IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of an application to Kapiti Coast District Council for non-complying resource consent for a proposed 53 lot subdivision (including earthworks and infrastructure) at Otaihanga, Kapiti Coast.

STATEMENT OF EVIDENCE OF NICHOLAS PAUL GOLDWATER ON BEHALF OF THE APPLICANT

1. INTRODUCTION

Qualifications and experience

1.1 My full name is Nicholas Paul Goldwater.

1.2 I am a Principal Ecologist with Wildland Consultants Ltd ('Wildlands'), based in Auckland, where I have been employed since 2008.

1.3 I have a Masters with First Class Honours in Environmental Science from the University of Auckland. I also have a Graduate Diploma in Science and Post-Graduate Diploma in Environmental Science from the University of Auckland.

1.4 I am a member of the following professional bodies: New Zealand Ecological Society, New Zealand Plant Conservation Network, and Auckland Botanical Society.

1.5 My work as an ecological consultant has covered a wide range of habitat types, including forests, shrublands, wetlands, streams, grasslands, dunelands, 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.

1.6 I have undertaken surveys for a wide range of indigenous fauna throughout the North Island and parts of the South Island, including herpetofauna, bats, birds, and land snails.

1.7 I have considerable experience in the Wellington Region. I have assisted Porirua District Council (PCC) with mapping and assessing Significant Natural Areas (SNAs) as part of PCC's proposed District Plan. In 2020, I acted as a Council expert for Plan Change 18 – Plimmerton Farm, Porirua, and provided evidence at a hearing. I have also provided technical oversight and undertaken site visits for SNA projects in the Wellington and Upper Hutt districts.

1.8 I am currently the lead terrestrial ecologist for two major roading projects in the Wellington region: Otaki to North Levin Highway and Safety Improvements to State Highway 58 (Porirua).

Background

1.9 I was not involved in the original field surveys and preliminary draft of the Ecological Impact Assessment (EcIA)[1]; these were undertaken by the Wellington Wildlands office, under the direction of Ms Frances Forsyth. I was brought in to manage the project after Ms Forsyth retired in early December 2020. I have since undertaken a site visit and provided ongoing ecological input and internal peer review as an when required. Specifically, I have been involved in the following:

(a) Provided expert advice on the delineation and mapping of natural wetlands at the site, including the identification of two additional natural wetlands;

(b) Supervised a re-design of the proposal to take into account the identification of these natural wetlands;

(c) Peer reviewed the EcIA, as to the effects of the application;

(d) Assisted with the team with ecology input into the application and proposed conditions for the Regional Consents;

(e) Participated in in-house meetings;

[1] Assessment of Ecological Effects for a Proposed Subdivision at Otaihanga Road, Kāpiti. Wildland Consultants Contract Report No. 5357a. Prepared for Richard Mansell.

(f) Assisted the Applicant to respond to Further information Requests by Kapiti Council with regards to pest animal control;

(g) Reviewed submissions; and

(h) Provided recommendations for conditions of consent.

1.10 I have reviewed the various revisions of the subdivision plan, the latest of which has a reduced number of sections and a lower amount of exotic vegetation proposed for removal.

1.11 My evidence will focus on my area of expertise (terrestrial ecology). In preparing my evidence, I confirm that I have read the briefs of Mr Chris Hansen (Planning) and Mr David Compton-Moen (Landscape and Visual Assessment). I have also read the peer review of the Landscape and Visual Impact Assessment ('LVA') and Addendum[2] prepared by Ms Robin Simpson, together with her Statement of Evidence (dated 12 July 2022). I have also read the Council Officer's Report prepared by Ms Marnie Rydon.

Code of Conduct

1.12 Although not necessary in respect of council hearings, I can confirm I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving oral evidence before the hearing committee. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

2. EXECUTIVE SUMMARY

2.1 The site largely comprises rank pasture with pine shelterbelts and four natural wetlands on highly modified dunes. Indigenous vegetation is restricted to several stands of kānuka, all of which meet the size threshold for significance under Schedule 3.2 proposed Kāpiti Coast District Plan. The overall ecological values are considered to be low.

[2] Peer Review of Estates Otaihanga Subdivision Proposal Landscape and Visual Impact Assessment.

2.2 The proposal will avoid all indigenous vegetation and natural wetlands, with earthworks mainly taking place in rank pasture. The proposal will ensure that the hydrology of the four natural wetlands is maintained.

2.3 Effects on indigenous birds will be less than minor given that most of the exotic shelterbelt is being retained and all kānuka groves will be avoided. Effects on indigenous lizards will be addressed through the implementation of a Lizard Management Plan and the creation of a one-hectare lizard protection area in Lot 5.

2.4 All four natural wetlands will be fenced and their buffers planted with appropriate indigenous species. Similarly, a ten-metre buffer will be planted around the proposed constructed wetland. These proposed measures will appropriately address any adverse ecological effects of the proposal, and should result in a net gain in indigenous biodiversity.

