



Te Kāwanatanga o Aotearoa
New Zealand Government

Your Comment on the Waikanae North project application

Please include all the contact details listed below with your comments and indicate whether you can receive further communications from us by email at substantive@fastrack.govt.nz

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Department of Conservation		
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2. We will email you draft conditions of consent for your comment			
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3. Please provide your comments on this application
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Note: All comments will be made available to the public and the applicant when the Ministry for the Environment proactively releases advice provided to the Minister for the Environment.

Linda Kirk
Acting Fast Track Applications Manager

Acting pursuant to delegated authority on behalf of the Director-General of Conservation.

Date: 28/07/2026

Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011

Comments on a fast-track consenting application

Fast-track Approvals Act 2024 section 53

To: The Expert Panel

From: Department of Conservation

Regarding fast-track project: Waikanae North Development

Fast track Reference: FTAA-2603-1194

1 Background

- 1.1 Waikanae North Development Limited (the Applicant) seeks to obtain resource consents and a wildlife approval to enable the development and subdivision of a 139.35 hectare site at 169-171 Peka Peka Road, Waikanae (the Site). The Site is within the jurisdiction of the Greater Wellington Regional Council (GWRC) and the Kāpiti District Council (KDC).
- 1.2 The Applicant proposes between 1,181 and 1,201 residential dwellings across a range of typologies, a local commercial centre, areas of public and private open space, walkways and active mode connections, and supporting roading and infrastructure (the Proposal).
- 1.3 The Site is located on private farmland owned by the Applicant. The project does not involve any public conservation land.
- 1.4 Vegetation cover is mostly dominated by exotic pastoral land and grazed by sheep and cattle on the ridges and spurs of the site. The Site contains a number of ecological features, including the Te Harakeke Swamp (a wetland of outstanding indigenous ecosystem value), the Peka Peka Road Swamp, a series of smaller degraded wetlands, the highly modified Ngārara Stream, and a prominent sand dune formation.
- 1.5 Approvals are sought in relation to the Resource Management Act 1991 (RMA) and the Wildlife Act 1953.
- 1.6 In accordance with sections 53(2)(k), 53(2)(m)(i), and 53(2)(m)(iv) of the Fast-track Approvals Act (FTAA / the Act), the Director-General of Conservation (D-G) has been invited to comment on the substantive application. Statutory delegations are in place for officers of the Department of Conservation (DOC / the Department) to provide commentary on behalf of the D-G.

2 Department of Conservation advice

- 2.1 The following advice is based on the application documents provided to the EPA on 30 March 2026 and the further information provided to DOC on 1 July 2026 **Appendix A**.
- 2.2 The assessment in this report is informed by expert advice from DOC technical advisors. The Department has relied on the advice of the technical expertise of Dr Aidan Mora-Teddy (Freshwater Advisor), Ms Tayla Hooker (Terrestrial Ecology), and Ms Tertia Thurley (Avifauna). The more detailed advice and credentials of Ms Hooker, Dr Mora-Teddy, and Ms Thurley is provided in full in **Appendices B, C and D respectively**.
- 2.3 Overall, the Department has some concerns in relation to effects on avifauna, terrestrial vegetation and wetlands. The Department also have some suggestions to improve outcomes for aquatic ecology, avifauna and terrestrial ecology. Concerns relating to lizards have largely been addressed in the section 51 report and are not repeated here.
- 2.4 A summary of the Department's advice to the Panel is as follows.

Summary of effects on aquatic ecology

- 2.5 The Department's assessment considers that the proposed development triggers the requirement for a permit under Regulation 43 of the Freshwater Fisheries Regulations 1983. While the applicant has indicated that it is not seeking a complex freshwater fisheries approval under the FTAA, effects on freshwater fish and aquatic ecology remain relevant to RMA approvals sought under the FTAA.
- 2.6 The Department has identified additional actions that could further improve the approach of the applicant:
 - 2.6.1 De-fishing and ecologist supervision for instream and stream diversion works;
 - 2.6.2 Amended environmental compensation and wetland offsetting calculations to ensure accuracy and consistency with best practice;
 - 2.6.3 Clarification as to how the Te Harakeke Swamp will be protected in perpetuity, including monitoring of effects that could occur from stormwater runoff processes.

Summary of effects on avifauna

- 2.7 The Department notes and recommends:
 - 2.7.1 The avifauna values at the site have been well assessed and the effects appropriately identified. However, the impact of the introduced cat population to the area has not been adequately addressed;
 - 2.7.2 The Department is concerned the gain in restoring wetlands will be undermined by the creation of ecological traps whereby the attracted birds are vulnerable to predation by domestic cats;
 - 2.7.3 The management options proposed, and the uncertainty about which option will be adopted, introduces significant risk that maintaining the ongoing presence of threatened birds will be achievable.

Effects on terrestrial vegetation and wetlands

2.8 The Department recommends, to ensure that affected wetlands have been accurately identified and assessed, the following actions should be taken:

- Review of the classification of Wetland Cluster 4 and reassessment of the site's overall significance as a connected ecosystem within the statutory guidelines;
- Recalculation of offset measures to be consistent with industry best practice;
- Reconsideration of wetland buffers;
- Reconsideration of the suitability of the species to be planted.

2.8.1 A range of amendments are also recommended to the Ecological Restoration Management Plan.

2.9 If the concerns relating to avifauna, terrestrial vegetation and wetlands are addressed, the Department considers the effects of the proposed activity can be appropriately managed.

3 Assessment

3.1 This assessment focuses on the actual and potential ecological effects of the Application. The Department has generally not commented on its consistency with the wider statutory framework.

3.2 Comments on draft conditions are provided as part of this assessment.

Complex Freshwater Fisheries Activity

3.3 This section considers whether the proposed development includes a complex freshwater fisheries activity under the FTAA. The Department received very limited information pre-lodgement on the proposed works and activities to be undertaken. At that time, the Applicant did not believe the proposal constituted a complex freshwater fisheries activity and outlined its reasoning. This appears to continue to be the Applicant's view.

3.4 The Department has now had the opportunity to review the substantive application documents and undertaken further dialogue with Applicant post lodgement.

3.5 Section 4 of the FTAA includes a definition of complex freshwater fisheries activity as including "any activity that involves the construction of a permanent dam or diversion structure".

3.6 Dam in turn is defined as having the same meaning as in reg 2(1) of the Freshwater Fisheries Regulations 1983. Under these regulations, **dam** means any structure designed to confine, direct, or control water, whether permanent or temporary; and includes weirs. Accordingly, a weir, which temporarily controls or confines water is a dam for the purposes of the FTAA,

3.7 Diversion structure is also defined in the FTAA, by reference to the Freshwater Fisheries Regulations 1983. Accordingly, **diversion structure** means any structure designed to divert or abstract natural water from its natural channel or bed whether permanent or temporary.

3.8 Section 4.4.1 of Appendix 23 (Assessment of Ecological Effects) to the Substantive Application describes the diversion of a 993m section of Ngārara Stream, into a new channel, including

culverts. The new channel includes various design features, such as added substrate, added woody debris, deliberate sizing, depth, flow gradients and planted bank vegetation. In summary, DOC considers it is a constructed watercourse intended to mimic a natural water course and designed to divert Ngārara Stream water from its existing channel. Based on the information provided in the AEE, it is DOC's view that the constructed watercourse meets the definition of a diversion structure, as set out in the FTAA and the Freshwater Fisheries Regulations 1983.

3.9 In addition, the box culvert weir is intended to temporarily confine and control flood waters, by limiting their flow downstream from the site. As such it meets the definition of a dam, as defined in the Freshwater Fisheries Regulations 1983. That definition expressly includes weirs. This brings it within the definition of a complex freshwater fisheries activity, which refers to an approval required under regulation 43 of the Freshwater Fisheries Regulations 1983.

3.10 Unlike Regulation 42, Regulation 43 does not only apply to structures that would impede fish passage, it applies to all dam or diversion structures. It follows that the box culvert weir and artificial stream diversion trigger the requirement for a complex freshwater fisheries permit, being an approval or dispensation under Regulation 43 of the Freshwater Fisheries Regulations 1983.

3.11 For completeness, DOC also notes that the AEE states that "fish salvage will be undertaken" by the applicant. If fish are to be relocated to waters administered by DOC, then that would trigger a further need for complex freshwater fisheries approval under s 42(4)(j)(iv) FTAA.

3.12 The Applicant has noted that it does not consider complex freshwater fisheries approval is required, and that if it is wrong in this regard, it can apply under normal processes outside the FTAA process.

Aquatic ecology

3.13 The Department notes that the following fish species are present on the Site:

- *Galaxias maculatus* (inanga), At-Risk – Declining
- *Anguilla dieffenbachia* (longfin eel), At-Risk - Declining
- *Anguilla australis* (shortfin eel), Not Threatened
- *Galaxias fasciatus* (banded kokopu), At Risk – Naturally Uncommon
- *Gobiomorphus cotidianus* (common bully), Not Threatened
- Kōura/freshwater crayfish (*Paranephrops*), At-Risk - Declining

3.14 Within the Te Harakeke wetland and wider wetland complex, inanga, shortfin eel, common bully, and brown mudfish (*Neochanna apoda*) have been observed. The latter is At Risk – Declining and has seen a significant loss of habitat and range within the Kāpiti area making them very rare locally with only two other known sites in the wider district.

3.15 As detailed in Appendix C of these comments, the Department broadly agrees with the assessment of the aquatic ecology values provided in Appendix 23, the Assessment of Ecological Effects. However, with regards to the stream removal and diversion works, the Department is concerned that the Applicant's conclusion that there would be no net loss or a net improvement from the work proposed is not supported by any offsetting calculations. The

Department seeks that the Stream Ecological Valuation (SEV) scores already identified by the Applicant, are combined to calculate environmental compensation using the Environmental Compensation Ratio (ECR).

- 3.16 The proposed works include significant diversion of the existing Ngārara stream channel and some loss of overall stream length. In order to avoid fish mortality, where works are being undertaken or water is being diverted, the area should be de-fished prior to work beginning. An ecologist should also be onsite during works where fish may have remained post de-fishing. Supervision by a suitably qualified and experienced ecologist should be a requirement of the conditions of this consent. This will not be necessary in all instances as there are areas where water is diverted after culvert installation.
- 3.17 Any relocation of fish that occurs should happen within the same catchment. Not across multiple catchments as suggested in the original fish salvage plan. Multiple relocation sites within the catchment should also be used to avoid overpopulating individual sites which could cause unnecessary stress or mortalities on the relocated fish.
- 3.18 As detailed in Appendix C, Dr Mora-Teddy queries the appropriateness of the use of the Wetland Ecological Valuation tool (WEV) to value the on-site wetlands due to the, acknowledged, limited use of it in practice. There is not enough data provided to determine whether the offset calculations and the offsetting proposed equate to no net loss. Instead, the Department recommends the use of the Biodiversity Offsets Accounting Model (BOAM) as a best practice approach and to confirm whether the offsetting calculations provided by the applicant are robust.
- 3.19 With regard to wetlands, Dr Mora-Teddy also recommends a wider buffer for wetland clusters, given the significant area of wetland being reclaimed.
- 3.20 The Department notes the application states the high values of the Te Harakeke wetlands will be protected in perpetuity but seeks more clarification as to how the Applicant specifically intends to achieve this.
- 3.21 Additionally, the proposed stormwater runoff management processes could result in water levels of some wetland areas being increased. Dr Mora-Teddy identifies that this could cause increased predatory fish populations which could be detrimental to mudfish populations. Mudfish are the most threatened species in this system and need to be protected, especially since habitat has been significantly reduced within the Kāpiti district. This is hard to manage and predict post works. The Department recommends that conditions on the resource consent are included to require monitoring of both mudfish and the water levels of the Te Harekeke wetland post works, to ensure the population is protected. The Ecological Restoration Management Plan (ERMP) should also be updated to reflect this. The ERMP includes adaptive management requirements should a correlation between water levels and a decline in the mudfish population be detected.

Avifauna

- 3.22 The Applicant's avifauna assessment identifies the Threatened and At-Risk avifauna species that have been recorded within the development site. This includes the Nationally Critical Australasian Bittern, and Nationally Increasing Brown Teal and New Zealand Dabchick. The AEE notes that Harakeke Swamp has high quality habitat for wetland birds including Spotless Crake, Marsh Crake, Australasian Bittern, Fernbird and Brown Teal. The Peka Peka Road Swamp is also noted as providing high quality habitat.
- 3.23 The avifauna assessment also outlines potential effects from habitat disturbance or loss, and mortality and injury of indigenous fauna associated with increased domestic cat and dog ownership. Section 4.5.2 of Appendix 23 acknowledges that *"the addition of hundreds of cats and dogs is likely to increase predation pressure and disturbance of native birds of high and very high ecological value such as wetland bird species"*. The applicant's assessment states that *"without appropriate management of domestic cats and dogs, the magnitude of predation and disturbance effects on the High bird values of Te Harakeke Swamp and Peka Peka Road Swamp are likely to be moderate on a regional scale, resulting in a High potential level of adverse effect."*
- 3.24 The Department has reviewed the application with respect to effects on avifauna, including the avifauna assessment and relevant management plans, and has identified several issues to be addressed, relating to the introduction of cats.
- 3.25 As detailed in Ms Thurley's report (Appendix D), the Department queries the feasibility of effectively controlling the estimated up to 800 domestic cats at this site, especially given the Threatened and At-Risk species present are particularly vulnerable to predation by cats and dogs. The proposed Ecological Restoration Management Plan (Appendix 26 to the application) proposes three different options to manage the expected increased predation. These options are also provided as draft conditions on the resource consent.
- 3.26 It is DOC's view that none of the proposed options provide for protection against predation in perpetuity, as all options only propose a limited duration of trapping and maintenance of fencing, but the threats of cats to wetland birds will persist beyond this period. The Department also queries whether the extent of the covenanted exclusion area in Option C is large enough to effectively protect wetland birds as it appears to be concentrated to manage effects on just the Te Harakeke swamp, failing to address risk to Peka Peka swamp and other wetlands on the site.
- 3.27 The Department notes that to ensure prevention in perpetuity, in addition to some of the measures already proposed, a subdivision-wide covenanted area whereby cat-ownership is prohibited would provide more assurance that the potential effects of predation will be avoided. This method would largely eliminate the threat of additional predation of vulnerable wetland birds. This measure would need to be included in the conditions on resource consent, if granted, or a consent notice registered on the title. The provision of a range of options as currently proposed does not ensure cat predation is sufficiently managed.

