IN THE ENVIRONMENT COURT
WELLINGTON REGISTRY

I TE KŌTI TAIAO O AOTEAROA
TE WHANGANUI-A-TARA ROHE

ENV-2023-WLG-000005

UNDER	the Resource Management Act 1991
IN THE MATTER	the direct referral of applications for resource consents and notices of requirement under sections 87G and 198E of the Act for the Ōtaki to North of Levin Project
BY	**WAKA KOTAHI NEW ZEALAND TRANSPORT AGENCY** Applicant

STATEMENT OF EVIDENCE OF JAMES STUART LAMBIE ON BEHALF OF THE MANAWATŪ-WHANGANUI REGIONAL COUNCIL AND THE GREATER WELLINGTON REGIONAL COUNCIL

TERRESTRIAL ECOLOGY

Dated: 26 September 2023

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STATEMENT OF EVIDENCE OF JAMES STUART LAMBIE

A. INTRODUCTION

[1] My name is James Stuart Lambie. I am an independent ecologist and biosecurity policy advisor. I have held this position since 2017.

[2] I prepared a report on the application required by section 87F of the Resource Management Act 1991 on behalf of Manawatū-Whanganui Regional Council (**Horizons**) and the Greater Wellington Regional Council (**GWRC**), dated 28 April 2023 (**s87F Report**).

[3] In my s87F Report, I reviewed the application from Waka Kotahi for resource consent applications lodged with Horizons and the GWRC relating to the Ōtaki to North of Levin Highway Project (the **Ō2NL Project** or **Project**). My s87F Report provided recommendations to improve or further clarify aspects of the resource consent application addressing terrestrial ecology.

[4] I confirm I have the qualifications and experience set out at paragraphs 7-10 of my s87F Report.

[5] On 7 August 2023, I participated in expert conferencing on terrestrial ecology, resulting in a joint witness statement dated 7 August 2023 (the **Terrestrial Ecology JWS**). I confirm the contents of the Terrestrial Ecology JWS.

B. CODE OF CONDUCT

[6] I repeat the confirmation provided in my s87F Report that I have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. This evidence has been prepared in accordance with that Code. Statements expressed in this evidence are within my area of expertise, except where I state I am relying on the opinion or evidence of other witnesses.

C. SCOPE OF EVIDENCE

[7] My report will cover the following:

(a) The extent to which issues identified in my s87F Report have been resolved through Waka Kotahi evidence, expert conferencing and mediation;

(b) A response to section 274 party evidence of the Royal Forest and Bird Society (**Forest and Bird**); and

(c) Conditions.

[8] In preparing this evidence I have reviewed the following:

(a) The statement of evidence of Nicholas Paul Goldwater for Waka Kotahi, dated 4 July 2023;

(b) The joint witness statement of planning experts dated 10, 11 and 14 August 2023;

(c) The joint witness statement of landscape, visual and natural character experts dated 27 July 2023; and

(d) The conditions filed by Waka Kotahi on 4 September 2023 (**Waka Kotahi conditions**).

D. OUTSTANDING ISSUES

[9] On review of the issues in dispute arising from my s87F Report, the JWS terrestrial ecology, and the documents listed in paragraph [9] above, I am comfortable that the issues I identified as outstanding for terrestrial ecology have been resolved, with the exception of the issues I have highlighted regarding conditions and related matters below.

Inconsistency between ecological values

[10] In my s87F Report, I raised a concern that high values applied to certain fauna are not reflected in the vegetation (habitat) values in which those fauna are found; potentially underestimating the value of the vegetation and risking understating the level of residual effect.[1] In Mr Goldwater's

[1] Section 87F Report, at paragraphs [47] – [50].

statement of evidence, he explains how he has considered the faunal values within the habitat assessments.[2] I am satisfied with the explanation.

[11] Also, when I examine the high sensitivity of the thresholds applied to offsetting and the modelled evidence of a net gain which includes consideration of faunal resources, I am satisfied that the outcome for at-risk, rare, or threatened fauna is better than the current state if the biodiversity offsets eventuate in net gain within the timeframes as modelled.