3. SCOPE AND STRUCTURE OF EVIDENCE

3.1 I have structured my evidence as follows:

(a) Summary of the EcIA and key conclusions as to effects;

(b) Response to matters raised by submitters;

(c) Response to Council's Requests for Further Information;

(d) Response to Officer's Report 42A;

(e) Review of Conditions; and

(f) Conclusion.

4. SUMMARY OF THE ECOLOGICAL IMPACT ASSESSMENT

Existing environment

4.1 The subject site is located in the Paraparaumu suburb of Otaihanga within the Foxton Ecological District. It is zoned Rural Residential and is part of the Coastal Environment in the proposed Kāpiti Coast District Plan. The site does not contain any ecological features that have been

designated as Significant Natural Areas (SNAs) under the proposed Kāpiti Coast District Plan[3].

4.2 Most of the site comprises rank grassland on old dunes, with exotic grass species such as Yorkshire fog (*Holcus lanatus*) and cocksfoot (*Dactylis glomeratus*) commonly occurring with patches of inkweed (*Phytolacca octandra*), tree lupin (*Lupinus arboreus*), and gorse (*Ulex europaeus*). Several kānuka (*Kunzea robusta*) groves occur in the northern and central part of the site, ranging in size from several to *c.*50 trees[4].

Methodology

4.3 Ecologists from Wildlands visited the site on 5 February and 9 March 2020 to undertake the initial vegetation survey and ecological assessment. During these visits, all vegetation types were described and mapped, and areas visually recognisable as potential wetlands were identified and confirmed and delineated using the Clarkson (2013 and 2018) methodology. Any accessible indigenous trees were identified, marked with a handheld GPS device, and their diameters measured to meet Schedule 3.2 of the proposed Kāpiti Coast District Plan[5].

4.4 I undertook a site visit on 11 February 2021 to familiarise myself with the property. During the site visit, I observed what appeared to be two additional small natural wetlands which had not previously been mapped (Wetlands 5 and 6 in **Appendix 1**). My then colleague and wetland botanist, Ms Nicki Papworth, subsequently visited the site on 16 February 2021 in order to delineate the potential wetlands. Based on the data she collected, both wetlands are considered to be 'natural wetlands' as per the definitions in the National Policy Statement for Freshwater Management ('NPS-FM') and the Proposed Natural Resources Plan ('PNRP') – Appeals Version.

4.5 A targeted survey for indigenous lizards was undertaken between 3 and 9 March 2020 by Wildlands' herpetologists. Three survey techniques were employed: pitfall trapping, hand-searching during the day, and spotlighting at night time[6]. Pitfall trapping and hand-searching are largely

[3] Section 1, paragraph 4, page 1 of the EcIA.
[4] Section 5.2, paragraph 4, page 10 of the EcIA.
[5] Section 4.1, page 3 of the EcIA.
[6] Section 4.3, paragraphs 1-3, page 8 of the EcIA.

used to detect terrestrial skink species, while spotlighting is the preferred method to detect nocturnal arboreal gecko species.

4.6 Targeted surveys for all other fauna species were beyond the scope of the EcIA, although all fauna species observed at the site were recorded. Additionally, records of other fauna species were compiled and the suitability of the habitat at the site was assessed[7].

Ecological values

4.7 The vegetation at the site is dominated by introduced species, with nine indigenous plant species observed during the site visit. The dunes are highly modified and largely covered by exotic pasture species, and are no longer functioning as 'active dune systems' due to the stabilising effect of pasture and exotic shelterbelts[8]. Overall, the dunes are considered to have low ecological values[9].

4.8 Four natural wetlands were identified at the site. Due to the rarity of wetlands in the Wellington Region, all natural wetlands meet the 'representativeness' and 'rarity' criteria listed in Policy 23 of the Regional Policy Statement 2013, and therefore meet the definition of a significant natural wetland[10]. Two other wetlands were identified that did not meet the criteria.

4.9 The values of all natural wetlands were assessed against the criteria in Policy 37 of the PNRP[11]. Overall, the wetlands (in their current state) provide limited habitat for indigenous flora and fauna, with the exception of common indigenous bird species such as pūkeko (*Porphyrio melanotus*). Most of the wetlands are considered to have moderate capacity for flood flow attenuation and for attenuating and trapping nutrients and sediment.

4.10 Five indigenous bird species were observed during the site visits, none of which are classified as 'Threatened' or 'At Risk' by Robertson *et al*. (2021). It is acknowledged, however, that New Zealand falcon/karearea (*Falco novaeseelandiae novaeseelandiae*) has been observed at a

[7] Section 4.4, page 8 of the EcIA.
[8] Section 10.3, paragraph 2, page 22 of the EcIA.
[9] Section 8.1, page 17 of the EcIA.
[10] Section 8.2, paragraph 2, page 17 of the EcIA.
[11] Table 1, page 18 of the EcIA.

neighbouring property[12], and this species may occasionally visit or hunt within the study site. Karearea is classified as 'Threatened – Nationally Increasing' by Robertson *et al*. 2021[13]).

