

**BEFORE AN INDEPENDENT HEARING COMMISSIONER FOR WAITOMO
DISTRICT COUNCIL**

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

AND

IN THE MATTER OF an application by **Taumatotara Wind Farm
Limited** to change conditions of a land use
consent for the Taumatotara Wind Farm.

**Evidence of Elizabeth Moya Williams
for the Director-General of Conservation *Tumuaki Ahurei*
Resource Management Act Planner
Dated: 8 November 2023**

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Executive Summary

1. The Director-General lodged a submission on the proposed variation on 1 May 2023, which opposed the application on the basis that insufficient information had been submitted with the application to determine the risk to long-tailed bats and that the mitigation proposed did not adequately remedy or mitigate for the potential mortality of critically endangered bats from wind turbines.
2. Council is required to address indigenous biodiversity as part of the s104 assessment in accordance with Part 2, Section 6(c) and Section 31(1)(b)(iii) of the Act which requires the protection of significant indigenous vegetation and significant habitats of indigenous fauna and maintenance of indigenous biodiversity. As described in the evidence provided by Technical Advisor, Ms Pryde (para 96, 97-99), long tailed bats have been confirmed to be present at the application site and the environment at the site is consistent with bat habitat in that it would provide roosting and foraging opportunities. Ms Pryde confirms (para 103) that "*Habitats that support critically threatened species are significant*".
3. It is my view that the protection of significant habitats of indigenous fauna (Section 6(c)), the maintenance of indigenous biodiversity (Section 31) of the Act and the relevant objectives and policies of the Waikato RPS and Waitomo District Plan in relation to indigenous biodiversity are required to be assessed and must be considered along with the need to 'recognise and provide' for the benefits of renewable electricity generation as required under the National Policy Statement for Renewable Energy Generation 2011. Addressing both matters is required to meet the objective of sustainable management under the RMA.
4. The proposed variation will result in less turbines and it is noted that this will result in less structures being available for bats to investigate. However, it is also important to note that the proposed increased height and rotor diameter of the remaining 8 turbines will increase each turbine's rotor sweep area by 114%. The evidence provided by Ms Pryde indicates that this may still result in harm to bats with "*the potential to cause more*

damage to bats”, even with an overall reduction in the number of turbines (para 129).

5. Based on the ecological assessments submitted to date, it has not been possible to compare the ecological effects of the existing consented development with the proposed variation and confirm that the proposed variation will result in reduced effects for bats. Further, as highlighted in evidence provided by Council ecologist Dr Leigh Bull and Ms Pryde the baseline surveys undertaken do not provide evidence of how long-tailed bats are using the site. Without this data, it is not possible to determine the effects of the windfarm on bats or give adequate consideration of the effects management regime.
6. Given the above uncertainty around potential ecological effects on bats, it is my recommendation that the application be declined under s104(6) on the basis that there is not adequate information submitted with the application to make a determination on the proposed variation.
7. However, should the Commissioner be minded to grant consent, I have recommended amendments to proposed conditions and new conditions that follow best practice, and provide for adaptive management and robust monitoring pre and post construction. The proposed amendments to conditions are set out in the attached **Appendix 1** of my evidence.

Introduction

1. My full name is Elizabeth Moya Williams.
2. I have been asked by the Director-General of Conservation *Tumuaki Ahurei (DGC)* to provide expert evidence on the proposal by Taumatotara Wind Farm Limited (**Applicant**) to vary the conditions of its unimplemented windfarm resource consent to:
 - a. Reduce the number of turbines from 22 to 8;
 - b. Increase the maximum diameter of the rotor area from 111.5m to 163m; and
 - c. Increase the tip height of the turbines from 121.5 metres to 180.5 metres.

Qualifications and experience

3. I am employed by the Department of Conservation (DOC) in Dunedin as a Resource Management Act Planner. I have worked for DOC since June 2022.
4. Prior to this I have over fifteen years' of experience in resource management, including roles in both consenting and plan development. This includes four years as a planner at the Environment Agency (a national public body in England), a combined total of eleven years as a Resource Consents Officer at Christchurch City Council, Campbell River City Council (Canada) and Tasman District Council, and two years as a Policy Planner at Dunedin City Council. I have experience in providing input on planning permits and Council plans from a national perspective, processing resource consents including notified/limited notified consents, Section 42A reporting for resource consenting and involvement in plan appeals and Environment Court mediation.
5. I hold a Bachelor of Resource and Environmental Planning with Honours from Massey University.
6. I am an Intermediate Member of the New Zealand Planning Institute.

Code of Conduct

7. Although this is a Council hearing, I confirm that I have read the code of conduct for expert witnesses as contained in clause 9 of the Environment Court's Practice Note 2023 (the Code). I have complied with the Code when preparing my written statement of evidence.
8. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in the evidence to follow.
9. Unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

10. I have been asked to provide independent expert planning evidence in relation to the matters raised in the submission of the DGC.
11. The Director General's submission focused primarily on the effects of the proposed variation on the long-tailed bat (*Chalinolobus tuberculatus*).
12. My evidence is divided into the following parts:
 - a. Summary of the Proposal
 - b. The Planning Framework
 - c. Assessment of Effects and Information Gaps; and
 - d. Comments on the proposed conditions, if consent is approved.

Material Considered

13. In preparing my evidence I have relied upon the evidence of Technical Advisor (Ecology), Moira Pryde for the Director-General of Conservation (D-G).

14. I have read the following documents:
 - a. The application documents lodged with Waitomo District Council by Taumatotara Windfarms Limited.
 - b. The Council's s42A report by Chris Dawson dated 22 June 2023
 - c. The Ecological Technical Report from Dr Leigh Bull dated 12 October 2023 for Waitomo District Council.
 - d. Statements of evidence prepared for the Applicant by:
 - i. Glenn Starr (Corporate 20 October 2023)
 - ii. Simon Chapman (Ecology 23 October 2023)
 - iii. Craig Shearer (Planning 26 October 2023).

Summary of Proposal and Activity Status

15. The proposal seeks to vary the conditions of consent to:
 - a. Remove the southern 11 turbines from the project as well as the removal of turbines 2,4, and 9 to result in a total of **8 turbines**; and
 - b. For the remaining 8 turbines;
 - i. to undertake an increase in maximum diameter of the rotor area from **111.5 meters** to **163 meters**; and
 - ii. to increase in the tip height from **121.5 meters** to **180.5 meters** which will result in a ground clearance of 17.5 meters.
16. I agree with the Council's S42A report assessment of the overall status of the application as a **Discretionary Activity** (refer to Section 2.1).

Planning Framework

17. The Act requires that for Section 127 applications (variation of conditions), Sections 88 to 121 apply as if the application were for a resource consent for a discretionary activity. When considering applications, Section 104(1)(a) requires that the Consent Authority

must, subject to Part 2, have regard to any actual or potential effects on the environment of allowing the activity (in this case an assessment of effects between the consented activity and the effects of the proposed change).

18. The Commissioner (Minute 5, 4 October 2023) has confirmed that the consideration of effects is between the proposed variation and the 2011 consent (“existing consent”). I acknowledge that the assessment of effects is on the change in effects from 22 to 8 turbines and an increase in height of the remaining 8 turbines from 121.5 metres to 180.5 metres, with the rotor diameter increasing from 111.5 metres to 163 metres and not of the effects of the consent already granted. The ecological effects on bats of this change are discussed in more detail in the assessment of effects section below.
19. Section 104(1)(b) also requires that the Consent Authority, subject to Part 2, must have regard to any relevant provisions, including national policy statements, a regional policy statement and, in this case, a district plan.
20. Sections 17 and 18 of the Council planners s42A report identify the statutory and policy considerations. In general, I adopt those evaluations, but where I consider that particular provisions are especially relevant, I address them further in my evidence.
21. I consider that the key statutory and ‘higher order’ documents which support the D-G's submission and my evidence, are set out in the following paragraphs.

Resource Management Act

22. Section 5 of the Resource Management Act (RMA), sets out that the purpose of the Act is to promote the sustainable management of natural and physical resources, and defines sustainable management as:

In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:

- a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

23. As a matter of national importance, Section 6(c) of the RMA requires all persons exercising functions and powers under the Act to recognise and provide for *"the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna"*. This is relevant as the long-tailed bats conservation status is 'Nationally Critical'¹ which is the highest threat category before extinction. As noted by Ms Pryde, the fact that long-tailed bats are present on the application site triggers the significance criteria of the Waikato Regional Policy Statement² as the ecological values include habitat that is currently habitat for indigenous species that *are classed as threatened or at risk* (para 102).
24. Although there is no definition for 'habitat' within the Act, the National Policy Statement for Indigenous Biodiversity (NPSIB)³ does provide national guidance on what 'habitat' includes confirming that it is *"... an area where an organism or ecological community lives or occurs naturally for some or all of its life cycle including as part of seasonal feeding patterns but does not include built structures or an area or environment where an organism is present only fleetingly"*⁴. As explained in Ms Pryde's evidence, long-tailed bat habitat not only includes roosting areas but also foraging and socialising habitat to sustain them (para 49). Further Ms Pryde comments that as the site contains patches of forests and open pasture that it is likely bat

¹ O'Donnell CFJ, Borkin KM, Christie JE, Lloyd B, Parsons S, Hitchmough RA 2018. The conservation status of New Zealand bats, 2018. Department of Conservation, New Zealand Threat Classification Series 21. Department of Conservation, Wellington.

² Waikato Regional Policy Statement, Appendix 5, Criteria for determining significance of indigenous biodiversity, Table 28.

