Additional Ecology Response to Section 92 Questions for a Proposed Subdivision 2127 Kaipara Coast Highway, Makarau

Contract Report No. 5807c

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Wildlands

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August 2024

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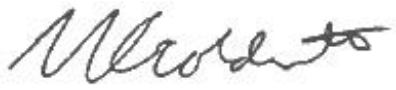

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13/08/2024

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Introduction

ABIB (Oamaru) Ltd, on behalf of its client, has applied for resource consent for a residential subdivision at 2127 Kaipara Coast Highway. The site is located 10 kilometres north of Kaukapakapa and covers *c*.134 hectares. Vegetation largely comprises rolling pasture on gentler slopes, with gullies characterised by indigenous forest and shrubland. Most of the woody vegetation is located at the southern end of the property and is contiguous with forest vegetation on the adjacent Pareparea Burial Reserve and Makarau Bridge Reserve. This vegetation has been classified as a Significant Ecological Area (SEA_T_6713). The property is zoned Rural Coastal Zone (Kaipara South Head and Harbour Coastal Area) under the Auckland Unitary Plan (AUP).

As part of the consenting process, Auckland Council issued a Request for Further Information (RFI) to the client under Section 92 of the Resource Management Act. This included questions relating to ecology, and in March 2024 the client engaged Wildland Consultants Ltd (Wildlands) to provide additional information in response to the RFI.

The information provided to Auckland Council has now been reviewed and an additional request for information has been received. This report addresses the additional questions that relate to ecology.

Project Scope

This report addresses specific questions in the additional RFI that relate to the ecology, or where an ecological perspective on an issue may be helpful. The questions addressed have been identified in consultation with the client and the wider project team.

Planning Questions

Question 17 – Stream width and esplanade reserves

Initial Question

Please confirm the width of streams and watercourses on the site, as determined by a surveyor, and confirm if esplanade reserves are required to vest. The reference to the Ecological Impact Assessment is noted, but this report does not appear to assess these features in the context of potential esplanade reserves, or utilise surveying practises to confirm width.

Initial Response

None of the streams within the site are wider than three metres. All are very narrow (30 to 60 centimetres wide) and can generally be crossed in a single stride. A selection of photographs showing representative examples of stream widths at the site is provided in Appendix 1. While surveying practices were not used to determine the stream widths, it is hoped that the photographic evidence provided is sufficient in this case.

A wider stream channel that exceeds three metres width in some places is located to the west of the site. However, this stream is already separated from the subject site by the Makarau Stewardship Area. This stream is *c.*26 metres from the property boundary at its closest point. As such, an Esplanade Reserve is not required in this case.

Additional Question

While the response is noted, confirmation from a surveyor using appropriate surveying techniques is required as detailed in the original request.

Additional Response

From an ecological perspective, I do not consider that this survey is necessary to confirm that the streams on site are less than three metres wide.

Question 23 – Pedestrians/cyclists stream crossings

Initial Question

The Design Guidelines (section 6.6) refers to stream crossing associated with the pedestrian/cycle way. Please confirm the works proposed, and provide assessment demonstrating that this is a permitted activity.

Initial Response

All stream crossings for pedestrians and cyclists will use existing crossings that have been established for the purposes of the existing farming activities. No additional crossings are proposed.

Additional Question

Thank you for noting this crossing exists. Has this been legally established?

Additional Response

This will be addressed by Zoe Avery.

Question 26 – Works in stream margins and wetland buffers

Initial Questions

Section 8.6 of the Ecological Impact Assessment refers to earthworks and vegetation removal close to stream and/ or wetlands. Please confirm which plans show these works, or provide a plan showing this.

Initial Response

Proposed works (earthworks and vegetation removal) within a 10 and 20 metre setback of natural wetland areas are shown in drawing number C901 prepared by Crang Civil (page 58 of the Engineering drawing set issued for the informal S92).

Proposed works within a 20-metre setback from permanent and intermittent streams are shown in drawing number C903 prepared by Crang Civil (page 60 of the Engineering drawing set issued for the informal S92).

Additional Question

Outstanding - please refer to comments under Q48- 50.

Additional Response

Responses to comments under Q48 – 50 are provided below.

Question 28 – Restoration and planting

Initial Question

Section 8.14 of the Ecological Impact Assessment refers to restoration and revegetation. Please:

- Provide planting and maintenance plans for this planting; and
- Provide an assessment of the restoration and planting proposed, and how this compares to the outcomes sought by the AUP(OP), including Standard E39.6.4.5.

Initial Response

As identified in Question 27, a planting and maintenance plan has been prepared by Kaipara Coast Landscape Architecture, with input from Wildland Consultants for the preparation of the planting schedules.

The subdivision is acknowledged to be a non-complying activity and is not being applied for on the basis of the "*in-situ subdivision creating additional sites through establishing indigenous revegetation planting*" rules. As such, the proposed planting does not comply with some of the standards outlined in E39.6.4.5. (Table 1). However, the proposal is considered to meet the overall objectives of the AUP(OP), as summarised below in Table 2. When considered in combination with the protection and management of existing SEA and SEA quality vegetation, the proposal will result in ecological benefits.

The proposal also meets the objectives of the National Policy Statement for Indigenous Biodiversity (NPS-IB) as it will result in no overall loss in indigenous biodiversity.

Table 1 – Assessment of the proposal against the standards outlined in E39.6.4.5.