[12] The issue of the potential effect of loss of gravel field (TG1) habitats is satisfactorily dealt with through condition RTE1C in the Waka Kotahi conditions[3] and review of the sufficiency of offsetting per REM17.[4]

Buffer, landscape, and natural character planting being subject to landowner agreement

[13] In my s87F Report, I identify that there are landscape effects on fauna that are remedied by proposed buffer, landscape, and natural character planting.[5] My primary concern was, if all of that planting is required to appropriately manage effects, then having the planting subject to landowner agreement could lead to a sub-optimal outcome.[6] However, I also observe that 100% attainment is possibly not needed to address the ecological effects.[7]

[14] In response, Mr Goldwater's evidence considered the proposed buffers and the offset planting in relation to the landscape and natural character planting within the designation.[8] He observes that the designation planting in sum delivers the intended buffering and achieves a marked increase in ecological linkage.[9] On this basis, I am comfortable with retaining the 'subject to landowner' proviso for buffer and landscape planting.

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2 Statement of Evidence of Nicholas Goldwater, 4 July 2023, at paragraphs [136] – [146].
3 Page 42 of Waka Kotahi Conditions (Tracked Changes Version).
4 Page 57 of Waka Kotahi Conditions (Tracked Changes Version).
5 Section 87F Report, at paragraphs [64] – [75].
6 Section 87F Report, at paragraph [74].
7 Section 87F Report, at paragraph [75].
8 Statement of Evidence of Nicholas Goldwater, 4 July 2023, at paragraphs [148] – [156].
9 Statement of Evidence of Nicholas Goldwater, 4 July 2023, at paragraphs [154] – [155].

[15] Notably, Mr Goldwater's evidence confirms that the landscape planting within the designation serves ecological effects mitigation functions prescribed by the ecological experts.[10]

[16] With respect to buffering of the Prouse family property, I understand that there is a grass strip between the ornate skink habitat on the Prouse family property and the designation boundary.[11] This strip is at least 10m wide which, in my opinion, is an ample buffer to avoid direct effects on lizards during construction. With this knowledge, I am no longer of the view that there is a risk that changes to the indicative design could lead to significant adverse faunal effects on the vegetation on the Prouse family property.

Biosecurity

[17] In my s87F Report, I raise a concern that the management of regulated (under Regional Pest Management Plans (**RPMP**)) pest plants and myrtle rust are inadequately covered due to the absence of the Ecology Management Plan (**EMP**) or other protocol to deal with spread.[12] This has since been the subject of discussion with Waka Kotahi and changes to conditions.

[18] With regard to myrtle rust, I am satisfied with the inclusion of condition REM4(d).[13] This condition requires Waka Kotahi to source plants from nurseries that have established protocols for myrtle rust management, and in turn, will act to prevent the inadvertent spread of myrtle rust.

[19] For most of the RPMP pests, I am satisfied with Mr Goldwater's response that these can be appropriately managed in the EMP.[14]

[20] Following Waka Kotahi evidence, I remained concerned about managing the spread of field horsetail and yellow bristlegrass, as they are difficult to get rid of, are easily spread by machinery, and best managed through infestation identification and avoidance of spread. However, I am now satisfied with the

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10 Statement of Evidence of Nicholas Goldwater, 4 July 2023, at paragraph [151].
11 Section 87F Report, at paragraphs [163] – [169].
12 Section 87F Report, at paragraphs [130] – [132].
13 Page 51 of Waka Kotahi Conditions (Tracked Changes Version).
14 Statement of Evidence of Nicholas Goldwater, 4 July 2023, at paragraph [171].

inclusion of condition REM4(e).[15] This ensures identification of pests present within the works area in the first instance followed by a management response in accordance with the EMP for managing spread where present.

The perpetual management of pest plants within offset sites

[21] In my 87F Report, I agreed with the issues of pest management identified by Forest and Bird, however, I also noted that a condition for perpetual pest plant control in itself does not provide a reliable performance measure for net gain.[16] Mr Goldwater has responded to this comment, although only in relation to the terrestrial and wetlands Biodiversity Offset Accounting Models (**BOAMs**).[17] Mr Goldwater's opinion is that the critical period for pest plant management is during and up to the point where 90% canopy closure is achieved,[18] after which there is a high probability that the BOAMs will meet the key measures of success.[19]

[22] As a precautionary measure, Mr Goldwater is comfortable with adding a condition requiring annual checks for the need for intensive pest management from year 8 to year 15.[20] I note that REM19(e)(ii) specifically caters for this.[21] I am satisfied with this approach as it increases the certainty that the net gain outcome can be achieved within the modelled timeframes. This approach places emphasis on the outcome (net gain), while also acknowledging that effective pest plant management is critical to success.

