelled from nesting areas in the South Island to the Manukau Harbour and the Firth of Thames. In addition, resident birds and long-tailed bats were potentially affected.

8.9. At [509] the decision the Board records that:

*“the numbers using the flyway were disputed by the avifauna experts but there may be some 200,000 bird movements through the wind farm site each year. Of this number, some estimated 22,000 movements are by members of threatened species (wrybill and banded dotterel) and 160,000 by members of At Risk species (SIPO and pied stilt)”.*

8.10. Context is everything – and some of that context was missing from the partial quote provided by counsel for DoC when noting the Board’s findings that the flight path of those birds was a significant habitat.<sup>33</sup>

8.11. It is also important to provide the full quote of the Board on the protection of that habitat under s6(c) of the RMA. Having found for “*current purposes*” the flight path was a significant habitat and that the habitat was adequately protected by mitigation, the Board recorded it reached that conclusion because:

- [a] Only part of the flight path would be affected by the turbines as there is a broad dispersion of bird flight paths, both to sea along the coast and inland in this area.*
- [b] The agreement to enhance other habitat areas, particularly the upper Rangitata River nesting area, and the extensive conditions in relation to bird strike satisfy us (just) that the habitat for migratory shore birds would, in a broad sense, be protected.”*

8.12. In our submission, the decision in HMR does not have any direct bearing on the significance or otherwise of the Project Site. While Counsel for DoC at 5.16 of their opening submissions noted “*that there is evidence the entire Kaiwaikawe wind farm project site contains values included in the significance criteria listed in Appendix 5 to the Northland RPS*” that submission did not align with Mr Fuller’s thorough and detailed assessment of Project Site and Project Envelope.

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<sup>33</sup> At [1108] and cited at paragraph 5.15 of DoC’s opening submissions.

- 8.13. While Ms Burns opined at paragraph 4.2 of her evidence in chief that the site is a “*Significant Ecological Area as defined by the Northland Regional Policy Statement*” she subsequently revised that opinion orally when she appeared before the Panel in the January 2022 hearing to “*likely to be*” a significant ecological area. As outlined above, Ms Burns’ opinion was formed without visiting the Project Envelope and her revised opinion was not informed by an actual site inspection of the more than 2,000ha Project Site. The opinions of Ms Burns and Dr Williams on the significance of the Project Site need to be treated with caution as a result and should be contrasted with Mr Fuller’s considered opinion on the significance of the Project Site, as submitted earlier.
- 8.14. Before departing the HMR decision, it is pertinent to note that Contact Energy had issued notices of requirement for two high voltage transmission lines. The external line consisted of a 220kV double circuit transmission line with lattice towers. The external transmission line crossed the Punga Punga wetland within which **seven** bittern were recorded, although the numbers were likely to be higher. The avifauna experts are recorded in the decision as recommending bird diverters on the line and that was proffered in the conditions (see [953]) but other than noting the mitigation and offsets in place, the Board found the effects “*on this significant habitat would be minimal*”.

## **9. DOC’S 21 JANUARY 2022 CONDITION SET**

- 9.1. In our 21 January 2022 further submissions, we addressed the permissible scope of conditions and the *vires* of conditions of consent recommended by the DoC witnesses which were not agreed through the conferencing process.
- 9.2. We do not intend to repeat those submissions in the context of the 21 January 2022 DoC condition set especially since DoC is no longer pursuing that condition set. However, as the DoC condition set is before the Panel, some limited comment is still necessary. However, we respectfully submit that when the Panel considers the 21 January 2022 DoC condition set, it do so bearing in mind that DoC is no longer seek the imposition of those conditions.
- 9.3. The 21 January 2022 DoC condition set represented an apparent joint drafting exercise between DoC’s counsel and its witnesses. Rewriting an agreed conferenced condition set to better reflect experts’ “intentions” is a practice that we as counsel have never experienced and is highly regrettable.
- 9.4. As the Panel is aware, the conferencing spanned a period of three months and was facilitated by a former Environment Court Commissioner. Had the DoC witnesses

considered their prior agreement did not represent their intentions, they had ample opportunity in the conferencing environment to address that. They did not.

- 9.5. The Panel was placed in a position where it had before it:
- (a) A set of consent conditions which were agreed by all participants at the JWS including DoC witnesses (with a clear indication of what remained in contention). Both TWP and KDC supported that condition set subject to some minor discreet additions/amendments; and
  - (b) Two 21 January 2022 DoC condition sets being:
    - i. A rewrite of conditions from those conferenced on, as attached to counsel for DoC's further submissions; and
    - ii. The same set but as amended (orally) by Ms Burns.
- 9.6. The re-written aspects of the 21 January 2022 DoC condition set were without an evidential basis (with the exception of the deletions to the long-tailed bat conditions on the basis of the evidence of Ms Thurley, who provided her recommendations orally; and the conditions addressed by Ms Burns where she disagreed with a number of the conditions advanced by counsel).
- 9.7. We note that Ms Burns conceded when questioned by the Panel that, if the Panel preferred the evidence of Mr Fuller, then key aspects of DoC's condition set (including "zero mortality") were not sustainable.
- 9.8. Fortunately, this situation has now been completely overtaken by the fact that DoC and TWP have reached agreement on a final set of conditions such that DoC is no longer pursuing its earlier condition set.
- 9.9. However, as the 21 January 2022 DoC condition set was put before the Panel, it remains necessary for completeness to briefly comment on some of those conditions (although we do not intend to provide an exhaustive response). References to conditions below are to the 21 January 2022 DoC condition set.

#### *Zero mortality*

- 9.10. Conditions requiring zero mortality such as DoC condition 53X were simply not reasonable nor practicable. Zero mortality represents yet another effects management threshold for which no policy or evidential basis was provided to the Panel. We are unaware of a zero mortality standard applying to any other consented project and it is

difficult to envisage how any other infrastructure proposals (including but not limited to roads) could be consented if it were to apply to other projects. In our submission, the application of a zero mortality standard would restrain development in a region that has an infrastructure deficit and would be contrary to the policy direction of the RPS, including Policies 4.4.1 and 5.5.3.

- 9.11. DoC Condition 53XA prohibited construction commencing until it is demonstrated that there will be zero mortality. This was proposed to be achieved through further baseline monitoring and three years of GPS tracking whereby the consent holder must demonstrate that no Australasian Bittern had flown in the Project Envelope “*between the minimum and maximum turbine height*”. (It is assumed that reference to minimum turbine height was intended to refer to the minimum height of the vertically extended blade tip of 30m). That meant that no construction would be possible if over a period of 3 years a single Australasian Bittern flies *anywhere* in the Project Envelope between 30 – 220m. That would include areas proposed as No Turbine Areas, given that they are still located within the Project Envelope.
- 9.12. Construction was also not to commence under condition 53XA if any habitat within the Project Envelope is “considered” to be a Site of Importance. A Site of Importance would be established if the number of visits by a single tagged Australasian Bittern “indicates” that the habitat is within the “*95% kernel density estimated home range*” of that bird. It is unclear who makes that determination and on the face of the condition it again represented an absolute prohibition in constructing the entire KWF irrespective of whether the “visit” was say limited to the northern cluster and no visits ever occurred in the southern cluster. Again, the condition had no evidential basis, had not been subject to conferencing, and was entirely unreasonable. It was also void for uncertainty.

#### *DoC Condition 53XB*

- 9.13. DoC Condition 53XB was an attempt to lay a foundation for the cancellation of consent following a s128 review. Section 132(4) provides:

*A consent authority may cancel a resource consent if—*

- (a) it reviews the consent under section 128(1)(c); and*
- (b) the application for the consent contained inaccuracies that the consent authority considers materially influenced the decision made on the application; and*
- (c) there are significant adverse effects on the environment resulting from the exercise of the consent.*

9.14. The purported “basis of information from the applicant” was wrong<sup>34</sup> and misrepresented the application and evidence of Mr Fuller.

*DoC conditions on the transmission line*

9.15. Conditions such as 58D that related to the transmission line were *ultra vires*. As noted by the High Court in *Marlborough District Council v Zindia*,<sup>35</sup> a local authority is not able to grant a resource consent with conditions in respect of permitted activities unless the applicant consents and TWP did not consent.

9.16. As noted above, the 21 January DoC set are no longer being pursued by DoC and as such they are moot.

## **10. LONG-TAILED BAT CONDITIONS**

10.1. Intensive monitoring effort over several periods, including the recent comprehensive baseline monitoring undertaken during the hearing adjournment, has not identified any bats at the Project Site. The outcome of the monitoring (i.e. that there is no evidence of bats at the Project Site) is not contested by any party or their experts.

10.2. Following the latest round of monitoring, Ms Thurley accepted that lengthy conditions relating to bats (including as originally agreed by each of the DoC, TWP, and KDC) are not necessary or appropriate. TWP agrees with DoC that, based on the evidence, lengthy bat conditions are not justified. TWP also agrees with DoC that condition 118 requiring the recording and reporting of any evidence of bat strike at the site (and immediate notification to DoC) is appropriate, however unlikely that condition is to be triggered.

10.3. Surprisingly, KDC continued to support the retention of extensive bat conditions based on Mr Mackay’s recommendation. We understand the rationale for Mr Mackay’s position is that such conditions will cater for the purely hypothetical situation where bats establish themselves on the Project Site in future. We submit that:

- (a) Based on the uncontested evidence, the bat conditions supported by Mr Mackay are simply now not justified or commensurate with the effects of the KWF. It is not appropriate for conditions to cater for every possible hypothetical future adverse effect – they should have their foundation in the evidence. Taken to its logical

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<sup>34</sup>For example, Mr Fuller never opined that Bittern do not fly through the Project Envelope but that they would preferentially cross at saddles (for example at paragraph 101 of Fuller Rebuttal Statement dated 17 August).

<sup>35</sup> [2019] NZHC 2765, [2020] NZRMA 216.

extreme, Mr Mackay's approach would see extensive conditions for all threatened or at-risk species included in the KWF consent conditions, irrespective of the likelihood of those species being affected by the wind farm.

- (b) The bat conditions proposed by KDC are unlawful under s108AA(1)(b) of the RMA because they are not directly connected to an adverse effect of the KWF on the environment. While an "effect" includes a future effect and any potential effect of low probability which has a high potential impact,<sup>36</sup> the evidence is that the potential for adverse effects on long-tailed bats is so remote as to not reach the threshold of low probability in the definition of effect:<sup>37</sup> there is no material risk to bats.

10.4. In response to questions from the Panel, Mr Mackay confirmed that his concerns were potentially capable of being satisfied through other planning/legal mechanisms.<sup>38</sup> We submit that the power to review the consent conditions under s128 of the RMA (as addressed in proposed condition 150)<sup>39</sup>, coupled with the bat carcass condition proposed by TWP, are fit for purpose to deal with any unforeseen adverse effects on long-tailed bats.

## **11. TWP CONSENT CONDITIONS**

11.1. The final set of condition have been canvassed in the accompanying Memorandum of Counsel. They represent an agreed set of conditions between TWP and DoC, and other than the deletion of the Long-tailed bat conditions, they are also agreed between TWP and KDC officers. The substantial increase to the Bittern Management Fund is aimed at producing significant conservation gains for the Australasian Bittern, and when coupled with other measures such as wetland enhancements, other species stand to gain from the grant of consent also.

11.2. The consolidated set of conditions represent a significant body of expert assessment and conferencing effort. They are fit for purpose and respond appropriately to the issues raised throughout the consenting processes.

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<sup>36</sup> RMA s3.

<sup>37</sup> Refer for example to *Te Runanga O Taumarere v Northland Regional Council* [1996] NZRMA 77 where the Planning Tribunal found that the evidence showed that the potential for an effect to occur (infection of oyster beds from a wastewater treatment plant effluent discharge) was of high potential impact, but was so remote that it did not to reach the threshold of "low probability" in the meaning of "effect" in s3 of the RMA. Refer also to *Living in Hope Inc v Tasman District Council* [2011] NZEnvC 157, where the Environment Court held (in a case regarding potential contamination of an adjoining property), that absolute certainty that an effect will not occur is not required under the RMA, and that such a test would rarely if ever be satisfied. The Court went on to conclude that no plausible risk of contamination was identified in the evidence (rather, parties had simply raised the spectre of risk as opposed to identifying and demonstrating any real/plausible risk).

<sup>38</sup> As opposed to the conditions of consent he proposed.

<sup>39</sup> The power to review conditions under s128-131 is cross referenced throughout the proposed conditions.

## **12. PRINCIPAL SUBMISSION**

- 12.1. TWP has engaged respected and experienced experts to design a wind farm that avoids effects through the careful design of the Project Envelope and no turbine areas, coupled with comprehensive and meaningful conditions of consent that provide for escalation where necessary, and include improving existing habitat for Australasian Bittern. The on-going threat posed to Australasian Bittern by predators, habitat loss and degradation seems to be the counterfactual to the KWF. TWP is pleased that its engagement with DoC has resulted in a meaningful and positive outcome. The agreement has resulted in certainty as to the position of DoC and an agreed set of conditions. The substantial increase in the funding of the Bittern Management Fund to \$640,000 will provide a significant contribution to initiatives aimed at promotion and enhancement of the population of the Australasian Bittern. The outcomes the Fund will deliver are in addition to the other mitigation measures proposed by TWP including the creation or enhancement of 4.2ha of wetland habitat.
- 12.2. TWP considers that the KWF represents a significant and valuable opportunity to harness the excellent wind resource at the Project Site, and to contribute to meeting our national challenge of providing increased generation capacity and security of supply in an environmentally sustainable manner. That opportunity ought not to be lost because of concerns about adverse effects which are appropriately managed by way of both detailed design and proffered consent conditions.
- 12.3. Ultimately, the Commissioners' assessment of the applications requires an evaluation of the evidence presented and the concerns previously raised by DoC. We submit that the evidence of TWP (and supported by Dr Bennett with respect to Australasian Bittern) should be preferred. Importantly, when undertaking its evaluation, it is respectfully submitted that the Panel should be cognisant of DoC's amended position which does not oppose the grant of consent and which does not seek the imposition of its 21 January condition set.
- 12.4. TWP is confident that the KWF achieves an appropriate outcome which will have significant positive benefits, and appropriately manages environmental effects. That submission is no longer in contention by any party who appeared before the Panel.

**JR Welsh and SJ Mutch**

Counsel for Tararua Wind Power Ltd

2 March 2022

## Annexure A

<b>CONSENT AUTHORITY:</b>	Kaipara District Council
<b>CONSENT HOLDER:</b>	Tararua Wind Power Limited
<b>CONSENT TYPE:</b>	Land Use Consent
<b>ACTIVITY AUTHORISED:</b>	The construction, operation and maintenance of the Kaiwaikawe Wind Farm
<b>SITE LOCATION:</b>	379 Maitahi Road, Mamaranui (Lot 1 DP 201886)
<b>CONSENT DURATION:</b>	Unlimited

## GENERAL

1. The construction, operation and maintenance of the Kaiwaikawe Wind Farm shall be undertaken in general accordance with the information provided in:
  - a. *“Omamari Wind Farm – Resource Consent Applications and Assessment of Environmental Effects”* dated 13 November 2020 and the appendices numbered A to Q;
  - b. The further information response submitted by Mitchell Daysh to the Kaipara District Council on 14 June 2021;
  - c. The further information response submitted by Mitchell Daysh to the Kaipara District Council on 15 June 2021;
  - d. The further information response submitted by Tilt Renewables Limited to the Kaipara District Council on 15 June 2021; and
  - e. The further information responses submitted by Mitchell Daysh to the Kaipara District Council on 30 June 2021.

In the event of any conflict or discrepancy between these documents and the conditions of this resource consent, the conditions shall be determinative.

2. Pursuant to section 125(1) of the Resource Management Act 1991, this resource consent shall lapse if not given effect to within 10 years of the commencement of this resource consent.
3. Pursuant to section 134(1) of the Resource Management Act 1991, this resource consent may only be exercised by the consent holder, its successor, or any person acting under the prior written approval of the consent holder.
4. The following definitions apply for the purpose of the conditions of this resource consent:
  - a. ‘Project Site’ means the area marked as the site boundaries on the map attached as **Appendix A** to this resource consent and dated 16 August 2021;

- b. 'Project Envelope' means the area marked as the project envelope boundaries (northern and southern clusters) on the map attached as **Appendix A** to this resource consent and dated 16 August 2021;
  - c. 'No Turbine Areas - Ecology' and 'No Turbine Areas - Other' mean the areas marked as the no turbine areas within the project envelope on the map attached as **Appendix A** to this resource consent and dated 16 August 2021;
  - d. 'Connection Envelope' means the area marked as the connection envelope boundaries on the map attached as **Appendix A** to this consent and dated 16 August 2021;
  - e. 'Commencement of construction works' means all earthworks and physical works associated with roading, turbine platforms and the erection of wind turbines. Preliminary geotechnical investigations in order to determine the specific layout of the wind turbines and roading do not fall within this definition; and
  - f. 'Completion of construction works' means the issuance by the consent holder of a construction completion certificate under a construction contract to the wind turbine supplier or similar.
- 5. The consent holder shall ensure that all contractors engaged to undertake activities authorised by this resource consent are made aware of the conditions of this resource consent relevant to their work area and the measures required for compliance with the conditions.
  - 6. The consent holder shall notify the Resource Consents Manager – Kaipara District Council as to the commencement date of construction works authorised as part of this resource consent, at least 15 working days before such works commence.
  - 7. The consent holder shall ensure that a copy of this resource consent is provided to Mana Whenua Kaitiaki (Te Roroa) within 10 working days of commencement of this resource consent. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the Resource Consents Manager – Kaipara District Council.
  - 8. The consent holder shall at all times construct, operate and maintain the Kaiwaikawe Wind Farm in accordance with all management plans submitted to, and certified by, the Resource Consents Manager – Kaipara District Council as part of the conditions of this resource consent.