4.11 Rank pasture provide habitat for a relatively sparse population of northern grass skink (*Oligosoma polychroma*), a 'Not Threatened' indigenous lizard species that is legally protected by the Wildlife Act (1953). Exotic shelterbelts and kānuka groves on site provide some habitat for common indigenous fauna species and may act as stepping stones for indigenous avifauna species as they move across the landscape. Overall, however, the fauna and habitat values at the study site are considered to be low.

Assessment of effects

4.12 The proposal will endeavour to avoid the loss of all indigenous vegetation that meets the criteria of Schedule 3.2. The exotic grassland and exotic shelterbelt trees are of limited ecological value, and the potential ecological effects of removing vegetation from those areas (if required) are considered no more than minor[14]. Similarly, adverse effects on dune plant communities and dune function are considered to be negligible. I note that the Applicant is intending to retain the dominant dunes at the site, some of which will be planted with appropriate indigenous tree and shrub species[15].

4.13 The proposed removal of the exotic shelterbelts would have resulted in the localised loss of feeding and breeding habitat for indigenous bird species[16]. It is noted, however, that the Applicant now intends to retain most of the shelterbelt along Tieko Street, mainly to protect the privacy of residents at 44 Tieko Street.

4.14 Habitat for avifauna will be improved through buffer planting of the larger wetland areas and the protection and enhancement of *c*.1,900 m^2 of existing kānuka. If possible, all woody vegetation that is to be removed should be removed outside of the bird breeding season

[12] Submission by B.J. and L.M. Morris.
[13] Robertson H.A., Baird K., Elliott G.P., Hitchmough R.A., McArthur N., Makan T.D., Miskelly C.M., O'Donnell C.J., Sagar P.M., Scofield R.P., Taylor G.A. and Michel P. 2021: Conservation status of birds in Aotearoa New Zealand, 2021. New Zealand Threat Classification Series 36. Department of Conservation, Wellington. 43 pp.
[14] Section 10.2, page 22 of the EcIA.
[15] Section 10.3, paragraph 2, page 22 of the EcIA.
[16] Paragraph 1, page 23 of the EcIA.

(September-March inclusive) to reduce the disruption to those species. The potential adverse effects on birds will be less than minor should vegetation removal take place outside of breeding season[17].

4.15 Earthworks and vegetation clearance will adversely affect the population of northern grass skink through injuries and/or deaths and loss of habitat. The species is legally protected from harm or destruction via the Wildlife Act 1953 and permits will be sought under that Act[18]. In order to address the effects on lizards, a Lizard Management Plan (LMP) will be prepared, with management focusing on protecting an area (*c*.1 hectare) within the planted buffer of Wetland 1 (Lot 5)[19]. This approach is supported by the Department of Conservation, noting that discussions were held between Mr Trent Bell (Senior Herpetologist, Wildland Consultants) and Ms Lynne Adams (Department of Conservation) in September-October 2020.

4.16 Works within all four natural wetlands will be avoided, although undertaking earthworks in the vicinity of wetlands has the potential to result in sediment discharge as detailed in my report[20]. The applicant has already obtained consent from Greater Wellington Regional Council (WGN210352, 37614, 37803 and 37804) relating to the discharge of sediment laden run off to land/water, bulk earthworks and a discharge permit for operational stormwater where it may enter water including to land within 100 metres from a natural wetland.

4.17 In order to reduce the risk of sediment adversely affecting any wetlands or watercourses, best practice sediment and erosion control will be implemented as per the conditions imposed by GWRC, implementing the guidelines prepared by Greater Wellington Regional Council (2021). The Preliminary Erosion and Sediment Control Plan prepared by Cuttriss (2021) will ensure that construction methodologies avoid the sedimentation of the four natural inland wetlands at the site. It is anticipated that by constructing and stabilising the works in stages and by utilising the natural filtration of the existing sandy soils, surface runoff velocities will be kept to a minimum. As a result, the risk of sedimentation outside of the earthwork areas will be minimal. No earthworks will be undertaken within ten metres of any natural wetland at this site, and haul

[17] Section 12.2, page 27 of the EcIA.
[18] Section 10.5, paragraph 3, page 23 of the EcIA.
[19] As per draft condition EN1.
[20] Section 10.6, paragraph 3, page 23 of the EcIA.

roads will be located clear of the wetlands and their buffer zones. If these measures are appropriately implemented, the potential effects on wetlands are considered to be negligible[21].

4.18 Wetland hydrology is unlikely to be adversely affected by the proposal. As outlined in Section 2.1.6. of the Awa (2021)[22] report, it is intended that the rain that falls on impervious surfaces will be returned to ground as close to source as possible. This means the groundwater hydrology is unlikely to be altered and the only rainfall diverted away from groundwater will be the water that is collected in the rain tanks of each dwelling, ensuring that the hydrological functioning of the wetland is maintained[23].

4.19 As accepted by GWRC in its decision, I consider the potential adverse effects of stormwater run-off on natural wetlands at the site to be negligible. The likelihood of road-run-off containing contaminants such as heavy metals and hydrocarbons is low as the northern and southern access roads only serve the development with no throughfare. Furthermore, the constructed wetland proposed for Lot 200 will treat run-off (sediment and inorganic pollutants) generated by the southern development area. Indigenous plants (including sedges, rushes, and harakeke) in the constructed wetland will help to treat the water as it passes through the wetland, noting there is some initial filtering in the forebay before the water enters the main body of the wetland[24].

