

**EVIDENCE** TIMOTHY JAMES MARTIN  
**TOPIC** PC113  
**SUB#** NINE  
**DATE** 19 NOV 2013

**IN THE MATTER** of Resource Management Act 1991 ("the Act")

**AND**

**IN THE MATTER** of Hearings on a request for Private Plan Change 113 – Ruakaka Racecourse Whangarei District Plan

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**STATEMENT OF EVIDENCE OF TIMOTHY JAMES MARTIN**

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**PROFESSIONAL BACKGROUND**

1. My name is Timothy James Martin. I am a senior ecologist with Wildland Consultants Ltd, based in Auckland, a position I have held since 2006.
2. In 2007 I graduated with a PhD in Environmental Science from the University of Auckland. I also hold the degrees of Bachelor of Science and a Master of Science with First Class Honours, both from the University of Auckland, where my studies were undertaken at the School of Biological Sciences and the School of Geography and Environmental Science.
3. I have considerable experience in New Zealand ecology, which I studied during both my Masters and Doctoral research. For my Masters research I studied the ecology of hutu<sup>1</sup> which is a rare native tree. My PhD research focused on the effects of wind disturbance on New Zealand indigenous forests, which involved extensive field research throughout the North Island. I am an author of five scientific papers published on these and other topics in peer-reviewed national and international scientific journals. I have also presented aspects of my research at national and international scientific conferences.

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<sup>1</sup> *Ascarina lucida*.

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4. My work as an ecological consultant has covered a wide range of habitat types, including wetlands, streams, grasslands, dunelands, shrublands, forests, and estuarine ecosystems. I have provided assessments of ecological effects for a range of development activities in natural areas, provided technical advice on community-led restoration projects, and undertaken surveys for threatened species.
  5. I surveyed the subject site on 12 and 14 November 2012. During the site survey I mapped and described the vegetation and habitats present within the Ruakaka Racecourse, and on the land immediately adjacent to the site.
  6. In 2007, I co-authored "Natural areas of the Waipu Ecological District: Reconnaissance Survey Report for the Protected Natural Areas Programme" (Lux *et al.* 2007). This report mapped and described the natural areas located immediately to the north, east, south, and west of the Ruakaka Racecourse, including their vegetation, fauna, and flora.
  7. In 2012 I was the author of a review of ecological aspects of the Ruakaka Racecourse Plan Change.
  8. I have read the Code of Conduct for Expert Witnesses 2006 and have complied with it in the preparation of this statement of evidence. Except where I state that I am relying upon the specified evidence of another person, my evidence in this statement is within my area of expertise. I have not omitted to consider any material facts known to me that might alter or detract from the opinions which I express below.

## **INTRODUCTION**

9. Hill Young Cooper (HYC) commissioned Wildland Consultants Ltd in 2012 to provide an ecological review of the Ruakaka Racecourse Plan Change (Wildland Consultants Report No. 3063, 2012). This report provides an ecological assessment of the racecourse and adjoining land, describes the potential adverse ecological effects of the development, and provides a
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review of proposed mitigation required to address protection of ecological values.

### **ECOLOGICAL CONTEXT**

10. Ruakaka Racecourse lies adjacent to the coastline of Bream Bay, in the Waipu Ecological District. The coastal plain has been highly modified by human activity and is now primarily covered in pasture, with coastal settlements at Waipu, Ruakaka, and One Tree Point. Significant natural areas remain on the coastal dunes and within river estuaries, and the Ruakaka Racecourse is bounded on all sides by natural areas of high ecological value.
11. The Ruakaka dunelands lie to the north and east of the racecourse, between the racecourse boundary and the beach, and this area extends to the south of the racecourse as the Ruakaka Wildlife Refuge. The western boundary of the racecourse is formed by a dune lake, which is the only dune lake in the Eastern Northland Ecological Region. All of these natural areas have high wildlife values, as they provide important nesting and feeding habitat for a wide range of indigenous avifauna, including many Threatened, At Risk, and regionally significant species. Indigenous vegetation within these natural areas is highly representative for Waipu Ecological District.
12. In contrast, most of the habitats within the racecourse boundaries are highly modified and of low ecological value, and these were mapped and described as part of the ecological review I undertook for the plan change (Wildland Consultants Report No. 3063, 2012).
13. The evidence of Dr Beauchamp, Paragraphs 22-23, supports this assessment, stating that he did not “identify any major habitats of conservation significance remaining within the site”.

### **COMMENTS ON THE EVIDENCE OF DR BEAUCHAMP**

14. In Paragraph 51, Dr Beauchamp states that the Wildland Consultants ecological review did not consider horse and vehicle access issues. This

statement is incorrect as Section 9.1 of our report specifically addresses horse and vehicle access, including the proposed closure of the vehicle access at the northern end and the horse access near the southern end, and the formation of two defined access points on the eastern boundary. The remaining frontage would then be fenced to restrict access to these two points. The proposed changes will prevent vehicles from obtaining access to the beach from the racecourse site, and prevent the formation of multiple access points along the eastern boundary.

