MEMORANDUM

TO:	Metlifecare Limited	Date:	8 February 2023
COPY TO:	Michelle Kemp, Campbell Brown	Document No:	10004-001-1
FROM:	Mark Delaney		

METLIFECARE WHENUAPAI VILLAGE FAST TRACK – PRELIMINARY ECOLOGY ASSESSMENT

Introduction

Metlifecare Limited ("the applicant") proposes to lodge an application for a referred project under the Covid-19 Recovery (Fast-track Consenting) Act 2020 (the "Act") to use the fast-track consenting process. The application is for a retirement village development at 99 Tōtara Road, Whenuapai ("the site"). A scheme plan is provided in Appendix A. This memorandum provides a high-level ecological assessment for the proposal.

Methodology

Site assessments were undertaken by an experienced ecologist in July 2021, July 2022 and February 2023. Botanic and terrestrial fauna values within the site were qualitatively assessed. Fauna habitats assessed considered indigenous lizards, birds, and bats.

Overland flow paths / watercourses were classified under the Auckland Unitary Plan - Operative in Part (AUP-OP) to determine, in accordance with the definitions in this plan, the ephemeral, intermittent or permanent status of these watercourses. Where appropriate, potential wetland areas were classified and mapped following the Ministry for the Environment's (MfE) wetland delineation protocols[1], including vegetation assessments and wetland hydrology, to determine whether the areas meet the definition of a 'natural wetland' under the National Policy Statement for Freshwater Management 2020 (NPS-FM). Assessments were carried out within the Auckland region's 'growing season'[2].

Where appropriate, vegetation was assessed in accordance with the relevant MfE protocol[3]; based on the dominance and prevalence of:

- Obligate wetland vegetation (OBL) – almost always a hydrophyte, rarely in uplands;
- Facultative wetland (FACW) – usually a hydrophyte but occasionally found in uplands;
- Facultative (FAC) – commonly occurs as either a hydrophyte or non-hydrophyte;
- Facultative upland (FACU) – occasionally a hydrophyte by usually occurs in uplands; and
- Upland (UPL) – rarely a hydrophyte, almost always in uplands.

Where the dominance or prevalence tests show unclear results, hydric soils and hydrology tests were undertaken in accordance with the associated protocol[2,4].

[1] MfE 2020. Wetland Delineation Protocols. Ministry for the Environment.

[2] MfE 2021. Wetland delineation hydrology tool for Aotearoa New Zealand. Ministry for the Environment.

[3] Clarkson B. 2013. A vegetation tool for wetland delineation in New Zealand. Prepared for Meridian Energy Limited. Hamilton: Manaaki Whenua Landcare Research.

[4] Fraser et al. 2018. Hydric soils – field identification guide. Report LC3223 prepared for Tasman District Council. Hamilton: Manaaki Whenua – Landcare Research.

Any potential aquatic habitat was then qualitatively assessed. Identified ecological features within the site are presented in Appendix B and photos of these features are provided in Appendix C.

Existing Environment

Background and ecosystem classification

The site is within the Tamaki Ecological District of the Auckland Region. Historically (pre-human), the area would likely have comprised the pūriri forest ecosystem type (WF7-1) and would have supported a diverse range of invertebrates, amphibians, reptiles, birds and bats (Singers et al., 2017). Earliest historical aerials, available from 1940, indicate that the site and much of the surrounding landscape has been devoid of native vegetation and managed as agricultural and horticultural land for at least the last 80 years (Appendix D).

Currently, the site consists predominately of pasture with mature exotic shelterbelts, a small number of rural dwelling and associated sheds. The site is surrounded by a mixture of residential development and agricultural/horticultural land, with the Royal NZ Air Force Base Auckland to the southeast. The site does not support a recognised current terrestrial ecosystem type as classified under the AUP-OP: Biodiversity current extent. The surrounding coastal area is subject to a Significant Ecological Area (SEA-M2-57b) overlay. Small sections of this SEA encroaches into the site.

Terrestrial ecology

The site consists almost entirely of pasture grasses. Outside of the pasture grasses there is some limited garden amenity planting around the existing dwellings, a row of mature macrocarpa trees (*Hesperocyparis macrocarpa*) within the western section of the site which forms a shelter belt and coastal edge vegetation. The coastal edge vegetation predominantly consists of exotic vegetation including listed[5] pest plants such as mothplant (*Araujia hortorum*), woolly nightshade (*Solanum mauritianum*), pampas (*Cortaderia selloana*), gorse (*Ulex europaeus*), arrow bamboo (*Pseudosasa japonica*), Sydney golden wattle (*Acacia longifolia*), Chinese privet (*Ligustrum sinense*) and wild ginger (*Hedychium* sp.). Although still dominated by exotic vegetation, some areas along the coastal edge included tall kānuka (Kunzea sp.). Additionally, there is a single isolated pōhutukawa (*Metrosideros excelsa*) located along the north-western coastal edge. The wider environment surrounding the site is largely devoid of any significant terrestrial vegetation.