#### **WIND FARM AND TURBINE CHARACTERISTICS**

- 9. The maximum number of wind turbines in the Kaiwaikawe Wind Farm shall not exceed 19, of which up to 8 wind turbines may be located within the northern cluster and up to 11 wind turbines may be located within the southern cluster of the Project Envelope.
- 10. The maximum wind turbine height (to the vertically extended blade tip) shall be 220 metres above finished ground level.
- 11. The minimum height of the vertically extended blade tip of any wind turbine shall not be less than 30 metres above finished ground level.

12. All wind turbines utilised within the Kaiwaikawe Wind Farm (including any replacement wind turbines that are installed during the life of the wind farm) shall be of a similar size and type and have three blades.
13. Lattice style pylon towers shall not be used for the wind turbines.
14. All wind turbines and turbine blades used within the Kaiwaikawe Wind Farm shall be finished with the same industry standard low reflectivity finishes and in an off-white colour.
15. Each wind turbine may include one externally housed transformer unit located adjacent to the base of the turbine. The maximum height of any externally housed transformer unit shall be 2.5 metres above finished ground level and the maximum building footprint shall not exceed 25 m<sup>2</sup>.
16. All wind turbines, turbine platforms, hard stand areas and externally housed transformer units authorised as part of this resource consent shall be located within the Project Envelope. However, no wind turbines (defined as the base of the turbine tower and including the overhanging of blades) shall be located within those parts of the Project Envelope identified as No Turbine Areas – Ecology and No Turbine Areas - Other.  
  
Wind turbine blades may, however, overhang those parts of the Project Envelope identified as No Turbine Areas - Other.
17. All wind turbines within the Project Envelope shall be spaced so that an ellipse drawn around each wind turbine and oriented to the prevailing wind at 240 degrees from due north, with the long axis being four times the diameter of the rotor and the narrow axis being 2 times that diameter, does not overlap the ellipse drawn around any other wind turbine identified in the final turbine layout for the Kaiwaikawe Wind Farm required in accordance with Condition 33.
18. No wind turbines, turbine platforms or externally housed transformer units (but excluding hard stand areas) shall be established on any road reserve within the Project Envelope, except where the approval of the General Manager – Infrastructure Services, Kaipara District Council has been provided in writing.
19. All wind turbines shall be set back at least 75 metres or one blade length, whichever is the greater, from the Project Site boundaries.
20. All wind turbines shall be set back a minimum of one blade length, plus 20 metres, from Stock Ponds P06, P21 and P68 as defined in Maps 5 and 6 of *“Omamari Wind Farm, Northland – Ecological Impact Assessment”* dated 12 November 2020.
21. All wind turbines shall be set back a minimum of one blade length, plus 20 metres, from QEII Covenant Area S-02-1235 as defined in Map 5 of *“Omamari Wind Farm, Northland – Ecological Impact Assessment”* dated 12 November 2020.

## **SUPPORTING INFRASTRUCTURE**

22. One temporary meteorological mast may be erected at each of the northern and southern clusters of the Project Envelope, prior to the commencement of all other construction works authorised by this resource consent (for the purpose of establishing further data on the wind

resource across the Project Envelope). The temporary meteorological masts shall be erected for a period not exceeding 12 months and shall be removed from the Project Envelope at the completion of this period.

The consent holder shall notify the Resource Consents Manager – Kaipara District Council within 15 working days of each temporary meteorological mast first being erected, and within 15 working days of each mast being removed from the Project Envelope.

23. 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.

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

The consent holder shall notify the Resource Consents Manager – Kaipara District Council within 15 working days of the development / investigation meteorological mast first being erected, and within 15 working days of the mast being removed from the Project Envelope.

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

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

747074 E	6024397 S
745253 E	6026922 S

UTM Zone 59

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

27. 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.

28. One concrete batching plant, and associated temporary construction site offices, may be established at each of the northern and southern clusters of the Project Envelope. The maximum height of the concrete batching plants shall be 15 metres above finished ground level and the maximum working area associated with each of the concrete batching plants shall not exceed 7,500 m<sup>2</sup>. The concrete batching plants shall be decommissioned and removed within six months of completion of construction works for the Kaiwaikawe Wind Farm.

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.

The consent holder shall notify the Resource Consents Manager – Kaipara District Council within 15 working days of each concrete batching plant being removed from the Project Envelope.

29. One operations / maintenance facility may be established at either the northern or southern clusters of the Project Envelope. The maximum height of the operations and maintenance facility shall be 8 metres above finished ground level and the maximum building footprint shall not exceed 6,000 m<sup>2</sup>.
30. One electricity substation / switchyard building may be established at each of the northern and southern clusters of the Project Envelope. The maximum height of the electricity substation / switchyard buildings shall be 7 metres above finished ground level, with gantry structures and lighting / lightning arrestors not exceeding 20 metres above finished ground level. The maximum building footprint of each of the electricity substations / switchyards, inclusive of car parking, shall not exceed 4,800 m<sup>2</sup>.
31. All supporting infrastructure to the Kaiwaikawe Wind Farm authorised as part of this resource consent may be located within those parts of the Project Envelope identified as No Turbine Areas – Ecology and No Turbine Areas - Other, with the exception of any temporary and development / investigation meteorological masts authorised by Conditions 22 and 24.

Temporary and development / investigation meteorological masts may not be located in those parts of the Project Envelope identified as No Turbine Areas - Ecology.

32. The 33 kV electrical and fibre optic cable network linking the northern and southern clusters of the Project Envelope shall be located underground within the Connection Envelope.

#### **PLANS AND DESIGN REPORT**

33. 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 any permanent stormwater controls, wastewater infrastructure and disposal fields and water supplies to be installed against the relevant engineering standards administered by the Kaipara District Council;
  - d. The location of cabling within the Connection Envelope;
  - e. The layout and pavement composition of the internal access road network; and
  - f. The location of all fill disposal sites to be utilised.

The detailed design report for the Kaiwaikawe Wind Farm shall, as a minimum, include:

- g. A slope stability assessment of any cuts and fills that are required (and which are verified by a suitably qualified and experienced geotechnical engineer); and
  - h. Hydraulic assessment of any stormwater infrastructure, including culvert inlet and outlet structures, demonstrating compliance with Kaipara District Council Engineering Standards 2011, and Auckland Council's "*Hydraulic Energy Management: Inlet and Outlet Design for Treatment Devices, July 2013.*"
34. The consent holder shall provide the planned staging of works for the Kaiwaikawe Wind Farm to Mana Whenua Kaitiaki (Te Roroa) at least 60 working days prior to the commencement of construction works authorised as part of this resource consent. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the Resource Consents Manager – Kaipara District Council.
35. Within 40 working days of completion of construction works for the Kaiwaikawe Wind Farm (or after each stage, if the Kaiwaikawe Wind Farm is constructed in stages), the consent holder shall provide the Resource Consents Manager - Kaipara District Council with a set of as-built plans for the following:
- a. All wind turbines, turbine platforms and foundation areas;
  - b. The internal access road network;
  - c. The location of cabling within the Connection Envelope;
  - d. All fill disposal sites;
  - e. All permanent supporting infrastructure; and
  - f. Engineering survey plans and sections of major earthworks.

## **EARTHWORKS AND CONSTRUCTION**

### ***Earthworks and Construction Management Plan***

36. 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 36(a) to (g). The Earthworks and Construction Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objectives:
- a. Minimise the volume of earthworks required for the construction of the Kaiwaikawe Wind Farm and ensure slope stability of any cuts or fills that are required;
  - b. Maximise the effectiveness of erosion and sediment control measures associated with earthworks by minimising sediment generation and sediment laden runoff (particularly in

locations adjacent to the Maitahi Wetland / Waitakahuruhuru Stream and the Omamari Station Wetland and Shrubland Crossings);

- c. Minimise the overall area of disturbance so as to reduce the potential impact on any vegetation, wetlands and potential archaeological features within the Project Site;
  - d. Ensure control and / or mitigation of the adverse effects of any dust emissions;
  - e. Minimise the effects, and introduction, of weeds;
  - f. Ensure that fill disposal sites are contoured to generally reflect the surrounding landforms; and
  - g. Rehabilitate and re-vegetate worked areas so that they are returned to pasture or their existing vegetative cover.
37. In order to achieve the objectives established in Condition 36 above, the Earthworks and Construction Management Plan shall, as a minimum, address the following matters:
- a. An explanation of how the Earthworks and Construction Management Plan shall be implemented and the associated roles, responsibilities and contact details for the principal persons responsible for management during the construction period;
  - b. A clear description of the planned staging of works and the description of earthworks in each stage, including detailed site plans;
  - c. Detailed measures for subsoil drainage;
  - d. Detailed measures for the infilling of stock ponds, which shall include:
    - i. Dewatering of the stock ponds in the presence of a freshwater ecologist;
    - ii. A fish 'muck-out' using standard accepted methods; and
    - ii. The transfer of any fish found in the stock ponds to suitable waterbodies in the Project Site (as identified by a freshwater ecologist).
- Note: Wildlife Permits under the Wildlife Act 1953 may be required in order to transfer any fish found during the dewatering of stock ponds.*
- e. Confirmation of the volumes of cut, fill and unsuitable material;
  - f. The location and design of fill disposal sites within the Project Envelope, which shall not be located in any of the following:
    - i. Areas that are excessively wet;
    - ii. Gullies with perennial or intermittent watercourses;
    - iii. Very steep slopes (> 28 degrees); and
    - iv. Erosion prone land (land defined as land use capability units VIe17, VIe19, VIIe1 - VIIe10, VIIIe1 - VIIIe3, and VIIIIs1).

- g. The engineering controls, supervision and certification that will be applied to each stage of development;
  - h. The specific erosion, stormwater and sediment control measures that will be applied to each stage of earthworks, and particularly the measures that will be applied to minimise sediment generation and sediment laden runoff to the Maitahi Wetland / Waitakahuruhuru Stream and the Omamari Station Wetland and Shrubland Crossings;
  - i. Ground stabilisation measures, particularly for cut and fill slopes;
  - j. The engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;
  - k. The specific dust control measures that will be applied to each stage of earthworks and fill disposal sites;
  - l. The location of the concrete batching plants within the Project Envelope, which shall be located at least 40 m from any wetland. In addition, the specific measures to contain / manage contaminant runoff and stormwater runoff from the concrete batching plants (e.g. bunds) shall be detailed;
  - m. The measures to ensure that worked areas (excluding hard stand areas) are rehabilitated and re-vegetated as soon as practicable following earthworks, including:
    - i. The identification of the vegetation or pasture types and re-vegetation material and techniques to be used for rehabilitation purposes;
    - ii. The programme and timing of re-vegetation and maintenance activities so that stabilised surface coverage of 80% is achieved within two months of the completion of earthworks in a particular location;
    - iii. The retention of surface cover in order to reduce the effects from sediment-laden stormwater runoff;
    - iv. Contouring of side-throw material and grading out or feathering of any cut / fill batters to merge with the landform contours, where appropriate; and
    - v. The identification of weed management activities to be undertaken.
  - n. Details on the frequency of inspections and monitoring of all stormwater, dust, erosion and sediment control measures throughout each stage of construction works, including details of the suitably qualified and experienced person responsible for inspections and monitoring.
38. The consent holder shall provide a copy of the final Earthworks and Construction Management Plan required in accordance with Condition 36 to Mana Whenua Kaitiaki (Te Roroa) within five working days of it being certified by the Kaipara District Council. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the Resource Consents Manager – Kaipara District Council.
39. All earthworks required for the construction of the Kaiwaikawe Wind Farm shall be undertaken in accordance with Auckland Council's "*Guidelines for Earthworks in the Auckland Region, 2016 / 005.*"

### ***Contaminated Land***

40. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Detailed Site Investigation to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objective in Condition 40. The Detailed Site Investigation shall be prepared by a suitably qualified and experienced practitioner in contaminated land as required by the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

For any land within the Project Envelope confirmed by the Detailed Site Investigation as being contaminated and intended for disturbance, a Site Management Plan will be produced which shall provide for the following objective:

- a. Ensure identified HAIL sites intended for disturbance within the Project Envelope will be appropriately remediated or managed prior to or during soil disturbance works, to minimise potential adverse effects on human health and the environment.
41. In order to achieve the objective in Condition 40, the Site Management Plan shall be prepared by a suitably qualified and experienced practitioner in general accordance with the Ministry for the Environment's "Contaminated Land Management Guidelines #1: Reporting on Contaminated Sites in New Zealand (Revised 2011)" and the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 and shall specify the measures and monitoring that will be implemented in order to minimise potential effects on human health and the environment from the disturbance of contaminated soil or waste material on the site.
42. The consent holder shall ensure that any contaminated soil or waste material identified for off-site disposal is disposed of at a site that holds a resource consent or relevant authorisation to accept the relevant level of contamination identified at the site.

### ***Construction and Cultural Monitoring***

43. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall make an invitation to Mana Whenua Kaitiaki (Te Roroa) to undertake the following:
- a. A blessing from a Kaumatua to ensure the 'state' of hau ora (holistic health) is maintained;
- b. Attend an onsite pre-works meeting with the consent holder and its main contractors; and
- c. Cultural monitoring of topsoil stripping and the removal of earth within the Project Envelope.

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

## NOISE

### ***Construction and Maintenance Noise***

44. Noise from all construction works associated with the Kaiwaikawe Wind Farm shall be measured and assessed in accordance with the requirements and limits of “*NZS6803:1999 Acoustics – Construction Noise.*”
  
45. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Noise Management Plan to the Resource Consents Manager - Kaipara District Council for endorsement acting in a technical certification capacity. The Construction Noise Management Plan shall be generally in accordance with Section 5 and the relevant annexures of “*NZS6803:1999 Acoustics – Construction Noise*”, which detail the relevant types of construction to which the Construction Noise Management Plan is to apply (which shall include construction works associated with road upgrades / improvements), and the procedures that will be carried out to ensure compliance with the standard. The objectives of the Construction Noise Management Plan shall be to ensure construction works are:
  - a. Designed and implemented to comply with the requirements of “*NZS6803:1999 Acoustics – Construction Noise*” (with the exception of 701 Babylon Coast Road), as measured and assessed in accordance with the long term noise limits set out in the standard; and
  - b. Implemented in accordance with the requirements of section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise from construction works associated with the Kaiwaikawe Wind Farm does not exceed a reasonable level.
  
46. In order to achieve the objectives established in Condition 45 above, the Construction Noise Management Plan shall, as a minimum, address the following matters:
  - a. The operating hours for the construction works and any time restrictions on the operation of particular machinery and equipment;
  - b. Details on the machinery and equipment to be utilised during the construction works, and any required mitigation measures associated with the operation of the machinery and equipment;
  - c. Predictions of sound levels from the machinery and equipment to be utilised during the construction works;
  - d. Mitigation options for any exceedances of the requirements of “*NZS6803:1999 Acoustics – Construction Noise*” at 701 Babylon Coast Road (which may include temporary noise barriers);
  - e. Details on the noise monitoring programme to be undertaken during the construction works;
  - f. The procedure for the reporting of any exceedances of “*NZS6803:1999 Acoustics – Construction Noise*” to the Resource Consents Manager - Kaipara District Council; and

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

47. The Construction Noise Management Plan shall be prepared by a suitably qualified and experienced acoustical consultant.

**Operational Noise (Non-Wind Turbine Related)**

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

7.00 am to 7.00 pm	50 dB L <sub>Aeq</sub>
7.00 pm to 10.00 pm	45 dB L <sub>Aeq</sub>
10.00 pm to 7.00 am	40 dB L <sub>Aeq</sub> and 70 dB L <sub>AFmax</sub>

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

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

**Operational Noise (Wind Turbines)**

49. The wind turbines shall be designed, constructed, operated and maintained so that sound levels from the Kaiwaikawe Wind Farm comply with the requirements of “NZS6808:2010 Acoustics – Wind Farm Noise.” For the avoidance of doubt, this condition shall require the wind turbines to be designed, constructed, operated and maintained so that the Kaiwaikawe Wind Farm sound levels shall not exceed the background sound plus 5 dB (L<sub>A90 (10min)</sub>) or a level of 40 dB (L<sub>A90 (10 min)</sub>), whichever is the greater.

50. For the purpose of demonstrating compliance with Condition 49, wind farm sound shall be measured and assessed in accordance with “NZS6808:2010 Acoustics – Wind Farm Noise” at, or within, the notional boundary of any dwelling in existence or consented at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under section 114 of the Resource Management Act 1991 (excluding those dwellings on the property on which wind turbines are to be located, or where the property owner has provided their written approval and this approval has been provided to the Resource Consents Manager – Kaipara District Council).

*Note: For the avoidance of doubt, and for the purpose of compliance with Condition 50, the “Reference Test Method” shall be adopted for testing whether the Kaiwaikawe Wind Farm has tonal special audible characteristics, as prescribed in Annex C to ISO 1996:2007, in accordance with Appendix B of “NZS6808:2010 Acoustics – Wind Farm Noise.”*

51. At least 20 working days prior to the commissioning of the first wind turbine authorised as part of this resource consent, the consent holder shall submit a Noise Management Plan to the Resource Consents Manager – Kaipara District Council for certification that the plan meets the objectives in Condition 51(a) and (b). The objectives of the Noise Management Plan shall be to ensure:
  - a. The operation of the Kaiwaikawe Wind Farm complies with the requirements of Condition 49 of this resource consent; and
  - b. Operational noise from the Kaiwaikawe Wind Farm is managed in accordance with the requirements of section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise from the Kaiwaikawe Wind Farm does not exceed a reasonable level.
  
52. In order to achieve the objectives established in Condition 51 above, the Noise Management Plan shall, as a minimum, address the following matters:
  - a. An assessment of background sound levels in accordance with the requirements of “NZS6808:2010 Acoustics – Wind Farm Noise” prior to the commencement of any construction work;
  - b. Wind turbine selection, having regard to the sound power level predictions obtained in accordance with Section 6.2 and the special audible characteristics in Clause 5.4.1 of “NZS6808:2010 Acoustics – Wind Farm Noise”;
  - c. Procedures for ensuring compliance with the noise conditions of this resource consent, including noise compliance testing, methods for addressing non-compliance, designated contact persons, and complaints procedures;
  - d. Procedures for addressing turbine malfunctions that cause material noise effects beyond typical operational noise;
  - e. Procedures for ensuring that the best practicable option is adopted to ensure the emission of noise from the operation of the Kaiwaikawe Wind Farm does not exceed a reasonable level;
  - f. Requirements for post construction noise monitoring and assessment; and
  - g. Provisions regarding the review, and updating, of the Noise Management Plan.
  