Standard	Status
1(a): Revegetation planting not located on elite soil or prime soil	Not Met: Wetland restoration is proposed on low-lying flats. See response to Question 12 for further discussion
1(b): Revegetation planting located Outstanding Natural Character (ONC), High Natural Character (HNC) or Outstanding Natural Landscape (ONL) overlays	Not Met: Planting is proposed within HNC Area 26 and ONL Area 11.
1(c): Revegetation contiguous with existing indigenous vegetation or wetland identified in the Significant Ecological Area Overlay or meeting the Significant Ecological Area factors identified in Policy B7.2.2(1); and	Not met: While planting areas are generally contiguous with SEA or SEA quality vegetation, some areas have been selected to provide other ecological benefits (such as stream and wetland buffering.
1(d): Revegetation planting meets the criteria as set out in Appendix 15 Subdivision information and process and Appendix 16 Guideline for native revegetation plantings.	Partially met: While some of the specific items in Appendices 15 and 16 may not be specifically stated in the management plan, the intent is that the requirements that relate to the implementation and monitoring of the works will be complied with.
2: Maximum number of new sites created as per Table E39.6.4.5.1	Not Met: Proposal exceeds the maximum lot yield allowed for in Table E39.6.4.5.1.
3: Any new in-situ site must have a minimum site size of one hectare and a maximum site size of two hectares.	Not Met: Lot sizes are smaller than one hectare.

Standard	Status
4: Any established revegetation planting proposed must be legally protected.	Met
5(a): Legal protection must protect all the existing indigenous vegetation on the site at the time of application as well as the additional area subject to any revegetation.	Met
5(b): Legal protection must meet the requirements as set out in Appendix 15 Subdivision information and process.	Met
6(a): All applications must include a plan that specifies the protection measures proposed to ensure the indigenous vegetation and buffer area remain protected in perpetuity. Refer to the legal protection mechanism to protect indigenous vegetation, wetland or revegetation planting as set out in Appendix 15 Subdivision information and process for further information;	Partially Met: While it may not be explicitly stated in the management plan, the intent is for all protections to comply with the legal protection mechanisms outlined in Appendix 15.
6(b): All applications must include a planting plan for revegetation planting which outlines the revegetation planting proposed to be carried out within or adjacent to the indigenous vegetation proposed to be protected in accordance with Appendix 15 Subdivision information and process and Appendix 16 Guideline for native revegetation plantings	Partially Met: While some of the specific items in Appendices 15 and 16 may not be specifically stated in the management plan, the intent is that the requirements that relate to the implementation and monitoring of the works will be complied with.
6(c): The plans required in E39.6.4.5(6)(a) and (b) must be prepared by a suitably qualified and experienced person.	Met
7(a): All applications must include the establishment of secure stock exclusion	Met
7(b): All applications must include the maintenance of plantings that must occur until the plantings have reached a sufficient maturity to be self-sustaining, and have reached 80 per cent canopy closure. The survival rate must ensure a minimum 90 per cent of the original density and species;	Met: While the management plan currently states that “the plantings will be intensively maintained until at least 75% canopy closure is achieved”, this can be updated to 80%.
7(c): All applications must include the ongoing replacement of plants that do not survive	Met
7(d): All applications must ensure that all invasive plant pests are eradicated from the planting site both at the time of planting and on an on-going basis to ensure adequate growth	Met
7(e): All applications must ensure animal and plant pest control occurs	Met
8: The subdivision resource consent must be made subject to a condition that requires the subdivision plan creating the sites to be deposited after, and not before, the protective covenant has been registered against the title of the site containing the covenanted indigenous vegetation to be protected.	Met

Table 2 – Summary of how ecological objectives for rural subdivision (E39) are met.

E39 Objectives relevant to ecology	How this objective is met
Land is subdivided in a manner that provides for the long-term needs of the community and minimises adverse effects of future development on the environment.	Proposal minimises adverse effect of future development by protecting streams, wetlands, and forest habitats in perpetuity.
Subdivision maintains or enhances the natural features and landscapes that contribute to the character and amenity values of the areas.	Natural features including streams, wetlands, and forest habitats are maintained and enhanced. These areas will feature walking and cycling tracks to enhance amenity values.
Rural lifestyle subdivision is primarily limited to the Rural – Countryside Living Zone, and to sites created by protecting, restoring or creating significant areas of indigenous vegetation or wetlands.	Although the proposal is not based on A16 or A18, the proposal includes protecting, restoring, and creating indigenous habitats and provides net ecological benefits to the site.
Subdivision maintains or enhances the natural features and landscapes that contribute to the character and amenity values of rural areas.	Natural features at the site are maintained and enhanced.
Rural subdivision avoids or minimises adverse effects in areas identified in the Outstanding Natural Features (ONF), Outstanding Natural Character (ONC), High Natural Character (HNC), Outstanding Natural Landscape (ONL) and Significant Ecological Areas (SEA) Overlays.	All areas of SEA or SEA quality habitat will be protected and enhanced. Development is also concentrated away from areas classified as HNC or ONL.
Subdivision maintains the function of flood plains and overland flow paths to safely convey flood waters while taking into account the likely long-term effects of climate change.	Floodplains, wetlands, and streams will be protected and enhanced. Retiring low-lying flats will also enhance resilience to climate change and sea level rise.

Additional Question

While we agree that the application has been made as a non-complying activity, rather than on the basis of specific AUP(OP) rural- subdivision pathways, this and related questions seek to better understand the proposal in the context of what the AUP(OP) expects, and the significance of the ecological outcomes achieved. From the information supplied we understand that the revegetation planting proposed does not provide the ecological outcomes anticipated by E39.6.4.5 and proposes well in excess of the maximum lot yields provided for. Issues in relation to the overall scale of the application and the significance of the ecological outcomes (which appear to be significantly less than that expected by the AUP(OP)) remain of fundamental concern.

Additional Response

This issue will be addressed by Zoe Avery and Andrew Green.

