

**BEFORE THE NEW PLYMOUTH DISTRICT COUNCIL  
INDEPENDENT HEARING COMMISSIONERS**

**IN THE MATTER**            the Resource Management Act

**AND**

**IN THE MATTER**            of a request for Private Plan Change NPDC PLC18/00048  
by Oakura Farm Park Limited to rezone land at Oakura  
within the New Plymouth District

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**STATEMENT OF EVIDENCE OF CORNELIS MARTIN WILLEM FILIP BEVERS**

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**Instructing Solicitor: Ellice Tanner Hart**

## INTRODUCTION

1. My full name is Cornelis Martin Willem Filip Bevers.
2. I have been a practicing ecologist for 20 years, and currently I work as an ecologist at Landpro Limited (Landpro). Previously I worked through my own consultancy company Oecologico Limited (Oecologico), under which I carried out the ecological impact assessment for Oakura Farm Park Limited in 2017.
3. I hold a Bachelor of Science in Ecology (1996) and a Postgraduate Diploma in Wildlife Management (1998) from the University of Otago.
4. My experience includes; ecological impact assessments, bird count surveys, animal marking/banding and handling, forest health monitoring, project management, pest control, project feasibility, data analysis, general ecological survey work, botanical surveys, and weeds. I have worked for the Department of Conservation (DOC) as temporary data analyst in Technical Support Office in the Otago Conservancy, Dunedin. I have worked for DOC at the former Stratford Area Office as both a Programme Manager and Ranger undertaking Animal Threats pest control programmes and associated monitoring programmes. From 2003 until 2017, I have worked as a freelance ecologist through Oecologico, and worked with conservation groups, carried out general ecological work, and conducted ecological impact assessments for the private sector and local government. Oecologico merged with Landpro in October 2017.
5. Projects which I have worked on include: Technical Adviser to the Taranaki Kiwi Trust, Egmont National Park (ENP) bird survey for DOC, Rotokare pest-free sanctuary feasibility study and assessment of environmental effects for the Rotokare Scenic Reserve Trust, several Coastal Dune Ecosystem Impact Assessments (domestic buildings and Land Farming of well-site

drilling wastes) for private land owners and Swift Energy, pest waterfowl control options at Lake Rotomanu and Pukekura Park for the New Plymouth District Council, Te Kauri-Waikūkū Trust ecosystem monitoring plan, Oakura Sewerage scheme Ecological Impact Assessment for the New Plymouth District Council (NPDC), Gasbridge Ltd land-based (seal haul-out) ecological impact assessment, New Plymouth Coastal Walkway extension ecological impact assessment for the NPDC, seismic survey ecological impact assessments and monitoring for several petro-chemical companies, and a gravel quarry ecological impact assessment. Since joining Landpro, I have worked on high country station vegetation clearance ecological impact assessment, managing native shrublands for manuka honey production, bridge construction EIA, native vegetation clearance for road widening for the NPDC, rezoning of rural land to residential near Waitara, providing advice to the NPDC on construction of a boardwalk through the Waitara estuary.

#### **CODE OF CONDUCT**

6. I have read the Environment Court Code of Conduct for Expert Witnesses and agree to comply with it. I confirm that the opinions expressed in this statement are within my area of expertise except where I state that I have relied on the evidence of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

#### **SCOPE OF EVIDENCE**

7. I have prepared a report for the with the proposed plan change for the subdivision of land at Wairau Road; the “Ecological Values and Impact Assessment: Wairau Stream, Wairau Estate subdivision, Oakura.” report dated 26th of July. This report is attached as Annexure 1. I confirm the findings of my Ecological Values and Impact Assessment Report.

8. From my report, I will present evidence here pertaining to the ecological values of the site, my assessment of the proposed activities and their potential ecological impacts, and proposed mitigation measures.
9. I am familiar with the entire site and I confirm that I have visited the site several times as part of my investigations and field work in writing my Ecological Values and Impact Assessment Report.
10. I have read and reviewed the NPDC Officers Planning Report prepared for Hearings Commissioner 31 May 2019 (NPDC planning report). I will comment on parts of the NPDC planning report as they relate to ecological issues and are relevant to my area of expertise.