[23] There will always be a need for ongoing vigilance and control of vigorous climbing vines like old man's beard and banana passionfruit, and shade tolerant trees like wilding pines if the net gain outcome is to be sustained. Mr Goldwater emphasises that the fundamental nature of the terrestrial ecology offsetting is to establish new habitat[22] and while he does not state

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15 Page 51 of Waka Kotahi Conditions (Tracked Changes Version). Also note a spelling mistake with "horse tail" needing to be one word (horsetail).
16 Section 87F Report, at paragraphs [175] – [176].
17 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraphs [157] – [163].
18 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraph [160].
19 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraph [161].
20 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraph [162].
21 Page 58 of Waka Kotahi Conditions (Tracked Changes Version).
22 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraph [158].

as much, the implication is that after year 15 (on the proviso that net gain is demonstrated) any maintenance work by Waka Kotahi will cease.

[24] I note Mr Goldwater has the expectation that maintenance of Te Ripo o Hinemata will pass to the Manawatu Kukutauaki No. 3 Section 2E5 Trust as custodian of the land once Waka Kotahi has met its obligation to offset effects for net gain.[23] I have assumed that Waka Kotahi itself accepts the responsibility for the long-term management of weed threats within the offset sites that lie within the designation.

[25] I am comfortable with the prospect of handing over the long-term maintenance of the offsets to the occupier (which would include Waka Kotahi), but I am not satisfied that REM13 or any other condition referring to "enduring legal agreements" (as proposed in the Waka Kotahi conditions) actually delivers on this expectation. For example REM13 only refers to Waka Kotahi as the consent holder to allow entry to carry out the work as required by the conditions.[24] There is no reference to long-term (beyond 15 years) maintenance. I note that Mr Brown has a similar view in respect to the management of invasive climbing weeds in the riparian offsets.[25] I discuss this issue in further detail below.

The perpetual management of pest plants within natural character plantings

[26] Ms Amelia Geary (for Forest and Bird) is of the opinion that the standards for landscape and natural character planting (including the maintenance of pest plants) should be the same as the offset planting if the 'whole of landscape' approach is to be applied.[26] Ms Geary provides information based on research, as well as the reports of Mr Goldwater, Ms Williams, and myself to support the argument that the performance measures set out in DVL1 and RWB3 are inadequate.

[27] Ms Geary has a valid point regarding the potential trajectory of the landscape and natural character plantings if inadequate attention is given to

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23 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraph [163].
24 Page 58 of Waka Kotahi Conditions (Tracked Changes Version).
25 Statement of Evidence of Logan Brown, 26 September 2023, paragraphs [54] – [56].
26 Statement of Eevidence of Amelia Geary, paragraphs [24] – [38].

pest plant and animal management during the initial phase of establishment. However, I do not consider that the measures to check performance of the biodiversity offsets need to be applied to these plantings. Rather, I agree with Ms Williams[27] that the 90% survival and 80% canopy cover measures are adequate.

[28] To be clear, where I state in my s87F Report that the performance standard for RWB3(a)(ii) and DLV1(b) should be revised to be consistent with the offsets,[28] what I meant was that the percentage cover standard for non-offset forest and wetland habitats plantings should be set at the same level as the percentage canopy cover for the equivalent offset habitat. I did not mean to imply that the faunal attributes and diversity indices also apply. Also, reflecting on Ms Williams' comment that 90% survival rate and 80% canopy coverage meets current best practice for landscape planting,[29] the BOAM canopy cover measures – which vary between 80% for raupō-dominated wetland habitat to 90% for forest habitats – are too onerous to apply to the landscape and natural character plantings when considering that the non-offset plantings serve to mitigate ecological effects of a low magnitude.