Question 29 – Walking and cycle paths

Initial Question

The proposed walking and cycling paths appear to move within some of the proposed covenants. Are these paths to be excluded from the covenant areas? This is not indicated on the scheme plan. How will edge effects in this regard be managed, including potential weed incursion?

Initial Response

Some of the restoration areas will contain narrow (single track) walking and cycling paths *c*.0.8 metres wide. These will be narrow enough to ensure that canopy closure can be achieved/maintained over the tracks. As such, these tracks will not result in habitat fragmentation or edge effects. Pest plants will be managed within all covenant areas in perpetuity, so any potential pest plant incursions that may occur as a result of the tracks (e.g. through seeds being carried in on shoes) will be addressed through regular maintenance.

Additional Question

The response is noted, however the presence of tracks through protected areas remains of concern and are generally not accepted by Council. This is primarily due to the adverse ecological effects they create, when the premise of natural feature protection is protection (rather than public access for example). This is also more important when the overall ecological outcomes proposed are considerably less than the AUP(OP) anticipates already.

Please provide further assessment on what specific measures would be proposed to minimize edge effects, weed and pest incursion (typical maintenance is not considered sufficient in this regard). Please show these areas on the plans.

Additional Response

While the question states that "tracks through protected areas remains of concern" and refers generally to "the adverse ecological effects they create", it is not clear what the specific adverse ecological effects the Council considers have not been addressed. As discussed above, the tracks will be narrow enough to ensure that canopy closure will be achieved, and all areas will be managed to prevent invasion by pest plants. In the absence of clear information about what further effects need to be managed I have no further comment on this issue at this time.

Ecology Questions

Question 45 – Orchards

Initial Question

The application proposes orchards adjacent to natural areas proposed for protection. Please advise the reason for these locations and provide assessment on the potential ecological effects of this co-locations.

Initial Response

Planting of fruit trees and edibles will be limited to species that are not listed in the Auckland Regional Pest Management Plan (ARPMP) or National Pest Plant Accord (NPPA), and do not pose a threat to adjacent forest areas. Edible pest plant species such as loquat (*Eriobotrya japonica*) and blackberry (*Rubus fruticosus*) will be prohibited both within residential lots and in communal orchard areas. As such, there will be no adverse effect of the orchards on the adjacent natural areas.

Additional Question

The response is noted, but Council concerns in relation to the location of the orchard remains.

Additional Response

In the absence of specific information regarding the "concerns" Council has regarding the location of the orchards I am unable to provide further information to address these. If Council can clarify what the specific ecological effects of the orchards that need to be addressed are, I will be happy to consider these.

Questions 47 to 49 – SEA and SEA quality vegetation

Inital Questions

A plan is requested as per E39.6.1.6 clearly identifying SEA areas and other areas of indigenous vegetation, wetlands, and watercourses on site.

Please provide an assessment of areas of vegetation proposed for protection that are already identified as SEA or areas meeting the factors for Significant Ecological Areas in Policy B7.2.2(1) and confirm the areas (m^2) each of the areas within the site cover.

Please quantify how many lots would have had the potential to have been developed under the rural subdivision Rules E39.4.2(A16), (A17C) and or (A18) as per Table E39.6.4.4.1 and Table E39.6.4.5.1 through bush, wetland and revegetation protection at the site. It is acknowledged that this is not the basis the application is being applied under but does set the baseline for the provisions for subdivision that may be possible under the unitary plan rules. Limited in-situ subdivision is provided for under the Unitary Plan in rural zones.

Initial Response

The maps provided in the original Ecological Impact Assessment (EcIA) have been updated to include the SEA overlay and any areas that are of 'SEA Quality' (Appendix 2). As outlined in the EcIA, this includes all areas of forest, treeland, and scrub at the site as they are likely to provide habitat for indigenous fauna species that have been classified as 'Threatened' or 'At Risk' (Factor 2b: Threat status and rarity). These fauna habitat values are discussed in more detail in Section 6 of the EcIA. These vegetation types also form part of a network of sites that cumulatively provide important habitat for indigenous fauna (Factor 4c: Stepping-stones, migration pathways and buffers).

All natural inland wetland areas that are dominated by indigenous plant species also meet the criteria to be classified as SEA (Factor 2d: Threat status and rarity) and have therefore been mapped accordingly (Appendix 2).

All areas of SEA and SEA quality vegetation are proposed to be protected.

The subdivision is acknowledged to be a non-complying activity and is not being applied for on the basis of the "*in-situ subdivision creating additional sites through protection of indigenous vegetation or wetland identified in the Significant Ecological Areas Overlay... or... not identified in the Significant Ecological Areas Overlay but meeting the Significant Ecological Areas factors*" rules. As such, an assessment against Table E39.6.4.4.1 and E39.6.4.5.1 is not considered necessary.

Further comment regarding the applicability of these standards to the proposal will be provided by the planning team. However, as discussed above, the proposal is considered to meet the overall objectives of the AUP(OP) and NPS-IB. When considered in combination with the proposed revegetation activities, the proposal will result in ecological benefits.

Additional Questions

An ecological features map has been provided. However, Council's ecologist does not agree with the number of areas that have been mapped as SEA quality. Most of those not already mapped as SEA are small and tree or shrubland of common pioneer species with many heavily grazed beneath and would not meet the criteria for threatened species nor stepping stones. No fauna survey has been undertaken confirming the presence of rare and threatened species with these just having the potential to be present at the site. Vegetation cannot be identified to meet the threat or rarity factor without evidence to confirm their presence. There are many patches of vegetation in the wider landscape such that those on site not currently mapped as SEA cannot be considered even "when aggregated make an important contribution to the provision of a particular ecosystem in the landscape" noting that most of the ecosystems on the site are not rare or threatened.