53. The Noise Management Plan shall be prepared by a suitably qualified and experienced acoustical consultant.

### ***Pre-Instalment Assessment***

54. Prior to the installation of any wind turbine authorised as part of this resource consent, the consent holder shall provide a Noise Prediction Report to the Resource Consents Manager - Kaipara District Council for certification in accordance with “NZS6808:2010 Acoustics – Wind Farm Noise” (in particular Sections 8.1 and 8.4.2). The Noise Prediction Report shall:
- a. Demonstrate, based on the sound power levels for the selected wind turbines, that the limits in Condition 49 of this resource consent can be complied with;
  - b. Include the finalised 35 dBA contour for the Kaiwaikawe Wind Farm; and
  - c. Identify the dwellings within the finalised 35 dBA contour to be measured and assessed in accordance with “NZS6808:2010 Acoustics – Wind Farm Noise”.

### ***Compliance Testing***

55. A compliance assessment report shall be prepared in accordance with Section 8.4.1 of “NZS6808:2010 Acoustics – Wind Farm Noise” by a suitably qualified and experienced acoustical consultant and shall be submitted to the Resource Consents Manager – Kaipara District Council for certification within three months of electricity being generated from the last wind turbine to be commissioned.
56. The consent holder shall pay all reasonable costs associated with acoustic compliance testing or assessment undertaken in accordance with this resource consent.

## **TRAFFIC**

### ***Construction Traffic Management Plan***

57. At least 30 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Traffic Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 57(a) to (f). The objectives of the Construction Traffic Management Plan shall be to:
- a. Ensure all specific legislative requirements and consent conditions in relation to construction traffic are adhered to;
  - b. Encourage a culture of road safety awareness and commitment;
  - c. Ensure best practice in transport safety;
  - d. Ensure emergency services are not obstructed;
  - e. Minimise disruption to the surrounding community, farming operations and rural services; and
  - f. Keep the local community informed of construction operations and encourage participation in maximising safety and minimising disruption

58. In order to achieve the objectives established in Condition 57 above, the Construction Traffic Management Plan shall, as a minimum, address the following matters:
- a. The construction programme and the associated traffic volumes estimated for each construction phase;
  - b. Driver protocols aimed at ensuring safe driving practices and full compliance with the law, including speed limits, appropriate following distances, observing engine braking restrictions, and affording priority to other traffic;
  - c. The details of the intended traffic arrangements and provision for the delivery of over-dimension and over-weight loads to the Kaiwaikawe Wind Farm;
  - d. The nature and timing of any enabling / widening works to be implemented in the legal road reserve of Maitahi Road and Babylon Coast Road, as required by Conditions 61 and 62;
  - e. The traffic management measures to be implemented at intersections, level crossings, stock crossings and access points to local properties, including as a means to manage vehicle speeds in locations where sufficient sight lines are not available;
  - f. Requirements for the monitoring of construction traffic;
  - g. Communication arrangements with residents, Kaipara District Council, Waka Kotahi, schools, marae, emergency services and other key stakeholders, including provision of prior notice of traffic arrangements and any road closures; and
  - h. The ongoing review and evaluation of the contents of the Construction Traffic Management Plan throughout the period of construction works.
59. The Construction Traffic Management Plan shall be prepared by a suitably qualified and experienced traffic engineer and in consultation with Waka Kotahi and the General Manager - Infrastructure Services, Kaipara District Council.
60. The consent holder shall distribute copies of the Construction Traffic Management Plan to emergency services and landowners / occupiers with access to the local construction traffic routes at least 10 working days prior to the commencement of construction works authorised by this resource consent.
61. Subject to the results of a further transportation assessment once the specifications of the wind turbines are confirmed by the consent holder, the consent holder shall upgrade the intersection of State Highway 12 and Babylon Coast Road, and the intersection of State Highway 12 and Maitahi Road, and the site access layouts to safely accommodate all of the expected construction traffic that will utilise the intersection. The upgrade of the intersections shall be undertaken in accordance with Austroads Design Guidelines and the Kaipara District Council's Engineering Standards 2011 and prior to the commencement of principal construction works for the Kaiwaikawe Wind Farm.

*Note: For the purpose of Conditions 61, 62, 63, 64 and 65, principal construction works means those construction works associated with any more than 15 vehicle movements in a day of which up to 4 movements may be heavy commercial vehicles (vehicles over 3,500 kg gross mass).*

62. Prior to the commencement of principal construction works, the consent holder shall either widen Babylon Coast Road and Maitahi Road from their intersection with State Highway 12 to the respective accesses to the Kaiwaikawe Wind Farm so that they achieve a minimum width of 6 m (in accordance with the Kaipara District Council's Engineering Standards 2011) or implement traffic management measures to manage the traffic movements on Babylon Coast Road and Maitahi Road with consideration to the effects on the existing road users and adjacent properties (which shall be documented in the Construction Traffic Management Plan required in accordance with Condition 57 above).
63. Prior to the commencement of principal construction works authorised as part of this resource consent, the consent holder shall provide a Pavement Impact Assessment prepared by a suitably qualified pavement engineer to
  - a. Determine the current condition of the pavement on any local road to be utilised as a haulage route as part of the construction of the Kaiwaikawe Wind Farm; and
  - b. Whether any strengthening works may be required to the identified local roads in order enable the construction activities authorised by this resource consent.

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

64. The consent holder shall arrange a pre-start meeting with the General Manager - Infrastructure Services, Kaipara District Council prior to the commencement of principal construction works authorised as part of this resource consent, to discuss the findings of the Pavement Impact Assessment required in accordance with Condition 63 and to confirm the condition of the Kaipara District Council's assets within the road reserve of the haulage route to be utilised. The consent holder shall then undertake the necessary strengthening / upgrade works to the local roads of the haulage route in accordance with the recommendations of the Pavement Impact Assessment.
65. Should the results of the monitoring plan required in accordance with Condition 63 identify that damage has occurred to local roads, footpaths, berms, curbs or drains and other assets administered by the Kaipara District Council, as well as any third party assets that are established within road reserve, the consent holder shall notify the General Manager - Infrastructure Services, Kaipara District Council within 24 hours of the discovery (or immediately where the damage presents a safety hazard). Restoration of any damaged asset shall be in accordance with Kaipara District Council's Engineering Standards 2011 and approved by the General Manager- Infrastructure Services, Kaipara District Council. The costs of rectifying such damage and restoring the asset to its previous condition shall be met by the consent holder.

66. Upon the completion of construction works authorised by this resource consent, the consent holder shall arrange a site meeting with the General Manager - Infrastructure Services, Kaipara District Council to confirm the results of the Pavement Impact Assessment (and the associated monitoring plan) in order to determine whether any further works are required to rectify any damage and restore the asset to its previous condition.
67. Prior to the commencement of principal construction works authorised as part of this resource consent, the consent holder shall obtain all necessary over-dimension and / or over-weight load permits from the relevant issuing authority(s) for any over-dimension or over-weight loads travelling to the Kaiwaikawe Wind Farm. The consent holder shall abide by the requirements of any such permit issued. The consent holder shall also provide the General Manager - Infrastructure Services, Kaipara District Council with a copy of any over-dimension and / or over-weight load permits issued.

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

## **EXPERT AVIFAUNA PANEL**

### ***Establishment of Expert Avifauna Panel***

68. 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 two independent experts with appropriate qualifications and experience in the monitoring of avifauna ecology and / or risk assessment to the Resource Consents Manager – Kaipara District Council. One of the experts shall be nominated by the Department of Conservation (Director, Operations, Northern North Island), and one shall be nominated by the consent holder.
69. Notwithstanding Condition 68 above, the expert nominated by the Department of Conservation (Director, Operations, Northern North Island) may be an employee of, or contractor to, the Department of Conservation.
70. The Resource Consents Manager – Kaipara District Council shall review the curriculum vitae of the experts nominated in accordance with Condition 68 and then advise the consent holder whether the nominated experts have appropriate qualifications and experience in the monitoring of avifauna ecology and / or risk assessment to form part of the expert panel. In the event that a nominated expert is not considered to have appropriate qualifications and experience by the Resource Consents Manager – Kaipara District Council, the party which nominated the expert shall be invited to submit the name and curriculum vitae of a replacement expert with appropriate qualifications and experience to the Resource Consents Manager – Kaipara District Council for approval.
71. The consent holder shall establish the expert panel within five working days of the selection of the two experts by the Resource Consents Manager – Kaipara District Council.
72. In the event that any 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 the name and curriculum vitae of a replacement expert with appropriate qualifications and experience in the monitoring of avifauna ecology and / or risk assessment to the Resource Consents Manager – Kaipara District Council for approval.

73. The role of the expert panel is to assist the Resource Consents Manager – Kaipara District Council with the following:
- 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);
  - 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) on behalf of the Resource Consents Manager – Kaipara District Council; and
  - c. The provision of advice and assistance to the consent holder and the Resource Consents Manager – Kaipara District Council in the event of any bird mortality events or investigations.
74. Where the expert panel is unable to provide a consensus view in undertaking its role as set out in Condition 73 above, each member of the expert panel shall record their independent opinion and advice to the consent holder and the Resource Consents Manager – Kaipara District Council in accordance with the relevant conditions of this resource consent.
75. The consent holder shall meet the reasonable costs incurred by the expert panel in undertaking its role as set out in Condition 73 above, subject to normal business practices of invoicing and accounting.

## **AUSTRALASIAN BITTERN MONITORING / MANAGEMENT**

### ***Baseline Survey of Australasian Bittern***

76. 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, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as Appendix B to these conditions and dated 17 January 2022). The purpose of the baseline survey is to:
- a. Further the understanding of the relative abundance and distribution of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022);
  - b. Attempt to determine if Australasian Bittern are breeding during the baseline survey period;
  - c. Provide and map additional observations of Australasian Bittern and their behaviour at Maitahi Road crossings to confirm the potential design of additional traffic management requirements at these locations; and

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

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

- e. The survey method shall follow Department of Conservation monitoring protocols for Australasian Bittern "*Protocols for the inventory and monitoring of the endangered Australasian Bittern (Botaurus poiciloptilus) in New Zealand*";
- f. The survey shall involve at least five survey days and the utilisation of monitoring / recording equipment on site for at least four weeks, and shall be undertaken within the peak period of activity for Australasian Bittern (being the months of September, October and early November);
- g. The survey method shall focus on male booming during breeding, and include:
  - i. Call counts;
  - ii. Acoustic recordings; and
  - iii. Site observations.
- h. The survey shall include any observations of breeding behaviour and / or juveniles if possible; and
- i. The survey shall include any observations of activity around Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022), and any other areas of the Project Envelope where activity is observed.

#### ***Australasian Bittern Monitoring and Management Plan***

- 77. 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 79 for review and comment.
- 78. 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.
- 79. 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 Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 79(a) to (d). The Australasian Bittern Monitoring and Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objectives:
  - 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, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022);

- b. Validating the collision risk assessment for Australasian Bittern at the Kaiwaikawe Wind Farm;
  - c. The creation or enhancement of 2 hectares of wetland habitat, together with predator control, for Australasian Bittern; and
  - d. The identification of potential further measures to avoid, remedy 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 a more than minor adverse effect on the population of Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022).
80. In order to achieve the objectives established in Condition 79 above, the Australasian Bittern Monitoring and Management Plan shall, as a minimum, address the following:
- a. Where there is sufficient data from the baseline survey, the assessment methodology to be utilised to validate the modelled estimate of collision risk mortality for Australasian Bittern (which shall also include updating the model with the details of the turbine technology selected for the Kaiwaikawe Wind Farm and the final layout of the wind farm);
- Note: For the purpose of Condition 80(a), the collision risk mortality has been modelled at 1 mortality every 27.8 years assuming a population of 10 birds traversing the Kaiwaikawe Wind Farm once a week for six months, with 20% of traverses at a rotor swept height and at an avoidance rate of 95%.*
- b. The criteria or assessment methodology for determining whether the construction or operation of the Kaiwaikawe Wind Farm has resulted in the displacement of the population of Australasian Bittern;
  - c. The detailed measures proposed, and at what locations, to create or enhance 2 hectares of wetland habitat for Australasian Bittern (including associated predator control measures);
  - d. The additional traffic / construction management measures 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 a more than minor adverse effect on the population of Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022); and
  - e. The identification of additional habitat creation / enhancement measures and / or predator control measures, and associated monitoring of such measures, that may need to be implemented by the consent holder in the event that the validated modelling of collision risk mortality for Australasian Bittern is greater than the modelled mortality specified in Condition 80(a) and / or there is a trend of displacement of Australasian Bittern from the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu

Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022) as result of the operation of the Kaiwaikawe Wind Farm.

***Australasian Bittern Baseline Survey Report***

81. Following the conclusion of the baseline survey required in accordance with Condition 76, the consent holder shall engage a suitably qualified and experienced 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 80.

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 80(a).

The consent holder shall provide the draft baseline survey report to the expert panel for review and comment.

82. 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.

83. 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 Resource Consents Manager – Kaipara District Council. Upon receiving the baseline survey report, the Resource Consents Manager – Kaipara District Council may seek advice and comment from the expert panel on the report, and then shall determine whether:

- a. Any additional measures to avoid, remedy or mitigate adverse effects on Australasian Bittern, as identified in the Australasian Bittern Monitoring and Management Plan, are necessary during the construction of the Kaiwaikawe Wind Farm in the vicinity of Maitahi Road; and
- b. Any of the additional habitat creation / enhancement measures or predator control measures identified in Condition 80(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 80(a).

***Construction and Post-Construction Survey Report***

84. Surveys for the presence of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as Appendix B to these conditions and dated 17 January 2022), in accordance with the survey methodology outlined in Condition 76<sup>1</sup> shall be repeated, each spring, throughout the construction of the Kaiwaikawe Wind Farm and for a further three spring seasons following the commissioning of the final turbine of the Kaiwaikawe Wind Farm.

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<sup>1</sup> And the supplementary survey method outlined in Condition 94 where the necessary approvals / agreements from the Department of Conservation are in place.

85. An annual monitoring report shall be prepared by a suitably qualified and experienced person that presents, summarises and analyses the data collected in the preceding year of construction and post-construction monitoring. The consent holder shall submit the annual monitoring report to the Resource Consents Manager – Kaipara District Council within 60 working days of the completion of each spring survey. A copy of the annual monitoring report shall also be provided to the expert panel and the Department of Conservation (Director, Operations, Northern North Island).
86. At the conclusion of the construction and post-construction surveying required in accordance with Condition 84, the consent holder shall engage a suitably qualified and experienced person to prepare a monitoring report that:
- 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 80;
  - 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), and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98, in the event that it is established that the construction or operation of the Kaiwaikawe Wind Farm has had a more than minor adverse displacement effect on the population of Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022); and
  - c. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration.

The consent holder shall provide the draft construction and post-construction monitoring report to the expert panel for review and comment.

87. The expert panel shall provide its written comments (if any) on the draft construction and post-construction monitoring report to the consent holder within 20 working days of receipt of the report from the consent holder.
88. 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 Resource Consents Manager – Kaipara District Council. Upon receiving the construction and post-construction monitoring report, the Resource Consents Manager – Kaipara District Council may seek advice and comment from the expert panel on the report, and then shall determine whether:
- a. Any of the additional habitat creation / enhancement measures or predator control measures identified in the Australasian Bittern Monitoring and Management Plan should be implemented (if at all), and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98, as result of the construction or operation of the Kaiwaikawe Wind Farm having had an adverse displacement effect;

- b. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration; and
- c. There is a need to serve notice on the consent holder of its intention to review any of the conditions of this resource consent relating to Australasian Bittern in accordance with sections 128 to 131 of the Resource Management Act 1991.

### ***Bird Mortality Investigations***

89. In the event that an Australasian Bittern is found injured or deceased within the Project Site, then the consent holder shall notify the Resource Consents Manager – Kaipara District Council and the Department of Conservation (Director, Operations, Northern North Island) within 24 hours of becoming aware of the discovery.

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

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

90. The suitably qualified and experienced person 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.
91. 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:
- a. Review and discuss the findings of the draft investigation report;
  - b. Consider whether any additional monitoring is required to further consider the potential cause of injury or mortality; and
  - c. Consider 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 (and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98).
92. The consent holder shall submit the investigation report, including all comments received from the expert panel at the meeting, to the Resource Consents Manager – Kaipara District Council within 5 working days of convening the meeting with the expert panel in accordance with Condition 91.

93. The Resource Consents Manager – Kaipara District Council shall, upon receipt of the Australasian Bittern mortality investigation report and as a matter of urgency, but subject to any advice and comment from the expert panel, determine in consultation with the consent holder whether:
- a. Any additional monitoring is required and at what frequency / duration;
  - b. Any additional habitat creation / enhancement measures or predator control measures, as identified in the Australasian Bittern Monitoring and Management Plan, needs to be implemented by the consent holder (and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98); and
  - c. There is a need to serve notice on the consent holder of its intention to review any of the conditions of this resource consent in accordance with Sections 128 to 131 of the Resource Management Act 1991.

#### ***Supplementary Survey Methods***

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

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

#### ***Maitahi Road Management***

95. 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.
96. 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.
97. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall ensure that all staff and contractors are given suitable training as part of site inductions to explain the behaviour of Australasian Bittern, and what to do if a bird is observed, or injured.

