

BOARD OF INQUIRY
HAUĀURU MĀ RAKI WIND FARM PROPOSAL

In the matter of the Resource Management Act 1991

And

In the matter of resource consent applications by Contact Wind Limited in respect of the Hauāuru mā raki Wind Farm Proposal

And

In the matter of notices of requirement and a resource consent application by Contact Energy Limited for transmission infrastructure related to the Hauāuru mā raki Wind Farm Proposal

**FURTHER REBUTTAL EVIDENCE OF STEPHEN GRAEME DAYSH
RESPONDING TO SUPPLEMENTARY EVIDENCE OF RM KELLEHER**

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Introduction

1. My name is Stephen Graeme Daysh. I am a Director and Principal Planner in the Napier office of Environmental Management Services Limited.
2. I refer the Board of Inquiry to the statement of my qualifications and experience in my evidence in chief. I reaffirm my commitment to comply with the code of conduct for expert witnesses in the Environment Court.
3. This further rebuttal evidence follows on from my rebuttal evidence circulated by Contact on 9 April 2009 and specifically responds to the Taharoa C conditions and associated documents exhibited to the supplementary brief of evidence of Ms Kelleher. Those documents comprise an Environment Court consent order dated 1 April 2009 between the Department of Conservation (“Department”), Waitomo District Council, and The Proprietors of Taharoa C Block, and the annexures to that consent order.
4. I noted this additional Taharoa C information in paragraphs 23 to 30 of my rebuttal evidence circulated by Contact on 9 April 2009, where I concluded at paragraph 30 that “*I expect to be in a position by then [17 April 2009] to comment on the precise aspects of the Taharoa C conditions of assistance and to suggest further condition amendments.*”
5. The Director-General of Conservation (“Director General”) has provided the Taharoa C conditions on a general basis, and neither Ms Bradley’s covering letter attached with the material dated 3 April 2009, nor the supplementary statement of evidence of Ms Kelleher dated 3 April 2009 provides any guide as to specific conditions or mechanisms in the Taharoa C consent order that are sought to be included in the Hauāuru mā raki conditions.
6. As noted in my rebuttal evidence, I would ideally have wished to discuss condition issues with the relevant witnesses for the Director-General to identify the particular points in the Taharoa C conditions that I should focus on, but the view taken by the Director-General’s representatives is that this was not appropriate prior to 17 April 2009. In the absence of such guidance from the Director-General, I have confined my discussion of the Taharoa C conditions and proposed further condition changes for Contact’s Hauāuru mā raki project to those matters that the various witnesses presenting evidence on behalf of the Director-General have identified in their evidence in chief as needing to be addressed in new or varied conditions. Any wider approach at this stage would in my view be speculative in the absence of any other clear direction as to the condition outcomes sought by the Director-General.
7. Ideally, I would also wish to have factored the results of the meetings of experts which have been occurring over the last two weeks in accordance with the directions of the

Board of Inquiry into my consideration of ecology conditions, since I foresee that the caucusing of the experts may produce new ideas about how particular issues could or should be addressed in conditions that have not been set out in the evidence circulated to date. Unfortunately, those reports had not been finalised at the time I completed this further brief of evidence. I have, however, arranged to meet with Department staff following circulation of the experts reports'. That meeting will provide an opportunity to reflect on the implications of those reports for the wording of conditions in consultation with the representatives of the Director-General. During the hearing itself I will hopefully have an opportunity to update the Board with any changes to my views as a result.

8. In my rebuttal evidence circulated by Contact on 9 April 2009, I included as Appendix 1 a table which is my own summary of the specific conditions matters raised by eight of the witnesses appearing on behalf of the Director General. This included seven matters where I noted my response was "*dependent on Taharoa C review*". These matters were referenced as C9, LB1, LB6, LB7, D1, P2, and P3 in the Appendix 1 table in my first rebuttal evidence. To illustrate how I have addressed each of these items after reviewing the Taharoa C conditions I have included with this further statement of rebuttal evidence a table entitled **Appendix 1 (Revisions)**. This revisions table only includes the seven areas referenced above in this paragraph. In the table I have:
 - Provided new commentary in underlined text; and
 - Cross referenced amended conditions or new conditions I have recommended based on the Taharoa C example to my **Exhibit SGD 15**, which is in turn attached with this further rebuttal evidence.
9. **Exhibit SGD15** is the Section 6 (Ecology Conditions) extracted from my suggested Waikato District Council conditions version in my **Exhibit SGD12** that was included with my first rebuttal evidence circulated by Contact on 9 April 2009. To provide a clear record of the new conditions changes that I have developed after reviewing the Taharoa C conditions in **Exhibit SGD15**, I have accepted the Section 6 "track changes" shown in **Exhibit SGD12** and included new "track changes" showing the additional condition changes.
10. I have not included as a separate exhibit the equivalent Franklin District Council Section 6 (Ecology Conditions) as these mirror the Waikato District Ecology Conditions in all substantive respects (the only differences are where Waikato District Council or Franklin District Council are referred to by name, or where references are made to the particular turbine blocks located in one or other District).

