

**BEFORE A HEARING PANEL
CONSTITUTED BY NELSON CITY COUNCIL**

IN THE MATTER

of an application by **CCKV Maitahi Development Co LP** and **Bayview Nelson Limited** for a change to the Nelson Resource Management Plan (Plan Change 28)

IN THE MATTER

of Part 5 and Schedule 1 of the Resource Management Act 1991

STATEMENT OF EVIDENCE OF DR BEN PETER ROBERTSON

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Section A – Introduction and Scope of Evidence

Name, qualifications and experience

- [1] My full name is Ben Peter Robertson. I am Principal Ecologist and a Director of Robertson Environmental Limited, a specialist ecological consultancy based in Nelson.
- [2] I hold the degrees of Bachelor of Science (First Class Honours in Ecology and Statistics, 2013) from Victoria University of Wellington, and a Doctorate of Philosophy in Ecology (Coastal) from the University of Otago (2017).
- [3] I have been a director of Robertson Environmental Limited since 2017. From 2006 to 2017, I worked for a Nelson-based ecological consultancy, Wriggle Coastal Limited, first in a part-time capacity (2006-2015) and then as a lead scientist and company director (2016-2017). Prior to this, I was employed by Cawthron Institute's Coastal Group (2001-2006) as a part-time (after school) Geographic Information Systems and laboratory technician.
- [4] Since 2017 the majority of my relevant work experience has been to undertake or contribute to a large number of ecological investigations, significance assessments and assessments of the ecological effects of developments on coastal (hardshore and softshore, intertidal and subtidal), terrestrial (zonal and azonal) and freshwater (rivers, lakes and wetlands) areas in the Nelson/Tasman region and throughout New Zealand.
- [5] I have published or contributed to over 300 unpublished reports for a variety of public and private sector clients. I have carried out over 150 ecological impact assessments, including for large-scale subdivision developments. I am often involved in projects that require mitigation and the development of appropriate biodiversity offsets. I have published eight scientific papers in peer reviewed international journals.
- [6] I am a Certified Environmental Practitioner with the Environment Institute of Australia and New Zealand (EIANZ) and I am bound by the Institute's code of ethics. I am a full member of the EIANZ.
- [7] I am familiar with the application site ("Site") and surrounding locality.

Expert Code

- [8] While this is not an Environment Court hearing I have met the standards in that Court for giving expert evidence.
- [9] I have read the Code of Conduct for expert witnesses issued as part of the Environment Court Practice Note 2014 (Part 7). I agree to comply with the Code of Conduct. I have complied with this in preparing my evidence. My evidence contains my own opinion and technical workings, except where I specify another person or organisation as the source of information presented herein. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- [10] I have no commercial relationship with the Applicant, save in my role as an expert in relation to this application, and other similar matters.

Role in Project

- [11] CCKV Maitai Dev Co LP & Bayview Nelson Limited (the Applicant) engaged me in September 2021 to advise on terrestrial ecological values and effects in relation to Maitahi Bayview Private Plan Change 28 (“PPC28”) and the potential development at the Site.
- [12] As part of this engagement, I visited and surveyed the Site on several occasions between November 2021 and May 2022.
- [13] I attended an informal meeting with Tanya Blakely (ecologist engaged by Nelson City Council, NCC) and Josh Markham (ecologist engaged by the Applicant) on 6 April 2022 to discuss PPC28 ecological matters generally.
- [14] I was involved in pre-hearing expert conferencing on 20 April, 10 May and 13 May 2022 with Tanya Blakely, Josh Markham and Roger Young (ecologist engaged by Friends of the Maitai). This expert conferencing resulted in the Terrestrial and Freshwater Ecology Joint Witness Statement (“**Ecology JWS**”) dated 13 May 2022.