*Note: The Department of Conservation (Director, Operations, 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.*

***Australasian Bittern Management Fund***

98. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall establish a fund to provide investment for initiatives and programmes by the Department of Conservation or iwi within the Northland Region that promote the protection or enhancement of the population of Australasian Bittern.
99. The consent holder shall provide a fund of \$640,000 (CPI adjusted from the commencement of this resource consent) to initiatives and programmes that are in accordance with Condition 98.
100. The consent holder shall provide written confirmation to the Resource Consents Manager – Kaipara District Council of the funding deed and account within 10 working days of it being established.
101. The consent holder shall provide a report to the Resource Consents Manager – Kaipara District Council, annually on the anniversary of the establishment of the fund required in accordance with Condition 98, that sets out:
  - a. The initiatives and programmes that have been funded in the previous year and how these programmes are intended to promote the protection or enhancement of the population of Australasian Bittern (and if no initiatives or programmes have been funded, the reasons for that);
  - b. Any funding committed for the forthcoming year; and
  - c. The balance of the fund.

*Note: The reporting obligations in accordance with Condition 101 shall cease once the fund required under Conditions 98 has been exhausted.*

**BIRD COLLISION MONITORING**

***Bird Collision Monitoring Plan***

102. 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 104 and 105 below to the expert panel for review and comment.
103. The expert panel shall provide its written comments (if any) on the draft Bird Collision Monitoring and Management Plan to the consent holder within 20 working days of receipt of the plan from the consent holder.
104. 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 Resource Consents Manager – Kaipara District Council to certify that the plan meets the objective in Condition 104(a). The Bird Collision Monitoring Plan shall be jointly

prepared by a suitably qualified and experienced avian expert and a suitably qualified and experienced bio-statistician, and shall provide for the following objective:

- a. Measure the rates of bird mortality from collisions at the Kaiwaikawe Wind Farm.
105. In order to achieve the objective established in Condition 104 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 define a search area relevant to the height and rotor span of the wind turbines, be statistically robust and include, but not be limited to, the following:
- a. Calculating the probability and rate of bird carcass loss to scavengers, decomposition and other causes, taking into account temporal, environmental and other sources of variation;
  - b. Calculating the probability of carcass detection by searchers, which may include searching assisted by suitably-trained dogs, taking into account temporal, environmental, searcher identity and other sources of variation;
  - c. A data collection and analysis regime specifying the timing, location and duration of monitoring at a statistically derived number of wind turbines and wind monitoring masts. The purpose of the data collection and analysis regime is to ensure that a reliable estimate of bird strike mortality through all seasons and a range of environmental conditions at all wind turbines and wind monitoring masts is obtained;
  - d. Methods to account for carcass loss and detection probability taking into account temporal, environmental and other sources of variation when estimating rates of mortality across the Kaiwaikawe Wind Farm;
  - e. Methods to accurately record the condition (partial carcass, entire carcass, or feather spot) and cause of death; and
  - f. Methods to record, and electronically store, audit and backup data.
106. In addition to the requirements specified in Condition 105, the Bird Collision Monitoring Plan shall:
- a. Specify that search coverage at each wind turbine is recorded by GPS tracking;
  - b. Specify that all carcasses shall be photographed as found, labelled with a unique number, 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
  - c. 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.

### ***Bird Collision Monitoring***

107. Bird collision monitoring shall commence immediately following the date any wind turbine first generates electricity and continue for a period of three years (or until an alternative date as determined by the Resource Consents Manager – Kaipara District Council in accordance with Condition 114) and at the frequencies specified in the Bird Collision Monitoring Plan.
108. A draft annual bird collision monitoring report shall be jointly prepared by a suitably qualified and experienced avian expert and a suitably qualified and experienced bio-statistician that presents, summarises and analyses the data collected in the preceding year. The consent holder shall submit the draft annual bird collision monitoring report to the expert panel for review and comment within 20 working days of the anniversary of the commencement of bird collision monitoring at the Kaiwaikawe Wind Farm.
109. 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. The consent holder shall then submit the annual bird collision monitoring report (including all comments from the expert panel and the consent holder’s response to those comments) to the Resource Consents Manager – Kaipara District Council within 60 working days of the anniversary of the commencement of bird collision monitoring at the Kaiwaikawe Wind Farm. A copy of the annual monitoring report shall also be provided to the Department of Conservation (Director, Operations, Northern North Island).
110. Upon receiving the annual monitoring report the Resource Consents Manager – 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.
111. On the third anniversary of the date any wind turbine first generates electricity the consent holder shall commission a bird collision monitoring review report by a suitably qualified and experienced avian expert and a suitably qualified and experienced bio-statistician that:
  - 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;
  - b. Considers whether the monitoring required in accordance with the Bird Collision Monitoring Plan needs to continue, and if so at what frequency; and
  - 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.
112. 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.
113. 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 Resource Consents Manager – Kaipara District Council within 20 working days of the receipt of written comments from the expert panel. 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).

114. The Resource Consents Manager – Kaipara District Council shall review the bird collision monitoring review report, subject to any advice from the expert panel, and determine whether:
- a. The monitoring required in accordance with the Bird Collision Monitoring Plan needs to continue, and if so at what frequency;
  - 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
  - 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.
115. 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.

#### **LIZARDS**

116. At least 40 working days prior to the commencement of vegetation clearance within the areas identified as:
- a. Scrub Revision in Pine Slash – V16 in Map 5 of “Omamari Wind Farm, Northland – Ecological Impact Assessment” dated 12 November 2020;
  - b. Scrub and Rank Grass Margins of any pine plantation which extends into the Project Envelope; and
  - c. The road reserve / margin adjacent to Maitahi Wetland Scientific Reserve
- the consent holder shall submit a Lizard Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objective in Condition 116(d). The Lizard Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objective:
- d. The avoidance, remediation or mitigation of adverse effects of construction works on any lizard species in the areas identified in Condition 1176(a) to (c);
117. In order to achieve the objective established in Condition 116 above, the Lizard Management Plan shall address the following matters:

- a. The detailed methodology proposed to survey for any lizard species in the areas identified in Condition 116(a) to (c);
- b. The method of recording the number and species of any lizards required to be captured under the Lizard Management Plan; and
- c. The location where captured lizards will be relocated, including the suitability of habitat in this location and any measures to support the ability of lizards to establish and survive in these locations.

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

### **GENERAL REPORT OF BIRD AND BAT CARCASSES**

118. The consent holder shall record and report any evidence of bird and bat strikes that are not part of any collision or carcass monitoring required in accordance with the other conditions of this resource consent. Should a bird or bat species that is nationally critical, nationally endangered, nationally vulnerable or in serious decline as listed in the New Zealand Threat Classification System (<https://nztcs.org.nz/home>) 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.

### **STOCK PONDS**

#### ***Stock Pond Infilling***

119. As far as practicable, any draining or modifying of Stock Ponds 16, 45 or 70 (e.g. breeding habitat) shall occur outside the breeding season of Australasian Bittern, Spotless Crake, Dabchick and Australasian Coot (being 1 September to 28 February).
120. If a stock pond with a vegetated margin needs to be drained or modified during the period identified in Condition 119 above, a survey shall be undertaken prior to works by a suitably qualified and experienced person to determine if a nest or nests are present. If a nest of any of the species identified in Condition 119 is located, that stock pond shall not be drained or modified until the chick(s) has left the nest.
121. In the event that the blade tip of any wind turbine will be located within 200 metres of Stock Ponds 45, 70 or 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 and comment on the draft Ecological Mitigation and Management Plan required in accordance with Condition 123.
122. In the event that no written comments are received from the Department of Conservation (Director, Operations, Northern North Island) on the draft Ecological Mitigation 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).

123. 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 Ecological Mitigation and Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objective in Condition 123(a). The Ecological Mitigation and Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objective:
- a. 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.
124. The Ecological Mitigation and Management Plan shall, as a minimum, address the following matters:
- a. A clear description of the timing of any restoration works proposed relative to the infilling of Stock Ponds 45, 70 or 89;
  - b. The detailed measures proposed to create or enhance, and maintain, the wetland habitat, including via the implementation of stock fencing and animal pest control;
  - c. A planting plan for the proposed 2.2 ha of wetland habitat, which includes details on the proposed indigenous plant species to be planted and intended planting quantities / densities;
  - d. Requirements for monitoring of, and reporting on, the success of the wetland habitat works (including plant survival rates); and
  - e. The method and timeframes for the long term protection of the wetland habitat.

## **ARCHAEOLOGY**

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

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

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

Where human remains are suspected:

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

- b. The project archaeologist will determine whether the remains are potentially human.
  - c. The consent holder shall notify the Police, Heritage New Zealand, Mana Whenua (who will in turn, notify their nominated kaumatua) and Mana Whenua Kaitiaki (if not present for cultural monitoring) within 12 hours of the suspected human remains being disturbed, or otherwise as soon as practically possible.
  - d. Excavation of the discovery site shall not resume until the Police, Heritage New Zealand, Environs, and Mana Whenua representatives have each given the necessary approvals for excavations to proceed.
126. The consent holder shall provide an opportunity for a representative of Te Roroa to be present on site during any examinations of archaeological deposits of potential significance to iwi.

#### **AIR TRAFFIC SAFETY**

127. The consent holder shall advise the Civil Aviation Authority at least three months prior to the commissioning of the first wind turbine as part of the Kaiwaikawe Wind Farm of the finalised co-ordinates of the sites where the wind turbines are to be installed.
128. The Kaiwaikawe Wind Farm shall be lit with aviation obstacle lighting as required by the Civil Aviation Authority under Civil Aviation Rules, Part 77.19 Determination (or its equivalent rule) at the time of commissioning of the wind farm. No white lights shall be utilised as part of the aviation obstacle lighting for the Kaiwaikawe Wind Farm.
129. No later than five working days after the construction of all wind turbines is completed (or after each stage, if the Kaiwaikawe Wind Farm is constructed in stages), the consent holder shall submit a registered surveyor's determination of the height and position of the wind turbines to the Civil Aviation Authority. The consent holder shall also submit proof of compliance with the aviation obstacle lighting standards. All correspondence to the Civil Aviation Authority in relation to this condition shall be copied to the Resource Consents Manager – Kaipara District Council.
130. Should the consent holder decide not to proceed with the construction of the Kaiwaikawe Wind Farm, the consent holder shall notify the Civil Aviation Authority within five working days of its decision.

#### **COMMUNICATION SERVICES**

131. Prior to the commencement of construction, the consent holder shall submit details of the final layout of the wind turbines to Airways Corporation, Northpower and any known Internet Service Providers known in the area. A copy of this correspondence shall be provided to the Consents Manager – Kaipara District Council.
132. Prior to finalising the locations of the wind turbines, the consent holder shall undertake an independent assessment, prepared by a person qualified in fixed radio services to confirm that the turbines are located outside of the fixed radio high capacity links in the area and do not degrade the performance of the three fixed radio links identified in the area.

#### **SHADOW FLICKER**

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

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

134. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Pre-Instalment Shadow Flicker Assessment to the Resource Consents Manager - Kaipara District Council. The Pre-Instalment Shadow Flicker Assessment shall be prepared by an appropriately qualified consultant and shall take account of the design details of dwellings B84, B85, B86 and B95 (as identified in Figure 2.3 of “Omamari Wind Farm - Shadow Flicker Assessment” dated November 2020) and the ground details between the turbines and the dwelling. The Pre-Instalment Shadow Flicker Assessment shall demonstrate that the proposed number, layout, type and operation of wind turbines (including the curtailment strategy for turbines if necessary) to be used at the Kaiwaikawe Wind Farm will be managed to comply with the shadow flicker limits specified in Condition 133 above.

#### **HAZARDOUS SUBSTANCES / CONTAMINANTS**

135. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Contaminant Spill Contingency Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 135(a) and (b). The Contaminant Spill Contingency Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objectives:
- a. Ensure measures are implemented at the Kaiwaikawe Wind Farm in order to minimise the potential risk, and effects, of a spill of hazardous substances, fuels or other contaminants; and
  - b. The use, handling or storage of hazardous substances during the construction, operation and maintenance of the Kaiwaikawe Wind Farm complies with the requirements of Hazardous Substances and New Organisms Act 1996 and its associated regulations.
136. In order to achieve the objectives established in Condition 135 above, the Contaminant Spill Contingency Management Plan shall, as a minimum, address the following matters:
- a. The identification of designated bulk fuel storage, contaminant storage facilities and re-fuelling locations;

- b. Measures to ensure that all contaminant storage or designated re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants;
  - c. Requirements for all mobile fuel tankers to carry spill kits;
  - d. Details on the contents of the spill kits;
  - e. Records of the names of operators trained in spill response and remediation;
  - f. Measures to ensure that all machinery is regularly maintained in such a manner so as to minimise the potential for leakage of contaminants;
  - g. Measures to ensure that no machinery is cleaned, stored or refuelled within 20 metres of the bed of any water body;
  - h. Measures to ensure that all contaminants are removed from the site at the end of the construction works, except for those required for the on-going maintenance and operational activities at the Kaiwaikawe Wind Farm;
  - i. Details of an internal and external notification procedure in the event of a spill of contaminants; and
  - j. The identification of measures to be undertaken to remediate a contaminant spill, including instructions for removing and disposing of contaminated material in a manner suitable to ensure no further contamination occurs.
137. The transformers and radiators in the electrical substation / switchyard building shall be located on pedestal foundations and enclosed by bunds. The bunds must be designed with sufficient capacity to retain all of the oil utilised in each of the transformers.
138. Electric and magnetic field levels at the Project Site boundaries shall not exceed the limits in the International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines endorsed by the New Zealand Ministry of Health.

#### **FIRE MANAGEMENT**

139. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Fire Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 139(a). The Fire Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objective:
- a. Ensure measures are implemented on the site of the Kaiwaikawe Wind Farm in order to minimise the potential risk, and effects, of fire.
140. In order to achieve the objective established in Condition 139 above, the Fire Management Plan shall, as a minimum, address the following matters:

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

### **COMMUNITY CONSULTATION / COMMUNICATION**

141. The consent holder shall establish and publicise a toll free telephone number so that members of the public may raise matters with, or make an enquiry of, the consent holder during the construction of the Kaiwaikawe Wind Farm. The toll-free telephone number shall be established at least 10 working days prior to the commencement of construction works authorised as part of this resource consent, and shall be maintained until the completion of construction works. The toll-free telephone number shall be publicised by the following means:
- a. Via the consent holder's website or social media;
  - b. Via an advertisement in the Kaipara Lifestyler;
  - c. Via the signage erected along the margin of Babylon Coast Road and Maitahi Road (subject to the approval of the Kaipara District Council); and
  - d. As part of the Construction Traffic Management Plan distributed to landowners / occupiers with access to the local construction traffic routes.
142. At least 40 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall establish and co-ordinate a Consultative Group for the Kaiwaikawe Wind Farm. Subject to Condition 146 below, this group is to be consulted, as a minimum, at least 6 monthly during the construction phase and over the first 2 years of the operation of the Kaiwaikawe Wind Farm. Thereafter, the frequency of consultation is to be determined by a majority of the Consultative Group itself. Individual Consultative Group members may, with the agreement of the Resource Consents Manager - Kaipara District Council, call meetings at shorter intervals to deal with any interim matters that need to be addressed before the next scheduled meeting.
143. The objective of the Consultative Group is to facilitate information flow between the consent holder's management team and the community, and will be an on-going point of contact between the consent holder and the community. The functions of the Consultative Group shall also include acting as a forum for relaying community concerns about the construction and on-going operation of the Kaiwaikawe Wind Farm to the consent holder's on-site management team, developing acceptable means of addressing (where possible) and managing those

concerns, and reviewing the implementation of measures to resolve and manage community concerns.

144. The consent holder shall be responsible for convening the meetings of the Consultative Group and shall cover the direct costs associated with the establishment and operation of the meetings. The consent holder shall be responsible for the keeping and distribution of the Consultative Group's minutes to all participants in the Consultative Group. A person independent of the consent holder shall chair the meeting. The chair shall be appointed by the Resource Consents Manager - Kaipara District Council.
145. The consent holder shall notify its intention to establish a Consultative Group for the Kaiwaikawe Wind Farm project by public notice. The consent holder shall invite, as a minimum, the following parties to participate in the Consultative Group:
  - a. A representative of property owners and occupiers on local roads identified for use by construction traffic;
  - b. An elected representative of the Kaipara District Council;
  - c. A delegate of the Department of Conservation;
  - d. A representative from Te Roroa; and
  - e. Local residents.

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

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

## **COMPLAINTS**

147. The consent holder shall maintain and keep a Complaints Register to record any complaints about construction works and operation of the Kaiwaikawe Wind Farm received by the consent holder in relation to traffic, noise, dust, communications interference, shadow flicker or any other environmental effects. The register shall record, where this information is available, the following:
  - a. The date, time and duration of the incident that resulted in the complaint;
  - b. The location of the complainant when the incident was detected;
  - c. The possible cause of the incident; and
  - d. Any corrective action taken by the consent holder in response to the complaint, including the timing of the corrective action.