- 3.28 The Department understands the Applicant seeks to choose an option on how to manage cats, post approval. This does not provide certainty that the risk will be managed. Appendix E includes DOC's suggested track changes to the draft conditions provided. It is DOC's preference that domestic cats are prohibited from the development, however, the Department is open to engagement on how any alternative options to cat management could be applied to provide some certainty that the risks to wetland birds will be addressed.

Terrestrial vegetation and wetlands

- 3.29 Section 7.2.5.1 of the Assessment of Ecological Effects (Appendix 23) notes ecological features on the Site with a high or very high level of ecological value. This includes the Te Harakeke Swamp, Peka Peka Road Swamp, several stands of sand kanuka and isolated areas of indigenous vegetation on stable high dunes. These areas are identified as meeting the Greater Wellington Regional Council significance criteria as naturally uncommon and endangered ecosystems.

- 3.30 As identified by the Applicant, terrestrial flora and wetland values that are affected or potentially affected include:

- Loss of 1.69ha wetland area;
- Removal of 993m of stream length (2,965m² of un-culverted stream bed);
- Culverting of 76.9m of stream length in addition to the proposed stormwater control twin box culvert;
- Clearance of 1,187m² of indigenous ngaio treeland and an additional 55 native trees across the Site;
- Clearance of 1,773m² of indigenous scrub and rushland on the dune formation; and
- Clearance of 261m² of exotic dominated vegetation adjoining Peka Peka Road Swamp.

- 3.31 As detailed in Ms Hooker's advice attached at Appendix B, DOC queries the classification of wetlands W3 and W4 (also referred to as Wetland Cluster 4) as not constituting a dune slack wetland, and therefore not a threatened and naturally uncommon ecosystem. Absence of threatened flora pertaining to dune swale habitats should not disqualify an area from being identified as a dune swale. It is the Department's view that the areas should be treated as naturally uncommon ecosystems with the threat status of naturally endangered. The impacts of the application on these dune swales (W3 and W4) should be assessed on this basis. Currently, the application does not therefore identify or remedy significant impacts on dune swale ecosystems. Given that these ecosystems are naturally uncommon, these areas should be afforded a high level of protection and thus fully avoided. Given the rarity of these ecosystems, like for like offsetting is not an option, the only real options are to either avoid or

compensate. Both stable dunes and dune swales are classified as naturally uncommon ecosystems with the threat status of Nationally Endangered.

- 3.32 The Department also has concerns with the methods that have been used to delineate natural wetlands. It is possible that, due to flaws in the assessment of wetlands, areas that should have been identified as natural wetlands have not been, and therefore the full impacts of the activity have not been identified. Ms Hooker for the Department of Conservation, Appendix B, also raises concerns with the application of the Environment Institute of Australia and New Zealand (EIANZ) criteria for significance across the wetland clusters and indigenous dune vegetation, but not against the entire site.
- 3.33 Appendix B, therefore provides an assessment of the application area based on Representativeness, Diversity and Pattern, Rarity and Distinctiveness and Ecological Context, whilst also providing additional historical context of the site within the wider ecological district.
- 3.34 Appendix B also identifies an issue caused by the reliance on the EIANZ guidelines. For example, all wetlands are correctly identified as ranking high for Rarity and Distinctiveness, yet despite this, the ecological value of several are assessed as Moderate. A rare ecosystem, is a rare ecosystem and its value should not be drawn down due to other assessment factors. The ecological value of these areas should be assessed as high and any mitigation provision should be evaluated by this measure. This would lead to a larger offset requirement than currently provided.
- 3.35 The current mitigation around the stable dune area is to retain a remnant of the dune mounds, plant indigenous vegetation and develop around this. This however will render the area unrecognisable as a stable dune and would be best described as an amenity planting area within the subdivision. It is more appropriate to assess the impact on the stable dune area as a landform that composes approximately 42 hectares of the site rather than, the small isolated indigenous remnants equating to approximately 0.54 hectares.
- 3.36 Stable dunes are characterised not only by their indigenous vegetation but also their distinctive landform features, ecological setting and the ecological functions associated with them. Restricting the assessment to isolated patches fails to recognise these components and therefore in the proposed mitigation fails to retain the characteristics of a stable dune ecosystem. While indigenous planting may partially address vegetation loss, it does not compensate for the loss or fragmentation of the dune landform, nor the ecological processes within the wider area that contribute to its significance.
- 3.37 For these reasons, that the Department considers that the stable dune ecosystem has not been adequately offset in the Proposal. The amount of area to be enhanced should be guided by compensation guidelines rather than biodiversity offset principles. As stable dunes are a naturally uncommon ecosystem with the threat status of 'Nationally endangered' they cannot be recreated elsewhere.

- 3.38 A more meaningful mitigation would retain ecosystem connectivity between the stable dunes, the dune swales, and the Te Harakeke wetlands rather than isolate them. Not only would this be an opportunity to restore a stable dune to its historic vegetation type, but it would increase habitat availability for local fauna and enhance long-term protection of Te Harakeke swamp. This would result in significant biodiversity gains for the region. As a threatened and naturally uncommon ecosystem, a dune slack wetland be avoided. If avoidance is not possible, then it should be compensated for.
- 3.39 Currently the 'offset' for the wetlands has been calculated using the Wetland Ecological Valuation tool (WEV) with the Ecological Compensation Ratio (ECR). This tool has been developed by the consultancy (RMA ecology) who has supplied the AEE. The justification for the use of this method over best practice models has not been demonstrated. For transparency, a comparative assessment should be undertaken. Offset measures should be calculated using best practice as provided by DOC's guidelines using the Biodiversity Offsets Accounting Model (BOAM). This output can then be compared to the outputs derived from the ECR:WEV methodology.
- 3.40 As identified in Appendix B, DOC also seeks that that given the significant value of the Te Harakeke wetlands, as one of the largest wetlands left in the Foxton Ecological District, the management and health of this wetland in perpetuity should be a key consideration. Studies in microclimate conditions within forest interiors have found that comparable microclimate conditions to forests may not be achieved in buffers less than 40 metres. For this ecosystem's resilience in the long-term it is likely that a 40 metre buffer is required. Furthermore, this ecosystem's longevity should be considered in compensation methodology relating to the stable dune habitat.
- 3.41 Finally, the Department considers that a number of clarifications and amendments are needed to the proposed management plans. Firstly, while the weed control guidelines set out in the Ecological Restoration Management Plan¹ appear robust in allowing for the best chance of success for the plantings further measures are required:
- 3.41.1 Clarification as to how all offset areas including wetlands and the stable dune planting areas will be managed in perpetuity;
 - 3.41.2 For wetlands in particular many riparian areas will not have an adequate buffer area to be self-sustaining.
 - 3.41.3 The proposed ecological restoration plan does not provide sufficient contingency measures should plantings fail to reach the 80% indigenous canopy cover benchmark. Currently it is stated that if the ecological restoration plan fails to meet the benchmark within year 5 then 'infill planting will be reconsidered.'² This is inadequate, if the plantings and accordingly, the site restoration is unsuccessful, then the offset measures are not achieved, resulting in a net-loss in biodiversity, the scale of this net-loss in such

¹ Section 5.9.1 of Appendix 26 Ecological Restoration Management Plan.

² Section 5.9.2 of Appendix 26 Ecological Restoration Management Plan.

a scenario is currently unknown and unpredictable. This scenario should be readily addressed and substantive measures to rectify offset failure should be provided within the application.

3.41.4 Species for planting should be eco-sourced from populations nearby to the site. There are some species listed for planting that are outside of their natural distribution and should not be planted. This includes:

- Karaka (*Corynocarpus laevigatus*), although this species is naturalized widely, plants representative of the historic vegetation should be planted.
- Inanga (*Dracophyllum longifolium*) is only known from the South Island of New Zealand

3.42 Some species require different conditions to those proposed for planting. This is the case for Maire tawake (*Syzygium maire*). This is a Threatened Nationally Vulnerable species, that occurs in waterlogged ground but is proposed to be planted in drier wetland margins. The restoration plan should be assured that plant species are planted in the right places, especially those that are threatened where seed source is likely scarce.

Lizards

3.43 The Applicant has applied for a Wildlife Approval which the Department has provided comments under s51 of the FTAA. As part of those comments, the Department noted that the approach to planting will have a significant impact on lizards and accordingly requested that the Lizard Management Plan should incorporate parts and details of the Ecological Restoration Plan to ensure the two management plans are working together to ensure habitat enhancement.

3.44 The Applicant has Indicated that the Lizard Management Plan will be updated to incorporate planting details.

4 Conditions

4.1 The Panel is required, under the Act, to provide draft conditions and invite comments on them before they grant an approval. The Department notes that additional conditions or amendments to proposed conditions may be required in order to address the comments and recommendations made above. Several suggested amendments are included in Appendix E, however, DOC also reserves it's right to provide specific comments on conditions under s70 of the FTAA.

5 Conclusion

5.1 Overall, the Department considers effects of the Application could be appropriately managed subject to:

- the Applicant addressing the concerns relating to management of effects on avifauna, terrestrial vegetation and wetlands;

- appropriate consent conditions being imposed; and
- appropriate amendments being made to draft management plans.

5.2 Thank you for the opportunity to comment.

Appendix A:

Memorandum from the Applicant 1 July 2026

WAIKANAĒ NORTH DEVELOPMENTS LIMITED

169-171 Peka Peka Road, Waikanae | FTAA-2603-1194

To:	Loren Brown, Fast Track Consents Advisor DOC Te Papa Atawhai [REDACTED] Dean van Mierlo, Counsel for the Director-General of Conservation [REDACTED]
From:	Mitch Lewandowski, Building Block Planning Limited (for Waikanae North Developments Limited) Dr Graham Ussher, Principal Ecologist, RMA Ecology Ltd
Date:	1 July 2026
Subject:	Plant species, survey methodology and plant community mapping; and approach to cats and predators

Introduction

1. This memorandum is provided by Waikanae North Developments Limited (**WNDL**) in response to matters raised by the Department of Conservation (**DOC**) at a meeting of 15 June 2026, and in DOC's comments to the Panel Convenor. It addresses DOC's request for further information regarding: (a) a full list of plant species found across the site, the associated survey methodology, and plant community mapping; and (b) the proposed approach to cats and predators.
2. This memorandum identifies where this information is already provided in the application documentation, and clarifies WNDL's approach to plant species, survey methodology, plant community mapping, and cats and predators.
3. This memorandum has been prepared by Mitch Lewandowski (Building Block Planning Limited) and Dr Graham Ussher (RMA Ecology Ltd).

Plant Species, Survey Methodology and Plant Community Mapping

4. The Assessment of Ecological Effects (**AEE**) and Ecological Restoration Management Plan (**ERMP**) address the flora survey methodology and plant community mapping, and identify the threatened plant species detected on site. The key findings and relevant cross-references are set out in the table below.

DOC Requirement	Response and Application Reference
(a) Survey methodology	Vegetation and flora were assessed via a desktop review followed by field assessment. The desktop review checked individual plant species against the national threatened species classification list for vascular plants (de Lange et al. 2024). Field assessment was undertaken across six site visits between October 2023 and October 2025, including a dedicated rare plant and vegetation community survey on 6 – 10 October 2025. Vegetation was mapped and described in terms of its composition and values; indigenous vegetation not already listed as a Significant Natural Area (SNA) was further assessed against the Wellington Regional Policy Statement significance criteria and the NPS-IB to determine whether it was SNA-qualifying. Vegetation was also assessed against the relevant provisions of the Kāpiti Coast District Plan. Refs: Appendix 23 (AEE), ss 2.0, 2.1, 2.2, 2.2.3.
(b) Plant community mapping	Vegetation on site is mapped and categorised into five communities: managed exotic pasture; wetland; exotic-dominated shrubland and rank pasture; exotic trees (shelterbelts and woodlots); and indigenous dryland vegetation (Figure 12 AEE). The indigenous dryland vegetation is further split into two communities - native shrubland dominated by pōhūehue (<i>Muehlenbeckia complexa</i>), and scattered indigenous trees (primarily ngaio) - and is separately mapped, including eight indigenous 'trees of note' (Figure 13 AEE). The six wetland vegetation clusters across the site

	are separately mapped and described in terms of dominant species and ecological value. Refs: Appendix 23 (AEE), ss 3.2.1, 3.2.2, 3.3.3, Figures 12–13; Appendix 26 (ERMP), s 2.1.3.
(c) Threatened or At Risk plant species	A desktop assessment identified four At Risk plant species potentially occurring in the local area: sand dune kānuka (<i>Kunzea amathicola</i>), dwarf mistletoe (<i>Korthalsella salicornioides</i>), sand coprosma (<i>Coprosma acerosa</i>) and kōkihi (<i>Tetragonia tetragonoides</i>). Of these, only sand dune kānuka (At Risk - Declining) was detected on site, along the eastern margins of Te Harakeke Swamp and under a shelterbelt east of the main dune ridge (Figure 14). No Threatened plant species were detected during the desktop assessment or onsite despite extensive surveying. Refs: Appendix 23 (AEE), s 3.2.3, Figure 14.
(d) Full species list	The AEE and ERMP record dominant and indicator species for each vegetation community and wetland cluster. Refs: Appendix 23 (AEE), ss 3.2.1–3.2.3, 3.3.3; Appendix 26 (ERMP), s 2.1.3.