³ Although it is noted that the NPS-IB does not apply to Renewable Energy Generation, it does provide useful national guidance on how terms used in the Act can be interpreted.

⁴ National Policy Statement for Indigenous Biodiversity July 2023, 1.6 Interpretation **Habitat**.

habitat and the survey shows that bats are using the site, then the site is bat habitat (para 97).

25. Given the long-tailed bats conservation status, that its habitat includes foraging and socialising habitat, and due to the presence of long tailed bats at the application site triggering the significance criteria in the Waikato Regional Policy Statement, it is my opinion that Part 2, Section 6(c) of the Act is a relevant consideration to the assessment of the proposed variation.
26. In addition, in achieving the purposes of the Act, all persons exercising functions and powers under the Act shall have particular regard to Other Matters in Section 7 including clause (d) the intrinsic values of ecosystems, those aspects of ecosystems and their constituent parts which have value in their own right and (j) to have particular regard to "*the benefits to be derived from the use and development of renewable energy*". The benefits of the proposed windfarm have been set out in the applicant's evidence and includes contribution to Government targets for decarbonisation, improved grid stability and energy security, investment in local construction services and materials, provision of local employment. Also of note is that in terms of the variation, a benefit is that a greater amount of renewable energy generation will result from less turbines (Evidence by Glenn Starr, Section 7).
27. Also of relevance is Section 31(1)(b)(iii) of the Act which states that territorial authorities' functions include controlling any actual or potential effects of the use and development of land for the purpose of the maintenance of indigenous biological diversity. The 'maintenance' of indigenous biodiversity is to be undertaken in the context of Section 5-8 of the RMA. These sections use the terms 'safeguarding the life supporting capacity' (of ecosystems) and 'protection' (of significant indigenous vegetation and significant habitats of indigenous fauna).

National Policy Statement for Renewable Electricity Generation

28. The Councils s42A report identifies the National Policy Statement for Renewable Electricity Generation 2011 (NPSREG) as the relevant National Policy Statement to consider when assessing the application. The NPS states that decision-makers must “*recognise and provide*” for the benefits of renewable electricity generation activities including wind farms.
29. The preamble of the NPS highlights the challenges of assessing REGs where the benefits of renewable energy generation can compete with matters of national importance as set out in section 6 of the Act, and with matters to which decision makers are required to have particular regard under section 7 of the Act. It draws readers attention, in particular, to the natural resources to which electricity is generated which can coincide with significant indigenous vegetation and habitats of indigenous fauna. It recommends increased national consistency in addressing the competing values associated with the development of NZ’s renewable energy resources to provide greater certainty to decision-makers, applicants, and the wider community.
30. Policy C2 of the NPS requires the following:

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.
31. This requires an assessment in terms of how any environmental effects of renewable electricity generation activities can be avoided, remedied or mitigated. Then where this cannot be fully achieved and there are residual adverse effects, the NPS requires decision makers to have regard to offsetting measures or environmental compensation which benefit the local environment and community.

National Policy Statement Indigenous Biodiversity

32. The National Policy Statement for Indigenous Biodiversity (NPS-IB) was gazetted on 7 July 2023. When making a decision on an application, decision makers shall have regard to the provisions of a National Policy Statement in accordance with s127 and s104(1)(b) of the RMA.
33. However, it is noted that in accordance with Clause 1.3(3) of the NPS-IB, nothing within the National Policy Statement applies to *“the development...of renewable electricity generation assets and activities...”*.
34. Based on this exclusion, Mr Shearer makes the statement that *“...the indigenous biodiversity provisions of the Operative District Plan and the Proposed District Plan are also not relevant considerations as these plans must ‘give effect’ to the NPSIB”* (Paragraph 10.37) and that *“..NPSIB favours the development and operation of renewable energy generation over consideration of indigenous biodiversity”* (paragraph 10.49). Further at paragraph 12.3 in regard to conditions, Mr Shearer states that the proposed ecological conditions are ‘too onerous’ in light of the *“direction provided by the NPSIB in relation [to] indigenous biodiversity and renewable energy projects”*.
35. I disagree with the reasoning for this approach. The NPS-IB simply states that it does not apply to REG, it does not in any way express any preference or priority for REG. The fact that there is now an NPS-IB which does not apply to REG does not in any way change the assessments on how to manage REG previously undertaken – it has gone from a situation in which there is no NPS-IB applying to a situation where there is still no NPSIB applying to the assessment. As such, we must rely on sections 6(c) and 31(1)(b) of the RMA and the relevant policies in the Waikato Regional Policy Statement and Waitomo Operative Plan to assess the application against. I consider that applying an effects management hierarchy to REGs is also justified in terms of Waikato’s biodiversity values and threats and under the

relevant sections of the Act and Waikato Regional Policy Statement.

36. It is also relevant to note that the Ministry of Business, Innovation and Employment and the Ministry for the Environment released a draft *Proposed National Policy Statement for Renewable Electricity Generation* in April 2023. The purpose of which, amongst other matters, is to provide clear tools for assessing the suitability of renewable electricity infrastructure where there may be impacts on areas or habitats of significant indigenous biodiversity.
37. Whilst this is only draft at this stage and has no bearing on the assessment of the current resource consent assessment, it does provide further explanation as to why the NPSIB does not apply to REGs. This is because the draft NPS contains provisions for the application of an effects management hierarchy specifically designed for the assessment of REGs⁵. This will provide better national direction on how the competing values of the benefits of REGs and the effects on significant indigenous biodiversity will be assessed in the future. I consider that the logical conclusion to be drawn is that the NPSIB was not applied to REG simply as a process matter to avoid pre-empting or conflicting with development of the new NPS-REG.
38. Overall, it is my view that the protection of significant habitats of indigenous fauna (Section 6(c)), the maintenance of indigenous biodiversity (Section 31) of the Act and the relevant objectives and policies of the Waikato RPS and Waitomo District Plan discussed below are still relevant to the assessment of the application and must be considered along with the need to 'recognise and provide' for the benefits of renewable electricity generation. Addressing both matters is required to meet the objective of sustainable management under the RMA.

⁵ Proposed National Policy Statement for Renewable Electricity Generation (2023) Draft for consultation 30/3/2023 Subpart 2 – Managing effects on the environment.

Waikato Regional Policy Statement (Refer to Appendix 2 for a full copy of the provisions referred to below).

39. The Waikato Regional Policy Statement (RPS) sets out the issues for the region which includes SRMR-I1- point 6 : indigenous biodiversity decline. In terms of providing for energy demand (SRMR-I3 & PR3), the RPS recognises that the development of new energy sources and related infrastructure poses potential greater effects on resources such as water bodies, landscapes and biodiversity. The RPS seeks to ensure that these matters are carefully managed into the future, to ensure that appropriate environmental outcomes are maintained while meeting renewable energy generation needs.
40. Objective EIT-O1 (Energy) sets out that electricity generation is developed in a way that recognises and provides for the national significance of REG activities and the national, regional and local benefits of REGs as well as *(g) addresses adverse effects on natural and physical resources*. This recognises that whilst recognising and providing for renewable electricity generation consideration must also be given to addressing adverse effects on natural and physical resources.
41. I also consider that ECO-O1 and supporting policies ECO-P1 and ECO-P2 are a relevant consideration. This objective and the supporting policies require the full range of ecosystem types, their extent and the indigenous biodiversity that those ecosystems can support exist in a healthy and functional state and to promote positive indigenous biodiversity outcomes to maintain healthy ecological functioning of ecosystems with a focus on...*(1) working towards no net loss of indigenous biodiversity at a regional scale...* and *(9) managing the density, range and viability of indigenous flora and fauna*. The policies set out that significant habitats of indigenous fauna shall be protected by ensuring that the characteristics that contribute to its significance are not adversely affected to the extent that the significance of the habitat is reduced.

42. The RPS sets out the requirements for Local Authorities by listing methods on how to achieve this objective. Methods ECO-M2 and ECO-M13 provides guidance on an effects management hierarchy approach to achieve no net loss for areas of significant biodiversity. This is consistent with s6(c) of the Act which requires protection. The method seeks to firstly avoid adverse effects. It also recognises that some loss of or damage to those areas may be unavoidable and in those cases remediation and mitigation is required. Where adverse effects remain after avoidance, remediation and mitigation then more than minor adverse effects are required to be offset. Any loss must be documented and tracked to assist with monitoring the state of the resource.
43. The RPS states that the expectation is that proposals should reasonably demonstrate that no net loss has been achieved using methodology that is appropriate and commensurate to the scale and intensity of the adverse effects. This is discussed further below.

Waitomo District Plan (Refer to Appendix 2 for a copy of the objective referred to below)

44. I agree with the Council's S42A report and list of relevant objectives and policies from the operative Waitomo District Plan. I support the inclusion of Objective 11.3.4 as a relevant consideration which sets out to protect areas of significant indigenous vegetation and significant habitat of indigenous fauna.
45. It is noted that the application states that the proposed variation will not result in the removal of significant indigenous vegetation. However, the effects of the proposed variation on the significant habitat for long-tailed bats has not been determined based on the information submitted to date, as discussed further below.

Assessment of Effects

46. As noted above, the assessment of effects considers the effects of the proposed variation to reduce the overall number of

turbines from 22 to 8. Of the 8 that remain, the dimensions of each turbine will be increasing in height and rotor diameter. Although there is mention in the applicant's evidence of only a '5% increase' in the rotor diameter of the remaining turbines, this is a comparison made between the variation application as lodged and changes made to the application post submission stage.