The areas of SEA quality vegetation have been cumulatively assessed in the EcIA rather than each area of vegetation individually. It is likely that should each of the areas be assessed individually it would be found that the SEA criteria for most of those not already mapped as SEA would not be met. Assessment is required of protection areas on a finer scale. See comments above related to response to Q47.

Additional Response

I disagree with this assessment as most of the forest remnants on the site are not simply "small and tree or shrubland of common pioneer species". Most feature trees of regenerating or remnant secondary species such as pūriri (*Vitex lucens*), kauri (*Agathis australis*), kahikatea (*Dacrycarpus dacrydioides*), tōtara (Po*docarpus totara*), rimu (*Dacrydium cupressinum*), kohekohe (*Didymocheton spectabilis*), tānekaha (*Phyllocladus trichomanoides*), and rewarewa (*Knightia excelsa*). The Council's assessment also seems to apply a new interpretation to the 'Stepping stones, migration pathways, and buffers' criterion. This criterion does not require that the ecosystems/habitats that are "part of a network of sites that cumulatively provide important habitat for indigenous fauna" be rare or threatened in their own right. I also note that long-tailed bats (*Chalinolobus tuberculatus*) have been recorded on the boundary of the site, have very large home ranges, and are known to forage over farmland and roost in small forest patches and isolated trees.

Further information regarding the relevance of the SEA classification to this application will be provided by Zoe Avery and Andrew Green.

Question 50 – Boundary of wetland 11

Initial Question

While most of the vegetation appears to be correctly mapped there are some areas that a greater area is covered as mapping is shown at a coarse scale. One location noted is on the southern edge and northeastern end of wetland 11 (areas 15 and 16 in the ecological assessment) where wetland rushes are located beyond the mapped area. Correct vegetation extent is especially important in the case of wetlands where wastewater dispersal fields are proposed in proximity to these to ensure required offset is provided. Please provide updated plans and information.

Initial Response

Wetland 11 was revisited on 11 December 2023 to reassess the boundary. A revised boundary map has been provided (Appendix 3). While some areas of scattered rushes fall outside of the new mapped boundary, these are much sparser than within the wetland area. As such, the pasture grasses and herbs continue to be dominant in the areas that have been excluded.

Ground conditions were also considered during the assessment, with the soil within the wetland area being damp to saturated, while outside of the new boundary it was dry.

There are differences between the new boundary and that shown in the original report. However, these are minor and they extend in both directions (i.e., in some areas the new line goes out, and in others it goes in from the original boundary). The largest change is the reclassification of a small area of kānuka as a dryland habitat.

Additional Question

The information provided on wetland extent is not sufficient to be able to concur with findings. No formal wetland delineation including vegetation plots, hydrology and soils assessment was undertaken with extent based on a rapid assessment. It is likely that following a full wetland delineation that many of the less rushy areas that have been excluded would be found to also meet the criteria for natural wetland such that the extent would be larger than has been shown. Note that the pasture exclusion methodology also cannot be used as part of excluding an area as natural wetland when completing a wetland delineation in the case of residential development.

Additional Response

The “formal wetland delineation” protocols allow for the identification of wetlands using the rapid test (as per Figure 1 from the Ministry for the Environment’s pasture exclusion methodology, provided below). In this case the area that was clearly wetland was identified using this method and as such, vegetation plots, soil assessments, and hydrology assessments are not required.

In the event that the rapid test is inconclusive, the use of vegetation plots, soil assessments, and hydrology assessments allow an ecologist to determine if the specific locations where these assessments were made are within a wetland. However, they will not identify exactly where the boundary of the wetland is along its entire perimeter. According to the pasture exclusion methodology, mapping the perimeter of a wetland that meets the rapid test should be carried out by walking around the site with a GPS enabled device (see Section 6.5 of the pasture exclusion methodology). This is what was done in this case, and the resulting line was further refined using easily identifiable land marks visible in aerial imagery.

Council’s ecologist is correct that areas of wet pasture should not be excluded from being classified as natural inland wetland on the basis of the pasture exclusion if the land use is to be changed from pastural grazing. However, in this case the area outside the mapped wetland was not wet pasture. At the time of the site visit this area was dry and dominated by FACU species including kikuyu (*Cenchrus clandestinus*), brown top (*Agrostis capillaris*), narrow- leaved carpet grass (*Axonopus fissifolius*), and narrow leaved plantain (*Plantago lanceolata*). A photograph of the southern boundary of Wetland 11 is provided below (Plate 1).

Figure 1: Rapid assessment to identify potential wetlands on farmland

Clearly wetland or clearly not pasture	Uncertain	Clearly dry pasture
• Dominated by OBL or FACW species. • Not grazing land– no or small amounts of palatable exotic pasture species. • Visible signs of high water table (wet in summer). • Topographic signs – low-lying / depression, but could be on a slope (seepage).	• Some OBL or FACW species present. FAC species often dominant. • Signs of wetland hydrology – pugging, damp, but may be dry in summer. • Some palatable exotic pasture species present.	• Grazing land. • No / minor amounts of OBL or FACW species. • No evidence of wetland hydrology – dry year-round, not pugged, typically on high ground. • Dominant species are exotic pasture species.
⏩ Natural inland wetland	⏩ POTENTIAL WETLAND in pasture	⏩ Not a natural inland wetland

Plate 1 – Facing east along the southern boundary of Wetland 11. Wetland vegetation (left) is clearly distinguishable from dry pasture (right). 1 December 2023.

Question 51 – Stream margins and wetland buffers

Initial Question

While the encroachment area as a whole of the site has been indicated the earthworks area within 20m of wetlands and streams have not been quantified. The table in section 8.6 of the ecological report indicates earthworks within 10m of wetland but not within 20m. It also does not indicate earthworks within 20m of stream. Confirmation is required not just of encroachment areas but vegetation clearance and earthworks areas within these. Please provide this information and provide the relevant assessments.