[29] Noting that the affected wetlands have low to moderate ecological value due to a lack of indigeneity, any increase in the indigenous signature of the remaining wetland habitat is of benefit to its inherent natural character. The 80% canopy cover standard, which by the nature of the indigenous plant selection, results in a reversion of the local landscape from one that is exotic-dominant to one that is indigenous-dominant. I am of the opinion that the 90% survival and 80% canopy cover standards for DLV1 and RWB3 deliver more than adequate ecological equivalency into the current landscape – noting that the offsets themselves deal with the higher magnitude effects of localised losses of habitat complexity in the interim.

[30] The experts (of which I include Ms Geary) have differing opinions as to whether 80% canopy cover can be delivered within 5 years. My own limited observation is that the outcome can be achieved if the planting density is

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27 Statement of Evidence of Julia Williams, 26 September 2023, paragraphs [32] - [37].
28 Section 87F Report, paragraphs [146] and [147].
29 Section 87F Report, paragraph [34].

high, and browsers and weeds are intensively controlled during the establishment phase. I am of the view that these are operational aspects that could (and should) appear in the EMP and I note that Schedule 7(f) of the Waka Kotahi conditions caters for this.

[31] The EMP does not deal with what to do:

(a) if the natural character plantings do not achieve 80% canopy cover by year 5; and

(b) when the natural character plantings become so infested with weeds as to no longer meet the ecological purposes they are intended to serve.

[32] In response, I am of the opinion that:

(a) In the first instance (the 80% canopy cover) the issue of non-compliance is potentially picked up by the reference to "monitoring" in the landscape and natural character conditions and reported to the Regional Councils through RGA4 of the Waka Kotahi conditions.[30] However, the linkage is tenuous at best, and I therefore recommend that and RWB3 have a specific year 5 monitoring and compliance reporting clause.[31]

(b) In the second instance (weed infestation), the consent conditions contain no provision for maintenance of the natural character plantings to ensure that they remain indigenous-dominant (more than 50% indigenous cover) in the face of on-going threats of invasive weeds. I am of the opinion they should, and have recommended changes to the conditions.

Natural Character Planting Definition

[33] I highlighted an issue with the definition of natural character planting. My concern is that the definition of natural character planting turns natural character into an issue of landscape management only (making it the

30 Page 36 of Waka Kotahi Conditions (Tracked Changes Version).
31 Page 73 of Waka Kotahi Conditions (Tracked Changes Version).

jurisdiction of the District Councils). This would have the effect of Horizons and GWRC losing oversight over the implementation of the natural character planting in relation to the management of ecological effects. As I discuss in my s87F Report, this planting is important for mitigating ecological effects.[32]

[34] I am reasonably satisfied that the addition of a reference to Condition RWB3 (natural character planting) into Schedule 7 (the EMP content) addresses this concern. This is because REM2 provides that the EMP must be certified by the Regional Councils.[33] The cross-reference to RWB3 in Schedule 7 provides scope for the Regional Councils to check that the specifications for natural character planting – such as species choice, planting density and frequency of pest management – serve the purpose of establishing ecological linkages and ecological buffers as intended.[34] That said, I would prefer this requirement to be more explicit, to put the matter beyond doubt for all parties.

[35] The reliance on the cross reference to RWB3 alone does not ensure that the ecological purpose of the plantings is met. In my view, this can be solved by an additional measure in Schedule 7(f) requiring a statement of the ecological purpose of the planting, being (in the case of the natural character plantings) one or a combination of mitigation of the loss of wetland natural character, stream natural character, ecological buffering, and/or improvement of ecological linkages. The purpose of the other plantings (wetland offset, terrestrial offset, stream offset, and riparian mitigation) is inherent in the name but it would be useful for the certification agencies if these purposes were re-stated for the relevant plantings too.

Bat Monitoring

[36] Previously, I indicated that that there was an issue with bat monitoring. This was simply to respond to Mr Goldwater's comment that the regional councils had not raised any issues associated with the bat survey.[35] My silence on the matter should not be taken as agreement. The issue was

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32 Section 87F Report, paragraph [72].