4.20 Further to the mitigation measures outlined in the previous paragraphs, the Applicant has proposed to protect and enhance the four natural wetlands at the site by undertaking the following[25]:

- Fencing all natural wetlands using seven-wire post and batten fencing with barbed upper and middle wires (including the proposed lizard management area).

- Ten-metre buffer planting of all four natural wetlands to protect them from works on the adjacent land[26]. Only eco-sourced plants that are

[21] Section 12.7, page 30 of the EcIA.
[22] Otaihanga Road Subdivision (including bulk earthworks and infrastructure) Flood Hazard Assessment of Effects.
[23] Paragraph 2, page 24 of the EcIA.
[24] Section 12.6, paragraph 1, page 20 of the EcIA.
[25] Section 12.5.1, pages 27&28 of the EcIA.
[26] A full ten-metre buffer cannot be achieved for Wetland 6 given its proximity to the access road (see map in Appendix 1).

typical of the area will be used in the buffer planting (see indicative plant schedule in the EcIA[27]).

- Pest plant control within all four natural wetlands and planted buffer areas including, but not limited to, gorse and blackberry.
- Legally protect each natural inland wetland under covenants.

4.21 I consider this approach to be in line with Policy 38 of the Proposed Natural Resources Plan (PNRP) – Appeals Version, given the habitat for indigenous flora and fauna within the wetlands will be improved through pest plant control, buffer planting, and fencing. The proposal would also be in line with Policy 6 of the NPS-FM, i.e., there is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted. This was confirmed by the Greater Wellington Officer's Decision report (page 28) for the regional consents:

> *'Mr Spearpoint, Senior Environmental Monitoring Officer for GWRC, undertook a brief review of the proposal and considered the management of the natural inland wetland on site to be satisfactory.'*

4.22 The report goes on to conclude that the proposal is not inconsistent with the relevant PNRP objectives and policies for the management and restoration of natural wetlands, noting the natural character of wetlands and their margins are preserved through the proposal. Specifically, the proposed pest plant control and wetland buffer planting is consistent with Policy 38 in that it will provide additional habitat for indigenous flora and fauna.

5. RESPONSE TO SUBMITTERS

5.1 The following concerns relevant to ecology have been raised in five submissions on this proposal.

5.2 **Sheryn McMurray** has expressed concern regarding the potential destruction of wildlife habitats and limited space for birds and plant life resulting from the proposed development. I would emphasise that most of the site (>90%) is dominated by exotic grassland, which provides little

[27] An indicative plant schedule is provided Table 3, page 29 of the EcIA.

in the way of habitat for indigenous animals apart from a relatively sparse population of northern grass skinks (classified as 'Not Threatened' by Hitchmough *et al.* 2021)[28]. However, lizard management will still be required given that all indigenous lizard species are fully protected under the Wildlife Act 1953 (see paragraph 4.15 of my evidence).

5.3 The subdivision has been planned to retain habitat for wetland birds, although the removal of the exotic shelterbelts will result in the localised loss of feeding and breeding habitat for some indigenous bird species. The bird species recorded at the property are all common and widespread and there is an abundance of similar habitat within the local area to which displaced birds can disperse.

5.4 **Leanne Morris and Brent James** have expressed concern that the application has not included a complete list of indigenous bird species (as per those observed on the submitter's site). They are concerned about the loss of open hunting ground for New Zealand falcon/karearea. The submitter is also worried about the potential for birds to fly into the windows of new houses, the adverse impacts of cats on indigenous fauna, and the lack of survey for long-tailed bats (*Chalinolobus tuberculatus*; Threatened – Nationally Critical)[29]. I will address each of these concerns below.

Birds

5.5 In their submission, Mr and Mrs Morris mention observations of additional bird species such as karearea/NZ falcon, korimako/bellbird (*Anthornis melanura*; regionally uncommon), tūī (*Prosthemadera novaeseelandiae*), ruru/morepork (*Ninox novaeseelandiae*), kotare/kingfisher (*Todiramphus sanctus*), and matuku moana/white-faced heron (*Egretta novaehollandiae*).

5.6 The EcIA did not include a targeted survey of indigenous birds, although all casual observation of bird species (indigenous and introduced) were noted during each site visit. Five indigenous and two introduced bird

[28] Hitchmough R., Barr B., Knox C., Lettink M., Monks J.M., Patterson G.B., Reardon J.T., van Winkel D., Rolfe J., & Michel P. 2021: Conservation status of New Zealand Reptiles, 2021. New Zealand Threat Classification Series 35. Department of Conservation. Wellington. pp15.

[29] O'Donnell C.F.J., Borkin K.M., Christie J.E., Lloyd B., Parsons S., Hitchmough R.A. 2018: Conservation status of New Zealand bats, 2017. New Zealand Threat Classification Series 21. Department of Conservation, Wellington. 4 p.

species were recorded from the site, and it was noted that other common species such as tauhou (silvereye; *Zosterops lateralis lateralis*) and pīwakawaka (fantail; *Rhipidura fuliginosa*) would also likely be present[30].