Approach to Cats and Predators

5. The application has considered approaches to predator management. The key outcomes and relevant cross-references are set out in the table below.

DOC Requirement	Response and Application Reference
(a) Effects assessed	The AEE assesses the risk of increased predation and disturbance arising from domestic cat and dog ownership associated with the development. Based on average New Zealand cat ownership of 0.68 cats per household, up to 800 additional domestic cats could be introduced into the local area (with up to 500 additional dogs, at 0.43 dogs per household). Without management, the resulting predation and disturbance pressure on the High bird values of Te Harakeke Swamp and Peka Peka Road Swamp is assessed as a potential High adverse effect. Refs: Appendix 23 (AEE), s 4.5.2.
(b) Mitigation framework	The ERMP sets out a combination of structural exclusion, ownership controls and ongoing pest control. While a preferred approach has not been settled upon, options are provided and secured by proposed conditions of consent. Refs: Appendix 26 (ERMP), ss 6.3–6.6.
(c) Mechanism for selecting and implementing the approach	The draft conditions require WNDL to notify Council's Manager, Parks, Open Space and Environment in writing of which option is selected prior to construction of any residential lot. Each option's obligations are fully specified in the draft conditions, and once selected, the option cannot be changed without the Manager's written approval. The selected option will be secured in perpetuity. Refs: Appendix 33, Conditions 75–105 (land use consent), 124 (subdivision consent).
(d) Protection of the lizard release area	Independently of the option selected, the ERMP commits to a 10-year rat and hedgehog trapping programme within the 5.8 ha lizard release area from the commencement of earthworks, supplemented by log refuge and node planting habitat improvements. The AEE records the assumption that DOC will require assurance that domestic and feral cats (and other pests) are removed or excluded from the release site; this is addressed through the live cat trapping programme operating across all ecological management areas, including the lizard release area, under each of the three options. Refs: Appendix 23 (AEE), s 4.5.2; Appendix 26 (ERMP), ss 6.2, 6.3; Appendix 25 (LMP).

6. As acknowledged in the AEE at lodgement, the project ecologists and WNDL were still finalising the preferred approach to cat and predator management when the application was prepared. The option framework and pre-construction notification mechanism described above represent that finalised approach.

Next Steps

7. WNDL will compile a consolidated flora species list, covering all species recorded during the six field survey events undertaken between 2023 and 2025 and cross-referenced to the plant community mapping in the AEE and ERMP, and provide this to DOC as a supplementary schedule.
8. WNDL welcomes the opportunity to discuss these matters further with DOC, including at any further expert conferencing or panel-directed process.

Mitch Lewandowski
Building Block Planning Limited
For Waikanae North Developments Limited

1 July 2026

Dr Graham Ussher
Principal Ecologist
RMA Ecology Ltd

1 July 2026

Appendix B:

Comments on Aquatic Ecology – Aidan Mora-Teddy

Waikanae North Development – Freshwater Technical Advisor Comments

Introduction and professional scope

1. My full name is Aidan Kerry Mora-Teddy.
2. I am a technical advisor within the freshwater ecosystems and threats team at the Department of Conservation. I have held this role for almost three years.
3. I have provided expert freshwater advice for several RMA applications for DOC.
4. I hold a PhD and BSc from the University of Otago which focused on freshwater ecology.

Code of conduct

Whilst it is acknowledged this is not an Environment Court Proceeding, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in the preparation of this advice. Unless I state otherwise, this advice is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Material considered

5. In preparing my statement I have read and relied upon the following documents:
 - a) The S23 document Assessment of Ecological Effects produced by RMA ecology on behalf of Waikanae North Developments
 - b) The New Zealand Fish Passage Guidelines, Version 2.0, 2024
 - c) Conservation status of New Zealand Freshwater Fishes 2023
 - d)

Site freshwater values

6. Fish

Within the streams present on the site, the At Risk – Declining species of *Galaxias maculatus* (inanga) and *Anguilla dieffenbachia* (longfin eel) have been observed. The former has recently worsened in threat status from Threatened – Nationally Vulnerable. Also observed have been the Not Threatened *Anguilla australis* (shortfin eel), *Galaxias fasciatus* (banded kokopu), and *Gobiomorphus cotidianus* (common bully). Kōura/freshwater crayfish (*Paranephrops*) were also present. Giant kokopu, redfin bully, giant bully, and upland bully may have also been present at the site at one point although degradation of habitat makes this now unlikely.

Within the Te Harakeke wetland and wider wetland complex, inanga, shortfin eel, common bully, and brown mudfish (*Neochanna apoda*) have been observed. The later is At Risk – Declining and has seen a significant loss of habitat and range within the Kapiti area making them very rare locally with only two other known sites in the wider district.

7. Wetlands

The site has several wetlands of ranging size and quality. As the site has been farmland for at least 75 years, many of the existing wetlands have been severely degraded. It is also likely that

many wetlands have been reduced in size or removed completely in this time. Wetlands like this would have been the norm over this landscape before human development.

Of the wetlands found on the site, Te Harakeke has the highest freshwater value. The wetland contains an intact wetland community with several native plant, fish, and bird species having been observed. The smaller wetland systems on the site are more degraded but still retain value.

8. Streams

Ngārara stream runs through the site. The stream is highly channelised and straightened, reducing its ecological function. The overall habitat within and around the stream is rather homogenous leading to moderate to low species abundance and diversity. This is a product of historical modification and degradation. The stream is not well shaded, likely promoting unwanted macrophyte growth. Several watercourses flow into the stream from the site which drain many of the historical wetlands. According to the applicants AEE these watercourses are of low-moderate ecological condition. This seems accurate given the site and morphology of the watercourses.

Works impacting freshwater values and effectiveness of mitigation

9. Stream removal and diversion

The proposed works include significant diversion of the existing Ngarara stream channel and some loss of overall stream length. The diversion, in my opinion, triggers the need to apply for complex freshwater fisheries approval. This has been highlighted in my previous memo. In order to avoid fish mortality, where works are being undertaken or water is being diverted, the area should be de-fished prior to work beginning. An ecologist should also be onsite during works where fish may have remained post de-fishing.

Overall, the proposed work to the stream channel looks to improve the ecological function of the stream. This is largely due to the improved sinuosity of the channel and riparian planting of the stream banks. The water levels in the stream will also be raised and better controlled improving flow of the stream and moisture levels in some of the adjacent wetlands which should be another net positive.

On face value, for the reasons mentioned above it seems there would be no net loss or a net improvement from the work proposed. However, this is not supported by any offsetting calculations provided by the applicant. The applicant has provided SEV scores for parts of the stream reach. I would like to see the SEV scores combined to calculate environmental compensation by using the Environmental Compensation Ratio (ECR).

10. Fish translocation

Fish salvage and relocation have been discussed in the pre-application, but the discussion points should be reiterated. Any relocation that occurs should happen within the same catchment. Not across multiple catchments as suggested in the original fish salvage plan. Multiple relocation sites within the catchment should also be used to avoid overpopulating individual sites which could cause unnecessary stress or mortalities on the relocated fish.

11. Fish passage

Several culverts and a weir are being proposed as part of the application. All the designs provided do provide for fish passage. Once installed, there should be some kind of monitoring plan to ensure fish passage is still being provided after the work is completed. Also, during installation of in-stream structures, fish could be killed. To avoid this, the work areas should be thoroughly de-fished. An ecologist should be on site during installations where fish could still be in-situ. This will not be necessary in all instances as there are areas where water is diverted after culvert installation.

12. Wetland removal, offsetting and protection

The proposal will permanently reclaim 1.69 ha of wetland. These wetlands have been determined by the applicant as low to moderate value and have been impacted by years of farming and exotic plants. It is important to consider that the wetland extent of the site and wider district was in the past far larger, and these are the remnants of what originally would have been a much greater, interlinked system of wetlands and varying habitats. The National Environmental Standards for Freshwater aims to prevent any net loss of wetland extent or value. The applicant believes wetland removal is unavoidable and has proposed a series of offsets to achieve no net loss of wetland extent or value.

To determine the extent of offsetting required, the applicant has used the Wetland Ecological Valuation tool (WEV) to value the on-site wetlands combined with the ECR. To my understanding, the WEV is a tool created by RMA ecology which takes a simplified approach to wetland offsetting. The WEV is adapted from the SEV, and it is hard to determine whether the metrics from stream systems transfer to wetland systems well. I have reservations about this approach as it has only been used in a handful of cases and uses a simplified approach by the applicant's own admission. The applicant also provides little data as to what parameters are measured in the WEV. This makes it very difficult to assess the efficacy of the model and whether it is accurate in what it is predicting. At the very least, I would want to see a detailed methodology as to how the WEV model works to understand if it is accurate. Therefore, I cannot determine whether the offset calculations and the offsetting proposed results in no net-loss. There is also no clear justification as to why this model has been favoured over others apart from that there is no standardised approach to these calculations.

I would recommend using the Biodiversity Offsets Accounting Model (BOAM) as this is a tried-and-true method. This would provide better transparency and a best practice approach recommended by DOC. This at least gives a comparative baseline to determine whether the WEV/ECR offsetting calculations provided by the applicant are robust.

For Te Harakeke wetland, the applicant is proposing a buffer with an average width of 20.5m. This falls within the recommended buffer widths for functional, self-sustaining wetland and riparian buffers described in the wider literature. However, the average buffer width for the other wetland clusters is half this. I would like to see this increased where possible to ensure the remaining wetland clusters can function as well as possible given 1.69 ha of wetlands are being reclaimed.

As highlighted in the application and above, the Te Harakeke wetlands are a high value system that needs to be protected. In the application it is stated that they will be protected in "perpetuity". I have questions as to how this will be achieved as there is no reference as to

how this would be achieved. I would like to understand how this would be achieved with options like transferring the wetland parcel to public land or iwi in order to better ensure protection in perpetuity.

13. Hydrological changes

It is proposed that through processes like stormwater runoff management, water levels in some wetland areas will be enhanced. For te Harakeke wetland, this could be problematic. Increasing the water levels too much could cause increased predatory fish populations such as eels which could be detrimental to the current mudfish population. Mudfish are the most threatened species in this system and need to be protected. Especially since habitat has been significantly reduced within the Kapiti region. This is hard to manage and predict post works. The best option for this would be to monitor both mudfish and the water levels of the Te Harekeke wetland post works to ensure the population is protected.

Appendix C:

Comments on Terrestrial Ecology – Tayla Hooker

Introduction

1. My full name is Tayla Jane Hooker.
2. I am providing ecological advice to the Director-General of Conservation in relation to the fast track application for Waikanae North Developments limited for the development of a subdivision of 1,200 lots.

Qualifications and experience

3. I have a Bachelor's degree in Environmental Science (Wildlife and Conservation Biology) from Deakin University, Melbourne, Australia.
4. I have been employed by the Department of Conservation since 2020. For five years I was employed as Biodiversity Ranger based in Twizel/Te Manahuna, working closely with managing and monitoring threatened plant populations within the area. For the past year I have been employed as a Technical Advisor for flora and ecosystems, where I facilitate threatened plant and ecosystem work over the Lower North island.
5. During this time, I have surveyed 18 different pastoral leases in the Mackenzie Basin for their inherent biodiversity values as a part of the Crown Pastoral Lease Act (CPLA).
6. I have provided evidence and attended a hearing for Balmoral solar array within the Mackenzie Basin. Within the Lower North Island I have provided advice for various fast track applications.
7. I assist in the monitoring and management of New Zealand's threatened plant flora and their associated ecosystems within the districts of Ngāmotu (New Plymouth), Whanganui, Te-Papa-i-Oea (Palmerston North), Te Whanganui-a-Tara (Wellington), Whakaoriori (Masterton) and Ahuriri (Napier).
8. I have visited and assist in management of various coastal ecosystems along the west coast that include active dunes, dune slacks, coastal turfs and stable dunes. I am responsible for providing advice in the protection of threatened plant species found in these ecosystems.

Professional scope

9. I am a terrestrial ecologist and my comments will be based on the terrestrial flora and ecosystems that the site represents.