#### **SUMMARY OF EVIDENCE**

11. Both the central and southern tributaries of the Wairau Stream are of moderate ecological value.
12. There are no threatened species known to be present on site.
13. Potential ecological impacts of the proposed activities can be mitigated by adopting recommendations made in the Ecological Values and Impact Assessment Report.
14. The potential ecological effects of the development of the Oakura Farm Park Ltd. balance area, to be known as "Wairau Estate", carried out in accordance with all mitigation measures and recommendations being adopted, will be no more than minor.

## **ANALYSIS**

15. I present this evidence on behalf of the applicant Oakura Farm Park Ltd. This evidence is based on my ecological experience and knowledge, my site visits, published ecological papers, local government reports, records from ecological databases, published field guides and handbooks. The following evidence provides an appraisal of the ecological values of the site, and assesses potential ecological impacts and their mitigation. I have traversed both the central and southern tributaries of the Wairau Stream, and visited the man-made pond adjacent to South Road (SH 45) to survey the ecological values of the sites.
16. The various dates of my visits and the methodology used in my assessment are explained in detail in my Ecological Values and Impact Assessment Report.

## **Flora**

17. The central tributary of the Wairau Stream contains remnant native vegetation and a variety of exotic weed species, which is restricted to the narrow gullies within which it is located, and is surrounded by farmland pasture. The native vegetation is generally of scattered trees and young plants, and wetland plants. Dominant species include mamaku tree fern, mahoe, kamahi, karo, a single rimu, karma, kawakawa, raupō, flax, cutty grass, pūkio, kiokio fern, and the common rush wiwi.
18. Exotic plants found in, or adjacent to the central tributary of the Wairau Stream include gorse, crack willow, cherry tree, Scotch thistle, convolvulus, woolly nightshade, Tasmanian blackwood, ragwort, an unidentified Eucalyptus sp. tree, bamboo, wandering willie, sweetgum, kahili ginger, sycamore, Chilean rhubarb, and inkweed.

19. Significant areas of habitat in the central tributary include several reasonably large raupō beds, in both arms of the stream, and lower down.
20. The southern tributary of the Wairau Stream has a narrow incised channel, and is a fast flowing stream with a rocky bed. This stream is fenced off from farm stock, and has had its riparian edges planted out with native vegetation, with some species having also naturally colonised the area. The species include; akeake, flax, mountain flax, toe, pampas, cabbage tree, broadleaf, taupata, koromiko, kohuhu, lemonwood, five-finger, pohutukawa, mamaku, and ribbonwood.
21. Exotic plants found in, or adjacent to the southern tributary of the Wairau Stream include; gorse, montbretia, chilean rhubarb, and brush wattle.
22. The man-made pond adjacent to the South Road (SH 45) boundary, between the two tributaries of the Wairau Stream, is surrounded by plantings of flax, cabbage trees and pohutukawa. Some gorse and woolly nightshade are also present.

### **Fauna**

23. Bird species present were recorded during the site visits, and a wetland bird survey was carried out, as a fish spotlight survey during the site visits detailed in my report.
24. None of the targeted species of wetland birds (spotless crake, marsh crake, Australasian bittern and fernbird) were detected during the wetland bird survey.
25. Native bird species found onsite were pukeko, Australasian harrier, fantail, grey warbler, and kingfisher.