Karearea

5.7 Karearea have very large territories and there are numerous confirmed records of this species from along the Wellington and Manawatū coastline, ranging from Ohau Point in the south[31] to Foxton in the north[32]. Karearea is unlikely to nest on a rural property unless there is a large area of harvested pines, or a bluff system, in close proximity, although they are known to occasionally nest in large trees. The loss of open grassland at the study site is unlikely to be of significance for this species in the local area.

Window strike

5.8 Birds can die instantly when flying into windows or sustain multiple soft tissue injuries and fractures to bones around the chest area. Other types of injuries include crop rupture and bleeding around the heart. Although no studies to date have been undertaken on bird window strike in New Zealand, there is anecdotal evidence to suggest that species such as kererū (*Hemiphaga novaeseelandiae*), ruru, and kākā (*Nestor meridionalis*) are vulnerable to window strike. Migratory species such as shining cuckoo (*Chrysococcyx lucidus lucidus*) have also been killed by window strike (N. Goldwater, pers. obs.).

5.9 There are measures that can be implemented to reduce the likelihood of birds striking windows, and for minimising injury to birds involved in collisions. These include reducing vegetation near windows, angling windows to reduce reflection, applying closely spaced UV light-reflecting decals to windows, or installing UV light-reflecting glass.

5.10 I consider the potential threat to birds from windows is higher when dwellings are constructed amongst woody vegetation and/or between forest remnants, i.e., where new dwellings might obstruct existing flight paths. Since the proposal will be located in predominantly open pastoral

[30] Section 7.1, page 16 of the EcIA.
[31] https://inaturalist.nz/observations/9462403
[32] https://inaturalist.nz/observations/23524873

landscape with exotic shelterbelts forming the dominant woody vegetation type, I consider the risk of window strike for indigenous birds to be low.

Impact of domestic cats

5.11 Cats are important predators of a wide range of indigenous fauna, including birds, reptiles, and invertebrates in New Zealand. It is inevitable that cats will be introduced to the site once the proposed development is completed. Cat (and dog) bans are becoming an increasingly common component of subdivision applications in New Zealand, particularly where ecologically sensitive environments are concerned. However, they can be difficult to enforce, with residents often required to 'self-police' pet ownership.

5.12 I would be supportive of a cat ban at the study site if there were high fauna values present. However, none of the vegetation currently provides important habitat for threatened or rare fauna species, and the site is not adjacent to any areas of high wildlife values, so I do not consider controls on cats are necessary for the application.

Long-tailed bats

5.13 Given the highly modified, fragmented features of the study site and its proximity to residential areas, it is highly unlikely that bats utilise the shelterbelts at the site unless they are commuting between Kapiti Island and the Tararua Range. The closest confirmed record of long-tailed bats is 32 kilometres to the east in the Tararua Range[33]. As a I understand, there are no records of bats on the mainland west of the Tararua Range.

5.14 **Matthew and Marie Andrews** have expressed concern about the impact of the application on bird species such as karearea and ruru. I have addressed the potential effects on karearea in paragraph 5.7 of my evidence. I do not consider the potential loss of 0.05 hectare of shelterbelt as having an adverse effect on resident morepork, given there is plenty of nesting habitat in the form of large exotic trees on neighbouring properties. It is also noted that habitat for birds will be created by planting around the four natural wetlands, together with the proposed planting for landscaping purposes.

[33] Section 7.3, page 16&17 of the EcIA.

5.15 **Gerald and Elizabeth Earl** have claimed that the proposed revegetation is not sufficient to mitigate the loss of pine trees (shelterbelt). The submitter is also concerned about a loss of habitat for indigenous fauna. It is possible that the removal of the exotic shelterbelts (if required) will result in the localised loss of feeding and breeding habitat for some indigenous bird species. The indigenous bird species recorded at the property, however, are all common and widespread and there is an abundance of similar habitat within the local area to which displaced birds can disperse.

5.16 The Applicant is not required to address the partial loss of the pine shelterbelt. The intention of the proposed indigenous revegetation is to enhance the values of the existing natural wetlands and groves of kānuka, and thereby increasing and improving habitat for indigenous fauna.

5.17 I note, however, that in discussions with another submitter **(NZ Custodial Trustees and Pendennis Custodial)** at 44 Tieko Street the Applicant has reconsidered their position in respect of the shelterbelts, which may provide some relief to the concerns expressed by the Earls. The Applicant has advised:

> *'That the applicant is happy to retain the trees along the boundary of 44 Tieko Street and the proposed lot 19, and if any trees should need replacement, to liaise with the Trustees to identify appropriate native species to be planted…'*
>
> *In terms of the dogleg boundary of proposed lot 19, 44 Tieko Street and the Right of Way, I can confirm it is the applicant's preference to retain these trees, and they would only be removed if it was established that the earthworks required for access to the remainder of proposed lot 19 would undermine the integrity of these trees. If the trees had to be removed, the Applicant is happy to discuss with the Trustee's replacement trees.'*

5.18 The retention of the shelterbelt will mean that direct impacts on any resident indigenous birds will be largely avoided. It may also help to prevent or reduce the spread of wind-borne pest plants into the site.

