

Before Kaipara District Council

In the Matter of the Resource Management Act 1991 (**RMA**)

And

In the Matter of an application for Private Plan Change 82
(**PC82**) by **MOONLIGHT HEIGHTS LIMITED** to
rezone 39.2 ha of land at Awakino Road,
Dargaville from Rural Zone to Residential Zone

Evidence of Jack Warden on behalf of Moonlight Heights Limited

(ECOLOGY)

Dated [20 July] 2023

Jeremy Brabant

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Introduction

1. My full name is Jack Oliver Warden. I am a Senior Ecologist and Restoration Manager at Rural Design 1984 Ltd. I hold a Bachelor of Applied Science (BASc) in Biodiversity Management from Unitec.
2. I have 8 years' experience as an ecologist and ecological consultant. I am a skilled botanist and have over 8 years of experience working in environmental restoration and ecological consultancy setting. Currently, I work on a range of ecological assessments for both public and private organisations, and am well versed in local, regional and national planning matters and the Resource Management Act. I'm deeply passionate about our natural environment and working on projects that help restore and enhance our land.
3. I was instructed by Moonlight Heights Ltd in January 2022 to undertake an ecological assessment to identify and assess existing ecological values of the site and outline opportunities, constraints and potential enhancement and mitigation strategies associated with the subdivision proposal and associated site development works.
4. I am familiar with the area to which the application for resource consent relates. Rural Design have visited the site once to carry out ecological surveys and assessment on 18th March 2022.
5. Although this is not a hearing before the Environment Court, I record that I have read and agree to and abide by the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This evidence is within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses as presented to this hearing. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

6. My evidence will address the following:

- (a) Provide a summary of the ecological values of the site;
- (b) Assess the potential ecological effects associated with the proposal;
- (c) Provide a comment on stormwater management;
- (d) Address relevant ecological matters contained in the Section 42A report;
- (e) Comment on issues raised by submitters;
- (f) Provide a brief conclusion.

Site Ecological Context

- 7. Moonlight Heights Limited (the Applicant) proposes to conduct a Private Plan Change (PPC) ('the Proposal') at 159 Awakino Road, Dargaville ('the site') to enable the creation of Awakino Precinct. Awakino Precinct would enable medium density residential development for a range of allotment sizes where ecological enhancement, open space and connectivity corridors are achieved.
- 8. The site is predominantly in pasture and depauperate of indigenous vegetation save one small, remnant patch of kanuka (*Kunzea robusta*) in the centre of the site, and a sliver of towai (*Pteropylla sylvicola*) treeland on the south-eastern border. The site has an extensive network of artificial watercourses which drain the property into the contiguous Awakino River system to the east.
- 9. The site and surrounds as described above have been largely modified by Maori and European settlement. At present day, most of the site comprises of exotic grassland that is relatively uniform across the site, primarily dominated by kikuyu (*Cenchrus clandestinus*). As noted from the historic imagery, most of the native vegetation has been historically cleared, though small, scattered remnant patches of native kanuka, towai and mixed native treeland can be found along the north-eastern and south-eastern borders of the site respectively. Of note was the presence of multiple indicative wetland areas, and exotic pine stands running through the southern and

central aspects of the site. Numerous artificial drainage channels (both relict and active) run throughout the site as well.

10. Overall, there are 7 ephemeral streams, 2 intermittent streams and 7 artificial drains within the site boundaries. There are also 6 wetland features meeting the natural inland wetland definition (as defined under National Policy Statement for Freshwater Management (NPS-FM 2020) within the site boundaries and directly adjacent.
11. No 'Threatened' or 'At Risk' avifauna was recorded at the site, and only low numbers and diversity of native species was recorded. There was minimal indigenous bird feeding, roosting or nesting habitat on site. No indigenous herpetofauna was recorded on site, and no optimal habitat for herpetofauna is present on site. No suitable roosting or nesting habitat for short-tailed or long-tailed bats noted on site or immediate area. Sub-optimal habitat is available for indigenous fish, likely limited to highly adaptable species such as banded kokopu and shortfin eel.
12. Freshwater and terrestrial ecological values were assessed as low based on field survey visits and analysis of previous data from the site and immediate areas.

Ecological Effects Summary

13. Given that the overall potential subdivision or development layout following the PPC is unknown, I can only briefly assess the potential ecological effects. Please note that this is a general assessment only and any future subdivision or land development proposals will require additional ecological assessments.
14. Freshwater and terrestrial ecological values were assessed as low based on field survey visits and analysis of previous data from the site and immediate areas. The before-mitigation level of effect for proposed activities were assessed as ranging between 'high and low', but with proposed mitigation measures in place, the overall level of effect will be reduced to between 'low and very-low.'