26. It is likely that spotless crane occasionally use the larger raupō beds within the central tributary of the Wairau Stream, as they are known to be present in the northern tributary, only 200m away.
27. Exotic bird species noted were chaffinch, starling, song thrush, greenfinch, goldfinch, and blackbird.
28. The native banded kokopu was detected in the fish spotlight survey throughout the central tributary of the Wairau Stream.
29. Long-finned eel were detected in the southern tributary of the Wairau Stream.
30. No koura, or freshwater crayfish, were detected during the spotlight survey, but these are likely to be present in low numbers, as they have been detected in the northern tributary of the Wairau Stream on the property.
31. No lizards were noted during the site visits, although no specific survey work for them was undertaken. It is likely that the goldstripe gecko are present within the gullies of central and southern tributaries of the Wairau Stream, as they have been recorded on-site in the past near the northern tributary of the Wairau Stream, and in Oakura township.

**Summary of conclusions from the Ecological Values and Impact Assessment Report (attached as Annexure 1).**

32. The central and southern tributaries of the Wairau Stream have existing riparian vegetation and a significant number of raupō beds of good ecological value, which will be enhanced by the proposed planting of native plants within the stream gullies.

33. Native species seen on the site in this survey include pukeko, Australasian harrier, fantail, grey warbler, kingfisher, banded kokopu, and long-finned eel. Other species likely to be present, found in previous surveys on the Oakura Farm Park Ltd. property, include spotless crake, gold-stripe gecko, and koura.
34. It is likely that spotless crake use the larger raupō beds within the central tributary of the Wairau Stream, as they are known to be present in the northern tributary 200m away.
35. Additional exotic species seen on site in this survey include chaffinch, starling, song thrush, greenfinch, goldfinch, and blackbird.
36. None of the species seen in the balance area of the property proposed for the “Wairau Estate” development are considered threatened under the New Zealand Threat Classification System.
37. The raupō beds within the tributaries of the Wairau Stream are important habitat for spotless crake.
38. The revegetation plantings proposed provide good opportunities to create important habitat for goldstripe gecko, as well as a significant food source for native birds such as tui and kereru.
39. Control of stormwater run-off from the roading network can be easily achieved in the gully system of the central tributary of the Wairau Stream by the formation of five stormwater retention ponds, with an estimated overcapacity of approximately seven times if 3m high bunds are used.
40. The water retention time of the ponding water behind the bunds is estimated to be of only short a duration of 3 to 5 hours for a 1% AEP storm

event, which is unlikely to negatively affect the raupō and flax beds in the gullies.

41. Silt run-off from excavation works can negatively impact streams and wetlands, if left uncontrolled. Silt control measures are easily implemented to mitigate this risk.
42. Clearance of pasture grass, with any associated earthworks in the subdivision is a minor ecological impact.
43. The revegetation plantings and re-grassing will aid in the control of silt laden run-off from earthworks.
44. Domestic cats can have a significant impact on populations of birds, invertebrates, lizards and rodents. Roaming and hunting behaviour in cats is not easily controllable.
45. Domestic cats are already established in the area.
46. Domestic dogs disturb and kill wildlife. The roaming and hunting behaviour of dogs is relatively easily controlled compared to cats.
47. The potential ecological effects of the development of the Oakura Farm Park Ltd. balance area, to be known as "Wairau Estate", carried out in accordance with all mitigation measures and recommendations being adopted, will be no more than minor.

**Summary of recommendations from the Ecological Values and Impact Assessment Report.**

48. It is recommended that:

- (a) The raupō beds remain in full sunlight, and are not shaded by any of the revegetation plantings, even when mature.
- (b) Consideration should also be given to creating large patches of flax and toetoe (greater than approximately 100m<sup>2</sup>) within the revegetation plantings to provide habitat for native lizards, such as the goldstripe gecko.
- (c) That the following species are included in revegetation plantings to encourage native birdlife; mountain flax, flax, kowhai, puriri, tawa, kawakawa, pigeonwood, cabbage tree, miro, rewarewa, kahikatea, kohekohe and totara.
- (d) That the stormwater retention ponds are designed to allow for any excess stormwater to drain away within 24 hours at normal flow rates.
- (e) That the stormwater retention ponds bunds are no greater in height than 3m, and where stormwater management design allows, are designed to as low a height as practicable, so as to minimise raising the water levels.
- (f) That any new culverts installed enable effective passage of migratory native fish upstream and downstream, e.g by the use of mussels sprat ropes draped through them.
- (g) Any areas excavated associated with the proposed development (e.g. roading or stormwater) are re-grassed or built over (e.g. road), as soon as practicable after earthworks are complete.
- (h) That revegetation planting of the gullies is carried out before house site and roading earthworks are begun.