15. In Paragraphs 63-71, within a section titled “potential ecological effects arising from the private plan change”, Dr Beauchamp addresses potential pest animal impacts arising from species such as rabbits, mustelids, cats, harriers, hedgehogs, and possums. It should be noted that all of these species are almost certainly currently present at the site, and therefore pest animal impacts cannot be regarded as being an ecological effect of the plan change.
16. In Paragraph 74, Dr Beauchamp states that the proposal to ban cats, dogs, and mustelids needs to consider predator species potentially brought in by visitors. If the ban is applied to each individual residential title, this would address all prohibited animals, regardless of whether they are brought to the site by residents or visitors.
17. In Paragraph 74, Dr Beauchamp also suggests that the ban should be extended to include all species potentially regarded as threats, and these are listed in his Paragraph 101 as including “geese, ducks, rabbits, fish” and “falcons, rats, terrapins, Gambusia”.
18. Geese and ducks are addressed under the Whangarei District Council bylaw which controls the keeping of poultry and other birds. Under this bylaw it is an offence to keep poultry except in an enclosed run. Poultry kept in an enclosed run will not pose any threat to the reserves, wildlife refuge, or dune lake habitats.
19. The keeping of domestic rabbits or rats as pets within the subdivision is unlikely to increase the local wild populations. Wild rabbits will be present across a wide area of the local landscape. The wild rat population will include

Norway rat (*Rattus norvegicus*) and ship rat (*Rattus rattus*). Wild rabbits and rats will also be addressed within pest management plans.

20. Regarding the keeping of fish, including Gambusia, there is to be no access from the racecourse to the dune lake, and it is an offence under the Conservation Act 1987 (Section 26ZM) to transfer or release aquatic life into any freshwater without the prior approval of the Minister of Fisheries or the Minister of Conservation.
21. In relation to the keeping of birds of prey, the holding of harriers (*Circus approximans*) requires a permit from the Department of Conservation, and the keeping of falcon (*Falco novaeseelandiae*) is illegal.
22. For terrapins, there is growing concern regarding the potential impacts of red-eared slider turtles in northern New Zealand. The ban proposed could be extended to include all terrapins (aquatic turtles), to address this concern, which is valid.
23. In Paragraph 77, Dr Beauchamp states that the only way to prevent weed issues is to not plant potentially weedy species in nearby landscaping, and to provide measures to prevent green waste from being dumped onto public conservation land. He also suggests construction of a 4 m tall fence.
24. In Section 9.4 of our ecological review of the plan change, it is suggested that the plan change should include a rule prohibiting the cultivation of any plant listed in the Northland Regional Pest Management Strategy, the National Plant Pest Accord, and any species included as Community Pest Control Area Plants.
25. Preventing the dumping of garden refuse is more problematic. Whilst construction of a 4 m tall fence might reduce the dumping of garden refuse along some boundaries, it will not prevent it entirely as there will still be unfenced interfaces between the development and public conservation land. This issue can be addressed by:

- Covenants for each lot expressly prohibiting the dumping of green waste into the adjacent areas; and
  - Ongoing, annual control of all weed species within the racecourse and within a buffer zone at least 30 m wide along all boundaries of the racecourse with the surrounding natural areas.
26. This will both reduce the incidence of dumping, and ensure that any material dumped doesn't become a source for weed invasion.
27. In Paragraph 79, Dr Beauchamp states that water birds on the dune lake may be adversely affected by noise levels associated with events. It should be noted that, in addition to the buffer plantings within the development site, the lake lies a further 30-60 m to the west of the site boundary, and noise levels are unlikely to be an issue.
28. In Paragraph 80, Dr Beauchamp discusses the potential for lighting to disrupt indigenous insect species, such as sand scarabs. The potential adverse effects of lighting on insects can be significantly minimised by selecting lighting with longer wavelengths, at the orange-red end of the spectrum, to which insects are much less attracted. This is now often standard practice for councils as it reduces the attraction of insects to lights, and associated deaths, and associated maintenance requirements.
29. Dr Beauchamp also raises concerns about lighting and potential effects on birds. The potential effects of lighting on seabirds, including waders, will be minimised by reducing light spill into adjacent natural areas. This will be achieved by the use of directional lighting near the boundaries of the development, and the establishment of buffer plantings of sufficient height and density to impede the passage of light beyond the site.
30. In Paragraph 85, Dr Beauchamp states that the site needs to be fenced to ensure that horses do not have access to the surrounding reserve land. Fencing is proposed along all boundaries of the site.