Specific Matters

11. At paragraph 42 of his evidence Dr Barea supports the establishment of the Ecology Peer Review Panel I have proposed in Section 6.1 of the Waikato and Franklin District Council conditions. However, he suggests that *“the Department has a direct input into defining the functions and establishing such a group”*. I agree with Dr Barea. From my perspective there is no doubt that it is important that the Department has an ongoing role in the development of the Hauāuru mā raki project to assist with the adaptive management approach that has been developed for the project.
12. As set out in my evidence in chief at paragraphs 48 and 49, the Department has provided input and advice on the project since early July 2007, including providing suggestions on conditions to define the functions of the Ecology Peer Review Panel. This input has included several meetings and discussions associated with conditions and further commentary on conditions in the evidence of the Departments experts. I have found this input helpful and have adopted many of the suggestions (refer to Appendix 1 of my rebuttal evidence).
13. Condition 39 of the Taharoa C conditions has an Expert Panel process similar to what is proposed under the suggested Hauāuru mā raki conditions. The key differences are that:
 - the Taharoa C there are two independent experts as opposed to three suggested for Hauāuru mā raki; and
 - there is a process of nomination by the Department and consent holder, rather than one of consultation on the make-up of the Panel as I have proposed.
14. While I can understand the wish for the Department to maintain a role by nominating one of the independent experts, given its statutory role and functions under the Conservation and Wildlife Acts. However, the process put in place in the Taharoa C conditions gives the impression that the experts appointed on the nomination of one or other stakeholder will potentially act as representatives of the nominating party. I do not know if this was the intention but if it was, I do not believe that to be appropriate, given the role of the Ecology Peer Review Panel as the key technical advisor to the District Councils. More generally, I do not consider it appropriate for a consent holder to be nominating experts to advise the Councils. I have therefore suggested in my revised Conditions 6.2 and 6.4 in **Exhibit SGD15** a process which provides an opportunity for the Department to nominate one (out of three) of the Independent Peer Review Panel Experts, but have maintained the requirement that the Councils should consult with both the Department and the consent holder as to whether the proposed panel will have the appropriate range of skills to undertake its functions.

15. In paragraphs 59 and 67 of his evidence Dr Barea records his agreement with the concept of the collision monitoring programme but suggests some modifications to Condition 6.9 and 6.10, including a greater role for the Ecology Peer Review Panel in the supervision of the design and supervision of the programme. I agree the proposed Ecology Peer Review Panel has a key role in this process and after referring to the equivalent conditions for the Taharoa C project (44 to 56) have amended conditions 6.9 and 6.10 to make the supervision role of the Ecology Peer Review Panel clearer. I have also made similar changes to Conditions 6.13 and 6.14 associated with the pre-commissioning migratory shorebird monitoring and risk assessment process.
16. Dr Dowding suggests at paragraph 91 of his evidence that the collision monitoring proposed in Condition 6.9 includes migratory birds as well as bush birds and bats. On reflection, I agree. The wording of this condition has undergone substantial change since earlier drafts of the condition were discussed with the Department and Joint Council experts and the term “resident birds” in this condition was suggested by the Department. However, it is clear that the collision monitoring programme should include monitoring and assessment of the effects on all birds, as the equivalent Taharoa C condition (51) does. I have amended condition 6.9 as shown in **Exhibit SGD15** to make this clear.
17. Dr Barea makes several comments regarding the quantum of the proposed offset mitigation, and ability to adapt the proposed “offset mitigation approach” in condition 6.17 of the suggested Hauāuru mā raki conditions. Dr Seaton and Mr Tonks have responded to some of the specific matters in their rebuttal evidence. As set out in Appendix 1 my first rebuttal evidence provided on 9 April 2009, I wanted the opportunity assess how the Taharoa C conditions dealt with this important issue.
18. In Condition 65 of the Taharoa C conditions, the Department and the Proprietors of Taharoa C Block have agreed a quantum of \$35,000 (plus GST if applicable) per annum from the date of commissioning of the wind farm be paid to the Department “*for the purpose of mitigation/compensation for adverse effects on migratory shorebirds*”. A side agreement between the parties to implement this requirement is included in Appendix H of the consent conditions. The advisory notes to the condition explains that this figure was arrived at after preparation of the report “*Assessment of Potential Avian Mortality at the Proposed Taharoa Wind Farm, February 2009*”, which assessed the potential effects of the project on migratory shorebirds following a two-season programme of radar monitoring and subsequent modelling. Condition 66 of the Taharoa C conditions provides a mechanism where the Expert Panel can recommend additional measures by the consent holder to “*avoid, remedy, or mitigate/compensate for adverse effects on migratory shorebirds of concern*” on the basis of ongoing monitoring that is required in the Taharoa C conditions.