Code of conduct

10. Whilst it is acknowledged this is not an Environment Court Proceeding, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in the preparation of this advice. Unless I state otherwise, this advice is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

11. My memo is divided into the following components

- a) Context of the site
- b) Overview of the state of health of stable dune ecosystems in New Zealand
- c) Assessment of dune slack ecosystems found on site
- d) An assessment on the classification of Naturally Uncommon ecosystems within the site.
- e) Te Harakeke Swamp description of values and wider context
- f) Application of Greater Wellington Regional Council (GRWC) criteria for assessing ecological significance across the whole site
- g) Assessment of the ecological value of wetlands
- h) Offsetting and the use of the Wetland Ecological Valuation Tool (WEV) and Ecological Compensation Ratio (ECR)
- i) Wetland buffer considerations
- j) Proposed monitoring and compliance requirements of plantings and offset measures

Material considered

12. In preparing my statement I have read and relied upon the following documents

- a) Criteria for identifying areas that qualify as Significant Natural Areas (SNAs) as per Appendix 1 of the National Policy Statement for Indigenous Biodiversity 2023 Amended December 2025 (Ministry for the Environment, 2023).
- b) Appendix 23 of the Assessment of Ecological Effects by RMA Ecology on behalf of Waikanae North Developments Limited
- c) Appendix 26 Ecological Restoration Management Plan by RMA Ecology on behalf of Waikanae North Developments Limited.
- d) I conducted a site visit unaccompanied on the 30th of June 2026.

Context of the site

13. The site sits within the Foxton Ecological District. Significant biodiversity loss has occurred within this district due to extensive land use change. At the time of the Protected Natural Area Programme conducted for the area in 1992 only 5% of the region was predominant in indigenous vegetation, 1.3% of which was protected.³

Overview of the state of health of stable dune ecosystems in New Zealand

14. There are few coastal dune ecosystems that have not been heavily impacted by human development. This is particularly prevalent in stable dune ecosystems where most native vegetation has been completely removed and is barren of native trees and shrubs let alone dune forest. Due to ongoing development of Aotearoa 's coastline, there are very few examples of complete coastal sequences remain, the Catlins Coast in the South Island is one of these areas.⁴
15. The Manawatu Plains ecological district area was once comprised of stable dunes and dune swales stretching 18 kilometres inland.⁵ These ecosystems have been completely modified both in the landforms and indigenous vegetation in the form of cultivated pasture, forestry, roading and housing development. The Foxton Ecological District is mostly contained closer to the active coastline but the smaller area of stable dunes found within this ecological district have suffered a similar fate.⁶
16. Coastal dune ecosystems have little representation on public land and much of the remaining biodiversity remains on private land.⁷
17. 11.6% of the original extent of dunelands both stable and active are left across New Zealand. Most of these dunelands can be described as active dunes as much of the stable dune environment has either been developed for urban use, pasture or plantation forest.⁸

Assessment of dune slack wetlands found on site

18. Having visited the site, I disagree with the classification of wetlands W3 and W4 (also referred to as Wetland Cluster 4) as not constituting a dune slack wetland, and therefore not a threatened and naturally uncommon ecosystem. The applicant rather describes these areas as ephemeral wetland without this context.

³ Ravine, D. A. (1992). *Survey report for the Protected Natural Areas Programme: Foxton Ecological District (Programme No. 19)*. Department of Conservation

⁴ Dahm, J., Jenks, G., & Bergin, D. (2005). *Community-based dune management for the mitigation of coastal hazards and climate change effects: A guide for local authorities*. Climate Change Office, Ministry for the Environment.

⁵ Clement, A. J. H., Sloss, C. R., & Fuller, I. C. (2009). *Late Quaternary geomorphology of the Manawatu coastal plain, North Island, New Zealand*. *Quaternary International*. <https://doi.org/10.1016/j.quaint.2009.07.005>

⁶ Ravine, D. A. (1992). *Survey report for the Protected Natural Areas Programme: Foxton Ecological District (Programme No. 19)*. Department of Conservation

⁷ Ministry for the Environment, 2007: Protecting our Places – Introducing the national priorities for protecting rare and threatened native biodiversity on private land. Ministry for the Environment, Wellington. 8p.

⁸ Coastal Restoration Trust of New Zealand n.d., *Coastal restoration handbook*, viewed 22 June 2026, <<https://www.coastalrestorationtrust.org.nz/resources/crt-resources/coastal-restoration-handbook>

19. Dune slacks are a uniquely described naturally uncommon ecosystem and wetland type found in either active or stable coastal dune ecosystems. They are small depressions close to the water table found between dune ridges, the proximity to the water table means these areas are often ephemeral, the water depth of which is determined by either high periods of rainfall or high tide, dependant on proximity to the coastline. The applicant concludes that W3 and W4 are both wetlands with an ephemeral nature, but that they are not dune slack wetlands due to the degraded state and some other characteristics.
20. I agree with the Applicant's assessment that the landform and ephemeral nature of the wetlands correspond to that of a dune slack. I disagree with the other defining characteristics that are listed, as these characteristics can vary dependant on where the dune slack is situated.
21. Dune slacks vary in their nature, those that are situated closer to a foredune may have the characteristics listed in Appendix 23, that being:
- sandy soil substrate
 - presence of wind blown mobile sand resulting in unstable substrate
 - ephemeral inundation from groundwater and rainfall
 - low nutrient status.
- However, W3 and W4 are located within a stable dune system rather than an active dune system.
22. Active dunes and stable dunes are two different described naturally uncommon ecosystem types. Active dunes are dune lands that are found close to the shore, the presence of loose dry sand that is able to be wind blown is an ecological marker for defining active dunes. Stable dune systems differ as they are often set far enough back from the ocean that they are no longer impacted by wind and coastal disturbance and are covered in organic matter often in the form of woody vegetation.⁹ Given this context the application of 'sandy soil substrate' and 'presence of wind blown mobile sand resulting in unstable substrate' (as outlined above) is inappropriate, as the environmental conditions of stable dunes are markedly different from active dunes.
23. Dune slacks are defined as 'small, vegetated depressions between shore dunes,'¹⁰ the location and geomorphological setting of W3 and W4 is consistent with this. While it is true that the dune slack wetlands have been heavily modified by agricultural practices resulting in weed competition, pugging and an increase in nutrients, this modification does not alter the underlying hydrology and geomorphology of a dune slack wetland.

⁹ Manaaki Whenua – Landcare Research. (n.d.). *Stable sand dunes*. Naturally uncommon ecosystems. <https://www.landcareresearch.co.nz/publications/naturally-uncommon-ecosystems/coastal/stable-sand-dunes>

¹⁰ Johnson, P.N. & Rogers, G.M. 2003. *Ephemeral wetlands and their turfs in New Zealand*. Science for Conservation 230. Department of Conservation, Wellington.

24. Both stable dunes and dune slacks are classified as naturally uncommon ecosystems with the threat status of Nationally Endangered.¹¹
25. While the wetlands support a low diversity in indigenous plant taxa, they still contain significant proportions (approx. 50%) of indigenous flora - *Juncus sarophorus*, in accordance with the Applicants survey this is exclusively the indigenous flora found in W3 and W4.
26. Even in the absence of indigenous flora, the premise for assessing wetlands is intentionally not based on diversity and/or abundance of indigenous flora so that wetlands of all types are appropriately protected. The dune slacks W3 and W4 represent a unique wetland type within the application area, whose hydrology and surrounding landform cannot practicably be recreated.
27. While wetlands W3 and W4 are degraded examples a dune slacks, there are very few intact examples of these ecosystems left, particularly dune slacks within stable dune ecosystems. The intactness and state of stable dunes and their dune slacks is largely unknown given the large scale modification and privatisation of these ecosystems. Given the extent of modification across the Foxton and Manawatū plains ecological district and from the dune slack ecosystems I have observed, wetlands W3 and W4 are representative of what remains of dune swales within stable dunes across these districts.
28. Although the site is located within the Foxton Ecological District, it should be noted that, in combination with the wider Manawatū Plains Ecological District, these ecological districts represent a substantial portion of the stable dune cover in the North island.¹²
29. The absence of threatened flora pertaining to dune slack habitats, should not disqualify an area to be identified as such. The degraded state of dune swale ecosystem is evident in the plight of the threatened species particularly associated with dune slacks whose ecological range occurs only within the two relevant ecological districts: Foxton and Manawatū plains.
30. Two threatened dune swale plant species are known from these regions: *Sebaea ovata* and *Pimelea actea* both Threatened – Nationally Critical. *Sebaea ovata* is now extinct in the North island and surviving as a translocated population in the South Island. *Pimelea actea* is currently restricted to a small DOC reserve in the Manawatū as a planted population requiring ongoing active management. Within the ecological range of the site, these two species represent the flora exclusively associated with dune slack wetlands. Whilst there are other threatened flora associated with these ecosystems that may occur in the region, the severe degradation of dune slacks has resulted in one species becoming regionally extinct and the other on the brink of extinction. Therefore,

¹¹ Holdaway, R. J., Wiser, S. K., & Williams, P. A. (2012).

Status assessment of New Zealand's naturally uncommon ecosystems. *Conservation Biology*, 26(4), 619–629.
<https://doi.org/10.1111/j.1523-1739.2012.01868.x>

¹² Appendix 1 and 2 show the distribution of Stable Dunes and Dune Slacks across New Zealand respectively.

the application of presence of threatened flora as a reliable criterion for defining an area as a dune slack seems unjustified.

31. Given that wetlands W3 and W4 meet the wetland delineation test, are within a stable dune ecosystem as depressions behind dune ridges and have an ephemeral nature, these areas should be treated as naturally uncommon ecosystems with the threat status of Nationally Endangered. The impacts of the application on these dune slacks (W3 and W4) should be assessed on this basis.
32. The Appendix 23 does not therefore identify or remedy significant impacts on dune swale ecosystems. Given that these ecosystems are naturally uncommon, these areas should be fully avoided. Like for like offsetting is not an option for these ecosystems given their rarity. The only options are to either avoid or compensate.

Te Harakeke Swamp description of values and wider context

33. The Protected Natural Areas Programme was undertaken by the Department of Conservation and defined ecological site recommended for protection. Harakeke Swamp within the Project site, was assessed and defined in the 1992 Protected Natural Area Programme.
34. Te Harakeke swamp is contained within a dune swale that runs north-east from the golf course for three kilometres and was described in 1992 as ‘the most clearly defined foredune-swale-relict foredune-swale-complex occurring in the ecological district.’ Where the development is situated was described in the PNAP as a ‘parabolic dune on which the kanuka forest is found.’¹³ This highlights not only the importance of the swamp itself, but also that the application site sits within a complex extensive dune swale system that this swamp runs parallel to, and that this area was and likely still is the most significant example of a dune-swale-complex remaining in the district.
35. Te Harakeke swamp is described as containing two types of vegetation sequence. In the south the area contains open water is dominated by raupō, drier areas give way to toe toe and flax. Remnant kahikatea and rimu stands are found in the south. The northern section where the application is located also shifts from open water to a dominance of *Coprosma propinqua* and manuka, abruptly shifting to kanuka (*Kunzea amathicola*) on open dune swales. This fits the description provided in Appendix 23.

Application of Greater Wellington Regional Council (GRWC) criteria for assessing ecological significance across the whole site

36. The applicant has assessed significance of the individual wetland clusters and indigenous dune vegetation by applying the Environment Institute of Australia and New Zealand (EIANZ) criteria. However, it has not applied the same criteria across the site as

¹³ Ravine, D. A. (1992). *Survey report for the Protected Natural Areas Programme: Foxton Ecological District (Programme No. 19)*. Department of Conservation

whole. It is important to assess the site's overall significance to reflect how the area functions as a connected ecosystem, rather than a series of isolated ecosystems. Without this broader assessment, much of the context is lost and the criterion likely undervalued.

37. An assessment across the whole site using the GRWC significance criteria. As this was not a part of the application material, I have prepared such an assessment below. The significance criteria includes: Representativeness, Rarity and Distinctiveness, Diversity and Pattern and Ecological context. A site needs to only meet one of these criteria to be considered significant.

- **Representativeness:**

38. Representativeness must be assessed against a shifting baseline; accordingly, the area should be evaluated based on the current natural diversity of the ecosystem. Within stabilised dune, dune-swale systems and any associated dune slack wetlands the present condition is one of significant degradation. Across Foxton and Manawatū plains ecological districts what was once stable dunes and dune swale are for the most part completely devoid of landform structure that characterises these ecosystems as they have been developed and flattened for roads, pasture, forestry, and housing. Additionally, these ecosystems are devoid of indigenous vegetation characteristic of these ecosystems, particularly shrubby cover. Consequently, very few examples of stable dune habitats remain protected, especially within the Foxton and Manawatū Ecological Districts.

39. The site contains remnant indigenous shrubland consistent with vegetation described in the 1992 Protected Natural Areas Programme (PNAP) surveys at the southern end of Te Harakeke Swamp, noted as being “mostly māhoe with some ngaio.” This small remnant vegetation has persisted for at least 34 years and forms part of a three-kilometre-long stable dune and dune swale system running parallel to Te Harakeke Swamp. This stable dune system was described in the same survey as “the most clearly defined foredune–swale–relict foredune–swale complex occurring in the ecological district.”¹⁴

40. This context in addition to the numerous wetlands found across the application site, displays that the area provides an important representation of ‘what is left’ of multiple ecosystem types. Despite degradation from pastoral use, this area remains part of the largest remaining example of a stable dune -swale complex in its landform and ecological function within the Foxton Ecological District.