5.19 **Paula Keene and John Rice** are supportive of the application, although they have requested the following measures are undertaken within Lots

2, 3, 4, and 5: retain all mature kānuka trees; control infestations of blackberry (*Rubus fruticosus* agg.) and gorse; and control rabbits prior to earthworks commencing (for which the submitter is prepared to contribute financially).

5.20 Based on the recommendations in the EcIA, the Applicant intends to retain and legally protect the kānuka groves on the property. These groves will also be subjected to pest plant control and indigenous underplanting in order to improve their ecological values.

5.21 I am supportive of rabbit control being undertaken at the site, particularly given the high numbers that are likely present. Rabbits can significantly impact new plantings, so it is important that they are suppressed prior to planting taking place. I note that the Applicant, in responding to the submission[34], on my advice, has agreed to undertake rabbit control by undertaking two night shoots across the entire property one month prior to earthworks commencing[35]. I note that the Applicant has also agreed and offered to continue to manage animal pests on site until the properties are sold. Detailed recommendations for rabbit control and monitoring will be included in the Ecological Management Plan.

5.22 In my opinion, it is reasonable for the submitter to request the control of blackberry and gorse on Lots 2 – 5, particularly given that these species will be controlled elsewhere at the site (for example, within and around natural wetlands and kānuka groves), and the Applicant has agreed to do that as a result of discussions with that submitter.

6. RESPONSE TO OFFICER'S REPORT

6.1 I have reviewed Section 6.9 of the Officer's report, which pertains to ecological effects. I agree with the Officer's conclusions with regards to potential effects of the proposal being less than minor, particularly in light of the mitigation measures proposed by the Applicant.

6.2 I note the following in paragraph 178 of the Officer's report with respect to the EcIA prepared by Wildland Consultants:

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[34] Page 12 of Summary of Discussions with Submitters: Keen/Rice and Trustees of 44 Tieko Street. Prepared by Chris Hansen Consultants Ltd.
[35] Ibid, '….Using a .22 calibre rifle with sub-sonic bullets and a suppressor, and a thermal scope used rather than spotlights. At least one week between shoots is proposed.'

> *No review of the Wildlands Consultants report was considered necessary given the site does not contain any ecological features under the District Plan (i.e., an ecological site), the limited removal* of indigenous vegetation proposed *and requirements of the applicants with the Regional Council.*

6.3 There is one point relating to wetlands and indigenous vegetation in the Officer's Report that requires clarification.

6.4 In paragraph 72 (page 17 of the Officer's report), it states that:

> "*All modification (removal) of indigenous vegetation within the Rural Residential Zone that is within 20m of a water body requires resource consent and therefore the effects of the removal of indigenous vegetation cannot be disregarded under the permitted baseline."*

6.5 'Water body' in this context refers to wetlands, given that no streams are present at the site. It is my understanding is that the reference to removal of indigenous vegetation was included in the AEE[36] to allow, as a precaution, for the minor trimming of the kānuka groves to maintain their current condition. In my opinion, trimming these groves will not be necessary.

6.6 Outside of the kānuka groves, no other indigenous vegetation is likely to occur within 20 metres wetlands. Based on my visit to the site, the vegetation currently surrounding the natural wetlands largely comprises exotic rank grass, gorse, blackberry, and radiata pine. The photographs provided in **Appendix 2** of my evidence provide some useful context.

7. CONDITIONS

7.1 I have provided input into the draft consent conditions prepared by the Applicant (dated 8 April 2022). I have also reviewed the Wellington Regional Council (dated 1 October 2021) and the recommended conditions proposed by KCDC in the Officer's Report.

[36] Section 8.2.8, page 82 of the AEE.

7.2 I am supportive of the conditions ENV1 which provide for:

(a) Creation and legal protection of the grass skink habitat area in Lot 5. (ENV 1);

(b) Fencing of the 10-metre buffer area of the natural wetlands, recommended planting and pest plant control, and a consent notice protecting those areas (ENV 2);

(c) Prohibition of placement of green waste, constructing of building or structure and removal of indigenous vegetation/ planting of exotic vegetation in the buffer area of the wetlands. (ENV 8); and

(d) Legal Protection of the Kānuka Stands, pest plant control, and under-canopy planting (ENV 3).

7.3 I also support the legal protection of the proposed lizard management area.

7.4 I suggest the requirement of an Ecological Management Plan ('EMP') is included in the conditions where pest plant and animal control, and indigenous planting, are specified and appropriately mapped. The EMP will also include details on the techniques, timing, and duration of rabbit control across the property.

7.5 Planting for the purposes of ecological restoration needs to be kept separate from planting for the purposes of landscape and amenity values. Similarly, pest plant control and buffer planting in and around the natural wetlands should be guided by the EMP, while planting in the constructed wetland (Wetland 4) should be guided by the Wetland Planting Plan as per Condition 4 of the Regional Consent.