19. A similar approach is proposed for the Hauāuru mā raki conditions. The main differences are:
- pending the completion of the Migratory Shorebird Risk Assessment, an initial \$17,000 per annum figure is proposed as a “minimum requirement” for both shorebird strike and strike involving bush birds (as clarified at paragraph 90 of Mr Tonks’ rebuttal evidence); and
 - following completion of the proposed four-season pre commissioning Migratory Shorebird Monitoring, Risk Assessment and Conditions Review process set out in Conditions 6.11 to 6.16 it is anticipated this “minimum requirement” will be reviewed (if the results of the scientific monitoring, modelling and assessment undertaken show this is required).

To clarify the second requirement further I have amended Conditions 6.15 and 6.17 c) as well as suggesting a new advisory note to 6.17 as set out in **Exhibit SGD15**.

20. There is also provision under the post commissioning collision monitoring conditions (6.9 and 6.10) for a review of the quantum of mitigation/compensation associated with the migratory shorebird and other bird effects if the ongoing post commissioning monitoring highlights any greater effects than anticipated after the pre-commissioning risk assessment is completed.
21. I consider this approach in the Hauāuru mā raki conditions is robust and appropriate and will ultimately lead to an appropriate level of mitigation/compensation being set for avian effects.
22. At paragraphs 200 to 204 of her evidence Ms Cockerell discusses her concerns about the use of Section 128 of the Resource Management Act 1991. Her concerns seem to be based around a presumption that the respective Councils may not utilise the review procedures appropriately in response to the advice of Ecology Peer Review Panel, and that it does not guarantee that third parties such as the Department will have a right to participate in the process.
23. Ms Cockerell draws implicit support for her views from statistics she quotes regarding the infrequency of the exercise of section 128 powers, compared with the frequency with which such powers are imposed within the Waikato Region. In my view, the statistics quoted by Ms Cockerell need to be considered in context. Until relatively recently, section 128 conditions were designed to address situations where things had gone wrong in the implementation of resource consents- where unexpected adverse effects had occurred, requiring corrective regulatory action. It does not surprise me that such instances have been infrequent. Much more recently, section 128 conditions have been used in a

different way, as an integral part of adaptive management regimes, where the exercise of such powers is anticipated in a range of situations. I do not believe that the experience of the exercise of section 128 powers in the first situation can be used to indicate how they might be used in the second.

24. Dr Barea in paragraph 67 of his evidence has a similar concern where he states that:
- “I consider that, if consent is granted now, consideration is given to appropriate mechanisms being placed on the consent to enable confidence that the recommendations made by the Ecology Peer Review Panel will be acted upon by the applicant and the councils.”*
25. While neither Ms Cockerell or Dr Barea go on in their evidence to discuss the mechanisms in the Taharoa C conditions (as at the time of writing their evidence the conditions were not publicly available) I assume that they would like to see the use of mechanisms additional to the Section 128 reviews (such as requiring the applicant to commence section 127 reviews) that are included in the Taharoa C conditions.
26. The Taharoa C conditions have a section entitled *“Circumstances Where Consent Holder Must Apply to Change Consent Conditions”* (conditions 88 to 93). This establishes a process where the Expert Panel can make recommendations for further monitoring at the end of the respective monitoring periods, or for additional avoidance, remediation, or mitigation (including compensation) for any identified “trigger species”. If the Expert Panel makes such recommendations then the consent holder must then apply to the Council pursuant to section 127 of the Act to change the conditions of the consent to implement the recommendations.
27. I have some difficulty with this process. While an advisory note states that it does not limit the powers of the Consent Authority to undertake a section 128 review, it seems to me to be likely to render those provisions largely if not entirely redundant. If a consent holder is compelled to apply under section 127 to make its conditions more onerous, I cannot imagine the section 128 power ever being exercised. Perhaps more significantly, such an application is unlikely to be controversial. I do not see the end result as materially different from a situation where the Expert Panel simply directs the consent holder’s actions, and my impression is that this section 127 mechanism sets out to achieve that outcome in a roundabout way. I have doubts that this level of direction, or intervention, is legally appropriate (unless proffered on an *Augier* basis by the consent applicant).