Scope of Evidence

- [15] I have undertaken desktop and field survey work and prepared the Supplementary Terrestrial Ecological Values Assessment Report (“**Supplementary Report**”) which is attached to the Ecology JWS.
- [16] The Supplementary Report supplements information included in the initial Ecological Opportunities and Constraints Assessment Report dated March 2021 (“**Ecology Report**”) and the Preliminary Structure Plan Environmental Review Report dated April 2021 (“**Environmental Review**”). I have reviewed the Ecology Report and the Environmental Review.
- [17] I have reviewed the Section 42A Report, and supporting appendices relating to terrestrial ecology, prepared by Gina Sweetman and other experts on behalf of NCC.
- [18] The scope of my evidence is:
- (a) Terrestrial ecology for the entire PPC28 site, based on relevant information within the Ecology Report, Environmental Review and Supplementary Report, and with reference to the proposed (revised) Structure Plan and Schedule X provisions (dated 15 June 2022) attached to the evidence of Tony Milne and Mark Lile, respectively.
- [19] Freshwater ecology (including riparian zones of Kaka Hill Tributary) is covered in the evidence of Josh Markham and Stu Farrant.
- [20] I do not repeat the contents of the Ecology Report, Environmental Review or Supplementary Report related to terrestrial ecology in full in my evidence. In my evidence, I:
- (a) Provide an executive summary of my key conclusions;
 - (b) Summarise the relevant aspects of PPC28;
 - (c) Summarise the Site’s values in terms of terrestrial ecology;

- (d) Assess the potential ecological effects on terrestrial habitats and fauna;
- (e) Respond to relevant submissions; and
- (f) Respond to the relevant parts of the Section 42A Report.

Section B – Executive Summary

- [21] PPC28 seeks to rezone approximately 287 hectares of land located within Kaka Valley, along Botanical Hill and Malvern Hill. The proposed Structure Plan includes (among other things); rezoning of approximately 112 hectares of currently Rural or Rural-Higher Density Small Holdings Area to mixed Residential (Higher, Standard and Lower Density Areas); increasing the intensity of residential development; realigning Kaka Hill Tributary lower reach; protecting existing high-value indigenous vegetation and habitats; applying a Revegetation Overlay to 144 hectares of Rural land and creating a new approximately 42 hectare Open Space Zone for the protection, enhancement and restoration of areas of native bush, wetlands, streams and riparian attributes.
- [22] The Site vegetation is dominated by grazed pasture or bare land (recently cleared vegetation or access ways) with infestations of gorse, several areas of forest and shrubland of varying size and state, and smaller areas of scrub.
- [23] Areas of highest ecological value (e.g. kanuka forest, matagouri scrubland and wetlands) are proposed to remain as Rural or rezoned into Open Space and Protected Vegetation and Revegetation Overlay zones. This will avoid any loss of these habitats and provide good opportunities for ecological and biodiversity improvements in these areas.
- [24] Of the proposed residential zone, around 100 hectares (90%) of the terrestrial receiving environment is highly modified (grazed pasture/bare land) and has very low ecological value. This habitat type occurs extensively throughout the modified lowland valley floor and hill country environment associated with the Maitai River and its tributaries. While a relatively large

area will likely be affected by future development of the Site, I do not expect this to have any discernible impact on the terrestrial ecology of the area.

- [25] Only a very small proportion – c. 2.5 ha in total – of high value indigenous kanuka dominant vegetation falls outside of the c. 186 hectare area designated as Protected Vegetation, Revegetation Overlay and Open Space Zone and therefore may be replaced by the proposal. These areas of potentially affected native vegetation are located along the lower slope of Kaka Hill and western and northwestern hill slopes below Maitahi and Bayview ridgeline (as shown in **Annexure A attached** to my evidence). I have recommended that if, at the subdivision phase, the development of the Site precludes avoidance of high value indigenous vegetation, then mitigation would be required to compensate for the loss of the vegetation. I have recommended this will be most effectively achieved by offset planting of vegetation of a similar character to the vegetation lost, to ensure no net loss of biodiversity values, or perhaps most likely a net benefit of biodiversity values, in the medium term.
- [26] Regarding native fauna, there is potential for Threatened/At Risk bird and lizard species to occupy or utilise the Site. The native dominant vegetation represents the highest quality habitat for native birds and lizards within the Site, and the vast majority of available habitat will be protected or enhanced by PPC28. The mandatory protection of native birds and lizards (Wildlife Act 1953) is also reflected in the proposed Structure Plan which includes provisions for additional ecological assessment and vegetation and fauna management plans at a resource consent stage.
- [27] The significant enhancement and restoration planting (and weed and pest control) associated with PPC28, principally through provisions for ecological outcomes and freshwater, X.9, will have positive terrestrial ecological effects. The proposed Open Space and Protected Vegetation and Revegetation Overlay areas, the purpose of which is to connect, substantially enhance and protect natural environment features on Kaka Hill (including SNA 166), Kaka Hill Tributary, Atawhai/Maitahi ridgeline, and coastal slopes, applies to nearly two thirds of the overall PPC28 site. I

note that areas not proposed to be planted under PPC28 are predominantly improved pasture of very limited ecological value.