<u>KCDC Recommended Conditions</u>

7.6 I have reviewed conditions 69 to 74 as they relate to ecology.

7.7 I suggest the following amendment to Condition 71:

Prior to lodging an application for section 224(c) certification, the consent holder shall ensure natural wetlands on lots 1, 2, 5, 14-18, and 20 are fenced to provide a 10m buffer (except where already

fenced or the wetland and/or buffer area would exceed the site boundary); undertake ~~weed~~ pest plant control; and undertake planting with appropriate wetland species. ~~(as per the wildlands report and landscape concept plan accompanying the application).~~ Methodologies for pest plant control, pest animal control, and indigenous planting within and around the four natural wetlands, are to be provided in an Ecological Management Plan.

7.8 I suggest a minor amendment to Condition 73 as per below:

The consent holder shall ensure all woody vegetation to be removed during construction is undertaken outside of the bird breeding season (September-March inclusive).

If the removal of any part of the shelterbelt does need to occur during the breeding season, the Applicant proposes to undertake a survey for active bird nests within 48 hours from the planned vegetation works. If active nests are observed, they will be taped off and tree felling will not occur any fledglings have left the nest. I am supportive of this approach.

7.9 I am happy with the rest of the recommended conditions.

Regional Consent Conditions

7.10 I consider the wording in Condition 4 of the Regional Consent is sufficient with regards to site preparation and planting within the constructed wetland (Wetland 4).

8. CONCLUSION

8.1 The vegetation on the property comprises pasture, shelterbelts, kānuka groves, and wetlands. There are four wetlands on the property which are determined to be natural wetlands and are thus significant due to the rarity of wetlands in the Wellington Region. All natural wetlands will be fenced and legally protected, and buffer planting of indigenous species will be undertaken around them to a width of ten metres. The Applicant now intends to retain small areas of exotic shelterbelt where possible unless the root system will be impacted by construction during earthworks.

8.2 No part of the property falls within a Significant Natural Area, although specimens of one indigenous tree species (kānuka) are protected under Schedule 3.2 of the proposed Kapiti Coast District Plan. Based on the latest version of the scheme plan, none of these trees will be cleared during the earthworks and these existing stands will be protected and enhanced.

8.3 Exotic trees on the property provide habitat for common indigenous bird species. The Applicant has revised their plans and now intends to retain as much of the shelterbelts as possible, following feedback from neighbours with regards to potential effects on indigenous fauna. Some clearance of these trees may be needed, but the extent has been substantially reduced. Replanting of these areas with appropriate indigenous species will occur if needed.

8.4 At least one species of indigenous lizard is present at the site, and earthworks will likely result in injuries, death and habitat losses for these lizards in the absence of management.

8.5 Measures to mitigate the potential adverse effects of vegetation clearance include the protection and enhancement of natural wetlands and kānuka groves. This would largely involve revegetation and pest plant and animal control, and should be guided by a Council-approved Ecological Management Plan. All the natural wetlands and kānuka groves will be protected in perpetuity under covenants.

8.6 Measures to mitigate the potential adverse effects on birds and lizards include undertaking vegetation clearance outside of the bird breeding season, preparing and implementing a Lizard Management Plan, and protecting a one-hectare area of lizard habitat in Lot 5.

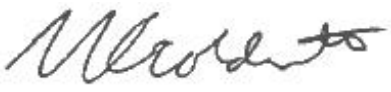
8.7 Controls for stormwater run-off and sediment and erosion are appropriately addressed in the reports prepared by Cuttriss (2021) and Awa (2021). The construction of the wetland in Lot 200 (Wetland 4) will provide effective flood mitigation and treatment of run-off. Over time, indigenous plantings in the constructed wetland will provide local habitat for indigenous waterfowl and wetland bird species, as well as providing important ecosystem services such as nutrient uptake and additional bio-filtration.

8.8 If the mitigation measures described in my statement of evidence are properly implemented then the overall effects of the proposed development on existing indigenous vegetation, dune habitat and function, and natural wetlands are considered to be less than minor. Similarly, potential adverse effects of the loss of exotic vegetation and effects on indigenous birds are considered to be less than minor, and have been reduced further by the Applicant's offer to retain the exotic shelterbelt on lot 19 and along Tieko Street, where possible. There should be a net gain in lizard values once the lizard habitat area has been established in Lot 5.

8.9 No peer review of the EcIA has been undertaken, although I note that it was also submitted in support of the Regional Consents. Greater Wellington were satisfied with my assessment. Ms Simpson, in her peer review of the LVA, acknowledges that the proposal "*could improve the condition of some wetlands and vegetation"*[37] and that the *"proposed buffer planting around kānuka stands and wetlands provides mitigation"*[38]*.*

8.10 I consider that the proposed protection and enhancement of the four natural wetlands, together with the control of rabbits, if appropriately implemented, will have a net positive effect on indigenous biodiversity through the provision of fauna habitat and enhanced floristic diversity.