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

#### **DECOMMISSIONING AND SITE REHABILITATION**

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

#### **REVIEW**

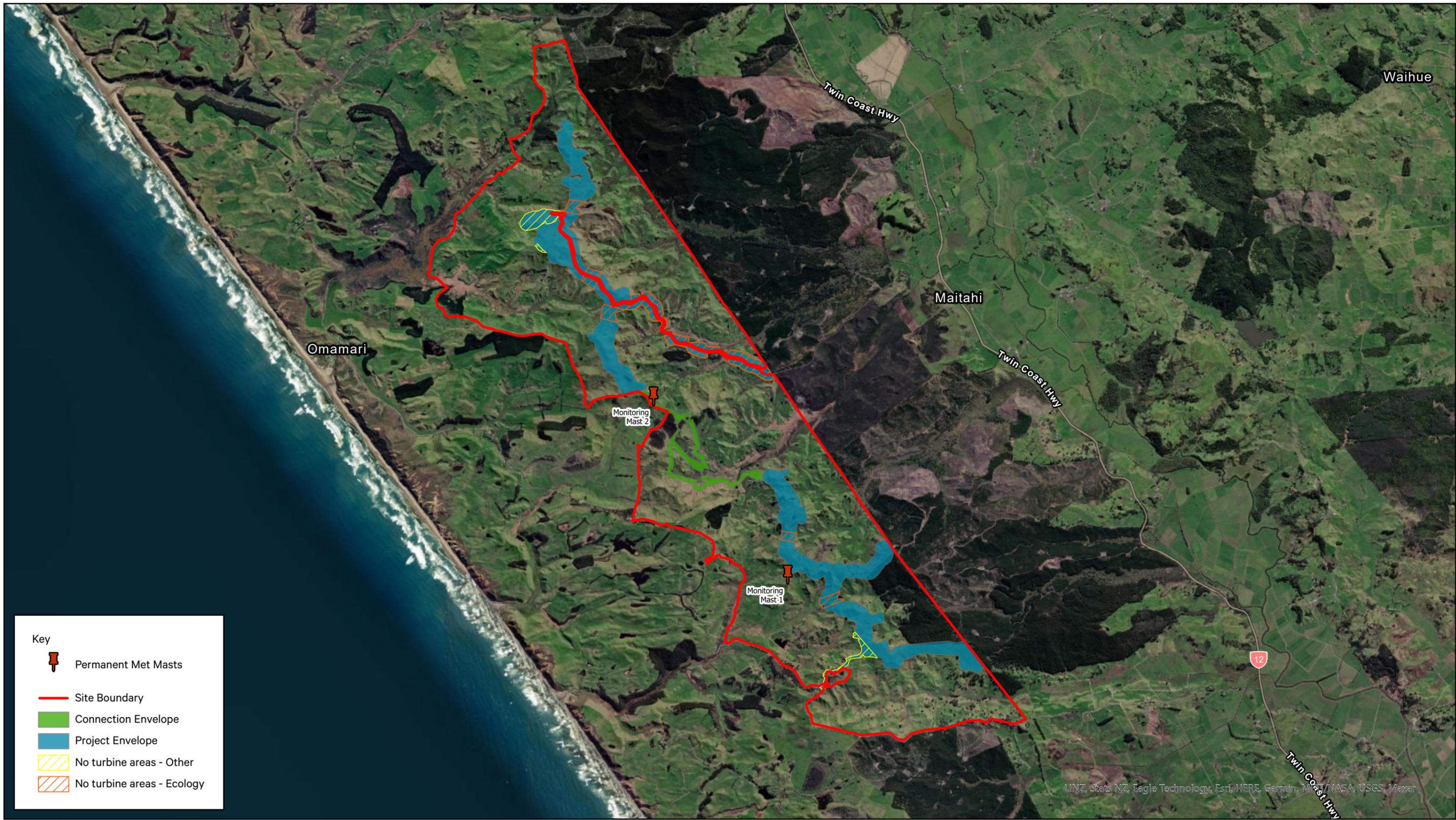
150. Pursuant to sections 128 to 131 of the Resource Management Act 1991, the Kaipara District Council may one year after the commencement of this resource consent, and at five yearly intervals thereafter (except as provided for by Conditions 88, 93 and 114), serve notice on the consent holder of its intention to review any or all of the conditions of this resource consent for any of the following purposes:
- a. To review the effectiveness of the conditions of this resource consent in avoiding, remedying or mitigating any adverse effects on the environment that may arise from the exercise of this resource consent;
  - b. To address any adverse effects on the environment which have arisen as a result of the exercise of this resource consent that were not anticipated at the time of commencement of this resource consent, including addressing any issues arising out of complaints;
  - c. To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this resource consent; and
  - d. To deal with any adverse effects on the environment that may arise from the exercise of this resource consent and which it is appropriate to deal with at a later stage.

#### **CHARGES**

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

**APPENDIX A**

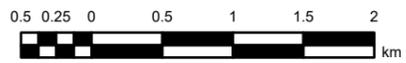
**Project Site / Project Envelope Map**



**Key**

-  Permanent Met Masts
-  Site Boundary
-  Connection Envelope
-  Project Envelope
-  No turbine areas - Other
-  No turbine areas - Ecology

Projection NEW ZEALAND TRANSVERSE MERCATOR DATUM: NZGD 2000



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By Æ

Check SC

Date

16/8/21

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www.isthmus.co.nz

Job Name

**Kaiwaikawe Wind Farm**

Client  
Tararua Wind Power Ltd.

Scale:  
1:50,000

@ A3

Job No.

**4109**

North

Drawing Title  
**Site**

Drawing No.

Revision

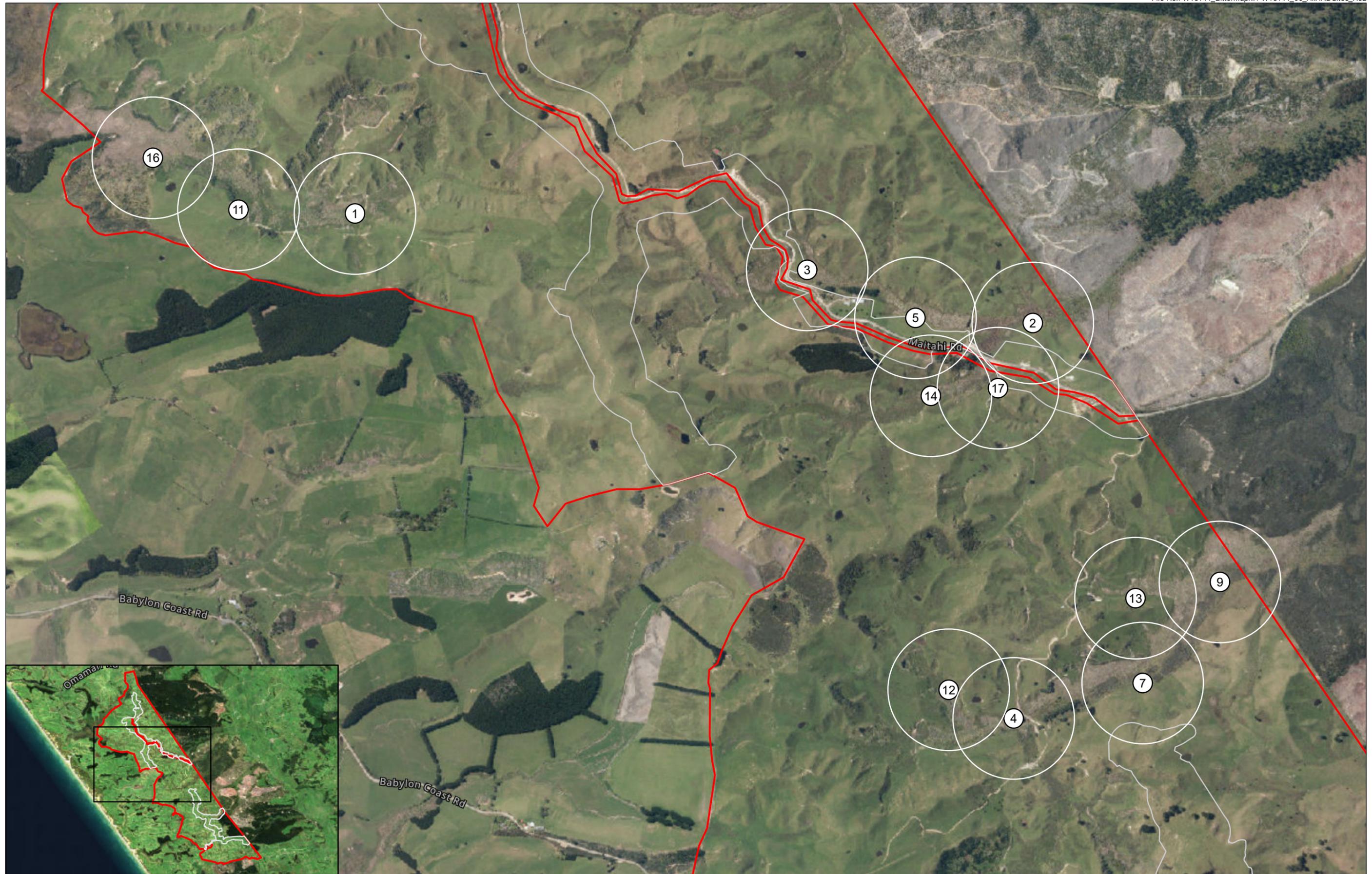
**A**  
Issued For

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## **APPENDIX B**

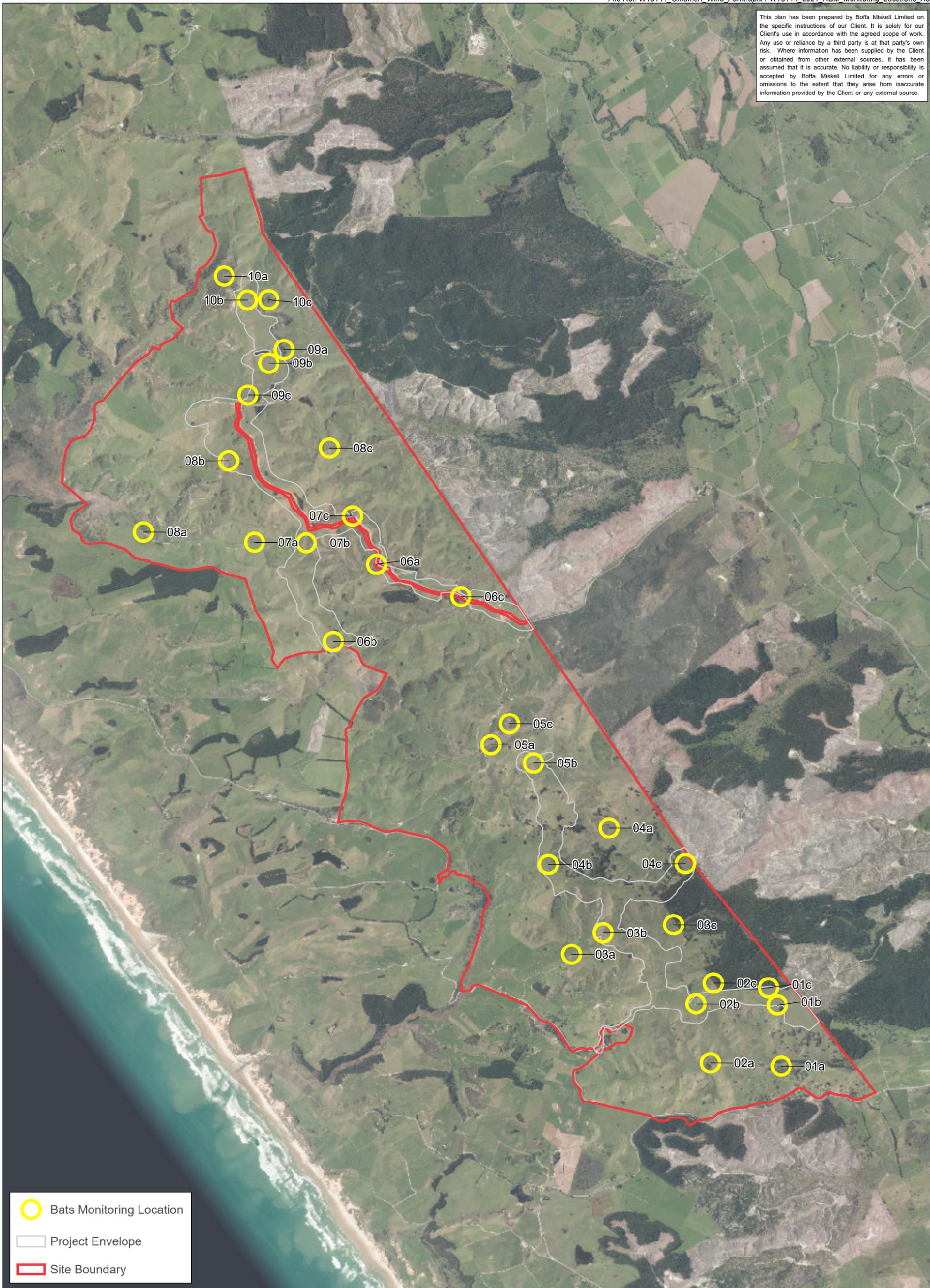
### **Location of Wetlands for Australasian Bittern Baseline Survey**



## **APPENDIX C**

### **Location of Long-tailed Bat Baseline Survey Points**

This plan has been prepared by Boffa Miskell Limited on the specific instructions of our Client. It is solely for our Client's use in accordance with the agreed scope of work. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate. No liability or responsibility is accepted by Boffa Miskell Limited for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.



-  Bats Monitoring Location
-  Project Envelope
-  Site Boundary

**TRACKED CHANGES VERSION OF CONDITIONS**

<b>CONSENT AUTHORITY:</b>	Kaipara District Council
<b>CONSENT HOLDER:</b>	Tararua Wind Power Limited
<b>CONSENT TYPE:</b>	Land Use Consent
<b>ACTIVITY AUTHORISED:</b>	The construction, operation and maintenance of the Kaiwaikawe Wind Farm
<b>SITE LOCATION:</b>	379 Maitahi Road, Mamaranui (Lot 1 DP 201886)
<b>CONSENT DURATION:</b>	Unlimited

## GENERAL

1. The construction, operation and maintenance of the Kaiwaikawe Wind Farm shall be undertaken in general accordance with the information provided in:
  - a. *“Omamari Wind Farm – Resource Consent Applications and Assessment of Environmental Effects”* dated 13 November 2020 and the appendices numbered A to Q;
  - b. The further information response submitted by Mitchell Daysh to the Kaipara District Council on 14 June 2021;
  - c. The further information response submitted by Mitchell Daysh to the Kaipara District Council on 15 June 2021;
  - d. The further information response submitted by Tilt Renewables Limited to the Kaipara District Council on 15 June 2021; and
  - e. The further information responses submitted by Mitchell Daysh to the Kaipara District Council on 30 June 2021.

In the event of any conflict or discrepancy between these documents and the conditions of this resource consent, the conditions shall be determinative.

2. Pursuant to section 125(1) of the Resource Management Act 1991, this resource consent shall lapse if not given effect to within 10 years of the commencement of this resource consent.
3. Pursuant to section 134(1) of the Resource Management Act 1991, this resource consent may only be exercised by the consent holder, its successor, or any person acting under the prior written approval of the consent holder.
4. The following definitions apply for the purpose of the conditions of this resource consent:
  - a. ‘Project Site’ means the area marked as the site boundaries on the map attached as **Appendix A** to this resource consent and dated 16 August 2021;

- b. 'Project Envelope' means the area marked as the project envelope boundaries (northern and southern clusters) on the map attached as **Appendix A** to this resource consent and dated 16 August 2021;
  - c. 'No Turbine Areas - Ecology' and 'No Turbine Areas - Other' mean the areas marked as the no turbine areas within the project envelope on the map attached as **Appendix A** to this resource consent and dated 16 August 2021;
  - d. 'Connection Envelope' means the area marked as the connection envelope boundaries on the map attached as **Appendix A** to this consent and dated 16 August 2021;
  - e. 'Commencement of construction works' means all earthworks and physical works associated with roading, turbine platforms and the erection of wind turbines. Preliminary geotechnical investigations in order to determine the specific layout of the wind turbines and roading do not fall within this definition; and
  - f. 'Completion of construction works' means the issuance by the consent holder of a construction completion certificate under a construction contract to the wind turbine supplier or similar.
5. The consent holder shall ensure that all contractors engaged to undertake activities authorised by this resource consent are made aware of the conditions of this resource consent relevant to their work area and the measures required for compliance with the conditions.
  6. The consent holder shall notify the Resource Consents Manager – Kaipara District Council as to the commencement date of construction works authorised as part of this resource consent, at least 15 working days before such works commence.
  7. The consent holder shall ensure that a copy of this resource consent is provided to Mana Whenua Kaitiaki (Te Roroa) within 10 working days of commencement of this resource consent. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the Resource Consents Manager – Kaipara District Council.
  8. The consent holder shall at all times construct, operate and maintain the Kaiwaikawe Wind Farm in accordance with all management plans submitted to, and certified by, the Resource Consents Manager – Kaipara District Council as part of the conditions of this resource consent.

#### **WIND FARM AND TURBINE CHARACTERISTICS**

9. The maximum number of wind turbines in the Kaiwaikawe Wind Farm shall not exceed 19, of which up to 8 wind turbines may be located within the northern cluster and up to 11 wind turbines may be located within the southern cluster of the Project Envelope.
10. The maximum wind turbine height (to the vertically extended blade tip) shall be 220 metres above finished ground level.
11. The minimum height of the vertically extended blade tip of any wind turbine shall not be less than 30 metres above finished ground level.

12. All wind turbines utilised within the Kaiwaikawe Wind Farm (including any replacement wind turbines that are installed during the life of the wind farm) shall be of a similar size and type and have three blades.
13. Lattice style pylon towers shall not be used for the wind turbines.
14. All wind turbines and turbine blades used within the Kaiwaikawe Wind Farm shall be finished with the same industry standard low reflectivity finishes and in an off-white colour.
15. Each wind turbine may include one externally housed transformer unit located adjacent to the base of the turbine. The maximum height of any externally housed transformer unit shall be 2.5 metres above finished ground level and the maximum building footprint shall not exceed 25 m<sup>2</sup>.
16. All wind turbines, turbine platforms, hard stand areas and externally housed transformer units authorised as part of this resource consent shall be located within the Project Envelope. However, no wind turbines (defined as the base of the turbine tower and including the overhanging of blades) shall be located within those parts of the Project Envelope identified as No Turbine Areas – Ecology and No Turbine Areas - Other.  
  
Wind turbine blades may, however, overhang those parts of the Project Envelope identified as No Turbine Areas - Other.
17. All wind turbines within the Project Envelope shall be spaced so that an ellipse drawn around each wind turbine and oriented to the prevailing wind at 240 degrees from due north, with the long axis being four times the diameter of the rotor and the narrow axis being 2 times that diameter, does not overlap the ellipse drawn around any other wind turbine identified in the final turbine layout for the Kaiwaikawe Wind Farm required in accordance with Condition 33.
18. No wind turbines, turbine platforms or externally housed transformer units (but excluding hard stand areas) shall be established on any road reserve within the Project Envelope, except where the approval of the General Manager – Infrastructure Services, Kaipara District Council has been provided in writing.
19. All wind turbines shall be set back at least 75 metres or one blade length, whichever is the greater, from the Project Site boundaries.
20. All wind turbines shall be set back a minimum of one blade length, plus 20 metres, from Stock Ponds P06, P21 and P68 as defined in Maps 5 and 6 of *“Omamari Wind Farm, Northland – Ecological Impact Assessment”* dated 12 November 2020.
21. All wind turbines shall be set back a minimum of one blade length, plus 20 metres, from QEII Covenant Area S-02-1235 as defined in Map 5 of *“Omamari Wind Farm, Northland – Ecological Impact Assessment”* dated 12 November 2020.