Initial Response

An assessment of the extent of encroachment within 20 metres of wetlands and streams is provided in Section 8.6 of the EcIA. This encroachment area is considered to represent both the extent of earthworks and vegetation removal within these zones. No vegetation removal is proposed outside of the earthworks area.

Section 8.6 of the EcIA breaks down the area of encroachment within 20 metres of wetlands into two zones (0 to 10 metres, and 10 to 20 metres), as this affects the activity status of the activity. Earthworks within 10 metres of wetland is a non-complying activity under the National Environmental Standards for Freshwater (NES-F), while vegetation removal within 20 metres of a wetland is a restricted discretionary activity under the Auckland Unitary Plan (AUP).

The table from Section 8.6 of the EcIA has been repeated below (Table 3), with an additional row providing the combined total of the two wetland buffer zones.

Table 3 – Summary of encroachment into stream margins and wetland buffers.

Zone	Area of Encroachment	Total Area within Zone	% Encroachment	Activity Status
0-20 metre stream margin	1,810	87,787	2.06%	Vegetation removal Restricted Discretionary (AUP)
0-10 metre wetland buffer	1,629	70,573	2.31%	Vegetation removal and earthworks Non-Complying (NES-F)
10-20 metre wetland buffer	5,278	81,070	6.51%	Vegetation removal Restricted Discretionary (AUP)
0-20 metre wetland buffer	**6,907**	**151,643**	**4.55%**	**Combined Total**

Additional Question

The response has been reviewed by Council's specialist. While the applicant has considered the percentage of encroachment may be small overall, the encroachment areas being 1,810m^2 in the riparian yard and 6,907m^2 in the 20 metres wetland buffer is not considered small. For some areas works are proposed almost flush with the wetland or within a few metres of it. No assessment has been provided of the suitability of building infrastructure (roads and retaining walls) so close to these features. There are a large number of wetlands and watercourses on the site such that they cannot be avoided for the proposal and the site is likely not the best placed to service the type of development proposed.

Additional Response

It is not clear in the feedback from Council which "works" (vegetation removal and/or earthworks) are being discussed. This is important as regulations relating to earthworks and vegetation removal are not universally applicable over all of the areas defined in the Council's feedback (see Table 3 above).

Reference to the encroachment areas as "small" in my earlier reporting is a relative assessment compared to the total area of wetland buffers and stream margins on the site. I have not provided an assessment of the "suitability of building infrastructure (roads and retaining walls) so close to these features" as the engineering team have stated that encroachment into these areas cannot be avoided or further minimised while achieving the aims of the proposed development. The scope of my assessment was therefore to assess the potential adverse effects of this encroachment and propose methods by which to remedy, mitigate, or compensate for these effects (see my response to Question 52 below).

Most sites contain features that create ecological constraints to development. These should be assessed and potential effects on these features should be addressed as appropriate. The complete avoidance of any and all effects on wetlands and watercourses and their margins/buffers is not a requirement of any of the planning documents relevant to the site and seems to be an inappropriately high bar against which to assess this application.

Question 52 – Wetland setbacks

Initial Question

Wetlands protected under rural subdivision rules of the AUP(OP) require a 20m setback as outlined by Note 3 for Table E39.6.4.4.1(3). As such it is expected that this setback is provided as far as possible for the development areas for both building footprints and wastewater dispersal fields, and roads. Please either amend the proposal or provide further justification and assessment of what's proposed.

Comment: Significant earthworks are required around wetland 13 and the number and location of lots and driveway location should be reconsidered in this area. Providing a greater setback means that some of the other lots may also need their location adjusted or the total number of lots reduced to better take into account the site constraints

Initial Response

It is acknowledged that the proposal does not comply with the standards for rural subdivision for wetland protection, and that the proposal is therefore a non-complying activity. However, I note that the 20-metre setback expected to meet these standards does not require the setback area to be planted. Reduced setbacks are frequently allowed for under the rural subdivision rules if the buffer is to be planted, as it is in this case. A full assessment of the ecological effects of the proposed encroachment of the development into the 20-metre-wide wetland buffer is provided in the EcIA and the extent of encroachment is discussed in Question 51 above.

Affected vegetation in the wetland buffer areas comprises exotic grassland of negligible ecological value. The magnitude of the effect of the loss of this vegetation is low, and the potential effect on the streams and wetlands themselves is also likely to be low provided best practice sediment and erosion controls are in place.

It appears that reference to Wetland 13 in the comment associated with this question may be an error. Wetland 13 is located away from the proposed lots near the entrance to the site, and no earthworks is proposed within the associated 20 metre buffer.

Additional Question

No reduction in encroachment is provided. As a general comment, reduced setbacks where planted was an outcome that historically was consented in some cases however this is no longer an outcome that is commonly supported by the Council (see for example AC Rural Practise Guidance Note on this matter) and is assessed on a case-by-case basis and then is often related to specific site constraints such as existing farm tracks and property boundaries rather than to allow for development up close to these features.

In this case the planting of a reduced buffer does not negate the need to provide the setback anticipated for development particularly given the number of wetlands on the property. While the response indicates a full assessment of works within 20m wetland buffer has been provided Council's ecologist does not agree as it is provided at a high level rather than taking into account how close some of the work's areas will get to some wetlands. Also see comment on Q51 above.