28. I consider the mechanisms I have proposed in my revised conditions 6.10 and 6.15 are more appropriate. Those mechanisms provide that, after taking advice from the Independent Ecology Peer Review Panel, the Councils have the option of:
- Approving any additional measures proposed by the consent holder if these are considered appropriate; or
 - Commencing a review of conditions under Section 128 of the Resource Management Act 1991.

The concept underlying the first option is taken from the Taharoa C conditions. It seems to me to be a good way to “lock in” commitments made by the consent holder.

29. The same type of process is proposed for Condition 6.13, which relates to the review of the Methodology Report for pre-commissioning migratory shorebird monitoring and risk assessment by the Ecology Peer Review Panel. In this case, the consent holder has the option to accept the recommendations or not, and if not the Councils have the opportunity to commence a Section 128 review of Condition 6.11.
30. I can see no reason why the Councils that would administer these consents would not commence a Section 128 review of conditions in the appropriate circumstances after taking professional and experienced advice. I do not support the view, implicit in the evidence for the Director-General, that the Councils will not implement their functions responsibly and appropriately if required.
31. At paragraph 31 of Dr Percival’s evidence, he discusses lighting and how it might attract birds at night. Taharoa C condition 68 deals with this aspect and I suggest that Condition 8.2 of the Waikato and Franklin District conditions be amended as follows.

8.2 All navigational lights required on the turbines by the Civil Aviation Authority shall be shielded or otherwise contained to screen downward light spill. Other than lighting required to satisfy Civil Aviation or any other legal requirements, no lighting shall be affixed to any part of the turbines when they are operational.

The suggested wording is similar to the Taharoa C condition but not identical.

SG Daysh

16 April 2009

Appendix 1 (Revisions)

Director General of Conservation Conditions Summary

Ref No.	DOC Witness	Condition ¹	Subject	Summary of Changes Sought	Comment	Change made in Exhibit SGD 15
C9		6.10 and 6.15	Section 128 Review Provisions	Not an appropriate safety net considering significance of potential effects.	<ul style="list-style-type: none"> ▪ Councils need to assess the key monitoring reports and consult Ecology Peer Review Panel on the need for the Section 128 review, which is appointed after consultation with DOC and which will have the appropriate technical expertise. ▪ Taharoa C conditions may assist. ▪ <u>Taharoa C conditions have a parallel process requiring consent holder initiated section 127 applications that are not supported.</u> 	No
LB1	Barea Para 42	6.0	Ecology Peer Review Panel	Seeks DOC has direct input to defining functions and establishing the group	<ul style="list-style-type: none"> ▪ Note this is a mechanism in the Taharoa C conditions, requires further consideration. ▪ <u>Taharoa C conditions provide for nomination of experts by DoC and consent holder. Have picked up the concept of DoC having ability to nominate of the experts on the Peer Review Panel but do not consider it appropriate for a consent holder to be able to nominate members on the Panel.</u> 	See amended condition 6.2
LB6	Paras 59 to 67	6.9 and 6.10	Resident Bird Collision Mortality Monitoring Programme	<ul style="list-style-type: none"> ▪ Seeks scavenger removal rates be calculated ▪ Seeks Ecology Peer Review Panel oversight in design and implementation of programme. 	<ul style="list-style-type: none"> ▪ Scavenger removal rate assessment already anticipated in 6.9a)v) ▪ Ecology Peer Review Panel involvement supported but need to review Taharoa C conditions to see if suitable mechanisms can be 	No See amended Conditions 6.9, 6.10 and new

¹ WDC (Exhibit SGD1) and FDC (Exhibit SGD2) Schedule One – General Conditions unless specified