## **SUPPORTING INFRASTRUCTURE**

22. One temporary meteorological mast may be erected at each of the northern and southern clusters of the Project Envelope, prior to the commencement of all other construction works authorised by this resource consent (for the purpose of establishing further data on the wind

resource across the Project Envelope). The temporary meteorological masts shall be erected for a period not exceeding 12 months and shall be removed from the Project Envelope at the completion of this period.

The consent holder shall notify the Resource Consents Manager – Kaipara District Council within 15 working days of each temporary meteorological mast first being erected, and within 15 working days of each mast being removed from the Project Envelope.

23. 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.

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

The consent holder shall notify the Resource Consents Manager – Kaipara District Council within 15 working days of the development / investigation meteorological mast first being erected, and within 15 working days of the mast being removed from the Project Envelope.

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

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

747074 E	6024397 <del>NS</del>
745253 E	6026922 <del>NS</del>

[UTM Zone 59](#)

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

27. 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.

28. One concrete batching plant, and associated temporary construction site offices, may be established at each of the northern and southern clusters of the Project Envelope. The maximum height of the concrete batching plants shall be 15 metres above finished ground level and the maximum working area associated with each of the concrete batching plants shall not exceed 7,500 m<sup>2</sup>. The concrete batching plants shall be decommissioned and removed within six months of completion of construction works for the Kaiwaikawe Wind Farm.

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.

The consent holder shall notify the Resource Consents Manager – Kaipara District Council within 15 working days of each concrete batching plant being removed from the Project Envelope.

29. One operations / maintenance facility may be established at either the northern or southern clusters of the Project Envelope. The maximum height of the operations and maintenance facility shall be 8 metres above finished ground level and the maximum building footprint shall not exceed 6,000 m<sup>2</sup>.
30. One electricity substation / switchyard building may be established at each of the northern and southern clusters of the Project Envelope. The maximum height of the electricity substation / switchyard buildings shall be 7 metres above finished ground level, with gantry structures and lighting / lightning arrestors not exceeding 20 metres above finished ground level. The maximum building footprint of each of the electricity substations / switchyards, inclusive of car parking, shall not exceed 4,800 m<sup>2</sup>.
31. All supporting infrastructure to the Kaiwaikawe Wind Farm authorised as part of this resource consent may be located within those parts of the Project Envelope identified as No Turbine Areas – Ecology and No Turbine Areas - Other, with the exception of any temporary and development / investigation meteorological masts authorised by Conditions 22 and 24.

Temporary and development / investigation meteorological masts may not be located in those parts of the Project Envelope identified as No Turbine Areas - Ecology.

32. The 33 kV electrical and fibre optic cable network linking the northern and southern clusters of the Project Envelope shall be located underground within the Connection Envelope.

#### **PLANS AND DESIGN REPORT**

33. 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 any permanent stormwater controls, wastewater infrastructure and disposal fields and water supplies to be installed against the relevant engineering standards administered by the Kaipara District Council;
  - d. The location of cabling within the Connection Envelope;
  - e. The layout and pavement composition of the internal access road network; and
  - f. The location of all fill disposal sites to be utilised.

The detailed design report for the Kaiwaikawe Wind Farm shall, as a minimum, include:

- g. A slope stability assessment of any cuts and fills that are required (and which are verified by a suitably qualified and experienced geotechnical engineer); and
  - h. Hydraulic assessment of any stormwater infrastructure, including culvert inlet and outlet structures, demonstrating compliance with Kaipara District Council Engineering Standards 2011, and Auckland Council's "*Hydraulic Energy Management: Inlet and Outlet Design for Treatment Devices, July 2013.*"
34. The consent holder shall provide the planned staging of works for the Kaiwaikawe Wind Farm to Mana Whenua Kaitiaki (Te Roroa) at least 60 working days prior to the commencement of construction works authorised as part of this resource consent. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the Resource Consents Manager – Kaipara District Council.
35. Within 40 working days of completion of construction works for the Kaiwaikawe Wind Farm (or after each stage, if the Kaiwaikawe Wind Farm is constructed in stages), the consent holder shall provide the Resource Consents Manager - Kaipara District Council with a set of as-built plans for the following:
- a. All wind turbines, turbine platforms and foundation areas;
  - b. The internal access road network;
  - c. The location of cabling within the Connection Envelope;
  - d. All fill disposal sites;
  - e. All permanent supporting infrastructure; and
  - f. Engineering survey plans and sections of major earthworks.

## **EARTHWORKS AND CONSTRUCTION**

### ***Earthworks and Construction Management Plan***

36. 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 36(a) to (g). The Earthworks and Construction Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objectives:
- a. Minimise the volume of earthworks required for the construction of the Kaiwaikawe Wind Farm and ensure slope stability of any cuts or fills that are required;
  - b. Maximise the effectiveness of erosion and sediment control measures associated with earthworks by minimising sediment generation and sediment laden runoff (particularly in

locations adjacent to the Maitahi Wetland / Waitakahuruhuru Stream and the Omamari Station Wetland and Shrubland Crossings);

- c. Minimise the overall area of disturbance so as to reduce the potential impact on any vegetation, wetlands and potential archaeological features within the Project Site;
  - d. Ensure control and / or mitigation of the adverse effects of any dust emissions;
  - e. Minimise the effects, and introduction, of weeds;
  - f. Ensure that fill disposal sites are contoured to generally reflect the surrounding landforms; and
  - g. Rehabilitate and re-vegetate worked areas so that they are returned to pasture or their existing vegetative cover.
37. In order to achieve the objectives established in Condition 36 above, the Earthworks and Construction Management Plan shall, as a minimum, address the following matters:
- a. An explanation of how the Earthworks and Construction Management Plan shall be implemented and the associated roles, responsibilities and contact details for the principal persons responsible for management during the construction period;
  - b. A clear description of the planned staging of works and the description of earthworks in each stage, including detailed site plans;
  - c. Detailed measures for subsoil drainage;
  - d. Detailed measures for the infilling of stock ponds, which shall include:
    - i. Dewatering of the stock ponds in the presence of a freshwater ecologist;
    - ii. A fish 'muck-out' using standard accepted methods; and
    - ii. The transfer of any fish found in the stock ponds to suitable waterbodies in the Project Site (as identified by a freshwater ecologist).
- Note: Wildlife Permits under the Wildlife Act 1953 may be required in order to transfer any fish found during the dewatering of stock ponds.*
- e. Confirmation of the volumes of cut, fill and unsuitable material;
  - f. The location and design of fill disposal sites within the Project Envelope, which shall not be located in any of the following:
    - i. Areas that are excessively wet;
    - ii. Gullies with perennial or intermittent watercourses;
    - iii. Very steep slopes (> 28 degrees); and
    - iv. Erosion prone land (land defined as land use capability units VIe17, VIe19, VIIe1 - VIIe10, VIIIe1 - VIIIe3, and VIIIs1).

- g. The engineering controls, supervision and certification that will be applied to each stage of development;
  - h. The specific erosion, stormwater and sediment control measures that will be applied to each stage of earthworks, and particularly the measures that will be applied to minimise sediment generation and sediment laden runoff to the Maitahi Wetland / Waitakahuruhuru Stream and the Omamari Station Wetland and Shrubland Crossings;
  - i. Ground stabilisation measures, particularly for cut and fill slopes;
  - j. The engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;
  - k. The specific dust control measures that will be applied to each stage of earthworks and fill disposal sites;
  - l. The location of the concrete batching plants within the Project Envelope, which shall be located at least 40 m from any wetland. In addition, the specific measures to contain / manage contaminant runoff and stormwater runoff from the concrete batching plants (e.g. bunds) shall be detailed;
  - m. The measures to ensure that worked areas (excluding hard stand areas) are rehabilitated and re-vegetated as soon as practicable following earthworks, including:
    - i. The identification of the vegetation or pasture types and re-vegetation material and techniques to be used for rehabilitation purposes;
    - ii. The programme and timing of re-vegetation and maintenance activities so that stabilised surface coverage of 80% is achieved within two months of the completion of earthworks in a particular location;
    - iii. The retention of surface cover in order to reduce the effects from sediment-laden stormwater runoff;
    - iv. Contouring of side-throw material and grading out or feathering of any cut / fill batters to merge with the landform contours, where appropriate; and
    - v. The identification of weed management activities to be undertaken.
  - n. Details on the frequency of inspections and monitoring of all stormwater, dust, erosion and sediment control measures throughout each stage of construction works, including details of the suitably qualified and experienced person responsible for inspections and monitoring.
38. The consent holder shall provide a copy of the final Earthworks and Construction Management Plan required in accordance with Condition 36 to Mana Whenua Kaitiaki (Te Roroa) within five working days of it being certified by the Kaipara District Council. A copy of the correspondence provided to Mana Whenua Kaitiaki (Te Roroa) shall also be forwarded to the Resource Consents Manager – Kaipara District Council.
39. All earthworks required for the construction of the Kaiwaikawe Wind Farm shall be undertaken in accordance with Auckland Council's "*Guidelines for Earthworks in the Auckland Region, 2016 / 005.*"

### ***Contaminated Land***

40. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Detailed Site Investigation to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objective in Condition 40. The Detailed Site Investigation shall be prepared by a suitably qualified and experienced practitioner in contaminated land as required by the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

For any land within the Project Envelope confirmed by the Detailed Site Investigation as being contaminated and intended for disturbance, a Site Management Plan will be produced which shall provide for the following objective:

- a. Ensure identified HAIL sites intended for disturbance within the Project Envelope will be appropriately remediated or managed prior to or during soil disturbance works, to minimise potential adverse effects on human health and the environment.
41. In order to achieve the objective in Condition 40, the Site Management Plan shall be prepared by a suitably qualified and experienced practitioner in general accordance with the Ministry for the Environment's "Contaminated Land Management Guidelines #1: Reporting on Contaminated Sites in New Zealand (Revised 2011)" and the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 and shall specify the measures and monitoring that will be implemented in order to minimise potential effects on human health and the environment from the disturbance of contaminated soil or waste material on the site.
42. The consent holder shall ensure that any contaminated soil or waste material identified for off-site disposal is disposed of at a site that holds a resource consent or relevant authorisation to accept the relevant level of contamination identified at the site.

### ***Construction and Cultural Monitoring***

43. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall make an invitation to Mana Whenua Kaitiaki (Te Roroa) to undertake the following:
- a. A blessing from a Kaumatua to ensure the 'state' of hau ora (holistic health) is maintained;
- b. Attend an onsite pre-works meeting with the consent holder and its main contractors; and
- c. Cultural monitoring of topsoil stripping and the removal of earth within the Project Envelope.

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

## **NOISE**

### ***Construction and Maintenance Noise***

44. Noise from all construction works associated with the Kaiwaikawe Wind Farm shall be measured and assessed in accordance with the requirements and limits of “NZS6803:1999 *Acoustics – Construction Noise*.”
45. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Noise Management Plan to the Resource Consents Manager - Kaipara District Council for endorsement acting in a technical certification capacity. The Construction Noise Management Plan shall be generally in accordance with Section 5 and the relevant annexures of “NZS6803:1999 *Acoustics – Construction Noise*”, which detail the relevant types of construction to which the Construction Noise Management Plan is to apply (which shall include construction works associated with road upgrades / improvements), and the procedures that will be carried out to ensure compliance with the standard. The objectives of the Construction Noise Management Plan shall be to ensure construction works are:
- a. Designed and implemented to comply with the requirements of “NZS6803:1999 *Acoustics – Construction Noise*” (with the exception of 701 Babylon Coast Road), as measured and assessed in accordance with the long term noise limits set out in the standard; and
  - b. Implemented in accordance with the requirements of section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise from construction works associated with the Kaiwaikawe Wind Farm does not exceed a reasonable level.
46. In order to achieve the objectives established in Condition 45 above, the Construction Noise Management Plan shall, as a minimum, address the following matters:
- a. The operating hours for the construction works and any time restrictions on the operation of particular machinery and equipment;
  - b. Details on the machinery and equipment to be utilised during the construction works, and any required mitigation measures associated with the operation of the machinery and equipment;
  - c. Predictions of sound levels from the machinery and equipment to be utilised during the construction works;
  - d. Mitigation options for any exceedances of the requirements of “NZS6803:1999 *Acoustics – Construction Noise*” at 701 Babylon Coast Road (which may include temporary noise barriers);
  - e. Details on the noise monitoring programme to be undertaken during the construction works;
  - f. The procedure for the reporting of any exceedances of “NZS6803:1999 *Acoustics – Construction Noise*” to the Resource Consents Manager - Kaipara District Council; and
  - g. The procedures for the reporting and logging of noise related complaints, including the need for additional monitoring following the receipt of noise complaints.

47. The Construction Noise Management Plan shall be prepared by a suitably qualified and experienced acoustical consultant.

**Operational Noise (Non-Wind Turbine Related)**

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

7.00 am to 7.00 pm	50 dB $L_{Aeq}$
7.00 pm to 10.00 pm	45 dB $L_{Aeq}$
10.00 pm to 7.00 am	40 dB $L_{Aeq}$ and 70 dB $L_{AFmax}$

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

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

**Operational Noise (Wind Turbines)**

49. The wind turbines shall be designed, constructed, operated and maintained so that sound levels from the Kaiwaikawe Wind Farm comply with the requirements of “*NZS6808:2010 Acoustics – Wind Farm Noise*.” For the avoidance of doubt, this condition shall require the wind turbines to be designed, constructed, operated and maintained so that the Kaiwaikawe Wind Farm sound levels shall not exceed the background sound plus 5 dB ( $L_{A90 (10min)}$ ) or a level of 40 dB ( $L_{A90 (10 min)}$ ), whichever is the greater.
50. For the purpose of demonstrating compliance with Condition 49, wind farm sound shall be measured and assessed in accordance with “*NZS6808:2010 Acoustics – Wind Farm Noise*” at, or within, the notional boundary of any dwelling in existence or consented at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under section 114 of the Resource Management Act 1991 (excluding those dwellings on the property on which wind turbines are to be located, or where the property owner has provided their written approval and this approval has been provided to the Resource Consents Manager – Kaipara District Council).

*Note: For the avoidance of doubt, and for the purpose of compliance with Condition 50, the “Reference Test Method” shall be adopted for testing whether the Kaiwaikawe Wind Farm has tonal special audible characteristics, as prescribed in Annex C to ISO*

*1996:2007, in accordance with Appendix B of “NZS6808:2010 Acoustics – Wind Farm Noise.”*

51. At least 20 working days prior to the commissioning of the first wind turbine authorised as part of this resource consent, the consent holder shall submit a Noise Management Plan to the Resource Consents Manager – Kaipara District Council for certification that the plan meets the objectives in Condition 51(a) and (b). The objectives of the Noise Management Plan shall be to ensure:
  - a. The operation of the Kaiwaikawe Wind Farm complies with the requirements of Condition 49 of this resource consent; and
  - b. Operational noise from the Kaiwaikawe Wind Farm is managed in accordance with the requirements of section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise from the Kaiwaikawe Wind Farm does not exceed a reasonable level.
  
52. In order to achieve the objectives established in Condition 51 above, the Noise Management Plan shall, as a minimum, address the following matters:
  - a. An assessment of background sound levels in accordance with the requirements of “NZS6808:2010 Acoustics – Wind Farm Noise” prior to the commencement of any construction work;
  - b. Wind turbine selection, having regard to the sound power level predictions obtained in accordance with Section 6.2 and the special audible characteristics in Clause 5.4.1 of “NZS6808:2010 Acoustics – Wind Farm Noise”;
  - c. Procedures for ensuring compliance with the noise conditions of this resource consent, including noise compliance testing, methods for addressing non-compliance, designated contact persons, and complaints procedures;
  - d. Procedures for addressing turbine malfunctions that cause material noise effects beyond typical operational noise;
  - e. Procedures for ensuring that the best practicable option is adopted to ensure the emission of noise from the operation of the Kaiwaikawe Wind Farm does not exceed a reasonable level;
  - f. Requirements for post construction noise monitoring and assessment; and
  - g. Provisions regarding the review, and updating, of the Noise Management Plan.
  
53. The Noise Management Plan shall be prepared by a suitably qualified and experienced acoustical consultant.

***Pre-Instalment Assessment***

54. Prior to the installation of any wind turbine authorised as part of this resource consent, the consent holder shall provide a Noise Prediction Report to the Resource Consents Manager -

Kaipara District Council for certification in accordance with “NZS6808:2010 Acoustics – Wind Farm Noise” (in particular Sections 8.1 and 8.4.2). The Noise Prediction Report shall:

- a. Demonstrate, based on the sound power levels for the selected wind turbines, that the limits in Condition 49 of this resource consent can be complied with;
- b. Include the finalised 35 dBA contour for the Kaiwaikawe Wind Farm; and
- c. Identify the dwellings within the finalised 35 dBA contour to be measured and assessed in accordance with “NZS6808:2010 Acoustics – Wind Farm Noise”.

### **Compliance Testing**

55. A compliance assessment report shall be prepared in accordance with Section 8.4.1 of “NZS6808:2010 Acoustics – Wind Farm Noise” by a suitably qualified and experienced acoustical consultant and shall be submitted to the Resource Consents Manager – Kaipara District Council for certification within three months of electricity being generated from the last wind turbine to be commissioned.
56. The consent holder shall pay all reasonable costs associated with acoustic compliance testing or assessment undertaken in accordance with this resource consent.