Additional Response

Works within 20 metres of all streams and wetlands at the site have been minimise to the extent possible while still achieving the aims of the proposed development. Council's response refers to a "need" to provide the setback anticipated, however, none of the planning documents require these areas to be completely avoided (i.e. works within these areas is not prohibited). I disagree that my assessment has been 'high level' as it:

1. Clearly identifies the ecological value of the affected streams, wetlands, and associated margin/buffer vegetation.
2. Clearly defines the potential adverse effects of the proposed encroachment, which include:
    - Loss of riparian margin and wetland buffer vegetation.
    - Sediment discharges to freshwater habitats.
    - Wetland catchment alteration (including beyond the 20m wetland buffer area) and associated changes to wetland hydrology.
3. Defines the potential magnitude and level of these effects.
4. Provides recommendations to address these effects through:
    - Protection and enhancement of all wetlands.
    - Protection and enhancement of all remaining 10-metre wetland buffer areas and 20-metre stream margins.
    - Preparation and implementation of an appropriate Erosion and Sediment Control Plan (ESCP).
    - Design of stormwater system to ensure wetland hydrology is maintained.
5. Assesses the final level of these effects assuming the proposed management actions are carried out.

A summary of this assessment is provided in Table 8 of the Ecological Impact Assessment submitted with the application. If Council considers that there are additional effects that have not currently been assessed I will be happy to consider these.

Question 53 – Culvert 5

Initial Question

Culvert 5 is proposed to be length of 12 metres. This is a wide length for one lot and much wider than the current crossing area. The width should be reduced particularly given the wetland located flush with the upstream end of the culvert which would likely be impacted by culvert of this length.

Please either amend the proposal or provide further justification and assessment of what's proposed.

Initial Response

The reviewer refers to the length and width of the culvert interchangeably, which is a little confusing. However, it is assumed that this question relates to the ***length*** of the culvert.

Questions relating to the need for this length of culvert will need to be addressed by the engineering team. However, the engineering team have indicated that the culvert will be designed to ensure water levels within the wetland are maintained. I therefore see no reason why the length of the culvert would affect the ecological values of the wetland on the upstream side.

Additional Question

No justification is provided for the proposed culvert length nor confirmation that earthworks within the wetland can be avoided during construction. The question remains outstanding.

Comment: Ideally a reduced culvert length should be provided and/or Lot 17 removed from the proposal which would remove the need for a longer culvert in this location.

Additional Response

As above, questions relating to the need for this length of culvert and the associated installation methodology will need to be addressed by the engineering team.

Question 55 – Existing driveway

Initial Question

Please advise if the existing driveway and associated culvert to the farm dwelling will be disestablished.

Initial Response

The entrance will be fenced to prevent it being used for access on and off Kaipara Coast Highway. However, the physical driveway and culvert will remain.

Additional Question

Response provided confirming the physical driveway and culvert will be retained and fenced off even though redundant for the proposal. Given this access is no longer required and the objectives and policies of the Unitary Plan seek to improve freshwater outcomes it is recommended that consideration be given to removal of the culvert and naturalisation of the stream in this location particularly given the impact of the new driveway and vehicle crossing that require earthworks in very close proximity (almost flush with) the wetland adjacent this location.

Additional Response

The "naturalisation" of the stream in this location could have unintended consequences, such as drainage of the wetland that has formed on the upstream side. As such, I do not consider it would be appropriate for this to be a requirement of the consent.

Streamworks questions

Question 64 – Stream 'reclamation'

Initial Question

Section 8.2 of the EcIA refers to the reclamation of permanent and intermittent streams; yet reclamation has not been identified as a reason for consent or assessed in the AEE. Please clarify the nature of this activity.

Initial Response

The use of the term 'reclamation' was incorrect in this case and should be ignored. This section should read as follows:

"*Under the Freshwater Fisheries Regulations 1983 it is an offence to intentionally kill or destroy indigenous fish, unless they are taken for the purpose of scientific research or for human consumption. As such, regardless of the level of the effect associated with potential harm to indigenous fish described above, a Fish Management Plan (FMP) will be prepared, approved by Auckland Council, and implemented before any stream works take place. The FMP will detail methods for capturing indigenous fish species and identify a suitable release site beyond the extent of works. It will also detail methods of capture and euthanasia for pest fish species (if present) to ensure that they are not inadvertently introduced to neighbouring watercourses or catchments*".

Additional Question

The ecology Report states that no reclamation is proposed; however, as the culvert matter remains unresolved this item is also considered unfulfilled (if the structures are not culverts, then they would be considered as a pipe which is akin to reclamation).

In light of question 62 above, this request remains.

Question 62 states: Regarding bullet point 6, collectively culverts have a length in excess of 30m and therefore they do not meet the permitted activity standards associated with rule E3.4.1(A32). The collective length of the 'culvert' structures exceeds 30m, this cumulative length, exceeds the permitted activity standard (E3.6.12(2)(a)) that relates to rule E3.4.1(A32) from the AUP:OP. If these structures were to be considered as 'culverts' consent would therefore be required under rule E3.4.1(A44). As a discretionary activity (for culverts) or non-complying (for new reclamation) under the AUP:OP it would be envisioned that a measure to address adverse effects is proposed as part of the application, i.e. an offset provided to account for the habitat modification as determined through the SEV/ECR calculation.

Additional Response

The proposed loss of stream length resulting from the installation of the culverts has already been assessed in the Ecological Impact Assessment. Calculations of SEVs and ECRs are not necessary in this case given that all watercourses on the site are already proposed to be restored as part of the overall compensation and restoration package. This results in a ratio of stream length lost to stream length restored of approximately 1:50, which is substantially higher than would be required if a SEV were carried out. ECRs calculated using the SEV methodology are typically in the range of 1:4 to 1:5.

Appendix 1

Representative stream width photographs

Plate 2 – Representative photograph of a steam within the site. Stream width is less than three metres. 12 August 2021.