47. The actual percentage difference in the rotor diameter of the turbines between the existing consented development and proposed is 46%. For clarity I've provided a comparison of the differences for each individual turbine in Table 1 below. This is also illustrated in the diagram provided in Appendix 1 of Glenn Starr's corporate evidence.

Table 1

	<i>Existing consented development</i>	<i>Proposed variation</i>	<i>Percentage change</i>
Turbine Height	121.5 metres	180.5 metres	49%
Rotor Diameter	111.5 metres	163 metres	46%
Rotor sweep area	9759	20857	114%

48. The proposed variation will reduce the number of turbines and this will result in less structures available for bats to investigate. However, it is also important to note that increasing the height of the rotor diameter and the turbine blade tip will increase the rotor sweep area that is potentially available to bats of the remaining eight turbines. With reference to the evidence provided by Ms Pryde this may still result in harm to bats "*with the potential to cause more damage to bats*", even with an overall reduction in the number of turbines (para 129).

Information Gaps in relation to the assessment of effects on long-tailed bats.

49. The application submitted confirms that there are long-tailed bats present at the site. However, at the time of the existing consent

approval, there was no quantifiable assessment of effects on bats provided with the application. Since the granting of the existing consent in 2011, there has also been widespread international research that verifies the significant effects of wind farms on bats, particularly bat fatalities⁶.

50. This provides important background as to why detailed information on the presence of bats at the application site is required. Bat surveys should be comprehensive to understand bat activity and habitat use at and near potential wind turbine sites and the surrounding area (para 71). This data and research should then inform the assessment of ecological effects of the proposed variation on long-tailed bats compared with the existing consent to determine whether it will in fact 'reduce effects' as well as informing any mitigation proposed.
51. After lodgement of the proposed variation and as a result of Council's Section 92 requests, a bat field survey was carried out by the applicant at the site. This took place over a period of 19 days and involved 17 bat recorders (2 of which malfunctioned) deployed across the site. However, both Council's ecologist Dr Bull (para 19-21,23) and Ms Pryde (para 116-119) notes that this represents a very short monitoring period which only covers one period of bat activity. A more comprehensive survey is required to determine how the long-tailed bats are using this site in terms of their 'flyways' as well as the need for the surveys to be carried out for all seasons⁷.
52. In the applicant's evidence, Mr Chapman considers that the decrease in the number of turbines is a significant factor, with a reduction in the linear space of the wind farm and the total rotor swept area being reduced by 14%. Mr Chapman concludes that this will significantly reduce the impact on the flight paths of long-tailed bats that occupy the area relative to the currently consented wind farm.

⁶ Refer to Moira Pryde's evidence, paras 56-64.

⁷ The New Zealand Bat Recovery Group Advice 'Bats and Windfarms in New Zealand' recommend that developers undertake a minimum of three surveys to cover spring, summer and autumn, which may need to be over several years as habitat use patterns and flight ranges vary over time.

53. However, based on the ecological assessments submitted to date, it has not been possible to compare the ecological effects of the existing consented development with the proposed variation and confirm that the proposed variation will result in reduced effects for bats. Further, Ms Pryde states that *“Lack of information on how the bats are using the wind turbine site makes it very difficult to assess the risk to the bats”* (para 116).
54. On this basis and as recommended in Dr Bull’s and Ms Pryde’s evidence, the following information is required to adequately assess the effects of the proposed variation on long-tailed bats:
- a. That the level of effect on bats as a result of the existing consented development should be quantified to compare the level of effects with the current variation for the proposed wind farm;
 - b. That baseline data for bats is obtained over the whole site, over four monitoring sessions between October and April to describe habitat patterns.
 - c. To determine how bats use the site, monitors should be set up to cover all turbine sites and these should be paired with non-turbine sites. Additional monitors should also be placed at potential flyways. Ms Pryde raises the point in her evidence (para 107) that bats tend to use the same commuting flyways regularly so identifying and protecting these is essential for successful bat management. A more robust method of determining this is by undertaking a radio-tracking study.
 - d. An assessment of appropriate mitigation is undertaken based on the data obtained.
55. Given the above uncertainty around potential ecological effects on bats, it is my recommendation that the application be declined under s104(6) on the basis that there is not adequate information submitted with the application to make a determination on the proposed variation. I consider that due to the conservation status of the long-tailed bat being ‘nationally critical’ any adverse ecological effects of the proposed variation would likely be of

high consequence, given the vulnerability and importance of threatened species. Therefore, based on the ecological evidence provided by Ms Pryde, it is my view that this is a material information gap which could affect the decision as to whether consent should be granted.

Conditions

56. Should the Commissioner be minded to grant consent, the following discussion relates to the proposed conditions specific to the D-G's submission and evidence.
57. Mr Dawson provided proposed conditions in Appendix 11 of the Section 42a report. Mr Shearer's planning evidence provides a response to these proposed conditions as set out in (Appendix 6). To compare the two versions of proposed conditions, I have set out a table in Appendix 1 of my evidence which includes the original conditions, Council proposed conditions and response from the applicant. For ease of reference, where I suggest changes to the conditions below, the condition reference is shown in bold text.

General Comments on proposed conditions

58. In my opinion, a precautionary approach is warranted in this case, particularly as the effects of the proposed variation are uncertain but potentially significantly adverse resulting in the loss of a nationally critical species. Based on the evidence provided by Dr Bull and Ms Pryde, I agree with the requirement for pre-construction baseline studies and post construction monitoring plans. Adaptive management is also necessary to respond to actual and potential adverse effects as a result of baseline survey data and monitoring once the windfarm is in operation.
59. In order to be effective in that way, I consider conditions for management plans and monitoring must:
- a. Contain clear objectives and performance standards to ensure that environmental outcomes are understood from the outset and monitoring results inform management to achieve those objectives and performance standards;

- b. Provide for effective monitoring of adverse effects using appropriate indicators;
 - c. Require ongoing reporting;
 - d. Set intervention thresholds to allow review and intervention if objectives are not being met;
 - e. Provide for adaptive management where appropriate;
 - f. Be enforceable.
60. I also support the use of certification of the baseline data survey methodology and monitoring plans to be carried out as appropriate and good practice.
61. I have amended and proposed new conditions, based on the ecological evidence provided by Ms Pryde and Dr Bull, which are set out for each phase of the windfarm development including:
- a. *Pre-construction* to ensure the necessary baseline studies are undertaken and to ensure that the results of the baseline studies inform the development of the windfarm in relation to mitigation. For example, the consideration of curtailment options is appropriate at this stage; and
 - b. *Post construction* to ensure robust monitoring occurs and to ensure that a 'trigger and review' stage is implemented if a bat death is recorded.

It is considered necessary that it is a combination of all three methods set out in the conditions - baseline studies, adaptive management and monitoring to enable adequate consideration of how the proposed variation can avoid, remedy and mitigate any adverse effects of the windfarm on long-tailed bats.

62. The conditions I have recommended are comprehensive and stringent because they are an attempt to address the shortcomings of the application. I note that the conditions proposed still carry risk in terms of the effects on bats given the current uncertainties and high consequences if that risk is realised.

Specific comments on conditions

63. **Baseline studies, Conditions 37, 37b and 38**– As addressed above, there are a number of outstanding matters in relation to the gaps in information for the baseline data and bat activity. I would therefore suggest the condition requiring the Bat Population Monitoring Plan (BPMP) to specify what the objective of the pre-construction monitoring is and what methodology should be considered to ensure robust surveying of bat activity at the site and surrounding area. Based on Ms Pryde's evidence, the survey for bats needs to be over four monitoring sessions between October and April that covers the whole site (para 143).
64. I support the requirement in Conditions 37 and 37b for population monitoring plans to be developed in consultation with the Director-General of Conservation for both bats and birds. This is appropriate given DOC's technical expertise (on bats and birds) and in recognition of DOC's position regarding the effects on bats. I have amended new Condition '38' to include parameters around how feedback is to be addressed and included in the final document to be submitted to the Waitomo District Council.
65. I have recommended a new condition to ensure that the baseline monitoring, to occur prior to construction of the first turbine, is carried out in accordance with the certified BPMP.
66. **New Condition under preconstruction conditions requiring a 'Bat Adaptive Management Plan' (BAMP)** – As discussed above (para 59), one of the good practice requirements is to provide for adaptive management where appropriate. In my opinion, this condition is required to enable the effects of the windfarm to be assessed in light of the bat activity data obtained in the BPMP and baseline surveys. It is necessary to require this prior to construction given that the findings of the Bat Population Monitoring can inform the development and design of the turbines, particularly in regard to the consideration of curtailment strategies. As noted in Ms Pryde's evidence, curtailment has been proven to reduce the number of fatalities of bats (para 147). Ms Pryde also notes that depending on the results of these

surveys, more work may be required including thermal imaging or radio-tracking (para 144). The BAMP would require consideration of any further surveying required based on the baseline surveys undertaken.