- (i) Domestic cats are prohibited in the subdivision.
- (j) That where lots have a boundary in common to a proposed covenant area, that the common boundary be fully fenced with standard 8-wire post and batten farm fence, or a 5-rail wooden fence, to a height of between 1.1-1.2m, which will effectively control most dogs.
- (k) The proposed walking track in the esplanade is fenced off from the wetlands using an 8-wire post and batten farm fence, or a 5-rail fence, to a height of between 1.1-1.2m, to effectively control most dogs.
- (l) Within the esplanade strip all dogs are to be kept on a leash at all times, and that the New Plymouth District Council adds the proposed Wairau Stream Esplanade Strip to the “Leashed control areas for dogs” under the NPDC Dog Control Bylaw 2010.
- (m) That follow up monitoring of wetland birds, especially spotless crane, is undertaken after the proposed subdivision works and residential development has taken place, and into the future.

#### **Evidence of others and associated opinions**

49. I have read the evidence of Mr Andrew Fraser from Red Jacket Limited, and note that he states that the proposed wetland-like stormwater detention ponds system that will be hydraulically neutral. These stormwater ponds will have throttled pipe discharges to ensure predevelopment flows are not exceeded, and therefore will have an effect on the environment that is no more than minor.

**Items not included in the Ecological Values and Impact Assessment Report**

50. Further consideration of the recommendation to prohibit cats from the submission (see 48. (i) above), I note that this may be difficult to implement and enforce with the current District Plan. Anecdotal evidence from the original subdivision by Oakura Farm Park Ltd. "The Paddocks" in 2010 suggests that prohibiting cats by way of caveats registered against all titles is not entirely effective. A bylaw may be able to be passed to prohibit cats in the subdivision, allowing NPDC Animal Control Officers to enforce the bylaw. Alternatively, a caveat registered against all of the titles of the subdivision prohibiting the keeping of cats. Consideration could also be given to having a bylaw or title caveat to restrict pet cats to the confines of the section boundaries, effectively meaning cats must be kept entirely indoors. Cats may also be able to be taken outside on a leash, although I am not sure how feasible this may be generally,

**Comments on New Plymouth District Council Officers Planning Report, prepared for Hearings Commissioner 31st May 2019.**

51. I note that the Planning report states that "The proposal has the potential to maintain and enhance the ecological values of the site and wider area" (p.54).
52. No objections or contradictions to my report are raised in the Officers Planning Report, and it is noted that the report states that potential ecological impacts are addressed by the mitigation measures in my report (p. 55).
53. The Officers Planning Report concludes that adopting the mitigation measures from my report will achieve the objective of the Plan to to sustainably manage, and enhance where practical, indigenous vegetation

and habitats. Furthermore, the Officers Planning Report recommends that "the ecological protection and enhancements methods proposed are referenced in the Plan provisions to ensure they are appropriately implemented at the time of subdivision and development" (pp. 55-56).

## **CONCLUSION**

54. The potential ecological effects of the development of "Wairau Estate", carried out in accordance with all mitigation measures and recommendations being adopted, will be no more than minor.
  
55. The ecological protection and enhancement methods proposed will provide positive ecological effects in terms of increasing the area of habitat, increasing biodiversity, and increasing native animal populations sizes.

**ANNEXURE 1**

**Oecologico. 2017. Ecological Values and Impact Assessment: Wairau Stream, Wairau Estate subdivision, Oakura. July 2017. New Plymouth, New Zealand.**