Plate 3 — Representative photograph of a steam within the site. Stream width is less than three metres. 12 August 2021.

Plate 4 – Representative photograph of a steam within the site. Stream width is less than three metres. 12 August 2021.

Plate 5 — Representative photograph of a steam within the site. Stream width is less than three metres. 12 August 2021.

Plate 6 – Representative photograph of a steam within the site. Stream width is less than three metres. 12 August 2021.

Plate 7 — Representative photograph of a steam within the site. Stream width is less than three metres. 12 August 2021.

Appendix 2

SEA and SEA quality vegetation map

Appendix 2. Vegetation and habitat types at 2127 Kaipara Coast Highway, Makarau


Legend
Earthworks areas and lots
Ephemeral stream
Intermittent stream
Permanent stream
Culvert (Cu1-5)
SEA in the Auckland Unitary Plan
SEA quality vegetation
VegetationHabitatType
1b. Kānuka forest (b)
1c. Kānuka forest (c)
1e. Kānuka forest (e)
1f. Kānuka forest (f)
1g. Kānuka forest (g)
3. Kahikatea-kānuka treeland over exotic grasses
6. Kānuka scrub
7. Blackberry-pohuehue vineland
8. Gorse shrubland
9. Kikuyu grassland
19. Mercer grass-soft rush-raupō grassland
20. Soft rush-wī-Mercer grass-rushland
22. Mercer grass-soft rush grassland
Map 2 of 6
1
2
3
4
5
6
16
Cu1
Cu2
Cu3
Cu4
Cu5
Auckland Council, LINZ
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Roads/Lots updated 6 Dec 2021
Report: 5807
Ref: 06 1662
Client: Abib (Oamaru) Ltd.
Name: Figure_Vegetation_SEA_quality.aprx
Path: E:\gis\KaiparaCoastHighway\mxd\
Appendix 2. Vegetation and habitat types at 2127 Kaipara Coast Highway, Makarau
0
50
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200
300
400
m
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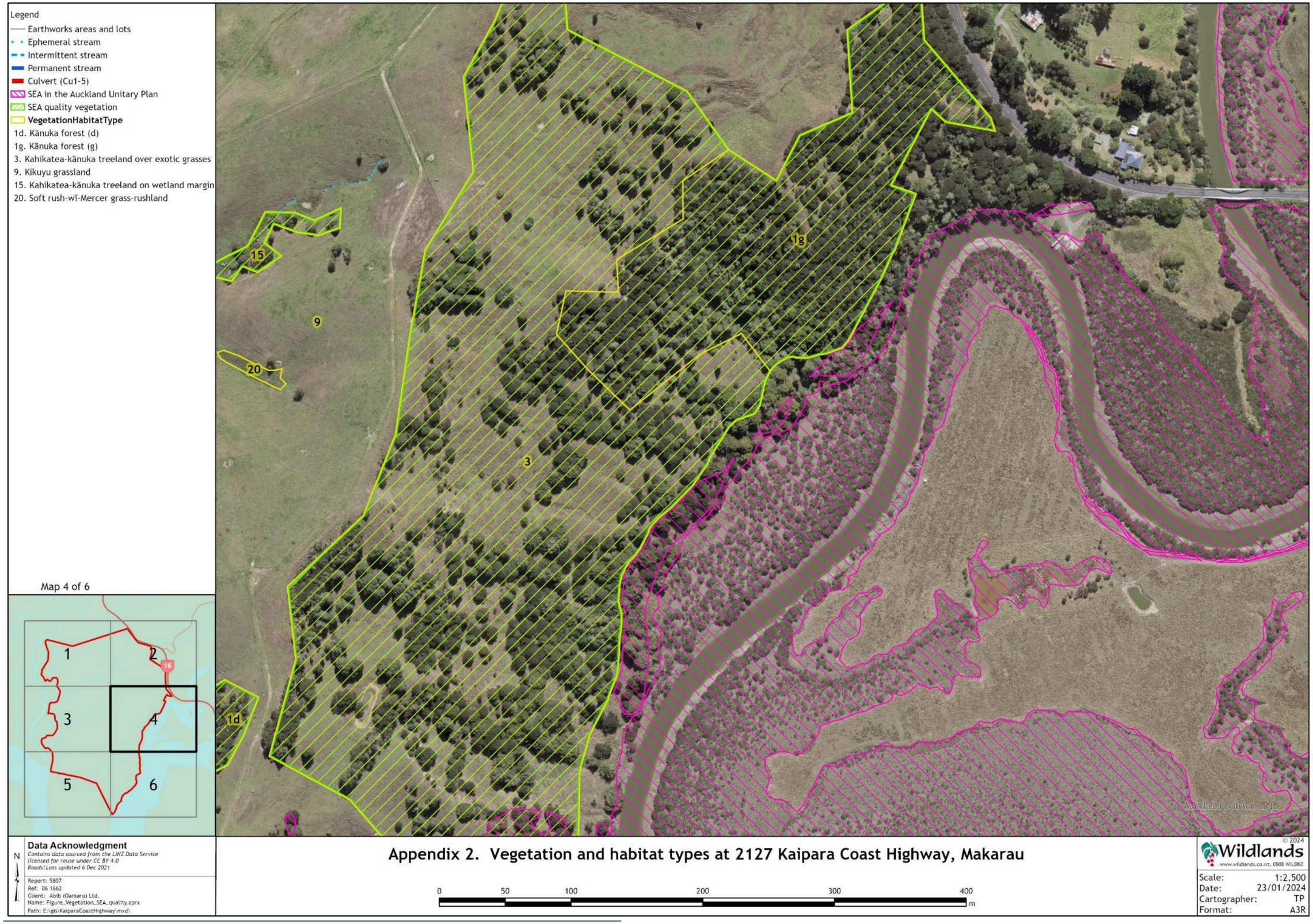
Scale: 1:2,500
Date: 23/01/2024
Cartographer: TP
Format: A3R