- **Rarity and distinctiveness:**

41. Appendix 23 correctly identifies the stable dune habitat as meeting the criteria for rarity and distinctiveness as well as the individual wetlands. However, in the context of stable dunes this assessment is only applied to small fragments of remnant indigenous vegetation. In isolating fragments of vegetation the applicant fails to recognise the significance of the broader ecosystem, namely the physical features and landscape

¹⁴ Ravine, D. A. (1992). *Survey report for the Protected Natural Areas Programme: Foxton Ecological District (Programme No. 19)*. Department of Conservation

context. A stable dune ecosystem cannot be characterised as such without this additional context.

42. The physical characteristics of the site are a mosaic of stable dunes, two dune swales and wetlands, including fens and swamps.
43. Overall, the site contains characteristic features and remnant indigenous biodiversity of two naturally uncommon ecosystems; stable dune and dune slacks both recognised as Nationally Endangered,¹⁵ and wetlands which are recognised as rare as less than 10% of wetland cover remains due to historic human modification.¹⁶

- **Diversity and pattern:**

44. When assessed on an individual basis, many of the areas exhibit low species diversity and in isolation, and accordingly, do not meet this criterion. Exceptions to this are the large intact areas such as Peka Peka Road swamp and Te Harakeke, being part of the application site.
45. If the wider application site is considered as a whole, it encompasses multiple ecosystem types: wetlands, stable dunes, and dune swales with varied species compositions. These ecosystems have a varying degree of naturalness, but due to the variation of ecosystems, the site is diverse.

- **Ecological context:**

46. The site includes portions of two Significant Natural Areas (SNAs): Te Harakeke Swamp to the west and Peka Peka Road Swamp to the northeast. Te Harakeke Swamp extends both north and south beyond the site boundaries, while Peka Peka Road Swamp continues to the north. On this basis alone the site meets the criteria for ecological context.
47. The stable sand dune within the site is part of a larger complex that runs south ending near the Waikanae golf course. The area bordering the site to the south has been modified to an unknown extent through rural development, planted forest and farming practices likely of a similar nature to that of the site. This modified stable dune area represents approximately a third of the extent of the stable dune. The most southern portion, bordering the golf course is the most intact remnant of this dune.
48. The application area is less modified than the adjoining area to the south. However, due to the level of modification along its boundaries, the application area is unlikely to be contributing significantly to the dispersal or flow of indigenous species into the wider dune system. Nonetheless, development within the site would represent a further reduction in the extent of this already diminished stable dune ecosystem.

¹⁶ Department of Conservation (DOC). 2013. *How well are threatened ecosystems protected?* Department of Conservation, Wellington.

- **Portions of the site containing low value:**

49. Large portions of the site are cultivated farmland; in these areas the land is flattened and not retaining any semblance of the naturally uncommon ecosystems found elsewhere on the site. This represents the southwestern third of the application area. Such areas could be assessed separately for their ecological value, and it is likely that the ecological impact on vegetation of such development would be low or negligible.

Assessment of the ecological value of wetlands

50. Appendix 23 has evaluated wetlands and their ecological value using the non-statutory EIANZ guidelines.¹⁷ Within the National Policy Statement for Indigenous Biodiversity (NPS-IB)¹⁸ and the Regional Council Significance Assessment Criteria,¹⁹ a site only needs to meet one of the criteria (Representativeness, Rarity and Distinctiveness, Diversity and Pattern, Ecological Context) to be considered significant. This is one of the major discrepancies when using the EIANZ for assessing ecological impact. Often, as is the case in its use for this application, the EIANZ criteria results in a lower value than a site's highest marker. For example, all wetlands are correctly identified as ranking high for Rarity and Distinctiveness, yet despite this the ecological value of several are assessed as Moderate.²⁰ A rare ecosystem, is a rare ecosystem and its value should not be drawn down due to other assessment factors.
51. This then means the ecological value of these areas should be assessed as high and any mitigation provision should be evaluated by this measure. This would lead to a larger offset requirement than currently provided.

Offsetting and the use of the Wetland Ecological Valuation Tool (WEV) and Ecological Compensation Ratio (ECR)

52. The current mitigation around the stable dune area is to retain a remnant of the dune mounds, plant indigenous vegetation and develop around this. This however will render the area unrecognisable as a stable dune and would be best described as an amenity planting area within a housing estate.

¹⁷ Roper-Lindsay, J., Fuller, S. A., Hooson, S., Sanders, M. D., & Ussher, G. T. (2018). *Ecological impact assessment (EcIA): EIANZ guidelines for use in New Zealand: Terrestrial and freshwater ecosystems* (2nd ed.). Environment Institute of Australia and New Zealand. <https://www.eianz.org/document/item/4447>

¹⁸ Ministry for the Environment. (2023). National policy statement for indigenous biodiversity 2023. New Zealand Government

¹⁹ Greater Wellington Regional Council. (2016). *Identifying and protecting significant indigenous biodiversity in the Wellington region: A guide to interpreting criteria in the Regional Policy Statement*. Greater Wellington Regional Council.

²⁰ Displayed in Table 11 page 94 of the Appendix 23 Assessment of Ecological Effects.

53. It is more appropriate to assess the impact on the stable dune area as a landform that composes approximately 42 hectares of the site rather than, the small isolated indigenous remnants equating to approximately 0.54 hectares.²¹
54. Stable dunes are characterised not only by their indigenous vegetation but also their distinctive landform features, ecological setting and the ecological functions associated with them. Restricting the assessment to isolated patches fails to recognise these components and therefore in the proposed mitigation fails to retain the characteristics of a stable dune ecosystem. While indigenous planting may partially address vegetation loss, it does not compensate for the loss or fragmentation of the dune landform, nor the ecological processes within the wider area that contribute to its significance. It's for this reasoning that the stable dune ecosystem has not been adequately offset in the current Appendix 23 proposal.
55. These ecological functions are further displayed in the dune swales associated with this stable dune. These have not then been accounted for in the proposed mitigation of environmental impacts as these have not been classified as part of this ecosystem within the Appendix 23.
56. Many areas of the stable sand dune are highly modified; there is then ample opportunity to enhance these application site to be better representative of the historic vegetation type associated with stable dune communities.
57. The amount of area to be enhanced should be guided by compensation guidelines rather than biodiversity offset principles. As stable dunes are a naturally uncommon ecosystem with the threat status of 'Nationally endangered' they cannot be recreated elsewhere.
58. The area requiring compensation should be calculated based on the extent of the stable dune landform proposed to be modified, rather than being limited to the remaining indigenous vegetation. This approach recognises two things. First, it recognises the deteriorated state of the stable dune system of which there is opportunity to restore, second it acknowledges the rarity and ecological significance of the stable dune landform and remnant indigenous biodiversity within the ecological district by requiring the enhancement of a specified area of the stable dune to a more ecologically intact state, one which makes the area recognisable as a stable dune.
59. A more meaningful mitigation would retain ecosystem connectivity between the stable dunes, the dune swales, and the Te Harakeke wetlands rather than isolate them. Not only would this be an opportunity to restore a stable dune to its historic vegetation type, but it would increase habitat availability for local fauna and enhance long-term protection of Te Harakeke swamp. This would result in significant biodiversity gains for the region.

²¹ Calculated by the estimated area of dune swale given in Appendix E page 172 of the Appendix 23 Assessment of Ecological Effects.

60. As a threatened and naturally uncommon ecosystem, a dune slack wetland is unlikely to be feasibly offset in accordance with good-practice biodiversity offsetting principles because the loss of this rare ecosystem cannot readily be replaced elsewhere and is not found elsewhere on site. Consequently, these ecosystems should be avoided and if avoidance is not possible compensated for.
61. Currently the 'offset' for the impact on wetlands has been calculated using the Wetland Ecological Valuation tool (WEV) with the Ecological Compensation Ratio (ECR). This tool has been developed by the consultancy (RMA ecology) who has supplied the assessment of Ecological effects.²² The justification for the use of this method over best practice models has not been demonstrated.
62. For transparency, a comparative assessment should be undertaken. Offset measures should be calculated using best practice as provided by DOC's guidelines using the Biodiversity Offsets Accounting Model (BOAM).²³ This output can then be compared to the outputs derived from the ECR:WEV methodology. This approach would result in transparency that the methodology used did in fact result in the most favourable outcome for ecological gains.

Wetland buffer considerations

63. Auckland Regional Council commissioned the study 'Review of information on riparian buffer widths necessary to support sustainable vegetation and meet aquatic functions'²⁴ to determine the appropriate buffer widths for riparian areas. This concludes that a buffer of at least 10 metres is generally necessary for indigenous vegetation succession that should require minimal maintenance and the achievement of most aquatic functions. A 15 – 20 metre buffer will be highly likely to support self-sustaining indigenous vegetation requiring little or no maintenance.
64. An alternative review by the Ministry for the Environment suggests that an absolute minimum width of 15 – 20m is necessary.²⁵ These principals provide a useful benchmark in assessing the adequacy of the proposed wetland buffers.
65. Currently the impact of the infilling and removal of 261m² of the high value wetland 'Peka Peka Road swamp' is proposed to be offset by the buffer conditions. These buffers would be required to maintain this wetland, and offset measures should be additional to this. The buffer for this wetland is currently done to the minimum standards that should meet aquatic functions. A larger buffer area of 15 – 20 metres would be a more secure approach to meet these outcomes.

²² Page 147 of Appendix 23 Assessment of Ecological Effects.

²³ Department of Conservation. (2014). *Guidance on good practice biodiversity offsetting in New Zealand*. Department of Conservation.

²⁴ Parkyn, S., Shaw, W., & Eades, P. (2000). *Review of information on riparian buffer widths necessary to support sustainable vegetation and meet aquatic functions* (Technical Publication No. 350). Auckland Regional Council.

²⁵ Ministry for the Environment (2000). *Managing waterways on farms: A guide to sustainable water and riparian management in rural New Zealand*. Ministry for the Environment, Wellington, New Zealand.

66. Other restored and created wetlands will have an average buffer of 9.7m and is the case due to engineering requirements in the current design. It is unclear which wetlands will have thin margins, and which areas will have larger margins.²⁶ These buffers will require ongoing maintenance and may not achieve all aquatic functions. A more prudent approach would adhere to the minimum of a 15 – 20m buffer for all wetland and riparian areas and alter the current development allocation to adhere to better long-term outcomes.
67. Given the significant value of the Te Harakeke wetlands, as one of the largest wetlands left in the Foxton Ecological District. The management and health of this wetland in perpetuity should be a key consideration. Climate change is an ongoing and exacerbating risk for many ecosystems including wetlands; these risks can be mitigated by sufficient buffer measures.
68. Studies in microclimate conditions within forest interiors have found that comparable microclimate conditions to forests may not be achieved in buffers less than 40metres.²⁷ For this ecosystem's resilience in the long-term it is likely that a 40 metre buffer is required. Furthermore, this ecosystem's longevity should be considered in compensation methodology relating to the stable dune habitat.

Proposed monitoring and compliance requirements of plantings and offset measures

69. The weed control guidelines set out in the Ecological Restoration Management Plan²⁸ appear robust in allowing for the best chance of success for the plantings. However, management in perpetuity is a concern for all offset areas including wetlands and the stable dune planting. For wetlands in particular many riparian areas will not have an adequate buffer area to be self-sustaining.²⁹ This is additionally a concern for the proposed stable dune planting. In both cases other vagrant species will likely re-introduce themselves to the site. Additionally, some species presently found like tree lupin (*Lupinus arboreus*) have seeds with long lifespans that may supersede the management plan.³⁰ The offset proposal should be managed to secure outcomes that last as long as the impacts of the development and preferably in perpetuity. Given that housing development is a permanent setting, management of offsets should be done in perpetuity.³¹
70. The proposed ecological restoration plan does not provide sufficient contingency measures should plantings fail to reach the 80% indigenous canopy cover benchmark. Currently it is stated that if the ecological restoration plan fails to meet the benchmark

²⁶ As stated in page 127 of the Appendix 23 Assessment of Ecological Effects.

²⁷ Davies-Colley, R.J., Payne, G.W., & van Elswijk, M. (2000). *Microclimate gradients across a forest edge*. New Zealand Journal of Ecology, 24(2), 111–121. [\[jstor.org\]](https://www.jstor.org/stable/4310000)

²⁸ Section 5.9.1 of Appendix 26 Ecological Restoration Management Plan.

²⁹ Ministry for the Environment (2000). Managing waterways on farms: A guide to sustainable water and riparian management in rural New Zealand. Ministry for the Environment, Wellington, New Zealand.

³⁰ Wen, Z. et al. (2024). *Physical Seed Dormancy in Legumes: Molecular Advances and Perspectives*. Plants 13(11):1473

³¹ Ministry for the Environment. (2025). *National Policy Statement for Indigenous Biodiversity 2023 (amended December 2025): Appendix 3 – Principles for biodiversity offsetting*.

within year 5 then ‘infill planting will be reconsidered.’³² This is inadequate, if the plantings and therefore site restoration is unsuccessful, then the offset measures are not achieved, resulting in a net-loss in biodiversity, the scale of this net-loss in such a scenario is currently unknown and unpredictable.