- [28] In my opinion PPC28 arrives at an appropriate ecological balance of protecting areas of higher ecological value within the Site, enhancing degraded habitat, creating new habitat, and urban development of poor-quality habitat with little ecological potential (e.g. improved pasture areas). PCC28 is consistent with the objectives and policies of the Nelson Regional Policy Statement, the Nelson Regional Management Plan and the National Policy Statement for Freshwater Management 2020 with respect to ecological matters within the scope of my evidence.

Section C – Evidence

PPC28 Summary

- [29] Below I Summarise the key aspects of PCC28 relating to terrestrial ecology.
- [30] PPC28 seeks to rezone approximately 287 hectares of land located within Kaka Valley, along Botanical Hill and Malvern Hill, from Rural and Rural-Higher Density Small Holdings Area to mixed Residential (Higher, Standard and Lower Density Areas), Rural, Open Space Recreation and Suburban Commercial.
- [31] PPC28 would increase the intensity of residential development in the area. Change in land use from rural to residential has actual and potential effects on terrestrial ecology.
- [32] The layout of the Structure Plan inserts ‘Open Space’ and ‘Protected Vegetation’ and ‘Revegetation Overlay’ areas to address the native vegetation (among other features) as a distinct zoned spatial area. Collectively, and through the updated provisions in Schedule X, these overlays provide for the protection, enhancement and restoration of native bush, wetlands, streams and riparian areas. These overlay areas of the

Structure Plan apply to nearly two thirds (c. 65%) of the overall PPC28 site¹. In addition, the existing terrestrial areas not proposed to be planted under PPC28 are predominantly improved pasture. These positive outcomes are in contrast to the current adverse effects enabled by the NRMP.

Terrestrial ecological values potentially affected by PPC28

- [33] The Site is located within the Bryant Ecological District and the Nelson Ecological Region. The Ecological Report, Environmental Review and Supplementary Report describe the ecological context and ecological values, including terrestrial values, within the Site and surrounding area.

- [34] The Site vegetation is dominated by grazed pasture or bare land (recently cleared vegetation or accessways) with infestations of gorse, several areas of forest and shrubland of varying size and state, and smaller areas of scrub. The most extensive area of native vegetation is located on Kaka Hill where kanuka forest and shrubland and matagouri scrubland are a dominant feature (including within Significant Natural Area 166). There are also smaller patches of kanuka shrubland and mahoe-exotic scrub along the western and northwestern hill slopes below Maitahi and Bayview ridgeline.

- [35] Following the ecological impact assessment guidelines of the Environment Institute of Australia and New Zealand (EIANZ, 2018)², the terrestrial ecological values of the PPC28 site can be summarised as follows³:
 - (a) Kanuka forest and matagouri scrubland — **Very High** value;

 - (b) Regenerating kanuka shrubland and mahoe-exotic scrub with patchy canopy and degraded understorey — **High** value;

¹ The overall area covered by 'Open Space' and 'Protected Vegetation' and 'Revegetation Overlay' zones is approximately 186 hectares, and the total PPC28 site is approximately 287 hectares.

² Roper-Lindsay et al., 2018. Ecological impact assessment (EcIA): EIANZ guidelines for use in New Zealand: Terrestrial and freshwater ecosystems. Melbourne: Environment Institute of Australia and New Zealand.

³ Note: these ratings reflect terrestrial ecological values across the full PPC28 site and therefore supersede those in the Supplementary Report.

- (c) Predominantly exotic scrub/trees with highly degraded understorey — **Low to Moderate** value;
- (d) Pasture grasses and gorse with occasional native shrubs/trees — **Low** value;
- (e) Recently cleared vegetation and accessways — **Very Low** value;
- (f) Macroinvertebrates — **Low** value;
- (g) Lizards — **Low to Very High** value;
- (h) Birds — **Low to Very High** value; and,
- (i) Bats — **Low** value.