8.11 On this basis, I recommend that consent for the application is approved.



Nicholas Paul Goldwater

21 July 2022

[37] Page 2 of Peer Review of Estates Otaihanga Subdivision Proposal Landscape and Visual Impact Assessment.
[38] Page 9 of Peer Review of Estates Otaihanga Subdivision Proposal Landscape and Visual Impact Assessment.

APPENDIX 1

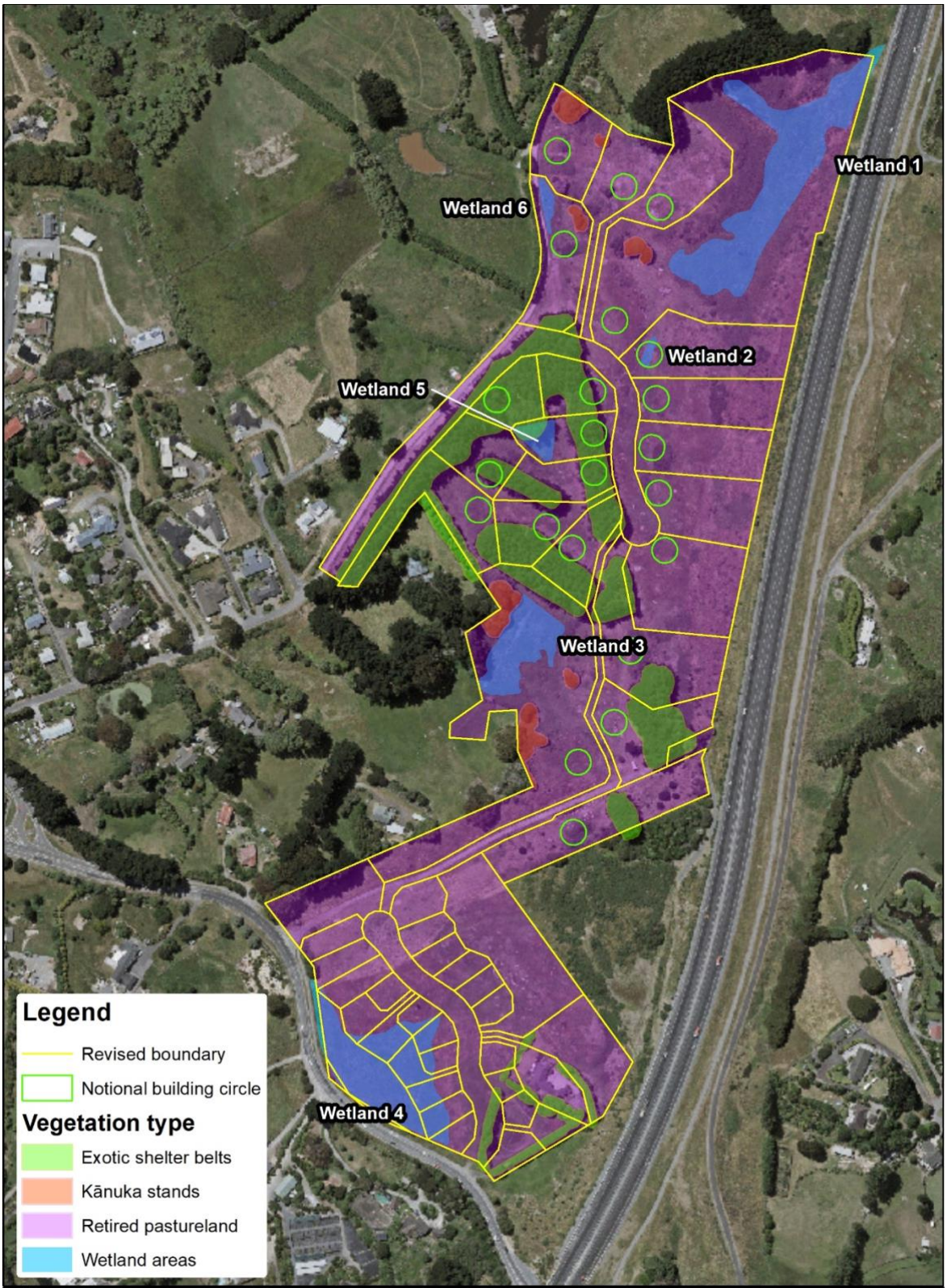


Figure 3. Vegetation types at the proposed Otaihanga subdivision

APPENDIX 2

Plate 1: View looking west across Wetland 3 with protected kānuka trees in the background. A small kānuka sapling is present on the dune (left side of frame). 11 February 2021.

Plate 2: View looking north across Wetland 1 with gorse regenerating on the dunes and pine shelterbelt the background. 11 February 2021.

Plate 3: View looking west across Wetland 1 with blackberry and gorse on the dunes (right side of frame) and protected kānuka trees the background. 11 February 2021.

Plate 4: View looking northeast across Wetland 1 with regenerating gorse on the dunes. 11 February 2021.

Plate 5: View looking northwest across Wetland 5, which is largely bounded by pine shelterbelts. Indigenous vegetation is largely absent. 11 February 2021.