71. This scenario should be readily addressed and substantive measures to rectify offset failure should be provided within the application.
72. Species for planting should be eco-sourced from populations nearby to the site. There are some species listed for planting³³ that are outside of their natural distribution and should not be planted. This includes:
 - Karaka (*Corynocarpus laevigatus*)³⁴, although this species is naturalized widely, plants representative of the historic vegetation should be planted.
 - Inanga (*Dracophyllum longifolium*) is only known from the South Island of New Zealand.³⁵
73. Some species require different conditions to those proposed for planting. This is the case for Maire tawake (*Syzygium maire*) – threatened nationally vulnerable as this species occurs in waterlogged ground but is proposed to be planted in drier wetland margins.³⁶ The restoration plan should be assured that plant species are planted in the right places, especially those that are threatened where seed source is likely scarce.

³² Section 5.9.2 of Appendix 26 Ecological Restoration Management Plan.

³³ Table 8 and 11 page 63 of Appendix 26 Ecological Restoration Management Plan.

³⁴ de Lange, P. J. (2026). *Corynocarpus laevigatus fact sheet*. New Zealand Plant Conservation Network. Retrieved July 3, 2026

³⁵ New Zealand Plant Conservation Network. (n.d.). *Dracophyllum longifolium*. Retrieved July 3, 2026, from <https://www.nzpcn.org.nz/flora/species/dracophyllum-longifolium/>

³⁶ New Zealand Plant Conservation Network. (n.d.). *Syzygium maire*. Retrieved July 3, 2026, from <https://www.nzpcn.org.nz/flora/species/syzygium-maire/>

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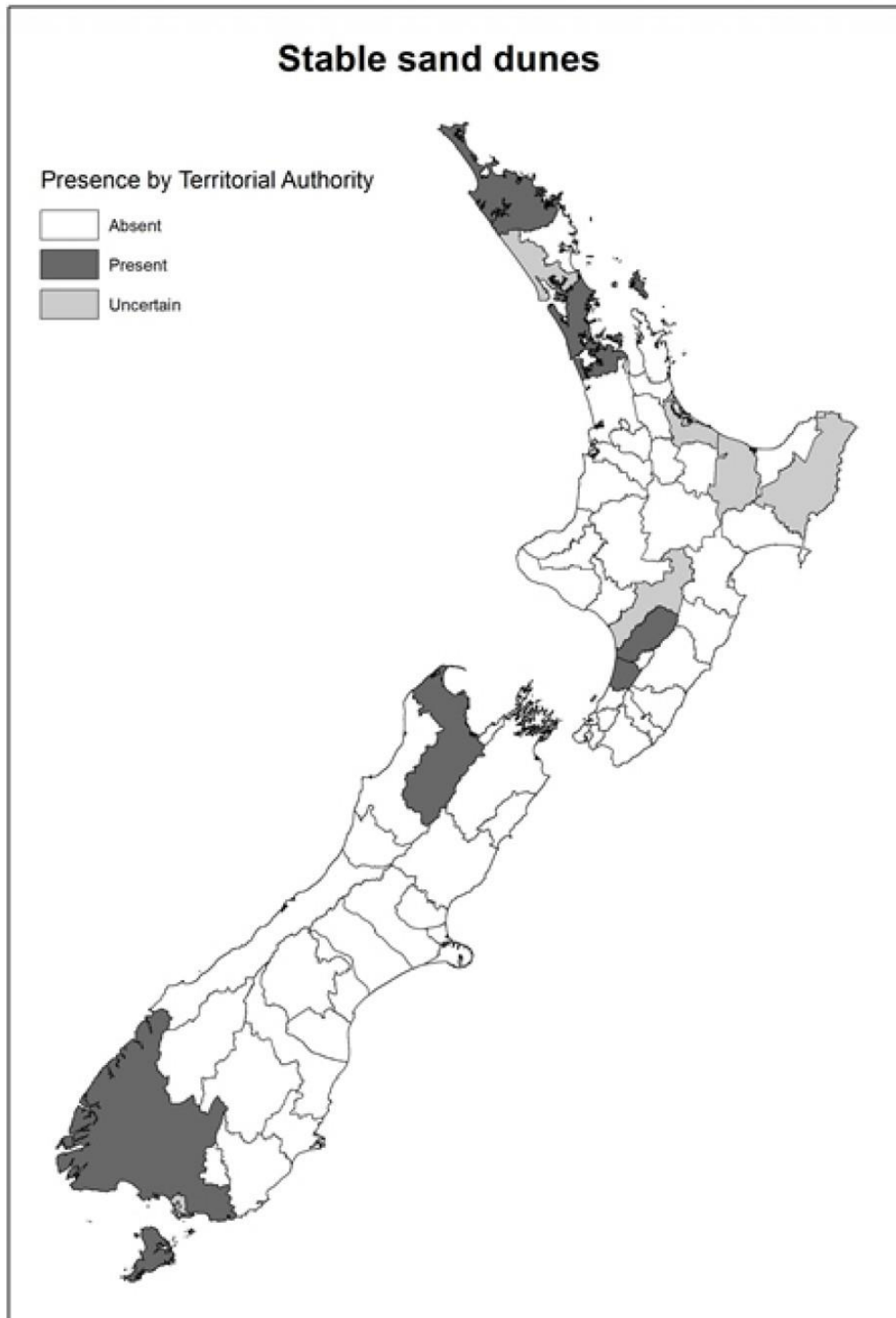
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Appendix 1 Presence of Stable Dunes by Territorial Authority.

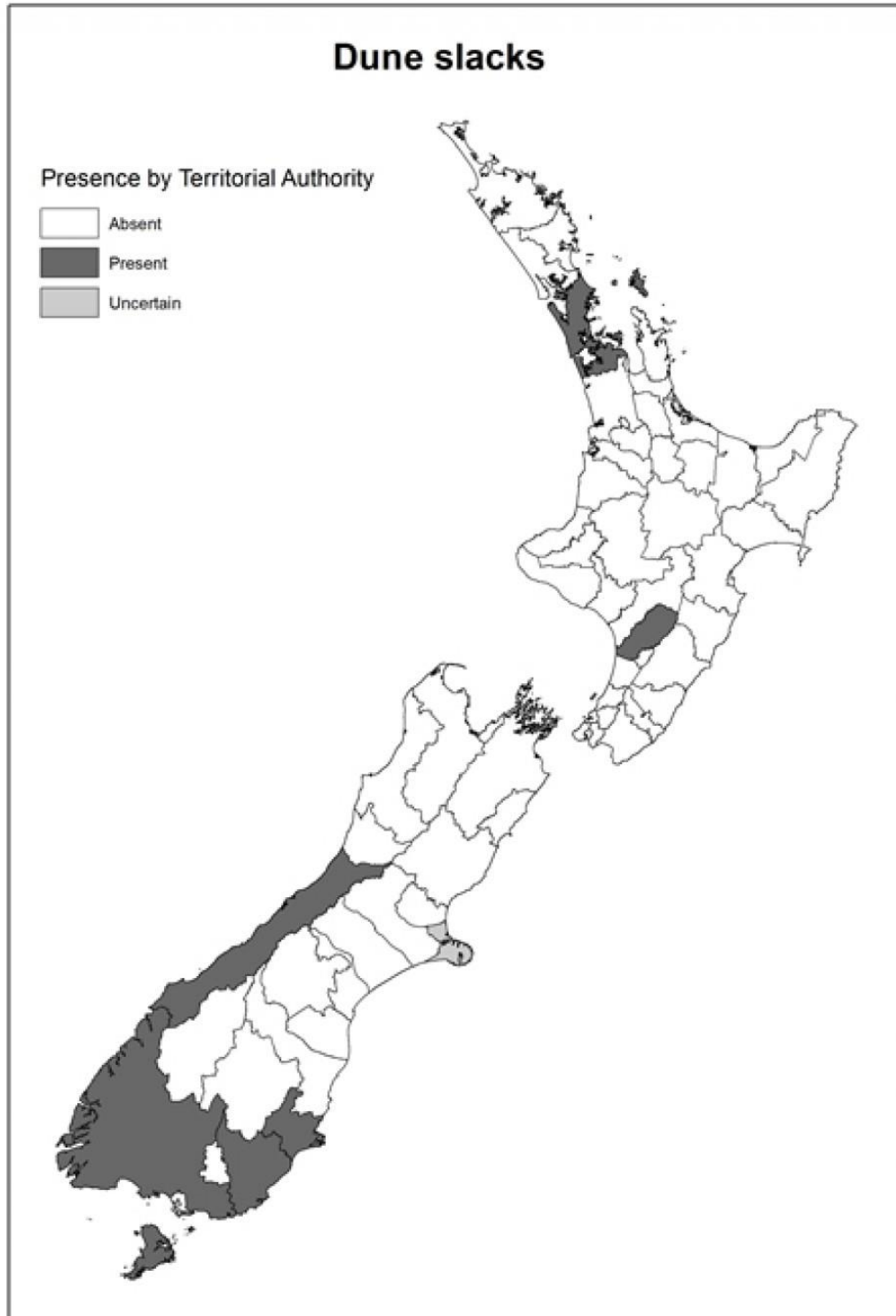
Appendix 1 Manaaki Whenua - Landcare Research. (n.d.). Stable sand dunes.

<https://www.landcareresearch.co.nz/publications/naturally-uncommon-ecosystems/coastal/stable-sand-dunes>



Appendix 2 Presence of Dune Slacks by Territorial Authority.

Appendix 2 Manaaki Whenua – Landcare Research. (n.d.). Dune slacks. Retrieved July 3, 2026, from <https://www.landcareresearch.co.nz/publications/naturally-uncommon-ecosystems/wetlands/dune-slacks>



Appendix D:

Comments on Avifauna – Tertia Thurley

Waikanae North FT-0159 comments – Tertia Thurley – birds July 2026

Qualifications and experience

1. My qualifications are a BSc (1987) and Master of Arts (Environmental Studies) (1996) from Victoria University of Wellington.
2. I am a Technical Advisor (Ecology) for the Department of Conservation. My role provides technical advice for the recovery of threatened bird, bat and frog species to DOC staff and external agencies. I have worked for DOC for c.30 years in various roles to do with threatened species recovery and mammalian pest control.
3. I confirm that I have read the code of conduct for expert witnesses contained in the in the Environment Court's Practice Note 2014 and have complied with the practice note when writing this statement.
4. I have read and considered the following documents:
 - a. Assessment of Ecological Effects, March 202026
 - b. Ecological Restoration Management Plan, March 2026
 - c. The proposed draft conditions relating to cat management

Avifauna values

5. Several Threatened and At Risk wetland birds were identified in the AEE as either present on the site or likely to occur periodically (Table 1). Surveys recorded fernbirds and an unidentified crane on-site. The AEE also notes that spotless cranes have previously been detected at the site, while marsh crane, dabchick and brown teal have been recorded at the Pharazyn Reserve oxidation ponds 400 m south of the site.

	National Threat classification	Conservation Status Wellington Mainland
Australasian bittern	Threatened – Nationally Critical	Critical
Marsh Crane	At Risk - Declining	Critical
Spotless Crane	At Risk - Declining	Endangered
North Is fernbird	At Risk - Declining	Critical
NZ Dabchick	Threatened – Nationally increasing	Vulnerable
Brown Teal	Threatened – Nationally increasing	Critical

Table 1. Threatened and At-risk wetland bird species recorded on or in the vicinity of the proposed 'Waikanae North' subdivision.

6. Australasian bittern surveys were undertaken over three nights between 5 – 10 October to determine whether booming males were present. No bittern were detected, however their absence cannot be confirmed, as the timing of peak booming can vary between years. Given the number of observations in the surrounding area e.g. an observation recorded on 'eBird' approx 200 m north of the site in August 2025, it is highly likely that bitterns use the site.

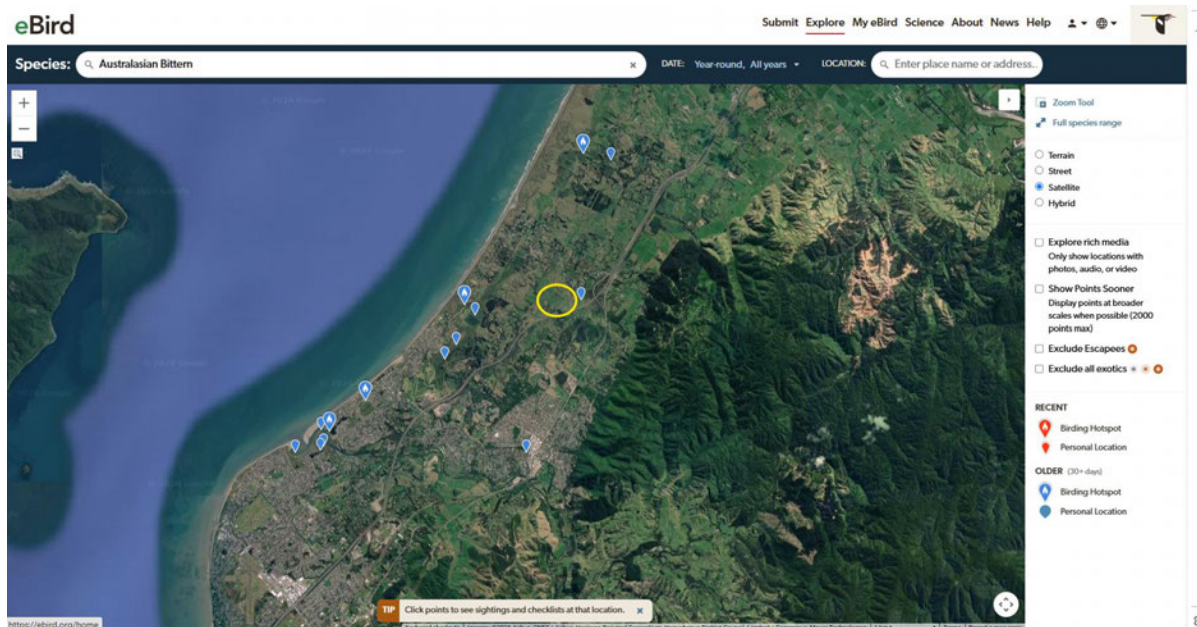


Figure 1. Australasian bittern eBird records (blue markers) in the vicinity of the proposed subdivision (yellow ellipse). Accessed 17 July 2026

7. The AEE notes that Harakeke swamp (c. 14 ha) has high quality habitat for wetland birds including spotless crane, marsh crane, Australasian bittern, fernbird and brown teal. Pekapeka Road swamp (c. 6 ha) is also noted as providing high quality habitat.