Assessment of PPC28

[36] A summary of outcomes of PPC28 with relevance to terrestrial ecological values and effects are:

- (a) Urban development within Kaka Valley, along Botanical and Malvern hills;
- (b) Realignment of Kaka Hill Tributary lower reach; and,
- (c) Protection, enhancement and restoration of approximately 185 hectares of native bush, wetlands, streams and riparian areas through inclusion within 'Open Space' and 'Protected Vegetation' and 'Revegetation Overlay' zones of the proposed Structure Plan.

Effects of urban development

[37] The key potential effects associated with the proposed increase in density of residential development on terrestrial ecological values comes primarily from direct effects within the proposed residential footprint area during vegetation clearance and earthworks activities.

[38] Of the proposed residential footprint, around 100 hectares (90%) of the terrestrial receiving environment is highly modified (grazed pasture/bare

- land) and has very low ecological value. This type of habitat occurs extensively throughout the modified lowland valley floor and hill country environment associated with the Maitai River and its tributaries, and while a relatively large area will likely be impacted by future development of the Site, I do not view this as having any discernible impact on the terrestrial ecology of the area.
- [39] The balance area within the proposed residential zone includes approximately 2.5 hectares of regenerating kanuka shrubland of high ecological value (refer mapped areas as shown in **Annexure A**). This area meets the definition of Indigenous Vegetation under the Nelson Resource Management Plan (NRMP) and therefore the constraints on complying activities apply to the native vegetation and surrounding area. I have recommended that if, at the subdivision phase, the development of the Site precludes avoidance of indigenous vegetation, then mitigation would be required to compensate for the loss of the vegetation. I have recommended this will be most effectively achieved by offset planting of vegetation of a similar character to the vegetation lost, to ensure no net loss of biodiversity values, or perhaps most likely a net benefit of biodiversity values, in the medium term.
- [40] Areas of highest ecological value (e.g. kanuka forest, matagouri scrubland and wetlands) are proposed to remain as Rural or rezoned into Open Space and Protected Vegetation and Revegetation Overlay zones. This will avoid any loss of these habitats and provide good opportunities for ecological and biodiversity improvements in these areas.
- [41] Other potential effects include an increase in the level of imperviousness and stormwater runoff, and sediment runoff during earthworks. Management and controls for stormwater and sediment are set out in the evidence of Maurice Mills and Michael Parsonson, respectively. The potential effects of stormwater and sediment run off on freshwater ecosystems are outlined in the evidence of Josh Markham and Stu Farrant, and I agree with their evidence in this regard.

Realignment of Kaka Hill Tributary lower reach

- [42] The lower intermittent reaches of the Kaka Hill Tributary are proposed to be reinstated to flow through a historic/relic channel that flows around the western edge of the historic floodplain. The potential effects (negative and positive) of the proposed realignment on freshwater ecosystems are outlined in the evidence of Josh Markham and Stu Farrant, and I agree with their evidence in this regard. To the extent it relates to terrestrial ecology, I support this proposed realignment and note there are no ecologically high value habitats known for the area within the green-blue corridor shown on the Structure Plan for this realignment.

Ecological protection, enhancement and restoration

- [43] PPC28, principally through provisions for ecological outcomes and freshwater, X.9, effectively preserves and enables the ecological opportunities that the proposed development of the Site creates, including:
- (a) Protection of the high value indigenous vegetation through zoning as Open Space and Protected Vegetation and Revegetation Overlay, a weed and pest control programme, and enhancement and restoration planting to both preserve the integrity of the more intact natural character within the native bush interior and enhance degraded habitat to reduce edge effects and weed invasion and benefit inhabitant fauna (including native lizard and bird communities); and,
 - (b) Establishment of an esplanade reserve with a minimum total width of 40 m and planting with appropriate indigenous species, to provide a buffer between any future development and margins of native bush, wetlands, streams and riparian attributes. This will protect and enhance the important site-specific ecological values at the interface between freshwater and terrestrial margins. Such a corridor will also function to improve the connection between the discrete stands of indigenous vegetation allowing fauna to disperse through these areas.