15. I consider that the objectives, policies and rules as described within the proposed Awakino Precinct Provisions provide sufficient detail and guidance for the preservation and enhancement of natural features (aquatic and terrestrial) present on site.
16. At the time of land development/subdivision within the Awakino Precinct, a comprehensive Ecological and Wetland Assessment as well as an Ecological Management Plan will be required to be submitted as part of a Resource Consent application. This will ensure that any potential adverse effects associated with subsequent subdivision/development of the site on ecological values can be avoided, minimised or mitigated through best practice sediment and erosion control measures, comprehensive ecological and landscape design principles, as well as appropriate planning and development controls.
17. Provided that they are implemented successfully during construction and operational phases of the development, adverse effects on the environment are expected to be no more than minor, and the Proposal would, in fact, allow for the enhancement of functional and structural connectivity of the ecological values identified on Site and immediate surrounds.

Response to s 42A Report

National Policy Statement for Indigenous Biodiversity 2023

18. Council's s42A report Section 5.5 raises matters relating to the National Policy Statement for Indigenous Biodiversity 2023 ("NPS-IB"). The NPS-IB was gazetted on 7 July 2023 and will come into force on 4 August 2023.
19. The subject site does not contain any Significant Natural Area ("SNA") identified by the Kaipara District Plan and the Northland Regional Policy Statement. Considering the findings of the ecological assessment when considered against the NPS – IB SNA criteria (NPS-IB Appendix 1) I assess the kanuka treeland identified on site would fall within the definition of SNA.

20. The kanuka treeland is dominated by kanuka (*Kunzea robusta*) which is listed as 'Threatened - Nationally Vulnerable' therefore will qualify the area under: - "C Rarity and distinctiveness criterion 6 (a) provides habitat for an indigenous species that is listed as Threatened or At Risk (declining) in the New Zealand Threat Classification System lists."
21. The wetland features identified on site, although containing small patches of indigenous biodiversity (indigenous wetland plant species) such as orange nutsedge (*Machaerina rubiginosa*), were primarily dominated by exotic species and were not observed to support any indigenous fauna. Therefore, in my opinion these features in their current state do not meet any of the SNA criteria.
22. In my view the proposed provisions for the protection and enhancement of natural features as outlined under the proposed Awakino Precinct Provisions will ensure that potential adverse effects on indigenous biodiversity from the proposal will be avoided. Appropriate consideration will have to be given to NPS-IB (2023) at the time of any future subdivision or development proposals.

Response to Submitters

23. I have reviewed the submissions received on the application. Two submitters have identified concerns related to ecological matters which I address below.

Potential loss of breeding ground/habitat

24. Mr Daryl Neal notes that the proposal could result in potential loss of breeding ground/habitat for fowl, including heron, kaka, harrier, morepork and pheasant.
25. While the Site itself is not thought to provide significant breeding or nesting habitat for any threatened avifauna due to significant anthropogenic modification and disturbance by current land use activities, some common mobile exotic and native fauna likely utilise the site for occasional foraging.

26. Species such as heron, kaka, harrier and morepork have a preference for indigenous forested and riparian habitats. Therefore, the loss of exotic pasture habitats on site is of a negligible concern in regard to the potential loss to breeding and foraging habitat.
27. Since no 'Threatened' or 'At Risk' fauna was recorded on site or immediate surrounds, with the majority of fauna recorded being common and mobile species, they are likely to either escape human attention or move elsewhere if they are disturbed.
28. The revegetation planting and pest weed and animal control in the proposed enhancement areas is likely to positively support this area as a suitable avifauna feeding and roosting habitat within the wider landscape.
29. Therefore, I conclude that the loss of low ecological value open pasture habitat would have a negligible effect on avifauna breeding and foraging habitat, and the proposed development of the site would in fact actively enhance and extend potential habitat linkages and provisioning services for these species.

Rodent population increase

30. Ms Denise Faber outlines a concern that due to historic substantial growth and development, unfortunately with human growth so too has the rodent population grown.
31. The proposed Awakino Precinct Provisions for the management of natural features include weed and pest management controls and indigenous revegetation (where appropriate), and in my opinion this should have a positive flow on effect in the reduction of pest animal populations.

Conclusion

32. The Proposal has been designed to recognise and incorporate the existing ecological features on site and ensure these features are protected and enhanced as part of any future land development proposal within the PPC site boundaries. In general terms the ecological values and features on the site are limited due to its pastoral use, and therefore it is relatively well

suited for development. With respect to the features and values which are present, the Proposal and associated infrastructure have been designed in a manner that recognises the existing ecological and environmental values and constraints of the Site and immediate surrounds and aims to strengthen the ecological values of these features through the proposed Awakino Precinct Provisions.

33. In my opinion, the Proposal presents a balanced outcome in relation to ecological matters, striking a balance between protecting and enhancing areas of higher existing ecological values, while concentrating the potential future development on areas with low existing ecological values or functionality.
34. I consider that the potential adverse effects of the proposal can be secured through integrated design principles, as well as appropriate planning and development controls which have been addressed within the proposed Awakino Precinct Provisions. Provided that they are implemented successfully, adverse effects on the environment would be no more than minor, and would, in fact, allow for the enhancement of ecological values identified on site and immediate surrounds.

Jack Warden

Dated [20 July] 2023