Potential Adverse effects

8. The AEE (4.5.2) notes that the development could introduce up to 800 domestic cats. Domestic cats are well known to have negative impacts on native biodiversity, and impacts may be higher if subdivisions are located near to sensitive habitats where Threatened and At-risk populations occur. Cats readily visit wetlands; 52% of domestic cats in housing beside Travis wetland in Christchurch visited and hunted in the wetland³⁷. O'Donnell et al³⁸ suggested that Australasian bittern, brown teal, fernbird, marsh crane and spotless crane are particularly vulnerable to predation in wetland habitat. A collation of records of predation events on wetland birds found that cats were the most frequent predator.
9. Cats are known predators of Australasian bittern. Given that their total national population is fewer than 250 breeding females, any loss of birds due to predation by cats or dogs would be significant.

³⁷ Morgan SA. Movements and hunting activity of house cats (*Felis catus*) living around Travis wetland, Christchurch, New Zealand. MSc thesis, Lincoln University.

³⁸ O'Donnell CFJ, Clapperton BK, Monks JM 2015. Impacts of introduced mammalian predators on indigenous birds of freshwater wetlands in New Zealand. *New Zealand Journal of Ecology* 39(1):19-33

10. These wetland birds are already being impacted by the loss of wetlands on which the birds depend. Less than 3% of former wetlands remain in the Greater Wellington Region³⁹, meaning that these birds only have 3% of their former habitat in the Region.

Approach to cat management

11. The Applicant proposes three options for the management of cats, to be at the discretion of the consent holder. There is considerable uncertainty about the effectiveness of these proposed options.
12. Option A is for cat exclusion fencing along Harakeke Swamp and Peka Peka wetland, together with live trapping for cats within the ecological management areas for 10 years. However, the proposed fencing will not exclude cats from wetlands because cats can walk around the ends of the fences. While fences will likely reduce cat access, the high number of cats will mean that some will still enter the wetlands. Although the fences are proposed to be maintained for 35 years, the threat of cats to wetland birds will persist after that, for as long as people have cats. Furthermore, fencing is not proposed for other wetlands which are being restored.
13. The proposed live trapping programme would involve returning captured domestic cats to their owners. This does not prevent those cats from subsequently returning to the wetlands and preying on wildlife. In addition, once trapping ceases after 10 years, cats will remain as a threat to wetland birds.
14. Option B includes a requirement that cats are contained within the boundaries of their property, together with live trapping of cats within ecological management areas for 35 years. However, achieving and maintaining effective cat containment may be difficult. One study found that 82.2% of cat owners believed cats should be allowed to roam freely and that roaming is necessary for cats to have a good life⁴⁰. Even for well-intentioned cat owners, cat containment can be very difficult and costly to implement⁴¹. In addition, Council's ability to monitor and enforce compliance with containment requirements may be limited. While live-trapping is proposed for 35 years, the threat of cats to wetland birds will still exist after this for as long as people have cats. Under this option, domestic cats captured during trapping operations would be returned to their owners, while cats caught three times would be euthanised. However, some cats may become trap-shy after being captured, reducing the likelihood of future captures. Other cats may be inherently trap-averse and may never be caught, allowing them to continue accessing wetlands and preying on vulnerable bird species.
15. Option C proposes a cat exclusion covenant on Paetawa Road lots. I was not able to locate for certain where this exclusion applied. However, the proposed exclusion area is likely to be large enough to effectively protect wetland birds. Research suggests that cat exclusion zones in urban-fringe environments need to be over 1 km wide⁴². This is because domestic cats have highly variable home ranges. While some cats remain close to their homes, a few will have much larger home ranges and so are likely to enter and forage within the wetland. The proposed

³⁹ Ausseil A, Gerbeaus P, Chadderton WL, Stephens T, Brown D, Leathwick J. 2008. Wetland ecosystems of national importance for biodiversity: Criteria, methods and candidate list of nationally important inland wetlands. Landcare Research contract report: LC0708/158. Department of Conservation, Wellington

⁴⁰ Guinnefollau L, Chung HJ, Moody C, Zobel G, Waran N, Railton R 2025. New Zealanders' attitudes to outdoor access for owned domestic cats. *Applied Animal Behaviour Science* 292

⁴¹ Edwards S, Finlay-Smiths S, Palmer A, Diprose G, Kannemeyer R 2026. Fenced out... and fenced in? Containing cats in the borderlands of Zealandia. *New Zealand Geographer* 82:e70022

⁴² Mesters EM, Seddon PJ, van Heezik YM 2010. Cat-exclusion zones in rural and urban-fringe landscapes: how large would they have to be? *Wildlife Research* 37:47-56

covenant is also focused on Te Harakeke swamp and does not address risks to Peka Peka swamp and other wetlands on the site which may support the same vulnerable bird species. In addition, Option C includes live trapping of cats within ecological management areas for 10 years. Domestic cats captured outside the cat exclusion zone would be returned to their owners. As noted above, returning cats to their owners does not prevent them from subsequently returning to the wetlands and continuing to prey on wildlife. Once the trapping programme ends, cats will remain as a threat to wetland birds.

16. All three options include educating home-owners about cats, which is supported.
17. Cats are very individual and variable animals. While most may have small home ranges, some will travel widely; while some will love going into traps, others will avoid them; while some may never prey on native birds, others may favour native birds. With such a huge increase in the number of cats in the area, there is likely to always be at least a few cats in the wetland areas, and with comparatively so few threatened wetland birds, the impact of even a few cats could eliminate birds residing or passing through the wetlands.
18. A subdivision-wide ban on cats would be more effective than the proposed control options, largely eliminating the threat of additional predation of vulnerable wetland birds. It is simpler for residents to understand. While Council enforcement may still be required, this clear rule makes it easier for residents to identify non-compliance, enabling the community to self-monitor, thereby perhaps relying less on the Council.

Appendix E:

Comments on the Applicant's draft conditions

Appendix E

DOC Comments on Applicant's proposed conditions

		DOCs comments
27.	The consent holder shall submit final Ecological Restoration Management Plan (ERMP) and associated planting plans that detail wetland buffer and restoration planting and pest control to achieve a net gain in ecological outcomes to the Manager for certification. The ERMP shall be in general accordance with the Environmental Restoration Management Plan and landscape planting plans and shall be prepared with reference to the Construction and Environmental Management Plan, all referenced in Appendix 1. The final ERMP and planting plans will include, but not be limited to: (a) Details of planting of the native vegetation buffer including what species will be used; (b) Details of monitoring and maintenance of the planting including weed management; (c) A plan to ensure 80% canopy closure on the plantings within 5 years; (d) Confirmation that the wetland will be clearly delineated by flags or fencing to ensure contractors are aware of the boundary; and (e) Confirmation that the plan has been sent to Ātiawa ki Whakarongotai Charitable Trust, Ngāti Raukawa ki te Tonga, Te Rūnanga o Toa Rangatira and Muaūpoko Tribal Authority, <u>and the Department of Conservation</u> for review and input. Note: The ERMP and planting plans can be prepared for each stage of the proposal or can be prepared to cover all of the proposal.	It is the Department's view that these conditions need to establish the details of what is to be achieved (such as standards, outcomes, information, expertise), and the ERMP will detail how the conditions will be met. Leaving all the detail to a management plan to be certified by Council, removes DOC's opportunity to engage and provide feedback on matters that are manging ecological values, including those with high interest to the Department. The Department undertakes to the work with the Applicant on how to best reflect this in the conditions. Regardless, the second sentence of this condition is unclear. It requires that the ERMP be in accordance with the ERMP? This should be clarified. In the very least, the condition should also be amended to include opportunity for the Department of Conservation to engage and provide feedback in addition to the organisations in clause (e). This plan is intended to manage effects on ecological values, including those with high interest to the Department as detailed in these comments.

28.	The ERMP and planting plans required by Condition 27 shall be submitted to the Manager for certification at least 20 working days prior to the proposed date of commencement of the works. Any planting plans submitted to Council shall include a full copy of any input received from Ātiawa ki Whakarongotai Charitable Trust, Ngāti Raukawa ki te Tonga, Te Rūnanga o Toa Rangatira, and Muaūpoko Tribal Authority, <u>and the Department of Conservation</u> , together with a clear statement from the consent holder as to how any recommendations received have been implemented and if any recommendations have not been accepted, an explanation as to why not. Works authorised by this consent shall not commence until the consent holder has received notice in writing that the submitted ERMP and planting plans have been certified by the Manager.	As above. The condition should be amended to Include opportunity for the Department of Conservation to engage and provide feedback in addition to the organisations in clause (e). This plan is intended to manage effects on ecological values, including those with high interest to the Department as detailed in these comments.
	DRAINAGE AND RECLAMATION OF WETLANDS AND ASSOCIATED OFFSETTING AND ENHANCEMENT WORKS	
49.	The Consent Holder shall undertake, maintain, and protect a minimum of: (a) Creation of 17,400m ² of wetland; and (b) Enhancement of 65,200m ² of existing wetland, as described in the application documents and detailed in the certified ERMP.	
50.	The consent holder shall implement the enhancement and offsetting works required under Condition 49 (a) and (b) on a staged basis (unless otherwise agreed to by the Manager) during construction to minimise as far as practicable the lag between the construction effects and the works required to remedy or offset those effects	The suggested amendments add clarity as to the off-setting provisions.
51.	All enhancement and offsetting works shall be completed in accordance with the programme set out and approved by the certified ERMP. Within 2 working days of completing earthworks for any stage, the consent holder shall confirm in writing that date of completion to the Manager.	As above.
52.	The measures to offset required by Condition 49 shall be implemented to achieve the outcomes proposed by the certified ERMP.	The Department does not favour this approach. The offset performance targets and outcomes should be specified in these conditions. Management Plans may be changed by the Applicant, with agreement by the Council, without having to go through a variation process, which would exclude the Department from the process, and provides uncertainty that ecological

		values will be appropriately managed. DOC undertakes to work with the Applicant, to work on how this should be reflected in the conditions.
53.	Prior to works commencing on site and within 6 months of the granting of consent, the consent holder shall submit a final ERMP for certification against the wetland offsetting requirements in Conditions 49 and 51 above. The purpose of the final ERMP, as relevant to wetlands, is to: (a) Describe the areas of wetlands and buffers that will be enhanced and created to offset losses; (b) Describe the methods that will be employed to ensure compliance with the offsetting performance targets specified in the ERMP; and (c) Describe the methods that will be implemented to achieve the prescribed future state of wetlands as assumed in the ERMP, <u>including how water levels within the Te Harekeke wetland will be maintained so as to protect the mudfish populations, by requiring the monitoring of water levels and corresponding impacts on mudfish population, and management actions to ensure protection.</u>	As outlined in the Aquatic Ecology section of DOC's s.53 report, the water levels of the swamp have the potential to adversely impact upon mudfish populations, including, higher water levels providing appropriate conditions for predatory fish to enter the environment. DOC also requests a corresponding amendment to the ERMP to recognise and provide adaptive management opportunities should the mudfish population be adversely affected.
54.	The consent holder shall implement all restoration works, and the associated ongoing monitoring and maintenance, in accordance with the certified ERMP.	
55.	The consent holder shall ensure that areas for planting, as identified in the ERMP, are fully fenced with stock-proof fencing prior to the planting occurring where there is the possibility of stock intrusion.	
56.	The consent holder shall notify the Manager in writing when the pioneer planting is complete for the relevant stage(s).	
57.	Within one month of completion of the planting the consent holder shall provide the Manager the geographic location coordinates of the boundaries of the new wetland area and electronic shape files for entry into a GIS database.	
58.	Annual wetland monitoring reports shall be submitted to the Manager after construction of the Restored Wetland begins. This shall include results of all monitoring that has occurred in the preceding 6 months compared with baseline data and include a summary of all adverse effects reported as per Condition 54 above, any remedial actions that have occurred or are proposed to occur if adverse effects have been identified and or proposed plans for future remedial efforts. The Annual report shall also include details of monitoring and results from the certified ERMP.	The reference to Condition 54 is potentially a typographical error, this may refer to Condition 53?