- [44] I consider that PPC28 strikes an appropriate ecological balance of protecting areas of higher ecological value (e.g. indigenous habitat types and vegetation), enhancing degraded habitat, creating new habitat, and urban development of poor-quality habitat with little ecological potential (e.g. improved pasture areas).
- [45] Given the protection of almost all indigenous vegetation, wetlands, streams and riparian features through their rezoning (providing for their protection, enhancement and restoration) and other approaches outlined in my evidence and the evidence of Josh Markham and Stu Farrant, PCC28 is consistent with the relevant objectives and policies of the Nelson Regional Policy Statement and the Nelson Regional Management Plan, and the direction of the National Policy Statement for Freshwater Management 2020 with respect to ecological matters within the scope of my evidence.

Response to submissions

- [46] As outlined in Mark Lile's evidence for the Applicant, the PPC28 Structure Plan is now substantially improved from the version that submitters originally commented on.
- [47] Some submitters raised concerns about loss of habitat and impacts on terrestrial ecology. As I have set out above, the quality and quantity of affected terrestrial habitat was estimated based on high resolution colour aerial photographs with field validation carried out in April 2022. The vast majority of terrestrial habitats within the proposed residential zone are highly degraded with an abundance of exotic plants and animal pests present. The 2.5 hectares of kanuka shrubland currently occupying the proposed residential area as shown in **Annexure A**, represents only a small fraction of that being protected/enhanced by PPC28 and, if removed, will require appropriate offsetting to achieve no net loss of biodiversity values. On this basis I am confident that any interim loss of kanuka shrubland would not have significant long-term effects on native species of flora or fauna.

- [48] Submitters have also raised concerns regarding the value of the Site as habitat for species of native bat, namely the long-tailed bat *Chalinolobus tuberculatus* (Threatened – Nationally Critical). I consider the ecological value of bat populations in the terrestrial receiving environment as low, reflecting existing land use and the general paucity of suitable habitat for long-tailed bats⁴. In my opinion it is highly unlikely that long-tailed bats would be adversely affected by PPC28. Indeed, I think it is conceivable that ecological values for native bats will be enhanced through the protection and establishment of higher value habitat associated with PPC28.

Response to Section 42A Report

- [49] I have reviewed and considered the sections of the Section 42A Report relevant to my evidence (Ecology – Appendix M). I note the key issue raised by Tanya Blakely for NCC relates to insufficient information on the Structure Plan pertaining to ecological values.
- [50] Tanya Blakely recommends (at paragraph 55 of her report) that information in the Ecological Report, Environmental Review and Supplementary Report be used to inform a revised Structure Plan to ensure ecological values and biodiversity enhancement and connection opportunities are appropriately identified and provided for. As outlined in my evidence and the evidence of Josh Markham and Stu Farrant, the proposed Structure Plan has undergone a number of amendments and improvements to address this recommendation. In my opinion, the proposed protection, enhancement and restoration of the Site's ecology (including terrestrial ecology) is appropriate. The development enabled by PPC28 will not, in my opinion, compromise the ecological gains that will come from the protection, enhancement and restoration of the Site.
- [51] Tanya Blakely also recommends (at paragraphs 58 and 65 of her report) provision within the Structure Plan for:

⁴ Refer to Section 4.4.4 of the Supplementary Report.