### **TRAFFIC**

#### **Construction Traffic Management Plan**

57. At least 30 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Traffic Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 57(a) to (f). The objectives of the Construction Traffic Management Plan shall be to:
  - a. Ensure all specific legislative requirements and consent conditions in relation to construction traffic are adhered to;
  - b. Encourage a culture of road safety awareness and commitment;
  - c. Ensure best practice in transport safety;
  - d. Ensure emergency services are not obstructed;
  - e. Minimise disruption to the surrounding community, farming operations and rural services; and
  - f. Keep the local community informed of construction operations and encourage participation in maximising safety and minimising disruption
58. In order to achieve the objectives established in Condition 57 above, the Construction Traffic Management Plan shall, as a minimum, address the following matters:

- a. The construction programme and the associated traffic volumes estimated for each construction phase;
  - b. Driver protocols aimed at ensuring safe driving practices and full compliance with the law, including speed limits, appropriate following distances, observing engine braking restrictions, and affording priority to other traffic;
  - c. The details of the intended traffic arrangements and provision for the delivery of over-dimension and over-weight loads to the Kaiwaikawe Wind Farm;
  - d. The nature and timing of any enabling / widening works to be implemented in the legal road reserve of Maitahi Road and Babylon Coast Road, as required by Conditions 61 and 62;
  - e. The traffic management measures to be implemented at intersections, level crossings, stock crossings and access points to local properties, including as a means to manage vehicle speeds in locations where sufficient sight lines are not available;
  - f. Requirements for the monitoring of construction traffic;
  - g. Communication arrangements with residents, Kaipara District Council, Waka Kotahi, schools, marae, emergency services and other key stakeholders, including provision of prior notice of traffic arrangements and any road closures; and
  - h. The ongoing review and evaluation of the contents of the Construction Traffic Management Plan throughout the period of construction works.
59. The Construction Traffic Management Plan shall be prepared by a suitably qualified and experienced traffic engineer and in consultation with Waka Kotahi and the General Manager - Infrastructure Services, Kaipara District Council.
60. The consent holder shall distribute copies of the Construction Traffic Management Plan to emergency services and landowners / occupiers with access to the local construction traffic routes at least 10 working days prior to the commencement of construction works authorised by this resource consent.
61. Subject to the results of a further transportation assessment once the specifications of the wind turbines are confirmed by the consent holder, the consent holder shall upgrade the intersection of State Highway 12 and Babylon Coast Road, and the intersection of State Highway 12 and Maitahi Road, and the site access layouts to safely accommodate all of the expected construction traffic that will utilise the intersection. The upgrade of the intersections shall be undertaken in accordance with Austroads Design Guidelines and the Kaipara District Council's Engineering Standards 2011 and prior to the commencement of principal construction works for the Kaiwaikawe Wind Farm.

*Note: For the purpose of Conditions 61, 62, 63, 64 and 65, principal construction works means those construction works associated with any more than 15 vehicle movements in a day of which up to 4 movements may be heavy commercial vehicles (vehicles over 3,500 kg gross mass).*

62. Prior to the commencement of principal construction works, the consent holder shall either widen Babylon Coast Road and Maitahi Road from their intersection with State Highway 12 to the respective accesses to the Kaiwaikawe Wind Farm so that they achieve a minimum width of 6 m (in accordance with the Kaipara District Council's Engineering Standards 2011) or implement traffic management measures to manage the traffic movements on Babylon Coast Road and Maitahi Road with consideration to the effects on the existing road users and adjacent properties (which shall be documented in the Construction Traffic Management Plan required in accordance with Condition 57 above).
63. Prior to the commencement of principal construction works authorised as part of this resource consent, the consent holder shall provide a Pavement Impact Assessment prepared by a suitably qualified pavement engineer to
- a. Determine the current condition of the pavement on any local road to be utilised as a haulage route as part of the construction of the Kaiwaikawe Wind Farm; and
  - b. Whether any strengthening works may be required to the identified local roads in order enable the construction activities authorised by this resource consent.

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

64. The consent holder shall arrange a pre-start meeting with the General Manager - Infrastructure Services, Kaipara District Council prior to the commencement of principal construction works authorised as part of this resource consent, to discuss the findings of the Pavement Impact Assessment required in accordance with Condition 63 and to confirm the condition of the Kaipara District Council's assets within the road reserve of the haulage route to be utilised. The consent holder shall then undertake the necessary strengthening / upgrade works to the local roads of the haulage route in accordance with the recommendations of the Pavement Impact Assessment.
65. Should the results of the monitoring plan required in accordance with Condition 63 identify that damage has occurred to local roads, footpaths, berms, curbs or drains and other assets administered by the Kaipara District Council, as well as any third party assets that are established within road reserve, the consent holder shall notify the General Manager - Infrastructure Services, Kaipara District Council within 24 hours of the discovery (or immediately where the damage presents a safety hazard). Restoration of any damaged asset shall be in accordance with Kaipara District Council's Engineering Standards 2011 and approved by the General Manager- Infrastructure Services, Kaipara District Council. The costs of rectifying such damage and restoring the asset to its previous condition shall be met by the consent holder.
66. Upon the completion of construction works authorised by this resource consent, the consent holder shall arrange a site meeting with the General Manager - Infrastructure Services, Kaipara District Council to confirm the results of the Pavement Impact Assessment (and the associated monitoring plan) in order to determine whether any further works are required to rectify any damage and restore the asset to its previous condition.

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

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

## **EXPERT AVIFAUNA PANEL**

### ***Establishment of Expert Avifauna Panel***

68. 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 two independent experts with appropriate qualifications and experience in the monitoring of avifauna ecology and / or risk assessment to the Resource Consents Manager – Kaipara District Council. One of the experts shall be nominated by the Department of Conservation (Director, Operations, Northern North Island), and one shall be nominated by the consent holder.
69. Notwithstanding Condition 68 above, the expert nominated by the Department of Conservation (Director, Operations, Northern North Island) may be an employee of, or contractor to, the Department of Conservation.
70. The Resource Consents Manager – Kaipara District Council shall review the curriculum vitae of the experts nominated in accordance with Condition 68 and then advise the consent holder whether the nominated experts have appropriate qualifications and experience in the monitoring of avifauna ecology and / or risk assessment to form part of the expert panel. In the event that a nominated expert is not considered to have appropriate qualifications and experience by the Resource Consents Manager – Kaipara District Council, the party which nominated the expert shall be invited to submit the name and curriculum vitae of a replacement expert with appropriate qualifications and experience to the Resource Consents Manager – Kaipara District Council for approval.
71. The consent holder shall establish the expert panel within five working days of the selection of the two experts by the Resource Consents Manager – Kaipara District Council.
72. In the event that any 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 the name and curriculum vitae of a replacement expert with appropriate qualifications and experience in the monitoring of avifauna ecology and / or risk assessment to the Resource Consents Manager – Kaipara District Council for approval.
73. The role of the expert panel is to assist the Resource Consents Manager – Kaipara District Council with the following:
- 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);

- 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) on behalf of the Resource Consents Manager – Kaipara District Council; and
  - c. The provision of advice and assistance to the consent holder and the Resource Consents Manager – Kaipara District Council in the event of any bird mortality events or investigations.
74. Where the expert panel is unable to provide a consensus view in undertaking its role as set out in Condition 73 above, each member of the expert panel shall record their independent opinion and advice to the consent holder and the Resource Consents Manager – Kaipara District Council in accordance with the relevant conditions of this resource consent.
75. The consent holder shall meet the reasonable costs incurred by the expert panel in undertaking its role as set out in Condition 73 above, subject to normal business practices of invoicing and accounting.

## **AUSTRALASIAN BITTERN MONITORING / MANAGEMENT**

### ***Baseline Survey of Australasian Bittern***

76. 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, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as Appendix B to these conditions and dated 17 January 2022). The purpose of the baseline survey is to:
- a. Further the understanding of the relative abundance and distribution of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022);
  - b. Attempt to determine if Australasian Bittern are breeding during the baseline survey period;
  - c. Provide and map additional observations of Australasian Bittern and their behaviour at Maitahi Road crossings to confirm the potential design of additional traffic management requirements at these locations; and
  - d. Use the results of the baseline survey, where possible, to validate the modelled estimates of collision risk mortality.

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

- e. The survey method shall follow Department of Conservation monitoring protocols for Australasian Bittern *“Protocols for the inventory and monitoring of the endangered Australasian Bittern (Botaurus poiciloptilus) in New Zealand”*;
- f. The survey shall involve at least five survey days and the utilisation of monitoring / recording equipment on site for at least four weeks, and shall be undertaken within the peak period of activity for Australasian Bittern (being the months of September, October and early November);
- g. The survey method shall focus on male booming during breeding, and include:
  - i. Call counts;
  - ii. Acoustic recordings; and
  - iii. Site observations.
- h. The survey shall include any observations of breeding behaviour and / or juveniles if possible; and
- i. The survey shall include any observations of activity around Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022), and any other areas of the Project Envelope where activity is observed.

***Australasian Bittern Monitoring and Management Plan***

- 77. 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 79 for review and comment.
- 78. 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.
- 79. 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 Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 79(a) to (d). The Australasian Bittern Monitoring and Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objectives:
  - 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, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022);
  - b. Validating the collision risk assessment for Australasian Bittern at the Kaiwaikawe Wind Farm;

- c. The creation or enhancement of 2 hectares of wetland habitat, together with predator control, [within the Project Site](#) for Australasian Bittern; and
  - d. The identification of potential further measures to avoid, remedy 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 a [more than minor](#) adverse effect on the population of Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022).
80. In order to achieve the objectives established in Condition 79 above, the Australasian Bittern Monitoring and Management Plan shall, as a minimum, address the following:
- a. Where there is sufficient data from the baseline survey, the assessment methodology to be utilised to validate the modelled estimate of collision risk mortality for Australasian Bittern (which shall also include updating the model with the details of the turbine technology selected for the Kaiwaikawe Wind Farm and the final layout of the wind farm);  
  
*Note: For the purpose of Condition 80(a), the collision risk mortality has been modelled at 1 mortality every 27.8 years assuming a population of 10 birds traversing the Kaiwaikawe Wind Farm once a week for six months, with 20% of traverses at a rotor swept height and at an avoidance rate of 95%.*
  - b. The criteria or assessment methodology for determining whether the construction or operation of the Kaiwaikawe Wind Farm has resulted in the displacement of the population of Australasian Bittern;
  - c. The detailed measures proposed, and at what locations [within the Project Site](#), to create or enhance 2 hectares of wetland habitat for Australasian Bittern (including associated predator control measures);
  - d. The additional traffic / construction management measures 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 a [more than minor](#) adverse effect on the population of Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022); and
  - e. The identification of additional habitat creation / enhancement measures and / or predator control measures, and associated monitoring of such measures, that may need to be implemented by the consent holder in the event that the validated modelling of collision risk mortality for Australasian Bittern is greater than the modelled mortality specified in Condition 80(a) and / or there is a trend of displacement of Australasian Bittern from the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022) as result of the operation of the Kaiwaikawe Wind Farm.

***Australasian Bittern Baseline Survey Report***

81. Following the conclusion of the baseline survey required in accordance with Condition 76, the consent holder shall engage a suitably qualified and experienced 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 80.

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 80(a).

The consent holder shall provide the draft baseline survey report to the expert panel for review and comment.

82. 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.

83. 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 Resource Consents Manager – Kaipara District Council. Upon receiving the baseline survey report, the Resource Consents Manager – Kaipara District Council may seek advice and comment from the expert panel on the report, and then shall determine whether:

- a. Any additional measures to avoid, remedy or mitigate adverse effects on Australasian Bittern, as identified in the Australasian Bittern Monitoring and Management Plan, are necessary during the construction of the Kaiwaikawe Wind Farm in the vicinity of Maitahi Road; and
- b. Any of the additional habitat creation / enhancement measures or predator control measures identified in Condition 80(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 80(a).

#### ***Construction and Post-Construction Survey Report***

84. Surveys for the presence of Australasian Bittern within the area around the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as Appendix B to these conditions and dated 17 January 2022), in accordance with the survey methodology outlined in Condition 76<sup>1</sup> shall be repeated, each spring, throughout the construction of the Kaiwaikawe Wind Farm and for a further three spring seasons following the commissioning of the final turbine of the Kaiwaikawe Wind Farm.

85. An annual monitoring report shall be prepared by a suitably qualified and experienced person that presents, summarises and analyses the data collected in the preceding year of construction and post-construction monitoring. The consent holder shall submit the annual monitoring report to the Resource Consents Manager – Kaipara District Council within 60 working days of the completion of each spring survey. A copy of the annual monitoring report

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<sup>1</sup> And the supplementary survey method outlined in Condition 94 where the necessary approvals / agreements from the Department of Conservation are in place.

shall also be provided to the expert panel and the Department of Conservation (Director, Operations, Northern North Island).

86. At the conclusion of the construction and post-construction surveying required in accordance with Condition 84, the consent holder shall engage a suitably qualified and experienced person to prepare a monitoring report that:
- 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 80;
  - 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), [and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98](#), in the event that it is established that the construction or operation of the Kaiwaikawe Wind Farm has had a [more than minor](#) adverse displacement effect on the population of Australasian Bittern utilising the Omamari Station Wetland in the vicinity of Maitahi Road, the Maitahi Wetland and the Pamu Farm West Wetland (as identified on the map attached as **Appendix B** to these conditions and dated 17 January 2022); and
  - c. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration.

The consent holder shall provide the draft construction and post-construction monitoring report to the expert panel for review and comment.

87. The expert panel shall provide its written comments (if any) on the draft construction and post-construction monitoring report to the consent holder within 20 working days of receipt of the report from the consent holder.
88. 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 Resource Consents Manager – Kaipara District Council. Upon receiving the construction and post-construction monitoring report, the Resource Consents Manager – Kaipara District Council may seek advice and comment from the expert panel on the report, and then shall determine whether:
- a. Any of the additional habitat creation / enhancement measures or predator control measures identified in the Australasian Bittern Monitoring and Management Plan should be implemented (if at all), [and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98](#), as result of the construction or operation of the Kaiwaikawe Wind Farm having had an adverse displacement effect;
  - b. Considers whether any further post-construction survey effort for Australasian Bittern is necessary (if any), and at what frequency / duration; and

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

### ***Bird Mortality Investigations***

89. In the event that an Australasian Bittern is found injured or deceased within the Project Site, then the consent holder shall notify the Resource Consents Manager – Kaipara District Council and the Department of Conservation (Director, Operations, Northern North Island) within 24 hours of becoming aware of the discovery.

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

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

90. The suitably qualified and experienced person 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.
91. 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:
  - a. Review and discuss the findings of the draft investigation report;
  - b. Consider whether any additional monitoring is required to further consider the potential cause of injury or mortality; and
  - c. Consider 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 [\(and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98\)](#).
92. The consent holder shall submit the investigation report, including all comments received from the expert panel at the meeting, to the Resource Consents Manager – Kaipara District Council within 5 working days of convening the meeting with the expert panel in accordance with Condition 91.
93. The Resource Consents Manager – Kaipara District Council shall, upon receipt of the Australasian Bittern mortality investigation report and as a matter of urgency, but subject to any advice and comment from the expert panel, determine in consultation with the consent holder whether:

- a. Any additional monitoring is required and at what frequency / duration;
- b. Any additional habitat creation / enhancement measures or predator control measures, as identified in the Australasian Bittern Monitoring and Management Plan, needs to be implemented by the consent holder [\(and taking into account any initiatives and programmes undertaken as part of the Australasian Bittern Management Fund under Condition 98\)](#); and
- c. There is a need to serve notice on the consent holder of its intention to review any of the conditions of this resource consent in accordance with Sections 128 to 131 of the Resource Management Act 1991.

### **Supplementary Survey Methods**

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

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

### **Maitahi Road Management**

95. 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.
96. 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.
97. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall ensure that all staff and contractors are given suitable training as part of site inductions to explain the behaviour of Australasian Bittern, and what to do if a bird is observed, or injured.

*Note: The Department of Conservation (Director, Operations, 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.*

### **Australasian Bittern Management Fund**

98. Prior to the commencement of construction of the Kaiwaikawe Wind Farm, the consent holder shall establish a fund to provide investment for initiatives and programmes by [the Department of Conservation or iwi individuals, community groups, iwi or other entities](#) within the Northland Region that promote the protection or enhancement of the population of Australasian Bittern.
99. The consent holder shall provide a fund of \$64250,000 (CPI adjusted from the commencement of this resource consent) to initiatives and programmes that are in accordance with Condition 98.
100. The consent holder shall provide written confirmation to the Resource Consents Manager – Kaipara District Council of the funding deed and account within 10 working days of it being established.
101. The consent holder shall provide a report to the Resource Consents Manager – Kaipara District Council, annually on the anniversary of the establishment of the fund required in accordance with Condition 98, that sets out:
- a. The initiatives and programmes that have been funded in the previous year and how these programmes are intended to promote the protection or enhancement of the population of Australasian Bittern (and if no initiatives or programmes have been funded, the reasons for that);
  - b. Any funding committed for the forthcoming year; and
  - c. The balance of the fund.

*Note: The reporting obligations in accordance with Condition 101 shall cease once the fund required under Conditions 98 has been exhausted.*

## **BIRD COLLISION MONITORING**

### ***Bird Collision Monitoring Plan***

102. 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 104 and 105 below to the expert panel for review and comment.
103. The expert panel shall provide its written comments (if any) on the draft Bird Collision Monitoring and Management Plan to the consent holder within 20 working days of receipt of the plan from the consent holder.
104. 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 Resource Consents Manager – Kaipara District Council to certify that the plan meets the objective in Condition 104(a). The Bird Collision Monitoring Plan shall be jointly prepared by a suitably qualified and experienced avian expert and a suitably qualified and experienced bio-statistician, and shall provide for the following objective:
- a. Measure the rates of bird mortality from collisions at the Kaiwaikawe Wind Farm.