67. **Bat Mortality Monitoring Plan (BMMP), Condition 41 and 42**
Amendments have been proposed to this condition to ensure that there is a clear objective and the requirements for the monitoring of any bat mortality is set out clearly, including the provision of a threshold and intervention if a bat death is recorded. This is in line with best practice (para 59). An additional condition is proposed to ensure that the BMMP is implemented following the date any wind turbine first generates electricity and that the monitoring programme is reviewed.
68. Given the difficulties with bat carcass detection as outlined in Ms Pryde's evidence (para 149), Condition 41 includes consideration of either searchers involving a strict protocol of how to search the area or a programme to train and deploy a dog detection unit to assist in bat carcass detection. The use of dogs had been discussed with the applicant and was proposed as additional mitigation from the applicant in previous correspondence in August of this year⁸.
69. As noted in Ms Pryde's evidence, best practice is to monitor for 3 years, every 3 days (para 149). I have also proposed a review condition at the completion of the BMMP monitoring to assess the effectiveness of the methods used for bat carcass detection and to make a decision on whether further monitoring is necessary based on the results and/or future technological advances in bat carcass detection.
70. Condition 42 has been amended to ensure that there is a threshold where appropriate intervention and review is undertaken in the event that a bat death is recorded. The threshold is necessary in this case as it sets a trigger for remedial action. The condition also requires a reasonable course of action to take place and the consideration of additional

⁸ Memo to Department of Conservation from Glenn Starr, dated 11 August 2023

avoidance, ecological management and mitigation. This is supported by Ms Pryde's evidence (para 150).

71. Offsetting has not been included as a consideration in this condition. This is given that there are limits to what can be offset⁹. Firstly, there are uncertainties of the effects on long-tailed bats which may be significantly adverse or irreversible. Secondly, because of the irreplaceability or vulnerability of the indigenous biodiversity affected, in this case the long-tailed bat as a threatened and 'nationally critical' species.
72. **Reporting Condition 49** – The requirement for an annual report is supported and it is recommended that this is retained.
73. **Bat Detection, Condition 44A** – Whilst this condition is supported, it may now be redundant given the proposed new conditions and subsequent amendments proposed above.
74. **Compensation, Condition 44C** – This condition is supported in terms of being a positive measure of the development (pursuant to s104(1)(ab) of the Act) but wouldn't be considered as 'biodiversity compensation' for the development as this method is not appropriate where indigenous biodiversity values are not able to be compensated for, such as the long-tailed bat¹⁰. Also, to be considered as an effective positive measure more detail is needed from the applicants around what the objectives of the project will be, the reasoning behind the sum of money proposed, how it will contribute to the understanding of bats and windfarms and how it will be implemented and monitored.

Conclusion and recommendations

75. It has been determined that there are bats present at the application site. The significant ecological values of the application site and surrounding area as habitat to long-tailed bats are described in the evidence provided by Ms Pryde. This confirms that as well as roosting areas, bats need foraging and socialising habitat to sustain them. The use of the site by long-

⁹ The Business and Biodiversity Offsets Programme (BBOP) Principles on Biodiversity Offsets and NPSIB Appendix 3: Principles for biodiversity offsetting.

¹⁰ NPSIB Appendix 4: Principles for biodiversity compensation.

tailed bats, a critically endangered species, triggers the significance criteria as set out in the Waikato Regional Policy Statement.

76. As part of the s104 assessment, it is my view that Part 2, Section 6(c) and Section 31(1)(b)(iii) of the Act which requires the protection of significant indigenous vegetation and significant habitats of indigenous fauna and maintenance of indigenous biodiversity is relevant to the assessment of this application.
77. The Waikato Regional Policy Statement (RPS) includes objectives and policies which seek to protect significant habitats of indigenous fauna and apply an effects management approach when assessing potential adverse effects on natural resources. The RPS seeks to ensure that appropriate environmental outcomes are maintained while meeting renewable energy generation needs.
78. Although the proposed variation involves the reduction in the number of turbines from 22 to 8, the evidence provided by Ms Pryde considers that the increase in height and rotor dimensions of each turbine will still present a risk to bats (para 129). The ecological assessments provided by the applicant have been assessed by Councils Ecologist, Dr Leigh Bull and Moira Pryde who have both identified shortcomings of these ecological assessments in relation to determining how the bats use the application site and what risk there is to bats as a result of the variation and number of turbines proposed.
79. On this basis, due to the gaps in information, I consider that the application should be declined pursuant to Section 104(6) of the Act. I consider that due to the conservation status of the long-tailed bat being 'nationally critical' any adverse ecological effects of the proposed variation would likely be of high consequence, given the vulnerability and importance of threatened species. Therefore, based on the ecological evidence provided by Ms Pryde, it is my view that this is a significant information gap which could affect the decision as to whether consent should be granted.

80. If the Commissioner is minded to grant the application, comments on proposed conditions are included in **Appendix 1** of my evidence to ensure that they follow best practice, provide for adaptive management and robust monitoring.

A handwritten signature in cursive script, appearing to read 'Elizabeth Williams'.

Elizabeth Williams

Date: 8 November 2023

Appendix 1 – Comments on Conditions in relation to the proposed variation and bats

Original 2011 Consent Condition	Council S42a Proposed Version	Applicants Proposed Version	DOC Proposed Version and Comments
<p>Effects on Wildlife</p> <p><i>No equivalent condition</i></p>	<p>Effects on Wildlife</p> <p><i>To add new conditions 37 and 38 (set out in blue text):</i></p> <p><u>Baseline studies</u></p> <p><u>37. The Consent Holder shall complete a pre-construction avifauna baseline study for Threatened and At Risk avifauna species that will include methods for monitoring NZ falcon (Sept to Feb) and cryptic marshbirds (Sept to Nov). The methodology for survey and monitoring shall be developed in consultation with the Director General of Conservation.</u></p> <p><u>38. A pre-construction bat survey shall be undertaken to capture the key periods of bat activity. This survey will include the placement of bat recorders at each turbine location. The methodology for survey and monitoring shall be developed in consultation with the Director General of Conservation.</u></p>	<p>Effects on Wildlife</p> <p><i>Proposed amendments to S42A conditions by the applicant set out in red text.</i></p> <p><u>Baseline studies</u></p> <p><u>37. Prior to commissioning of the first turbine, the Consent Holder shall engage a suitably qualified expert (SQEP) in terrestrial ecology to prepare and submit complete a pre-construction an Avifauna baseline study Population Monitoring Plan (APMP) for certification by the Waitomo District Council. The purpose of the APMP shall be to provide an avifauna baseline study for Threatened and At Risk avifauna species that will include methods for monitoring NZ falcon (Sept to Feb) and cryptic marshbirds (Sept to Nov). The methodology for survey and monitoring shall be developed in consultation with the Director General of Conservation.</u></p> <p><u>37b. Prior to commissioning of the first turbine, the Consent Holder shall engage a suitably qualified expert (SQEP) in terrestrial ecology to prepare and submit a Bat Population Monitoring Plan (BPMP) for certification by Waitomo District Council. The purpose of the BPMP shall be to provide a baseline study for long-tailed bats and A pre-construction bat survey shall be undertaken to capture the key periods of bat activity. This survey will include the placement of bat recorders at each turbine location. The methodology for survey and monitoring shall be developed in consultation with the Director General of Conservation.</u></p>	<p>Effects on Wildlife</p> <p><i>I support the requirement for baseline surveys prior to construction. Amendments are recommended below in green text.</i></p> <p><u>Pre Construction Baseline studies</u></p> <p><u>37. Prior to construction commissioning of the first turbine, the Consent Holder shall engage a suitably qualified expert (SQEP) in terrestrial ecology to prepare and submit complete a pre-construction an Avifauna baseline study Population Monitoring Plan (APMP) for certification by the Waitomo District Council. The purpose of the APMP shall be to provide an avifauna baseline study for Threatened and At Risk avifauna species that will include methods for monitoring NZ falcon (Sept to Feb) and cryptic marshbirds (Sept to Nov). The methodology for survey and monitoring shall be developed in consultation with the Director General of Conservation Department of Conservation.</u></p> <p><i>I support the requirement for the methodology for the surveys and monitoring to be developed in consultation with the Department of Conservation.</i></p> <p><u>37b. Prior to construction commissioning of the first turbine, the Consent Holder shall engage a suitably qualified and experienced bat expert (SQEP) in terrestrial ecology to prepare and submit a Bat Population Monitoring Plan (BPMP) for certification by Waitomo District Council. The purpose of the BPMP shall be as follows:</u></p> <p>a. <u>to provide a baseline study for long-tailed bats To identify how bats are using the project site; and A pre-construction bat survey shall be undertaken to capture the</u></p>

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			<p>key periods of bat activity. This survey will</p> <p>b. <u>To identify any bat roost trees, bat flight patterns and bat priority areas within the project site.</u></p> <p><u>The preconstruction monitoring plan shall include (but not be limited to) the following:</u></p> <p>a. <u>Details of the methodology proposed for undertaking the baseline surveys including the use of monitors and consideration of bat radio tracking.</u></p> <p>b. <u>Details explaining the proposed locations for monitoring and reasons why these sites have been chosen.</u></p> <p>c. <u>A map showing the placement of bat recorders at each turbine location , non-turbine sites and potential flyways.</u></p> <p>d. <u>Details regarding the number of monitoring sessions proposed to be undertaken and when these will occur during the year. As a minimum, this shall include four monitoring sessions between October and April and cover all turbine sites. These monitors must be paired with a non-turbine site and additional monitors must be placed at potential flyways.</u></p> <p>e. <u>Details of the analysis and reporting required of the data obtained from the survey work.</u></p> <p><u>The Consent holder will consult with the Department of Conservation in preparation of the BPMP. methodology for survey and monitoring shall be developed in consultation with the Director General of Conservation.</u></p> <p><u>The Consent Holder shall provide a copy of the BPMP to the Manager, Policy and Planning, Waitomo District Council for certification, one month prior to the baseline surveys being carried out.</u></p>