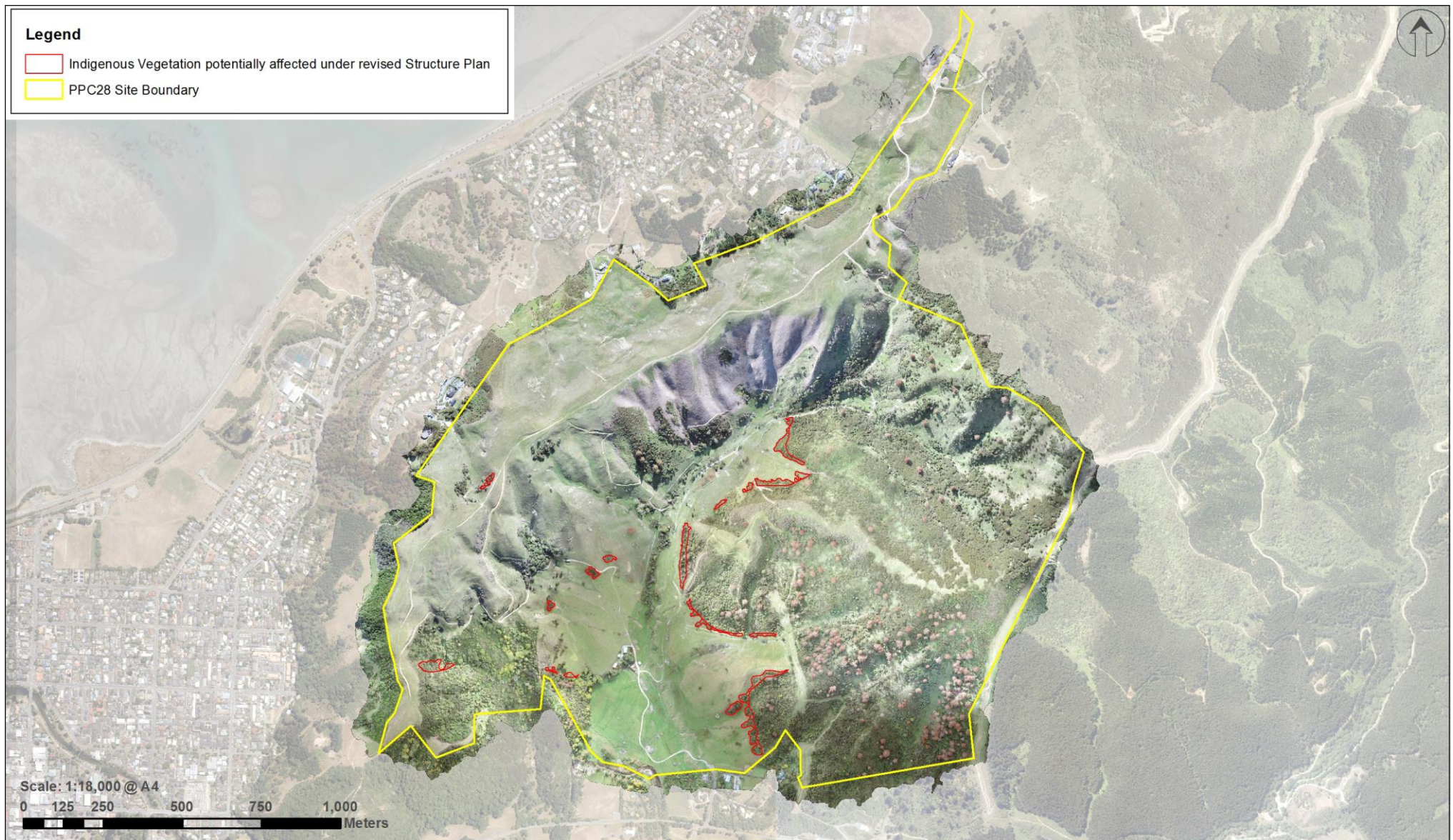
- (a) “...a requirement for vegetation and fauna management plans to be developed for each subdivision and development within the PPC28 area...”, and,
- (b) “...an assessment of the significance of indigenous biodiversity values and the potential threat to those values from domestic pets at the time of subdivision and development resource consent applications...”.

[52] Noting native birds and lizards are protected under the Wildlife Act 1953 and their potential presence at the PPC28 site, I support both recommendations and note the inclusion of such provisions in X.9 of the revised Structure Plan.

Dated 15 June 2022

A handwritten signature in dark ink, appearing to be 'Ben Robertson', written over a horizontal line.

Dr Ben Robertson



expert
ecological
services.

Annexure A Broad scale (indicative) map of ~2.5 hectare area of indigenous vegetation occupying the proposed residential zone based on the mapping of vegetation features visible in high resolution aerial imagery flown 28-29 April 2022, supported by ground-truthing to validate the visible features. Offset planting required if cleared to ensure no-net-loss of biodiversity values.

PROJECT: PRIVATE PLAN CHANGE 28 - MAITAHU BAYVIEW

Indigenous Vegetation Occupying Proposed
Residential Area

| Date: 9 June 2022 | Revision: A | Aerial: UAV April 2022 / LINZ 18/19
Habitat map prepared by Robertson Environmental Limited

Project Manager: Ben.Robertson@robertsonenviro.co.nz