105. In order to achieve the objective established in Condition 104 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 define a search area relevant to the height and rotor span of the wind turbines, be statistically robust and include, but not be limited to, the following:
- a. Calculating the probability and rate of bird carcass loss to scavengers, decomposition and other causes, taking into account temporal, environmental and other sources of variation;
  - b. Calculating the probability of carcass detection by searchers, which may include searching assisted by suitably-trained dogs, taking into account temporal, environmental, searcher identity and other sources of variation;
  - c. A data collection and analysis regime specifying the timing, location and duration of monitoring at a statistically derived number of wind turbines and wind monitoring masts. The purpose of the data collection and analysis regime is to ensure that a reliable estimate of bird strike mortality through all seasons and a range of environmental conditions at all wind turbines and wind monitoring masts is obtained;
  - d. Methods to account for carcass loss and detection probability taking into account temporal, environmental and other sources of variation when estimating rates of mortality across the Kaiwaikawe Wind Farm;
  - e. Methods to accurately record the condition (partial carcass, entire carcass, or feather spot) and cause of death; and
  - f. Methods to record, and electronically store, audit and backup data.
106. In addition to the requirements specified in Condition 105, the Bird Collision Monitoring Plan shall:
- a. Specify that search coverage at each wind turbine is recorded by GPS tracking;
  - b. Specify that all carcasses shall be photographed as found, labelled with a unique number, 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
  - c. 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.

### ***Bird Collision Monitoring***

107. Bird collision monitoring shall commence immediately following the date any wind turbine first generates electricity and continue for a period of [threefive](#) years (or until an alternative date as determined by the Resource Consents Manager – Kaipara District Council in accordance with Condition 114) and at the frequencies specified in the Bird Collision Monitoring Plan.

108. A draft annual bird collision monitoring report shall be jointly prepared by a suitably qualified and experienced avian expert and a suitably qualified and experienced bio-statistician that presents, summarises and analyses the data collected in the preceding year. The consent holder shall submit the draft annual bird collision monitoring report to the expert panel for review and comment within 20 working days of the anniversary of the commencement of bird collision monitoring at the Kaiwaikawe Wind Farm.
109. 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. The consent holder shall then submit the annual bird collision monitoring report (including all comments from the expert panel and the consent holder's response to those comments) to the Resource Consents Manager – Kaipara District Council within 60 working days of the anniversary of the commencement of bird collision monitoring at the Kaiwaikawe Wind Farm. A copy of the annual monitoring report shall also be provided to the Department of Conservation (Director, Operations, Northern North Island).
110. Upon receiving the annual monitoring report the Resource Consents Manager – 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.
111. On the ~~third~~<sup>fourth</sup> anniversary of the date any wind turbine first generates electricity the consent holder shall commission a bird collision monitoring review report by a suitably qualified and experienced avian expert and a suitably qualified and experienced bio-statistician that:
- 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;
  - b. Considers whether the monitoring required in accordance with the Bird Collision Monitoring Plan needs to continue, and if so at what frequency; and
  - 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.
112. 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.
113. 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 Resource Consents Manager – Kaipara District Council within 20 working days of the receipt of written comments from the expert panel. 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).
114. The Resource Consents Manager – Kaipara District Council shall review the bird collision monitoring review report, subject to any advice from the expert panel, and determine whether:

- a. The monitoring required in accordance with the Bird Collision Monitoring Plan needs to continue, and if so at what frequency;
  - 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
  - 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.
115. 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.

#### **LIZARDS**

116. At least 40 working days prior to the commencement of vegetation clearance within the areas identified as:
- a. Scrub Revision in Pine Slash – V16 in Map 5 of “Omamari Wind Farm, Northland – Ecological Impact Assessment” dated 12 November 2020;
  - b. Scrub and Rank Grass Margins of any pine plantation which extends into the Project Envelope; and
  - c. The road reserve / margin adjacent to Maitahi Wetland Scientific Reserve
- the consent holder shall submit a Lizard Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objective in Condition 116(d). The Lizard Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objective:
- d. The avoidance, remediation or mitigation of adverse effects of construction works on any lizard species in the areas identified in Condition 1176(a) to (c);
117. In order to achieve the objective established in Condition 116 above, the Lizard Management Plan shall address the following matters:
- a. The detailed methodology proposed to survey for any lizard species in the areas identified in Condition 116(a) to (c);
  - b. The method of recording the number and species of any lizards required to be captured under the Lizard Management Plan; and

- c. The location where captured lizards will be relocated, including the suitability of habitat in this location and any measures to support the ability of lizards to establish and survive in these locations.

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

## **GENERAL REPORT OF BIRD AND BAT CARCASSES**

118. The consent holder shall record and report any evidence of bird and bat strikes that are not part of any collision or carcass monitoring required in accordance with the other conditions of this resource consent. Should a bird or bat species that is nationally critical, nationally endangered, nationally vulnerable or in serious decline as listed in the New Zealand Threat Classification System (<https://nzctcs.org.nz/home>) 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.

## **STOCK PONDS**

### ***Stock Pond Infilling***

119. As far as practicable, any draining or modifying of Stock Ponds 16, 45 or 70 (e.g. breeding habitat) shall occur outside the breeding season of Australasian Bittern, Spotless Crake, Dabchick and Australasian Coot (being 1 September to 28 February).
120. If a stock pond with a vegetated margin needs to be drained or modified during the period identified in Condition 119 above, a survey shall be undertaken prior to works by a suitably qualified and experienced person to determine if a nest or nests are present. If a nest of any of the species identified in Condition 119 is located, that stock pond shall not be drained or modified until the chick(s) has left the nest.
121. In the event that the blade tip of any wind turbine will be located within 200 metres of Stock Ponds 45, 70 or 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 and comment on the draft Ecological Mitigation and Management Plan required in accordance with Condition 123.
122. In the event that no written comments are received from the Department of Conservation (Director, Operations, Northern North Island) on the draft Ecological Mitigation 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).
123. 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 Ecological Mitigation and Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objective in Condition 123(a). The Ecological Mitigation and

Management Plan shall be prepared by a suitably qualified and experienced person and shall provide for the following objective:

- a. 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.
124. The Ecological Mitigation and Management Plan shall, as a minimum, address the following matters:
- a. A clear description of the timing of any restoration works proposed relative to the infilling of Stock Ponds 45, 70 or 89;
  - b. The detailed measures proposed to create or enhance, and maintain, the wetland habitat, including via the implementation of stock fencing and animal pest control;
  - c. A planting plan for the proposed 2.2 ha of wetland habitat, which includes details on the proposed indigenous plant species to be planted and intended planting quantities / densities;
  - d. Requirements for monitoring of, and reporting on, the success of the wetland habitat works (including plant survival rates); and
  - e. The method and timeframes for the long term protection of the wetland habitat.

## **ARCHAEOLOGY**

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

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

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

Where human remains are suspected:

- a. The consent holder must take steps immediately to secure the area in a way that ensures human remains are not further disturbed. The contractor shall advise the consent holder or proponent of the steps taken.
- b. The project archaeologist will determine whether the remains are potentially human.
- c. The consent holder shall notify the Police, Heritage New Zealand, Mana Whenua (who will in turn, notify their nominated kaumatua) and Mana Whenua Kaitiaki (if not present for

cultural monitoring) within 12 hours of the suspected human remains being disturbed, or otherwise as soon as practically possible.

- d. Excavation of the discovery site shall not resume until the Police, Heritage New Zealand, Environs, and Mana Whenua representatives have each given the necessary approvals for excavations to proceed.
126. The consent holder shall provide an opportunity for a representative of Te Roroa to be present on site during any examinations of archaeological deposits of potential significance to iwi.

#### **AIR TRAFFIC SAFETY**

127. The consent holder shall advise the Civil Aviation Authority at least three months prior to the commissioning of the first wind turbine as part of the Kaiwaikawe Wind Farm of the finalised co-ordinates of the sites where the wind turbines are to be installed.
128. The Kaiwaikawe Wind Farm shall be lit with aviation obstacle lighting as required by the Civil Aviation Authority under Civil Aviation Rules, Part 77.19 Determination (or its equivalent rule) at the time of commissioning of the wind farm. No white lights shall be utilised as part of the aviation obstacle lighting for the Kaiwaikawe Wind Farm.
129. No later than five working days after the construction of all wind turbines is completed (or after each stage, if the Kaiwaikawe Wind Farm is constructed in stages), the consent holder shall submit a registered surveyor's determination of the height and position of the wind turbines to the Civil Aviation Authority. The consent holder shall also submit proof of compliance with the aviation obstacle lighting standards. All correspondence to the Civil Aviation Authority in relation to this condition shall be copied to the Resource Consents Manager – Kaipara District Council.
130. Should the consent holder decide not to proceed with the construction of the Kaiwaikawe Wind Farm, the consent holder shall notify the Civil Aviation Authority within five working days of its decision.

#### **COMMUNICATION SERVICES**

131. Prior to the commencement of construction, the consent holder shall submit details of the final layout of the wind turbines to Airways Corporation, Northpower and any known Internet Service Providers known in the area. A copy of this correspondence shall be provided to the Consents Manager – Kaipara District Council.
132. Prior to finalising the locations of the wind turbines, the consent holder shall undertake an independent assessment, prepared by a person qualified in fixed radio services to confirm that the turbines are located outside of the fixed radio high capacity links in the area and do not degrade the performance of the three fixed radio links identified in the area.

#### **SHADOW FLICKER**

133. The consent holder shall ensure that shadow flicker effects at any dwelling in existence or consented at the date of notice of the decision on the resource consent applications for the Kaiwaikawe Wind Farm under Section 114 of the Resource Management Act 1991 (excluding those dwellings on the property on which wind turbines are to be located, or where the

property owner has provided their written approval and this approval has been provided to the Resource Consents Manager – Kaipara District Council) arising from the operation of the Kaiwaikawe Wind Farm shall be no greater than a modelled limit of 30 hours per year as defined in the Environmental Protection and Heritage Council “Draft National Wind Farm Development Guidelines”, EPHC, Adelaide 2010, modelled to 10 times the turbine diameter. The consent holder may use a curtailment strategy to achieve the modelled limit of 30 hours per year.

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

134. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Pre-Instalment Shadow Flicker Assessment to the Resource Consents Manager - Kaipara District Council. The Pre-Instalment Shadow Flicker Assessment shall be prepared by an appropriately qualified consultant and shall take account of the design details of dwellings B84, B85, B86 and B95 (as identified in Figure 2.3 of “Omamari Wind Farm - Shadow Flicker Assessment” dated November 2020) and the ground details between the turbines and the dwelling. The Pre-Instalment Shadow Flicker Assessment shall demonstrate that the proposed number, layout, type and operation of wind turbines (including the curtailment strategy for turbines if necessary) to be used at the Kaiwaikawe Wind Farm will be managed to comply with the shadow flicker limits specified in Condition 133 above.

#### **HAZARDOUS SUBSTANCES / CONTAMINANTS**

135. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Contaminant Spill Contingency Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 135(a) and (b). The Contaminant Spill Contingency Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objectives:
- a. Ensure measures are implemented at the Kaiwaikawe Wind Farm in order to minimise the potential risk, and effects, of a spill of hazardous substances, fuels or other contaminants; and
  - b. The use, handling or storage of hazardous substances during the construction, operation and maintenance of the Kaiwaikawe Wind Farm complies with the requirements of Hazardous Substances and New Organisms Act 1996 and its associated regulations.
136. In order to achieve the objectives established in Condition 135 above, the Contaminant Spill Contingency Management Plan shall, as a minimum, address the following matters:
- a. The identification of designated bulk fuel storage, contaminant storage facilities and re-fuelling locations;
  - b. Measures to ensure that all contaminant storage or designated re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants;

- c. Requirements for all mobile fuel tankers to carry spill kits;
  - d. Details on the contents of the spill kits;
  - e. Records of the names of operators trained in spill response and remediation;
  - f. Measures to ensure that all machinery is regularly maintained in such a manner so as to minimise the potential for leakage of contaminants;
  - g. Measures to ensure that no machinery is cleaned, stored or refuelled within 20 metres of the bed of any water body;
  - h. Measures to ensure that all contaminants are removed from the site at the end of the construction works, except for those required for the on-going maintenance and operational activities at the Kaiwaikawe Wind Farm;
  - i. Details of an internal and external notification procedure in the event of a spill of contaminants; and
  - j. The identification of measures to be undertaken to remediate a contaminant spill, including instructions for removing and disposing of contaminated material in a manner suitable to ensure no further contamination occurs.
137. The transformers and radiators in the electrical substation / switchyard building shall be located on pedestal foundations and enclosed by bunds. The bunds must be designed with sufficient capacity to retain all of the oil utilised in each of the transformers.
138. Electric and magnetic field levels at the Project Site boundaries shall not exceed the limits in the International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines endorsed by the New Zealand Ministry of Health.

#### **FIRE MANAGEMENT**

139. At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Fire Management Plan to the Resource Consents Manager - Kaipara District Council for certification that the plan meets the objectives in Condition 139(a). The Fire Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objective:
- a. Ensure measures are implemented on the site of the Kaiwaikawe Wind Farm in order to minimise the potential risk, and effects, of fire.
140. In order to achieve the objective established in Condition 139 above, the Fire Management Plan shall, as a minimum, address the following matters:
- a. The identification of potential sources of combustion and fire during the construction, operation and maintenance of the Kaiwaikawe Wind Farm;
  - b. Measures to minimise or prevent the potential for fire during the construction, operation and maintenance of the Kaiwaikawe Wind Farm;

- c. Sources of water for fire-fighting purposes and / or fire retardants across the site of the Kaiwaikawe Wind Farm;
- d. Protocols for the management of different fire events (e.g. grass fires, mechanical fires) across the site of the Kaiwaikawe Wind Farm; and
- e. Training procedures for all site staff and contractors.

## **COMMUNITY CONSULTATION / COMMUNICATION**

141. The consent holder shall establish and publicise a toll free telephone number so that members of the public may raise matters with, or make an enquiry of, the consent holder during the construction of the Kaiwaikawe Wind Farm. The toll-free telephone number shall be established at least 10 working days prior to the commencement of construction works authorised as part of this resource consent, and shall be maintained until the completion of construction works. The toll-free telephone number shall be publicised by the following means:
- a. Via the consent holder's website or social media;
  - b. Via an advertisement in the Kaipara Lifestyler;
  - c. Via the signage erected along the margin of Babylon Coast Road and Maitahi Road (subject to the approval of the Kaipara District Council); and
  - d. As part of the Construction Traffic Management Plan distributed to landowners / occupiers with access to the local construction traffic routes.
142. At least 40 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall establish and co-ordinate a Consultative Group for the Kaiwaikawe Wind Farm. Subject to Condition 146 below, this group is to be consulted, as a minimum, at least 6 monthly during the construction phase and over the first 2 years of the operation of the Kaiwaikawe Wind Farm. Thereafter, the frequency of consultation is to be determined by a majority of the Consultative Group itself. Individual Consultative Group members may, with the agreement of the Resource Consents Manager - Kaipara District Council, call meetings at shorter intervals to deal with any interim matters that need to be addressed before the next scheduled meeting.
143. The objective of the Consultative Group is to facilitate information flow between the consent holder's management team and the community, and will be an on-going point of contact between the consent holder and the community. The functions of the Consultative Group shall also include acting as a forum for relaying community concerns about the construction and on-going operation of the Kaiwaikawe Wind Farm to the consent holder's on-site management team, developing acceptable means of addressing (where possible) and managing those concerns, and reviewing the implementation of measures to resolve and manage community concerns.
144. The consent holder shall be responsible for convening the meetings of the Consultative Group and shall cover the direct costs associated with the establishment and operation of the meetings. The consent holder shall be responsible for the keeping and distribution of the

Consultative Group's minutes to all participants in the Consultative Group. A person independent of the consent holder shall chair the meeting. The chair shall be appointed by the Resource Consents Manager - Kaipara District Council.

145. The consent holder shall notify its intention to establish a Consultative Group for the Kaiwaikawe Wind Farm project by public notice. The consent holder shall invite, as a minimum, the following parties to participate in the Consultative Group:
- a. A representative of property owners and occupiers on local roads identified for use by construction traffic;
  - b. An elected representative of the Kaipara District Council;
  - c. A delegate of the Department of Conservation;
  - d. A representative from Te Roroa; and
  - e. Local residents.

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

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

## **COMPLAINTS**

147. The consent holder shall maintain and keep a Complaints Register to record any complaints about construction works and operation of the Kaiwaikawe Wind Farm received by the consent holder in relation to traffic, noise, dust, communications interference, shadow flicker or any other environmental effects. The register shall record, where this information is available, the following:
- a. The date, time and duration of the incident that resulted in the complaint;
  - b. The location of the complainant when the incident was detected;
  - c. The possible cause of the incident; and
  - d. Any corrective action taken by the consent holder in response to the complaint, including the timing of the corrective action.
148. The Complaints Register shall be available to staff and authorised agents of the Kaipara District Council, and to members of the Consultative Group, at all reasonable times upon request. Complaints received by the consent holder that may infer non-compliance with the conditions of this resource consent shall be forwarded to the Resource Consents Manager - Kaipara District Council within 48 hours of the complaint being received.

## **DECOMMISSIONING AND SITE REHABILITATION**

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

## **REVIEW**

150. Pursuant to sections 128 to 131 of the Resource Management Act 1991, the Kaipara District Council may one year after the commencement of this resource consent, and at five yearly intervals thereafter (except as provided for by Conditions 88, 93 and 114), serve notice on the consent holder of its intention to review any or all of the conditions of this resource consent for any of the following purposes:
- a. To review the effectiveness of the conditions of this resource consent in avoiding, remedying or mitigating any adverse effects on the environment that may arise from the exercise of this resource consent;
  - b. To address any adverse effects on the environment which have arisen as a result of the exercise of this resource consent that were not anticipated at the time of commencement of this resource consent, including addressing any issues arising out of complaints;
  - c. To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this resource consent; and
  - d. To deal with any adverse effects on the environment that may arise from the exercise of this resource consent and which it is appropriate to deal with at a later stage.

## **CHARGES**

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

**APPENDIX A**

**Project Site / Project Envelope Map**

## **APPENDIX B**

### **Location of Wetlands for Australasian Bittern Baseline Survey**

## **APPENDIX C**

### **Location of Long-tailed Bat Baseline Survey Points**