Original 2011 Consent Condition	Council S42a Proposed Version	Applicants Proposed Version	DOC Proposed Version and Comments
		<p>Add New Condition 38</p> <p><u>X. At least (30) working days prior to the APMP and BPMP being submitted for certification the Consent Holder must provide a copy of the draft AMPM and BPMP to the following persons and invite their views on it:</u></p> <p><u>(i) Te Ruunanga o Ngaati Mahuta ki te Hauaauru</u></p> <p><u>(ii) The Department of Conservation.</u></p>	<p>Add New Condition 38 - I support the addition of this condition with amendments as shown below.</p> <p><u>X. At least (30) working days prior to the APMP and BPMP being submitted for certification, the Consent Holder must provide a copy of the draft AMPM and BPMP to the following persons and invite their views on it:</u></p> <p><u>(i) Te Ruunanga o Ngaati Mahuta ki te Hauaauru</u></p> <p><u>(ii) The Department of Conservation.</u></p> <p><u>Any comments received on the Plan, and how they were addressed shall be included in the Plan.</u></p>
			<p>Add a new condition under the pre construction conditions requiring a Bat Adaptive Management Plan (BAMP).</p> <p><u>Prior to construction of the first turbine and after the BPMP results are reported, a Bat Adaptive Management Plan (BAMP) shall be developed by the Consent Holder and certified by Manager, Policy and Planning, Waitomo District Council.</u></p> <p><u>The BAMP shall be prepared by a suitably qualified and experienced bat expert (SQEP), in consultation with the Department of Conservation. The objectives of the BAMP shall be as follows:</u></p> <ul style="list-style-type: none"> a. <u>To identify whether further survey work is required including thermal imaging or radio tracking.</u> b. <u>To analyse the results obtained from the survey work of the bat population monitoring programme to inform the development of the windfarm in relation to bat activity.</u> c. <u>To protect bat roost trees, bat flight paths and bat priority areas by avoiding adverse effects on these areas through the design and siting of the turbines.</u>

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			<p><u>This plan shall include (but is not limited to) the following:</u></p> <ul style="list-style-type: none"> a. <u>A review of the results of the surveys undertaken in the BPMP and whether further survey work is required and how this will be undertaken.</u> b. <u>The attachment of automated bat detectors on the 8 turbines at nacelle height. Results are to be analysed in relation to wind speed and temperature when 12 months of data is available.</u> c. <u>Consideration of the need for curtailment strategies for the turbines based on bat activity findings to avoid significant adverse effects on bats.</u> d. <u>An assessment on the location of the turbines based on levels of bat activity.</u> e. <u>Identify any additional measures that may be implemented by the Consent Holder to avoid, remedy or mitigate the potential adverse effects of the windfarm.</u> <p><u>At least (30) working days prior to the BAMP being submitted for certification, the Consent Holder must provide a copy of the draft BAMP to Te Ruunanga o Ngaati Mahuta ki te Hauaaauru and the Department of Conservation. Any comments received on the Plan, and how they were addressed shall be included in the Plan.</u></p> <p><u>Bat adaptive management as described in the BAMP shall be implemented prior to construction.</u></p>

Original 2011 Consent Condition	Council S42a Proposed Version	Applicants Proposed Version	DOC Proposed Version and Comments
	<p>Add new condition 39:</p> <p><u>Post-construction monitoring</u></p> <p>39. The results of the pre-construction baseline avifauna study required by Condition 37 shall determine (in consultation with the Department of Conservation) if there are any Threatened or At Risk bird species that may require post-construction mortality monitoring. If it is determined that post-construction mortality monitoring is required, an Avifauna Mortality Monitoring Plan will be prepared by the consent holder in consultation with the Department of Conservation and certified by Waitomo District Council. The postconstruction avifauna mortality monitoring shall be for a minimum period of two years commencing immediately after the wind farm becomes fully commissioned.</p>	<p>Add new condition</p> <p><u>Post-construction monitoring</u></p> <p>39. The results of the pre-construction baseline avifauna study required by Condition 37 shall determine (in consultation with the Department of Conservation) if there are any Threatened or At Risk bird species that may require post-construction mortality monitoring. If it is determined that post-construction mortality monitoring is required, an Avifauna Mortality Monitoring Plan will be prepared by the consent holder in consultation with the Department of Conservation and certified by Waitomo District Council. The postconstruction avifauna mortality monitoring shall be for a minimum period of two years commencing immediately after the wind farm becomes fully commissioned.</p>	<p>I support the retention of proposed condition 39.</p> <p><u>Post-construction monitoring</u></p> <p>39. The results of the pre-construction baseline avifauna study required by Condition 37 shall determine (in consultation with the Department of Conservation) if there are any Threatened or At Risk bird species that may require post-construction mortality monitoring. If it is determined that post-construction mortality monitoring is required, an Avifauna Mortality Monitoring Plan will be prepared by the consent holder in consultation with the Department of Conservation and certified by Waitomo District Council. The postconstruction avifauna mortality monitoring shall be for a minimum period of two years commencing immediately after the wind farm becomes fully commissioned.</p>
<p>40. If no significant adverse effects on wildlife are evident then dedicated inspections shall be discontinued, with the prior approval of the Manager, Policy and Planning, Waitomo District Council.</p> <p>If, a significant adverse effect is found (through dedicated monitoring or other monitoring) then monthly inspections shall continue in the interim and a plan developed, to the satisfaction of the Manager, Policy and Planning, Waitomo District Council and in consultation with the Department of Conservation, acting reasonably, to address the effects. Such a plan shall propose a monitoring regime and identify methods and options to avoid, remedy or mitigate the adverse effects. Specifically excluded from a plan will be any modification or restriction on the operation of the wind turbines</p>	<p>Revise condition 40</p> <p>40. If, <u>in the opinion of a suitably qualified avifauna expert (SQEP), any monitoring required under Condition 39 finds</u> a significant adverse effect is found (through dedicated monitoring or other monitoring) then monthly inspections shall continue in the interim and a plan developed, <u>in conjunction with a SQEP</u> to the satisfaction of the Manager, Policy and Planning, Waitomo District Council and in consultation with the Department of Conservation, acting reasonably, to address the effects. Such a plan shall propose a monitoring regime and identify methods and options to avoid, remedy or mitigate the adverse effects. <u>Specifically excluded from a plan will be any modification or restriction on the operation of the wind turbines.</u></p>	<p>Revise condition 40</p> <p>40. If, <u>in the opinion of a suitably qualified avifauna expert (SQEP), any monitoring under the APMP and BPMP required under Condition 39 finds</u> a significant adverse effect is found (through dedicated monitoring or other monitoring) then monthly inspections shall continue in the interim and a <u>post construction Mortality plan (PCMP) shall be</u> developed, <u>in conjunction with a SQEP</u> to the satisfaction of the Manager, Policy and Planning, Waitomo District Council and in consultation with the Department of Conservation, acting reasonably, to address the effects. Such a plan shall propose a monitoring regime <u>of two years duration</u> and identify methods and options to avoid, remedy or mitigate, <u>offset or compensate for</u> the adverse effects. <u>Specifically excluded from a plan will be any modification or restriction on the operation of the wind turbines. The results will be provided to the Department of Conservation and Waitomo District Council.</u></p>	<p>Revise condition 40 - I support the condition as amended below.</p> <p>40. If, <u>in the opinion of a suitably qualified avifauna expert (SQEP), any monitoring under the APMP and BPMP required under Condition 39 finds</u> a significant adverse effect is found (through dedicated monitoring or other monitoring) then monthly inspections shall continue in the interim and a <u>post construction Mortality plan (PCMP) shall be</u> developed, <u>in conjunction with a SQEP</u> to the satisfaction of the Manager, Policy and Planning, Waitomo District Council and in consultation with the Department of Conservation, acting reasonably, to address the effects. Such a plan shall propose a monitoring regime <u>of two years duration</u> and identify methods and options to avoid, remedy or mitigate offset or compensate for the adverse effects. <u>Specifically excluded from a plan will be any modification or restriction on the operation of the wind turbines. The results will be provided to the Department of Conservation and Waitomo District Council.</u></p>

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	<p>Add new conditions 41, 42 and 43</p> <p><u>41. Prior to the commencement of the wind farm operation, a post-construction Bat Mortality Monitoring Plan will be prepared by the consent holder in consultation with the Department of Conservation, and certified by Waitomo District Council. The duration of the monitoring programme will be for two years and the results provided to the Department of Conservation and Waitomo District Council.</u></p>	<p>Add new condition 41, 42 and 43</p> <p>41. Prior to the commencement of the wind farm operation, a post-construction Bat Mortality Monitoring Plan will be prepared by the consent holder in consultation with the Department of Conservation, and certified by Waitomo District Council. The duration of the monitoring programme will be for two years and the results provided to the Department of Conservation and Waitomo District Council.</p>	<p>I support the post construction bat mortality monitoring conditions as proposed by Council's s42a report with the following amendments in green text.</p> <p><u>41. Prior to the commencement of the wind farm operation, a post-construction Bat Mortality Monitoring Plan (BMMP) shall be developed by the Consent Holder and certified by Manager, Policy and Planning, Waitomo District Council. will be prepared by the consent holder.</u></p> <p><u>The BMMP shall be prepared by a suitably qualified and experienced bat expert (SQEP), in consultation with the Department of Conservation, and certified by Manager, Policy and Planning, Waitomo District Council. The objective of the BMMP is to measure any rates of bat mortality from collisions with the turbines operating at Taumatotara Windfarm.</u></p> <p><u>This plan shall describe the methods for recording and reporting bat mortality rates including (but not limited to):</u></p> <ul style="list-style-type: none"> a. <u>The requirement for automatic bat detectors and/or thermal imaging on the turbines and/or other locations as informed by the BPMP and BAMP;</u> b. <u>How bat carcasses will be detected within the application site including:</u> <ul style="list-style-type: none"> i. <u>Either trained onsite searchers or a programme to train and deploy a dog detection unit for bat carcass detection;</u> ii. <u>The area of search undertaken;</u> iii. <u>The frequency and timing of bat carcass searching at the site. As a minimum, this would require searching every three days over the entire activity cycle of the bats (spring, summer and autumn);</u> iv. <u>Searcher efficiency trials to test the ability to detect small carcasses</u>