31. In Paragraphs 87-88, Dr Beauchamp outlines the risk of fire to the ecological values of the adjacent natural areas, which is a valid concern. The control of fires is addressed by Whangarei District Council bylaws, such as the Fire Prevention Bylaw 2005. The design of screen plantings will also help to address fire risk by favouring the use of fire-resistant indigenous species, such as ngaio, flax, mahoe, cabbage tree (ti kouka), houpara, and taupata, rather than flammable species such as kanuka and manuka.
32. In Paragraphs 90, 92, and 104, Dr Beauchamp outlines the potential adverse effects of a proposed road to the south of the dune lake. This road currently exists as a narrow gravelled access way, and the lake is not visible from it due to dense vegetation on its northern side. No evidence is provided to support the claim that construction of this road will lead to the loss of species such as black shag from the dune lake. However, if this road is to be constructed, design should ensure that the dune lake is not the receiving environment for stormwater from the road, and that the existing vegetated buffer between the road and the lake is securely fenced to prevent access by horses and people, and is also subject to a weed management and planting plan to restore indigenous vegetation appropriate for the site.
33. In Paragraph 99, Dr Beauchamp recommends that the employment of a warden should be a "full time and permanent position" and that their tasks should include predator control, fence maintenance, weed management, advocacy, and monitoring. In my review of the plan change, I suggested that, from the onset of construction of residential properties within the racecourse, an appropriately qualified and experienced person should be employed in the lead up to, and during, the breeding season, to undertake predator control. During the breeding season, this person can maintain fences around nests, and act as a nest warden, to educate recreational users of the need to protect and avoid disturbance of nesting birds. This work needs to be undertaken each year, as the potential adverse effects of increased human use will also be ongoing. However, work outside the breeding season could be a part-time position due to the lesser amount of work required when shorebirds are not breeding and international migrants are also absent. Other tasks, such as

weed control, establishment of plantings, and monitoring are also required, but do not necessarily need to be undertaken by a warden.

34. In Paragraph 106, Dr Beauchamp states that an ecological management plan is needed prior to development for the site as a whole, rather than prepared for each precinct at the time that development of that precinct commences. Ecological management plans will be prepared in response to how each precinct is to be developed, and as such, need to be prepared once the details for each precinct are known. However the framework for a comprehensive Ecological Management Plan (EMP) could be developed for the site as a whole when the first precinct-based management plan is prepared. This site-wide EMP would set out how the ecological values of the surrounding natural areas would be protected from human disturbance, and plant and animal pests (Mr Riddell's evidence, Paragraph 170). Detailed ecological management plans would then be developed for each precinct, that are nested within and in keeping with the overall site-wide EMP.

#### **COMMENTS ON THE EVIDENCE OF MR RIDDELL**

35. On page 33, Mr Riddell also recommends increasing the development setback distance on the southern boundary from 10 to 16 m, to allow for a minimum 5 m planting width, plantings on both sides of the horse track, and the growth of substantial trees such as pohutukawa. I agree with this approach. Larger species are required along the southern boundary, to screen the public conservation land to the south, and increasing the buffer width will allow for the growth of a wider, taller, and more dense vegetated buffer.
36. On Page 33, Mr Riddell notes that disturbance due to development overlooking the dune lake is not identified in proposed policy 4.6.6, and recommends that the policy is amended to stipulate this. Mr Riddell suggests that Policy REE4.6.6 states that "living areas, including decks, of any residential building shall not be visible from the dune lake". The screening of living areas from the dune lake is recommended, and may be able to be



achieved by various measures, including earth bunds, fencing, screen plantings, and if necessary, controls on the location of living areas.

37. In Appendix 1, page 5, Mr Riddell states that ecological management plan actions to be taken may include “ongoing animal control (including dogs, cats, mustelids, rabbits, hedgehogs, rats, grazing animals, hawks, falcons, and possums)”. Whilst an integrated pest management plan is important for the protection of ecological values at the site, the control of falcon is not appropriate. The only falcon species currently known to occur in Northland is the indigenous bush falcon (*Falco novaeseelandiae*), which has a conservation status of “Threatened-Nationally Vulnerable” (Miskelly *et al.* 2007). This species is strictly protected under the Wildlife Act 1953.

Timothy J. Martin  
12 November 2013

## **REFERENCES**

- Lux J., Martin T., and Beadel S. 2007: Natural areas of Waipu Ecological District: reconnaissance survey report for the Protected Natural Areas Programme. Department of Conservation, Whangarei.
- Miskelly C.M., Dowding J.E., Elliot G.P., Hitchmough R.A., Powlesland R.G., Robertson H.A., Sagar P.M., Scofield R.P., and Taylor G.A. 2008: Threat ranking of New Zealand birds, 2008. *Notornis* 55: 117-135.
- Wildland Consultants 2012: Ecological review of the Ruakaka Racecourse Plan Change. *Wildland Consultants Ltd Contract Report No. 3063*. Prepared for Hill Young Cooper. Wildand Consultants, Auckland 27 p.