

**BEFORE THE PALMERSTON NORTH CITY, MANAWATŪ DISTRICT (MDC)
AND TARARUA DISTRICT COUNCILS**

IN THE MATTER of the Resource Management Act 1991 (“the Act”)

AND

IN THE MATTER NOTICES OF REQUIREMENT by NZTA under s168 of the Act for the construction, operation, maintenance and improvement of approximately 11.5km of new State Highway between Ashurst and Woodville to replace the closed section of SH3 through the Manawatū Gorge and associated works, known as the Te Ahu a Turanga, Manawatū Tararua Highway Project (“the Project”)

Kelvin Michael Lloyd

**ADDENDUM TO EVIDENCE ON BEHALF OF THE DIRECTOR-GENERAL OF
CONSERVATION
(Ecology)**

Dated: 4 April 2019

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1. INTRODUCTION

- 1.1. My full name is Kelvin Michael Lloyd.
- 1.2. I submitted a statement of evidence on terrestrial ecology (EIC) on behalf of the Director-General of Conservation on 15 March 2019.
- 1.3. I have the qualifications and experience set out in my EIC.
- 1.4. I repeat the confirmation given in my EIC that I have read the 'Code of Conduct' for Expert Witnesses (2014) and that my evidence has been prepared in compliance with that Code.
- 1.5. I understand that questions have been raised through the hearing on the difference between offsets and compensation. This Addendum provides further explanation on that issue and responds to the comments of Dr Forbes.¹

2. OFFSETS

- 2.1. The ECRs as proposed in condition 13, 'bundle' all ecological effects on values into a simple area analysis. This is risky because, as stated in my EIC, at paragraph 4.13, ecological value does not always equate to area.
- 2.2. A more robust approach would assess the particular ecological values within the habitat types identified and their locations (for example, treelands that are important for connectivity, or centuries-old trees within old growth forests). This would be a more appropriate basis for determining the values that should be avoided, and an offset approach could apply to the potentially affected values that were unable to be avoided.
- 2.3. For ECR's to take into account time lags, one would expect an accounting framework to be used to determine the number of years required to achieve the same condition, state and complexity of the habitat being lost. This could be achieved in an offset model.
- 2.4. In relation to the reference to "offsets" in the conditions, I do not consider that the word offset should be used anywhere in the

¹ Addendum to Forbes EIC.

conditions. As stated in my EIC, what the Applicant is proposing cannot be termed an offset.

- 2.5. As stated in my EIC, an offset approach should not be used without first determining that avoidance, remediation, and mitigation are not possible. Dr Martin's evidence points out that applying the mitigation hierarchy in this way has not occurred e.g. for significant terrestrial invertebrates, there may be scope to avoid significant terrestrial invertebrate habitat.
- 2.6. For other measures proposed, such as the 'canopy gap' planting, the area required for this (32 ha) does not appear to be clearly stated in the conditions. The need for that planting would depend on a variety of factors, such as whether the areas are currently subject to pest control, whether natural regeneration is occurring in the areas now, and whether palatable species have been browsed to scarcity (in which case, for example, gap planting may need to focus on those species). These are just some of the matters that would be taken into account.

Compensation

- 2.7. Although in New Zealand compensation can be an acceptable approach, as set out in my EIC it is more difficult to show a compensation approach is acceptable for high value ecosystems as compared to low value ecosystems (where 'trading up' may occur). I have said:²

"In my opinion, compensation could result in a net gain but only if the adverse effect was small, and the positive effect overwhelmingly large."

- 2.8. This is because compensation requires a more subjective assessment of 'net gain', and the uncertainties associated with that subjectivity need to be recognised.
- 2.9. Dr Forbes considers I have taken an overly critical approach to his application of offsetting principles.³ I do not consider that to be the case.

² EIC at [6.5].

³ Forbes Addendum 25 March 2019 at [41] stating: "I consider the detail of Dr Lloyd's critique to be overly negative and unwarranted."

Kelvin Lloyd
4 April 2019