Ref No.	DOC Witness	Condition ¹	Subject	Summary of Changes Sought	Comment	Change made in Exhibit SGD 15
				<ul style="list-style-type: none"> ▪ Seeks monitoring of every turbine for all months of the year and not a statistical sample. ▪ Suggests methodology should follow Band et al (2007). ▪ Suggests 3 years instead of 2 years post construction. ▪ Seeks a mechanism where recommendations of Ecology Peer Review Panel are actually implemented by Councils and applicant. 	<p>adapted from those conditions.</p> <ul style="list-style-type: none"> ▪ Three years post construction monitoring not supported by Dr Seaton. ▪ <u>Based on Taharoa C example, condition 6.9 has been amended to explicitly require Ecology Peer Review input into design of programme, and condition 6.10 provides a mechanism for the Ecology Peer Review Panel to make further recommendations to the Council after receipt of the final cumulative effects collision mortality monitoring report.</u> ▪ <u>The Condition 6.10 Section 128 review process has been expanded.</u> 	condition 6.18.
LB7	Para 68 to 74	6.17	Offset Mitigation Package	<ul style="list-style-type: none"> ▪ Offset Mitigation relating to collision mortality should be for life of consent. ▪ Wants changes to offset mitigation for Pungapunga wetland including Ecology Peer Review Panel having authority to decide quantum of offset mitigation, a realignment of the package with no weed control, but more pest control, and as wetland not “owned” then better to put the effort into another wetland (to be approved by DOC/EPRP). ▪ \$17,000 per annum for a nominal “bird strike mitigation grossly inadequate” and that 	<ul style="list-style-type: none"> ▪ Mr Tonks considers there is a role for the Peer Review Panel in addressing these matters, but need to review Taharoa C conditions to see if suitable mechanisms can be adapted from those conditions. ▪ Regarding the offset for Pungapunga wetland as Mr Tonks explains Contact now owns the Hewitt property which can be utilised. ▪ <u>Condition 6.17 c) has been amended to outline a process where offset mitigation funding could be undertaken through direct funding to the Department (as per the Taharoa C example) or to a recognised Conservation body approved on advice of the Ecology Peer Review Panel.</u> ▪ <u>A new Advice note has been set out that \$17,000 per annum offset mitigation provided by 6.17 c) is intended as a base level which may be increased after reporting on the Post</u> 	See amended conditions 16.7c) and advisory note.

Ref No.	DOC Witness	Condition ¹	Subject	Summary of Changes Sought	Comment	Change made in Exhibit SGD 15
				<p>the quantum should be determined after results of a statistically robust strike modelling process after completion of monitoring.</p> <ul style="list-style-type: none"> Offset mitigation for habitat loss should be separate to collision risk, and separate figures derived for resident birds and migratory birds. 	<p><u>Commissioning Bird and Bat Collision Mortality Monitoring Programme (Condition 6.9 vi) and the Migratory Shorebird Monitoring Report (Condition 6.14) and as a result of any subsequent 128 reviews.</u></p>	
D1	Dowding Para 91	6.9	Collision mortality monitoring	Add migratory birds to collision risk monitoring and undertake for 10 years post construction	<ul style="list-style-type: none"> 6.9 a) vi) requires all birds fatalities to be reported and analysed. Dr Seaton does not agree with the 10 year duration, but suggest peer Review Panel input – need to look at Taharoa C mechanisms. <u>Condition 6.10 has been expanded to include greater Ecology Peer Review Panel Input and a specific Section 128 review clause associated with the further monitoring if considered necessary by the Ecology Peer Review Panel.</u> 	<p>No</p> <p>See amended Condition 6.10 and new condition 6.18.</p>
P2	Para 27	Not specified	Migratory Bird Collision Monitoring	Suggests additional periods for “post construction monitoring” for migratory birds	<ul style="list-style-type: none"> Dr Seaton does not agree with the suggested duration, but suggests Peer Review Panel input – need to look at Taharoa C mechanisms. <u>Conditions 6.9 and 6.10 associated with post construction monitoring have been amended and clarified to make them explicitly applicable to migratory shorebirds as well as resident birds.</u> 	See revised Conditions 6.9 and 6.10.

Ref No.	DOC Witness	Condition ¹	Subject	Summary of Changes Sought	Comment	Change made in Exhibit SGD 15
P3	Para 31	6.7 f) or 8.2	Bright light attracting migratory birds into the wind farm	Need a condition to avoid bright lights	<ul style="list-style-type: none"> ▪ Accepted in principle but need to provide for navigation lights – need to review Taharoa C conditions to see how addressed. ▪ <u>Taharoa C condition 68 has been adapted and added to condition 8.2. Note that the term “and/or accessory structures” in condition 68 has not been adopted because this is an uncertain term.</u> 	Refer to S G Daysh Further Rebuttal Evidence for recommended amendment to condition 8.2 (Note: not part of SGD 15)