			<p><i>Condition 41 continued...</i></p> <ul style="list-style-type: none"> v. <u>recording of bat carcasses including photographs and mapped location showing the search area, location of the wind turbines, associated facilities and where the carcass was located.</u> vi. <u>Based on trials undertaken and carcass searching, an estimation of true mortality rate.</u> c. <u>The duration of the monitoring programme set out over a period of at least will be for two three years;</u> d. <u>Details on reporting requirements including the provision of the results provided to the Department of Conservation and Waitomo District Council in a timely manner.</u> <p><i>New proposed conditions 41X (commencement of monitoring) and 41Y (monitoring review)</i></p> <p><u>41X. Bat Mortality Monitoring as described in the BMMP shall commence immediately following the date any wind turbine first generates electricity and continue for a period of at least 3 years.</u></p> <p><u>41Y. On the third anniversary of the date any wind turbine first generates electricity the Consent Holder shall commission a bat mortality monitoring review report by a suitably qualified and experienced bat expert that:</u></p> <ul style="list-style-type: none"> <u>a. Reviews the results of the monitoring required in accordance with the BMMP;</u> <u>b. Considers whether the monitoring in accordance with the BMMP needs to continue, be improved and if so at what frequency and new method; and</u> <u>c. Considers whether any additional mitigation, as identified in the BMMP, needs to be implemented by the Consent Holder.</u> <p><u>The Consent Holder shall submit the draft monitoring review report to Waitomo District Council and the Department of Conservation for review and comment. Written comments shall be provided within 20 working days of receipt of the report from the Consent Holder.</u></p>
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Original 2011 Consent Condition	Council S42a Proposed Version	Applicants Proposed Version	DOC Proposed Version and Comments
	<p><u>42. If the post-construction bat mortality monitoring required under Condition 41 identifies a significant adverse effect from the operation of the wind farm on the local population of bats, the consent holder shall discuss the findings with the suitably qualified bat expert and, if necessary, determine and implement a reasonable course of action to mitigate or offset those effects. The consent holder shall consult with the Department of Conservation and report to the Waitomo District Council regarding this condition.</u></p>	<p>42. If the post-construction bat mortality monitoring required under Condition 41 identifies a significant adverse effect from the operation of the wind farm on the local population of bats, the consent holder shall discuss the findings with the suitably qualified bat expert and, if necessary, determine and implement a reasonable course of action to mitigate or offset those effects. The consent holder shall consult with the Department of Conservation and report to the Waitomo District Council regarding this condition.</p>	<p><i>Condition 41Y (monitoring review) continued</i></p> <p>The Monitoring Review Report shall then be certified by the Manager, Policy and Planning, Waitomo District Council and where there is agreement between the Consent Holder and the Manager, Policy and Planning, Waitomo District Council, in consultation with the Department of Conservation, over additional monitoring the consent holder shall implement such agreement.</p> <p><u>42. If the</u> In the event that the <u>post-construction bat mortality monitoring required under Condition 41 identifies a significant adverse effect</u> a bat death from the operation of the wind farm on the local population of bats, the consent holder shall:</p> <ol style="list-style-type: none"> a. <u>Notify the Manager, Policy and Planning, Waitomo District Council and Department of Conservation within 24 hours of becoming aware of the death;</u> b. <u>Engage with the suitably qualified and experience bat expert responsible for the bat mortality monitoring at the site to undertake an investigation and complete a draft report on the possible cause of the bat death within 10 working days of the Consent Holder notifying the Manager, Policy and Planning, Waitomo District Council and Department of Conservation.</u> c. <u>Discuss the findings with the suitably qualified and experienced bat expert and, if necessary, determine and implement a reasonable course of action including (but not limited to): to mitigate or offset those effects:</u> <ol style="list-style-type: none"> i. <u>If any additional monitoring is required, and</u> ii. <u>Any mitigation such as whether further curtailment controls on the relevant wind turbine(s) is required (eg limiting operations at particular times of the day, season or in particular wind/weather conditions) .</u>

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	<p>43. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery</p>	<p>43. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery</p>	<p>The Consent Holder shall provide a report on the recommendations to the Waitomo District Council and where there is agreement between the Consent Holder and the Manager, Policy and Planning, Waitomo District Council, in consultation with the Department of Conservation, over additional ecological management or mitigation, the consent holder shall implement such agreement.</p> <p>The consent holder shall consult with the Department of Conservation and report to the Waitomo District Council regarding this condition.</p> <p>43. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery</p>
<p>Register</p> <p>37. The consent holder shall keep a register of observations of effects of the wind farm activities on wildlife. This will include evidence of turbine strike (with species, date, weather conditions and other relevant observations), notes of avoidance behaviour observed, and other observed interaction of wildlife with the wind farm. Ground inspections with nil results should also be recorded. The register shall be maintained for the life of the consent, and shall be made available to Council within 2 working days of its request.</p>	<p>Register <i>No changes recommended.</i></p> <p>37. 44. The consent holder shall keep a register of observations of effects of the wind farm activities on wildlife. This will include evidence of turbine strike (with species, date, weather conditions and other relevant observations), notes of avoidance behaviour observed, and other observed interaction of wildlife with the wind farm. Ground inspections with nil results should also be recorded. The register shall be maintained for the life of the consent, and shall be made available to Council within 2 working days of its request.</p>	<p>Register</p> <p>37. ——— 44. The consent holder shall keep a register of observations of effects of the wind farm activities on wildlife. This will include evidence of turbine strike (with species, date, weather conditions and other relevant observations), notes of avoidance behaviour observed, and other observed interaction of wildlife with the wind farm. Ground inspections with nil results should also be recorded. The register shall be maintained for the life of the consent, and shall be made available to Council within 2 working days of its request.</p>	<p>Register <i>I support the retention of this condition.</i></p> <p>37. 44. The consent holder shall keep a register of observations of effects of the wind farm activities on wildlife. This will include evidence of turbine strike (with species, date, weather conditions and other relevant observations), notes of avoidance behaviour observed, and other observed interaction of wildlife with the wind farm. Ground inspections with nil results should also be recorded. The register shall be maintained for the life of the consent, and shall be made available to Council within 2 working days of its request.</p>

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<p>Inspections</p> <p>38. In accordance with Condition 37 above, all wind farm personnel will inspect the area around the turbine bases when visiting or passing by a turbine, throughout the life of the consent, for evidence of wildlife mortality.</p> <p>39. The consent holder shall undertake dedicated inspections of all turbine bases for evidence of wildlife mortality at monthly intervals for the first two years of operation. If construction is staged, later turbines shall also continue to be inspected for a full two years.</p>	<p>Inspections Remove conditions 38 and 39. Add new conditions.</p> <p>38. In accordance with Condition 37 above, all wind farm personnel will inspect the area around the turbine bases when visiting or passing by a turbine, throughout the life of the consent, for evidence of wildlife mortality.</p> <p>39. The consent holder shall undertake dedicated inspections of all turbine bases for evidence of wildlife mortality at monthly intervals for the first two years of operation. If construction is staged, later turbines shall also continue to be inspected for a full two years.</p>	<p>Inspections Remove conditions 38 and 39. Add new conditions.</p> <p>38. In accordance with Condition 37 above, all wind farm personnel will inspect the area around the turbine bases when visiting or passing by a turbine, throughout the life of the consent, for evidence of wildlife mortality.</p> <p>39. The consent holder shall undertake dedicated inspections of all turbine bases for evidence of wildlife mortality at monthly intervals for the first two years of operation. If construction is staged, later turbines shall also continue to be inspected for a full two years.</p>	<p>Remove conditions 38 and 39. Add new conditions.</p> <p>38. In accordance with Condition 37 above, all wind farm personnel will inspect the area around the turbine bases when visiting or passing by a turbine, throughout the life of the consent, for evidence of wildlife mortality.</p> <p>39. The consent holder shall undertake dedicated inspections of all turbine bases for evidence of wildlife mortality at monthly intervals for the first two years of operation. If construction is staged, later turbines shall also continue to be inspected for a full two years.</p>
	<p>39A . <u>The consent holder shall record and report any evidence of bird strikes detected postconstruction. Should a bird species listed in the Department of Conservation's most current threat classification system as Threatened or At Risk at the time be found injured or dead at the site, the Director General of Conservation and the Waitomo District Council is to be notified immediately and the bird provided to the Director General of Conservation or its nominated agent for autopsy or rehabilitation.</u></p> <p><u>47. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery.</u></p> <p><u>48. If no significant adverse effects on wildlife are evident following the first two years of operation then dedicated inspections shall be discontinued, with the prior approval of the Manager, Policy and Planning, Waitomo District Council.</u></p>	<p>39A <u>The consent holder shall record and report any evidence of bird strikes detected postconstruction. Should a bird species listed in the Department of Conservation's most current threat classification system as Threatened or At Risk at the time be found injured or dead at the site, the Director General of Conservation and the Waitomo District Council is to be notified immediately and the bird provided to the Director General of Conservation or its nominated agent for autopsy or rehabilitation.</u></p> <p><u>47. No comments provided</u></p> <p>48. If in the opinion of a suitably qualified avifauna expert (SQEP), any monitoring required under Condition [] finds a no significant adverse effects on wildlife are evident following the first two years of operation then dedicated inspections shall be discontinued, with the prior approval of the Manager, Policy and Planning, Waitomo District Council (through dedicated monitoring or other monitoring) then monthly inspections shall continue in the interim and a plan developed, in conjunction with a SQEP to the satisfaction of the Manager, Policy and Planning, Waitomo District Council and in consultation with the Department of</p>	<p><i>I support the addition of conditions 39A and 40A. It is noted that Condition 47 is repeated above under condition 43. This condition could sit under the 'Register' section of the Conditions.</i></p>