33 Page 50 of Waka Kotahi Conditions (Tracked Changes Version).

34 See Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraphs [148] – [156].

35 Statement of Evidence of Nicholas Goldwater, 4 July 2023, paragraph [117].

discussed in expert conferencing and has culminated in condition RTE8 (Bat roost survey) and the requirement of the EMP to include the procedures for the pre-construction survey for bat roosts.[36] I am satisfied that the issue is resolved.

E. RESPONSE TO SECTION 274 PARTY EVIDENCE

[37] I have reviewed the section 274 party evidence of Forest and Bird (Ms Amelia Geary) and have responded within the earlier sections of my evidence.

F. CONDITIONS

[38] I have reviewed the Waka Kotahi conditions. I have identified some specific issues with the conditions above. I understand Mr St Clair will be making recommendations to address the issues I have raised. More generally:

(a) REM12 sets out some measures that need to be undertaken by Waka Kotahi in order to achieve a biodiversity net gain.[37] I agree with the list of proposed measures described as "Performance targets", set out in Table REM-12, but do not consider the pre-amble in REM12(a) to be clear. In my mind, Table REM-12 records the critical actions (e.g. the minimum planting area, fencing, attainment of 90% canopy cover after 8 years, and 90% survival after five years), that <u>if not</u> undertaken or achieved within the first 8 years will likely lead to failure of the plantings to achieve the net gain within the modelled time frames. I would prefer there to be greater certainty around the expectation that these measures will be undertaken by Waka Kotahi for the purpose of achieving a biodiversity net gain. I support the wording of the condition proposed by Mr St Clair in his evidence.

(b) Waka Kotahi have proposed a change to REM13 to provide greater surety over the legal arrangements necessary to allow entry onto land to carry out, continue and maintain all offset and compensation measures required by the conditions.[38] Waka Kotahi have suggested that legal arrangements need to be enduring. I am not clear what

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36 Pages 45-46 of Waka Kotahi Conditions (Tracked Changes Version).
37 Pages 54-56 of Waka Kotahi Conditions (Tracked Changes Version).
38 Page 56 of Waka Kotahi Conditions (Tracked Changes Version).

this means, noting there appears to be an intent for Waka Kotahi to cease being responsible for the maintenance of the sites after 15 years or after net gain is demonstrated. My preference is for the legal arrangements to be in perpetuity and to include maintenance provisions. This provides for the offset over the long term, in a manner consistent with the One Plan.[39]

(c) I note that REM17 and REM18 do not provide a timeframe within which the new offsetting measures need to be updated in the EMP.[40] This is important as Waka Kotahi are required to comply with the EMP at all times, and it needs to be updated with any new requirements for compliance purposes.

(d) I have considered the changes to REM19 in the Waka Kotahi conditions.[41] The condition now better addresses the need for a biodiversity net gain for the Project to have been achieved by Year 15, if not before. However, the condition contemplates circumstances where net gain is not met at Year 15. I am concerned that this sets up the potential for perpetual review and failure with no alternative. Horizons and GWRC must be provided with the ability to enforce a new net gain proposition within a certain timeframe. Mr St Clair has proposed changes to REM19 which I support.

[39] Finally, I note that since mediation, Schedule 11 [BOAM Attributes] has been added to the conditions.[42] I understand that this is for the purpose of ensuring that there is a baseline against which to assess progress toward net gain. Schedule 11 itemises the attributes and timeframes against which REM19(c) and REM19(g) should be compared to check that offsets have attained the net gain outcomes as modelled. I have reviewed Schedule 11 and am comfortable that this accurately records the attributes relied on by Waka Kotahi in undertaking the BOAM. I note that the key to the proper function of condition REM19 and Schedule 11 is condition REM17 which provides for the re-setting of the year-zero and effects baselines once the

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39 Policy 13-4(d)(v).
40 Page 57 of Waka Kotahi Conditions (Tracked Changes Version).
41 Pages 57-58 of Waka Kotahi Conditions (Tracked Changes Version).
42 Page 108 of Waka Kotahi Conditions (Tracked Changes Version).

full extent of vegetation clearance and the condition of the offset recipient sites is known.[43]

G. CONCLUSION

[40] Subject to the above comments, I am satisfied that all issues I raised in my review of the application have been addressed.

26 September 2023

James Stuart Lambie

[43] Page 57 of Waka Kotahi Conditions (Tracked Changes Version).