Appendix 2. Vegetation and habitat types at 2127 Kaipara Coast Highway, Makarau


Legend
Earthworks areas and lots
Ephemeral stream
Intermittent stream
Permanent stream
Culvert (Cu1-5)
SEA in the Auckland Unitary Plan
SEA quality vegetation
VegetationHabitatType
1d. Kānuka forest (d)
1g. Kānuka forest (g)
3. Kahikatea-kānuka treeland over exotic grasses
9. Kikuyu grassland
15. Kahikatea-kānuka treeland on wetland margin
20. Soft rush-wī-Mercer grass-rushland
15
9
20
3
1g
1d
Map 4 of 6
1
2
3
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16
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Report: 5807
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Appendix 2. Vegetation and habitat types at 2127 Kaipara Coast Highway, Makarau
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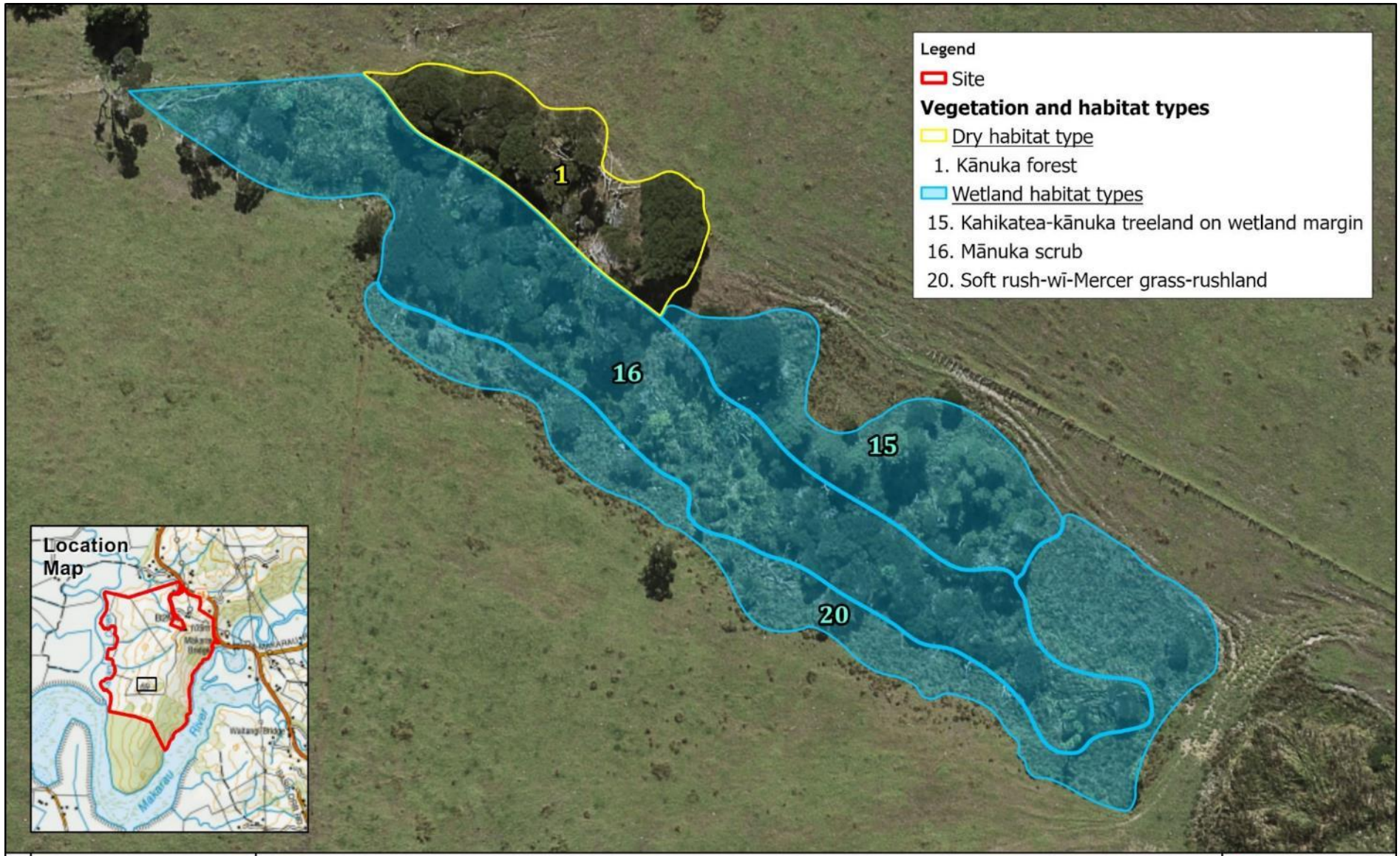
Appendix 2. Vegetation and habitat types at 2127 Kaipara Coast Highway, Makarau

Appendix 2. Vegetation and habitat types at 2127 Kaipara Coast Highway, Makarau

Appendix 3

Revised map of Wetland 11


Legend
Site
Vegetation and habitat types
Dry habitat type
1. Kānuka forest
Wetland habitat types
15. Kahikatea-kānuka treeland on wetland margin
16. Mānuka scrub
20. Soft rush-wī-Mercer grass-rushland
1
16
15
20
Location Map
Data Acknowledgment
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Report: 5807
Ref: 11188
Client: Abib (Oamaru) Ltd.
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Appendix 3. Re-assessment of wetland 11, 2127 Kaipara Coast Highway
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m
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Scale: 1:600
Date: 23/01/2024
Cartographer: FM
Format: A4R

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