Original 2011 Consent Condition	Council S42a Proposed Version	Applicants Proposed Version	DOC Proposed Version and Comments
	<p>40A. The consent holder shall forward bat records to the Department of Conservation.</p> <p><i>Advice Note: Condition 39A, 40A and amendments to condition 40 have been offered by the Consent Holder and it has agreed to be bound by those in accordance with the principle in Augier.</i></p>	<p>Conservation, acting reasonably, to address the effects. Such a plan shall propose a monitoring regime and identify methods and options to avoid, remedy or mitigate the adverse effects. Specifically excluded from a plan will be any modification or restriction on the operation of the wind turbines.</p> <p><i>Notes that the above condition can be deleted as it repeats condition 40.</i></p> <p>40A. The consent holder shall forward bat records to the Department of Conservation.</p> <p><i>Advice Note: Condition 39A, 40A and amendments to condition 40 have been offered by the Consent Holder and it has agreed to be bound by those in accordance with the principle in Augier.</i></p>	<p>40A. The consent holder shall forward bat records to the Department of Conservation.</p> <p><i>Advice Note: Condition 39A, 40A and amendments to condition 40 have been offered by the Consent Holder and it has agreed to be bound by those in accordance with the principle in Augier.</i></p>
<p>Reporting:</p> <p>41. An annual report, detailing the information required in conditions 37 - 40 above shall be provided to Waitomo District Council and the Department of Conservation. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery.</p>	<p>Reporting <i>Revise condition</i></p> <p>44.49 An annual report, detailing the information required in conditions 37—40 39-44 above shall be provided to Waitomo District Council and the Department of Conservation. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery</p>	<p>Reporting <i>Agrees that this condition should remain.</i></p> <p>.49 An annual report, detailing the information required in conditions 37—40 39-44 above shall be provided to Waitomo District Council and the Department of Conservation</p>	<p>Reporting <i>Agree that this condition remains.</i></p>
	<p><i>Add new condition:</i></p> <p><u>Bat Detection</u></p> <p>44A. Immediately prior to turbine operation, the consent holder shall attach and commission automated bat detectors to turbines 1, 7 and 11 at a height of at least 1 5m. Results are to be analysed in relation to wind speed when 12 months of data is available.</p> <p><i>Advice Note: Condition X has been offered by the Consent Holder and it has agreed to be bound by it in accordance with the principle in Augier.</i></p>	<p><i>Add new condition:</i></p> <p><u>Bat Detection</u></p> <p>44A. Immediately prior to turbine operation, the consent holder shall attach and commission automated bat detectors to turbines 1, 7 and 11 at a height of at least 1 5m. Results are to be analysed in relation to wind speed when 12 months of data is available.</p> <p><i>Advice Note: Condition X has been offered by the Consent Holder and it has agreed to be bound by it in accordance with the principle in Augier.</i></p>	<p><i>Whilst this condition is supported, I consider that this is covered under my proposed condition requiring a Bat Adaptive Management Plan (BAMP) and the Bat Mortality Monitoring plan (BMMP). The turbines will require automated bat detectors based on the ecological evidence provided and initial bat survey undertaken by the applicant.</i></p>

Original 2011 Consent Condition	Council S42a Proposed Version	Applicants Proposed Version	DOC Proposed Version and Comments
	<p><i>Add new condition:</i></p> <p><u>Compensation</u></p> <p><u>44C. The consent holder will commit the sum of \$25,000 per year for 5 years from the commission of the turbines to support an investigation of bat populations in the geographical area running from Marokopa, Te Anga, Te Waitere and Taharoa. This will be offered by the consent holder through a University research scholarship or other equivalent mechanism in consultation with the Waitomo District Council and the Department of Conservation. The consent holder will provide to the Waitomo District Council evidence of the offer of the scholarship or other equivalent mechanism on the anniversary of the commissioning of the turbines for the duration of this condition.</u></p> <p><u>Advice Note: Condition 44C has been offered by the Consent Holder and it has agreed to be bound by this in accordance with the principle in Augier. If the scholarship or other mechanism is not taken up by a third party the consent holder will have complied with this condition, provided the scholarship or equivalent mechanism has been offered.</u></p>	<p><i>Add new condition:</i></p> <p><u>Compensation</u></p> <p><u>44C. The consent holder will commit the sum of \$25,000 per year for 5 years from the commission of the turbines to support an investigation of bat populations in the geographical area running from Marokopa, Te Anga, Te Waitere and Taharoa. This will be offered by the consent holder through a University research scholarship or other equivalent mechanism in consultation with the Waitomo District Council and the Department of Conservation. The consent holder will provide to the Waitomo District Council evidence of the offer of the scholarship or other equivalent mechanism on the anniversary of the commissioning of the turbines for the duration of this condition.</u></p> <p><u>Advice Note: Condition 44C has been offered by the Consent Holder and it has agreed to be bound by this in accordance with the principle in Augier. If the scholarship or other mechanism is not taken up by a third party the consent holder will have complied with this condition, provided the scholarship or equivalent mechanism has been offered</u></p>	<p><i>Add new condition:</i></p> <p><u>Compensation-Research Project</u></p> <p><i>Whilst this condition is supported as a positive measure, further details are required from the applicant in terms of what the objectives of the project are and how this will contribute to the understanding of bats and windfarms.</i></p>
<p>Ecological Effects Native Vegetation</p> <p>45. The clearance and trimming of native vegetation associated with the wind farm activities shall be restricted to the minimum area required to undertake the road realignment works, and any realignments of the power line routes. In particular, the consent holder shall avoid the removal of pole stand Rimu where practicable.</p>	<p><i>No changes proposed</i></p>	<p><i>No Changes proposed</i></p>	<p><i>As noted in Ms Pryde's evidence, this condition should be amended to state that if any trees have to be cut down, then the bat tree protocol should be followed.</i></p>

Appendix 2 – Relevant Regional and Local Planning Provisions

1. Waikato Regional Policy Statement 2018 Relevant issues, objectives, policies and methods

SRMR-I1 – State of resources

Declining quality and quantity of [natural and physical resources](#) impacts their life-supporting capacity, reduces [intrinsic values](#) and [ecosystem services](#) and in general reduces our ability to provide for our wellbeing.

While addressing this issue generally, specific focus should be directed to addressing the following matters:

1. restoring and protecting the health and wellbeing of the Waikato and Waipā Rivers;
2. unacceptable risk to human health from poor air quality caused by [fine particulate matter](#);
3. effects of intensive land based activities by the accumulation of [contaminants](#) from point and non-point sources in soils and the effects on water quality;
4. efficient allocation and efficient use of freshwater resources;
5. effects of sedimentation and nutrients in estuaries and harbours that is not derived from natural processes;
6. [indigenous biodiversity](#) decline;
7. increasing potential for conflicts between activities in the [coastal marine area](#);
8. increasing demand and competition for [fresh water](#) and the need for management responses to address conflicting demands, existing over-allocation at a [catchment](#) level, and to avoid any further over allocation;
9. the interrelationship between the volume of water abstracted and the quality of the water remaining in the [water body](#);
10. the availability of water to enable people and communities to provide for their existing and future social, economic and cultural wellbeing;
11. better integration of land use and water resource planning;
12. riparian margins and the interrelationship between the land and water interface, and impact on freshwater quality and quantity; and
13. loss of outstanding natural landscapes and features and the [natural character](#) of the [coastal environment](#) and [wetlands](#), and lakes, and rivers and their margins.

RMR-I3 – Providing for energy demand

With increasing demand for energy coupled with Government objectives and targets regarding [renewable electricity generation](#), there is an increasing need for improvements in the way we use energy, and for new energy projects and associated [infrastructure](#), and increasing need to manage potential adverse effects on [natural and physical resources](#).

While addressing this issue generally, specific focus should be directed to addressing the following matters:

1. how the increasing demand for energy is to be met;
2. potential for conflicts between activities to meet energy demand and other land or water uses including natural values;
3. the need to locate renewable energy generation [infrastructure](#) where the resource exists;
4. the need to maintain the efficiency of, and production from, existing [renewable electricity generation](#) activities;
5. the need for the continued existence, and operation of the Waikato Hydro-scheme as significant national [infrastructure](#); and
6. security of supply.

SRMR-PR3 – Providing for energy demand

Demand for energy is increasing in order to service our growing population, economic development, expanding [urban](#) areas and more technological lifestyles. We are travelling more and freighting more product, which is adding further to energy demand. On the supply side, we are facing a decline in availability of oil and an increase in its cost.