59.	The purpose of Condition 58 is to monitor the effectiveness of the wetland offsetting methods implemented under the certified ERMP, ensuring the long-term success of the proposed offsetting works to achieve the prescribed future state of wetlands as assumed in the certified ERMP.	
60.	The consent holder shall provide Groundwater Level Monitoring Report (GMR) prepared by a SQEP to the Manager prior to the commencement of wetland creation offset works. The purpose of the GMR is to outline baseline and ongoing monitoring measures that will be undertaken to sufficiently measure potential changes in hydrological function against wetland offset performance targets as described in Condition XX described in the certified ERMP.	The Department does not favour this approach. The offset performance targets and outcomes should be specified in these conditions, not a management plan. Management Plans may be changed by the Applicant, with agreement by the Council, without having to go through a variation process, which would exclude the Department from the process, and provides uncertainty that ecological values will be appropriately managed. DOC undertakes to work with the Applicant, to work on how this should be reflected in the conditions.
CATS AND DOGS		
75.	Prior to the commencement of construction of any relevant residential lot the consent holder shall notify the Manager, Parks, Open Space and Environment in writing which of Option A, Option B, or Option C (as set out in these conditions) will be implemented for the development.	The lack of certainty as to which option will be used creates a risk for the long term protection of wetland birds. The proposal includes some great opportunities for restoring habitat for birds but creates a risk with the introduction of many hundreds of domestic cats and will potentially increase feral cat numbers also. DOC foresees management issues with options A and B and difficulties with enforcement. These matters are detailed in Appendix D. A subdivision wide ban on domestic cats will be best in protecting protected native birds, but will also benefit lizard populations also.

76.	The consent holder shall include the selected and its associated obligations in all Sale and Purchase Agreements and Agreements for Sale relating to residential lots within the relevant part of the subdivision. These obligations shall be secured by way of a caveat notice or equivalent instrument registered on each residential title, as described further below. <i>Note: a different option can be chosen for the Paetawa Road lots from that chosen for the balance of the development. Condition 1 requires separate notice to be provided for each of those parts. The selected option shall not be changed without the prior written approval of the Manager.</i>	The Department is unsure of the extent of the Paetawa Road lots but is of the view such an area is unlikely to be large enough to ensure cat predation is effectively managed.
	Option A – Pet Control Fencing, 10 Year Pest Control and Education	
77.	Option A applies where the consent holder has notified the Manager, Parks, Open Space and Environment of the selection of Option A in accordance with Condition 74.	
78.	The consent holder shall design, construct, and install a pet control fence along the side of Te Harakeke Swamp wetland adjacent to that part of the development to which this condition applies and the Peka Peka Road Swamp in accordance with the specification set out in the certified ERMP. The fence shall be installed prior to the issue of the section 224(c) certificate for any stage of the subdivision that directly adjoins or interfaces with either wetland.	
79.	The pet control fence shall be constructed in accordance with the following minimum design requirements: (a) Fence height: minimum 1.8 m welded mesh fence with small aperture mesh (<50 mm) to reduce climbability; (b) Top barrier: a roller hood installed above the fence line. If a mesh roller is used, an electric deterrent outrigger wire shall be installed as a mandatory component; (c) Electric deterrent: where required, a single electric outrigger wire installed approximately 100–150 mm below the top of the fence; (d) Vegetation clearance: a minimum 3 m clearance corridor shall be maintained on the residential side of the fence, with vegetation in this area maintained at a height below 0.3 m at all times; (e) Either the fence shall extend along the subdivision's southern and other relevant boundaries as specified in the certified ERMP to reduce the likelihood of cats bypassing the barrier at its ends; or large diameter end spirals (minimum 5 m diameter where site layout permits, otherwise 2–3 m diameter curls) shall be installed at fence terminations in accordance with the certified ERMP. <i>Note: The pet control fence is designed to substantially reduce cat access from the residential side of the fence. It is not</i>	

	intended to function as a full predator exclusion enclosure given that the wetlands remain open on other sides	
80.	The consent holder shall inspect and maintain the pet control fence for a period of 35 years from the date of installation. Inspections shall be carried out: (a) Once during the first month following installation; (b) At least every six months thereafter; and (c) Following any particularly heavy rainfall event or high wind event that may affect the structural integrity or clearance zone of the fence.	
81.	Each inspection of the pet control fence shall assess: (a) Damage or significant gaps in the mesh, roller hood, or base skirting; (b) Any holes or burrows beneath the fence; (c) Tree fall or vegetation within the 3 m clearance corridor exceeding 0.3 m in height, including overhanging vegetation from residential lots; (d) The integrity and functionality of the electric deterrent wire.	
82.	Any damage to the pet control fence shall be repaired by the consent holder as soon as practicable, and on the same day where feasible.	
83.	Vegetation within the 3 m clearance corridor on the residential side of the fence shall be maintained at a height below 0.3 m at all times.	
84.	Residents shall be encouraged through the educational material required under Condition A10 to report any damage to or concerns about the pet control fence.	
85.	The consent holder shall implement a pest animal control programme within all ecological management areas for a period of 10 years from the commencement of residential occupation of the first stage of the subdivision. The programme shall be carried out in accordance with the certified ERMP and shall: (a) Focus trapping effort on wetland margins, SNA areas, stream corridors, and the lizard release management area within the dune reserve; (b) Install and manage live cage cat traps—number and location to be determined by the pest control operator; (c) Ensure that traps are checked every one to three days; (d) Humanely euthanise all feral and stray cats caught within ecological management areas; (e) Return domestic cats (being microchipped and NZCAR-registered cats) caught within ecological management areas outside SNA wetlands to their registered owner, and remind	

	the owner of their obligations and responsibilities as a cat owner.	
86.	The pest control programme shall be coordinated with adjacent landowners and, where feasible, integrated into wider community or council led pest control networks to maximise landscape scale effectiveness.	
87.	The consent holder shall include educational material relating to domestic cat management in all Sale and Purchase Agreements and Agreements for Sale relating to residential lots. The material shall inform purchasers of: (a) The ecological values of the wetlands and SNAs within the development and the ecological importance of pest animal control; (b) The operation of the live capture cat trapping programme within ecological management areas, including the trap checking frequency; (c) The distinction between domestic cats (microchipped and NZCAR registered) and feral or stray cats, and the treatment that applies to each category when caught in ecological management areas; (d) The requirement that all cats over four months of age and all re-homed stray cats be microchipped, desexed, and registered on the NZCAR, with registration details kept current; (e) The strong recommendation that domestic cat owners confine their cats to their private property at all times to eliminate the risk of their cats being treated as feral cats under this programme; (f) The existence and purpose of the pet control fence; (g) The mechanism for reporting damage to the pet control fence or concerns about cat activity in ecological management areas.	
	Option B – Cat Containment Covenant, 35 Year Pest Control and Education	
88.	Option B applies where the consent holder has notified the Manager of the selection of Option B in accordance with Condition 74.	
89.	The consent holder shall register a consent notice on the record of title for each residential lot within the subdivision requiring that: (a) No domestic cat shall be kept on any residential lot unless it is contained within a cat run or within the internal confines of the residential dwelling at all times, such that the cat cannot roam freely beyond the boundaries of the lot; (b) All cats over four months of age and all re-homed stray cats kept at any residential lot shall be microchipped, desexed, and registered on the NZCAR, with registration details kept current; (c) The obligations in (a) and (b) above are ongoing and binding on the owner of the lot and their successors in title.	

	<i>Note: This requirement reflects and gives effect to Kāpiti Coast District Council permitted activity rule GRUZ R7, Standard 8, which provides that the keeping of domestic cats within a 500 m buffer of SNAs or protected ecological sites is not permitted unless the cats are kept in a cat run. Given that this buffer applies to more than half of the lots within the development and that extensive wetland and stream restoration is proposed across the development area, Option B applies the cat containment requirement to all residential lots within the subdivision.</i>	
90.	The form and content of the land covenant required under Condition 88 shall be submitted to the Manager for approval prior to registration. The consent holder shall not proceed to register the covenant until written approval has been received from the Manager.	
91.	The consent holder shall include the cat containment obligations in all Sale and Purchase Agreements and Agreements for Sale relating to residential lots, and shall draw the purchaser's attention to the covenant at the time of sale.	
92.	The consent holder shall implement a pest animal control programme within all ecological management areas for a period of 35 years from the commencement of residential occupation of the first stage of the subdivision. The programme shall be carried out in accordance with the certified ERMP and shall: (a) Focus trapping effort on wetland margins, SNA areas, stream corridors, and the lizard release management area within the dune reserve; (b) Install and manage live cage cat traps—number and location to be determined by the pest control operator; (c) Ensure that traps are checked every one to three days; (d) Humanely euthanise all feral and stray cats caught within ecological management areas; (e) Return domestic cats (being microchipped and NZCAR-registered cats) caught within ecological management areas outside SNA wetlands to their registered owner and remind the owner of their obligations and responsibilities as a cat owner; (f) Treat domestic cats caught more than twice within ecological management areas outside SNA wetlands as feral cats and humanely euthanise them on the third occasion of capture.	
93.	The pest control programme shall be coordinated with adjacent landowners and, where feasible, integrated into wider community or council led pest control networks to maximise landscape scale effectiveness.	
94.	The consent holder shall include educational material relating to domestic cat management in all Sale and Purchase	

	Agreements and Agreements for Sale relating to residential lots. The material shall inform purchasers of: (a) The ecological values of the wetlands and SNAs within the development and the ecological importance of pest animal control; (b) The cat containment obligations imposed by the land covenant registered on the title of the lot, including the requirement that cats be kept within a cat run or within the residential dwelling at all times; (c) The operation of the live capture cat trapping programme within ecological management areas, including the trap-checking frequency; (d) The distinction between domestic cats (microchipped and NZCAR registered) and feral or stray cats, and the treatment that applies to each category when caught in ecological management areas; (e) The requirement that all cats over four months of age and all re-homed stray cats be microchipped, desexed, and registered on the NZCAR, with registration details kept current; (f) The requirement that domestic cat owners confine their cats to their private property at all times to eliminate the risk of their cats being treated as feral cats under this programme.	
	Option C – Cat Exclusion Covenant on Paetawa Road All Lots, 10-Year Pest Control and Education	
95.	Option C applies where the consent holder has notified the Manager of the selection Option C in accordance with Condition 74.	
96.	Prior to the issue of any section 224(c) certificate for any stage of the subdivision the consent holder shall register a consent notice on the record of title for each such lot providing that: (a) The keeping of any cat is prohibited on the lot; (b) The prohibition in (a) is ongoing and binding on the owner of the lot and their successors in title.	DOC considers a subdivision wide ban on cats will provide the best outcomes for threatened native birds and avoids any of the management and issues associated with options A and B.
97.	The form and content of the land covenant required under Condition 94 shall be submitted to the Manager for approval prior to registration. The consent holder shall not proceed to register the covenant until written approval has been received from the Manager.	This condition does not appear to be necessary, if condition 94 is deleted as per the Department's request to remove the various options from the condition, in order to provide more certainty that native birds will be protected.
98.	The consent holder shall include the cat containment obligations in all Sale and Purchase Agreements and Agreements for Sale relating to residential lots, and shall draw the purchaser's attention to the covenant at the time of sale.	This condition does not appear to be necessary, if condition 94 is deleted as per the Department's request to remove the various options from the

		condition, in order to provide more certainty that native birds will be protected.
99.	The consent holder shall implement a pest animal control programme within all ecological management areas <u>(including the Te Harekeke and Peka Peka Swamp; buffer areas and other restored areas) for a period of 10 years in perpetuity</u> from the commencement of residential occupation of the first stage of the subdivision. The programme shall be carried out in accordance with the certified ERMP and shall: (a) Focus trapping effort on wetland margins, SNA areas, stream corridors, and the lizard release management area within the dune reserve; (b) Install and manage live cage cat traps operated by the pest control operator - number and location to be determined by the pest control operator; (c) Humanely euthanise all feral and stray cats caught within ecological management areas; (d) Return microchipped domestic cats caught within ecological management areas and SNA wetlands to their registered owner, unless the registered owner is an owner or resident of the subdivision; (e) Treat other domestic cats caught within ecological management areas and SNA wetlands as feral cats and humanely euthanise them.	The need for pest control will be ongoing. As the subdivision grows, including the introduction of commercial uses, will likely attract pest animals to the area. The pest control should be in perpetuity. There are potential options for the consent holder to pass these obligations on to perhaps a dedicated residents group or indeed Council, by agreement, that may be able to worked into the condition to better suit the Applicant's needs.
100.	The pest control programme shall be coordinated with adjacent landowners and, where feasible, integrated into wider community or council-led pest-control networks to maximise landscapescale effectiveness.	
CULVERT CONSTRUCTION IN NGARARA STREAM		
130.	The detailed design and construction methodology for the construction of culverts, including the flow control twin box culvert with overflow weir at the downstream part of the site, shall be submitted to the Manager for certification at least 20 working days prior to construction of the respective culvert authorised by this consent commencing.	
131.	The detailed design shall demonstrate consideration for erosion protection, provision for fish passage, consistency with the detailed flood modelling associated with flood protection and minimisation of culvert length as much as is reasonably feasible.	
132.	The construction methodology shall reflect minimum machinery activity in the live bed of the watercourse, by-pass flow management where feasible and construction in accordance with the certified CEMP and ESCP.	

<u>XX</u>	<u>Works on the construction and installation of all culverts shall be under the supervision of a suitably qualified and experienced aquatic ecologist, including post-defishing to ensure any remaining fish are appropriately managed in accordance with Fish Passage and Fish Salvage Conditions above (115-121 above).</u>	An ecologist should also be onsite during works where fish may have remained post de-fishing. Supervision by a suitably qualified and experienced ecologist should be a requirement of the conditions of this consent. This will not be necessary in all instances as there are areas where water is diverted after culvert installation.
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