The Waikato region is rich in energy resources including geothermal, water (for hydro), coal, marine and wind. It is also a region crossed by important energy transmission lines that take gas and electricity from energy sources in the south to the Auckland region in the north. Historically the Waikato Region has been substantially shaped by the development of the Waikato Hydro Scheme which is a contributor to New Zealand's energy needs. Electricity generation and transmission activities in the Waikato Region make a contribution to national electricity generation capacity and supply. There is likely to be increasing demand for new electricity generation and transmission [infrastructure](#) through the region.

To provide for our increasing energy demands, there will be further pressure for development of the region's energy resources. We will need to find new ways of meeting energy demands into the future including the ability to apply local solutions in rural and remote areas. Central government has objectives and targets for [renewable electricity generation](#) recognising the need to focus on development of those sources. This will create a greater need to manage impacts on existing [renewable electricity generation](#) activities and promote new electricity generations from energy sources such as geothermal, wind, hydro, tides, wave energy and possibly biofuels. Development of renewable energy resources results in a range of local and national benefits including those associated with increased security of supply and reduced greenhouse emissions.

The development of new energy sources and related [infrastructure](#) poses potential for greater effects on resources such as water bodies, landscapes and [biodiversity](#). It will also mean greater potential for conflicts with existing land and water uses. [These matters need to be carefully managed into the future, to ensure that appropriate environmental outcomes are maintained while meeting renewable energy generation needs.](#) *[my highlighting]*

ECO-O1 – Ecological integrity and indigenous biodiversity

The [full range of ecosystem types](#), their extent and the [indigenous biodiversity](#) that those ecosystems can support exist in a healthy and functional state.

ECO-P1 – Maintain or enhance indigenous biodiversity

Promote positive [indigenous biodiversity](#) outcomes to maintain the [full range of ecosystem types](#) and maintain or enhance their spatial extent as necessary to achieve healthy ecological functioning of ecosystems, with a particular focus on:

1. working towards achieving [no net loss](#) of [indigenous biodiversity](#) at a regional scale;
2. the continued functioning of ecological processes;
3. the re-creation and restoration of habitats and connectivity between habitats;
4. supporting (buffering and/or linking) ecosystems, habitats and areas identified as [significant indigenous vegetation and significant habitats of indigenous fauna](#);
5. providing [ecosystem services](#);
6. the health and wellbeing of the Waikato River and its [catchment](#);

7. contribution to [natural character](#) and [amenity values](#);
8. [tangata whenua](#) relationships with [indigenous biodiversity](#) including their holistic view of ecosystems and the environment;
9. managing the density, range and viability of [indigenous](#) flora and fauna; and
10. the consideration and application of [biodiversity](#) offsets.

ECO-P2 – Protect significant indigenous vegetation and significant habitats of indigenous fauna

[Significant indigenous vegetation and the significant habitats of indigenous fauna](#) shall be protected by ensuring the characteristics that contribute to its significance are not adversely affected to the extent that the significance of the vegetation or habitat is reduced.

Methods

ECO-M1 – Maintain or enhance indigenous biodiversity

Regional and district plans shall maintain or enhance [indigenous biodiversity](#), including by:

1. providing for positive [indigenous biodiversity](#) outcomes when managing activities including subdivision and land use change;
2. having regard to any local [indigenous biodiversity](#) strategies developed under [ECO-M11](#); and
3. creating buffers, linkages and corridors to protect and support [indigenous biodiversity](#) values, including esplanade reserves and esplanade strips to maintain and enhance [indigenous biodiversity](#) values.

ECO-M2 – Adverse effects on indigenous biodiversity

Regional and district plans shall recognise that adverse effects on [indigenous biodiversity](#) within terrestrial, freshwater and coastal environments are cumulative and may include:

1. fragmentation and isolation of [indigenous](#) ecosystems and habitats;
2. reduction in the extent and quality of [indigenous](#) ecosystems and habitats;
3. loss of corridors or connections linking [indigenous](#) ecosystems and habitat fragments or between ecosystems and habitats;
4. the loss of ecological sequences;
5. loss or disruption to migratory pathways in water, land or air;
6. effects of changes to hydrological flows, water levels, and water quality on ecosystems;
7. loss of buffering of [indigenous](#) ecosystems;
8. loss of [ecosystem services](#);

9. loss, damage or disruption to ecological processes, functions and ecological integrity;
10. changes resulting in an increased threat from animal and plant pests;
11. effects which contribute to a cumulative loss or degradation of [indigenous](#) habitats and ecosystems;
12. noise, visual and physical disturbance on [indigenous](#) species, particularly within the [coastal environment](#); and
13. loss of habitat that supports or provides a key life-cycle function for [indigenous](#) species listed as 'Threatened' or 'At Risk' in the New Zealand Threat Classification System lists.

ECO-M13 – Protect areas of significant indigenous vegetation and significant habitats of indigenous fauna

Regional and district plans shall (excluding activities pursuant to [ECO-M4](#)):

1. protect areas of [significant indigenous vegetation and significant habitats of indigenous fauna](#);
2. require that activities avoid the loss or degradation of areas of [significant indigenous vegetation and significant habitats of indigenous fauna](#) in preference to remediation or mitigation;
3. require that any unavoidable adverse effects on areas of [significant indigenous vegetation and significant habitats of indigenous fauna](#) are remedied or mitigated;
4. where any adverse effects are unable to be avoided, remedied or mitigated in accordance with (2) and (3), more than minor residual adverse effects shall be offset to achieve [no net loss](#); and
5. ensure that remediation, mitigation or offsetting as a first priority relates to the [indigenous biodiversity](#) that has been lost or degraded (whether by on-site or off-site methods). Methods may include the following:
 - a. replace like-for-like habitats or ecosystems (including being of at least equivalent size or ecological value);
 - b. involve the re-creation of habitat;
 - c. develop or enhance areas of alternative habitat supporting similar ecology/significance; or
 - d. involve the legal and physical protection of existing habitat;
6. recognise that remediation, mitigation and offsetting may not be appropriate where the [indigenous biodiversity](#) is rare, at risk, threatened or irreplaceable; and
7. have regard to the functional necessity of activities being located in or near areas of [significant indigenous vegetation and significant habitats of indigenous fauna](#) where no reasonably practicable alternative location exists.

EIT-O1 – Energy

Energy use is managed, and electricity generation and transmission is operated, maintained, developed and upgraded, in a way that:

1. increases efficiency;
2. recognises any increasing demand for energy;
3. seeks opportunities to minimise demand for energy;
4. recognises and provides for the national significance of electricity transmission and [renewable electricity generation](#) activities;
5. recognises and provides for the national, regional and local benefits of electricity transmission and [renewable electricity generation](#);
6. reduces reliance on fossil fuels over time;
7. addresses adverse effects on [natural and physical resources](#);
8. recognises the technical and operational constraints of the [electricity transmission network](#) and [electricity generation activities](#); and
9. recognises the contribution of existing and future electricity transmission and [electricity generation activities](#) to regional and national energy needs and security of supply.

Methods

EIT-M1 – Plan provisions

Regional and district plans shall include provisions that give effect to [EIT-P1](#), and in particular, that management of the [built environment](#):

1. avoids, as far as practicable, adverse effects on the function of significant transport corridors as defined in Maps [25](#) and [26](#), and otherwise remedies or mitigates any adverse effects that cannot be practicably be avoided;
2. avoids, as far as practicable, the adverse effects of ribbon development along the defined significant transport corridors, and otherwise remedies or mitigates any adverse effects that cannot practicably be avoided;
3. avoids as far as practicable, the need for additional access points onto the defined significant transport corridors, and otherwise remedies or mitigates the adverse effects of any additional access points that cannot practicably be avoided;
4. avoids as far as is practicable, the exacerbation of community severance caused by defined significant transport corridors, and otherwise remedies or mitigates the adverse effects of any exacerbated community severance that cannot practicably be avoided;

5. provides for renewable energy by having particular regard to:
 - a. the increasing requirement for electricity generation from renewable sources such as geothermal, [fresh water](#), wind, solar, biomass and marine, and the need to maintain generation from existing [renewable electricity generation](#) activities;
 - b. the need for electricity generation to locate where energy sources exist, and transmission [infrastructure](#) to connect these generation sites to the national grid or local distribution network;
 - c. the logistical or technical practicalities associated with developing, upgrading, operating or maintaining [renewable electricity generation](#), or electricity transmission activities;
 - d. any residual environmental effects of [renewable electricity generation](#) activities which cannot be avoided, remedied or mitigated can be offset or compensated to benefit the affected community or the region; and
 - e. the benefits of [renewable electricity generation](#) activities including maintaining or increasing security of electricity supply.
6. provides for [infrastructure](#) in a manner that:
 - a. recognises that [infrastructure](#) development can adversely affect people and communities;
 - b. enables the ongoing operation, maintenance, upgrading and development of municipal water supply [infrastructure](#) so as to provide for the justified and reasonably foreseeable needs of current and future generations; and
 - c. does not result in land uses that adversely affect the effective and efficient operation of existing and planned [regionally significant infrastructure](#).
7. considers how existing and planned [renewable electricity generation](#) activities and existing and planned [urban](#) development will be managed in relation to one another.

2. The Operative Waitomo District Plan 2009 Relevant Objectives and Policies

Chapter 11: Rural Zone

11.3 Objectives

11.3.4 To protect areas of significant indigenous vegetation and significant habitat of indigenous fauna.