The botanical value of the vegetation within the site was assessed as negligible, being predominately pasture with limited exotic trees. This vegetation provides very low-quality fauna habitat due to the lack of diversity, structure and connectivity.

Freshwater and coastal ecology

Overland flow paths/streams

Auckland Council GeoMaps shows several overland flow paths within the site, predominantly draining very small catchments. The majority of the overland flow paths had ill-defined channels, no flowing water 48 hours after a rain event, no natural pools, rooted terrestrial vegetation (pasture grasses) established across their widths and no evidence of substrate sorting. As such, these overland flow paths were classified as ephemeral reaches.

Two permanent streams (western and eastern arms) are present within the south- eastern section of the site. These streams join within the site before flowing through the neighbouring property and

[5] Auckland Regional Pest Management Plan 2020 – 2030.

shortly after draining into the marine environment. Along the western arm two culverts are located adjacent to the southern boundary of the site.

A third stream is located further to the north along the eastern boundary of the site. This stream has a small catchment and is intermittent in nature.

All three streams have been highly modified through farming practices. The streams are soft-bottomed, with high loadings of fine sediments and have little to no shading. The current ecological value of the streams was assessed as low, however there is potential to enhance the ecological value of these streams through managing runoff and riparian planting.

Natural wetlands

Two natural inland wetlands are present within the south- eastern section of the site. These wetlands are associated with the stream margins and are almost entirely dominated by mercer grass (*Paspalum distichum* - FACW). Other species present, but in limited numbers, included swamp willowherb (*Epilobium pallidiflorum* - OBL), swamp millet (*Isachne globosa* - OBL), soft rush (*Juncus effusus* - FACW), kikuyu (*Cenchrus clandestinus* - FACU), slender knotweed (*Persicaria decipiens* - OBL), sharp spike sedge (*Eleocharis acuta* - OBL), buttercup (*Ranunculus repens* - FAC), Yorkshire fog (*Holcus lanatus* - FAC), and lotus (*Lotus pedunculatus* - FAC).

The wetlands met the rapid assessment for wetland vegetation based on the dominance of FACW species. Primary hydrological indicators including saturated ground and pooling water was present. Due to passing the rapid assessment test and the presence of permanent wetland hydrology, these areas were classified as natural inland wetlands under the NPS-FM.

The current ecological value of the wetlands was assessed as low, due to the dominance of exotic species, the low species diversity, the lack of riparian vegetation and the low hydrologic variation. However, like the three streams on site, there is potential to enhance the ecological value of these streams through managing runoff and buffer planting.

Along the western stream arm two culverts are present upstream of the wetland. Between the two culverts a stream section is present with no natural wetland features.

A natural wetland in the neighbouring southern property was also identified. This wetland was also dominated by OBL and FACW species.

The coastal marine area (CMA), which is identified as a SEA, surrounds most of the site and consists of established mangroves (*Avicennia marina subsp. australasica*). This area is located on the seaward side of the CMA and as such is not considered a natural inland wetland. The proposed design currently provides for the opportunity to significantly increase the ecological value of the wetland through appropriate native buffer planting.

Assessment of Ecological Effects

Direct effects of the proposed development will include vegetation removal and stream works.

Botanical values within the site were considered negligible, and the vegetation does not provide any significant value as habitat to indigenous fauna. The loss of vegetation within the site is expected to have a very low-level effect on ecological values.

The proposed stream works consist of extending and upgrading the southernmost culvert as well as removing the eastern most culvert. Overall, there will be less culvert length and the culvert will be designed to provide appropriate fish passage. Any potential adverse effects, such as mortality of native fish during works, can be appropriately mitigated for. On the assumption that appropriate mitigation is provided for, the proposed stream works are expected to have a very low-level effect on ecological

values. Furthermore, the proposed design currently provides for the opportunity to significantly increase the ecological value of the streams through appropriate native riparian planting.

Natural wetlands are located on site and within 100 m of the proposed development. Works within natural wetlands have been avoided. Minor works, including earthworks and vegetation removal, are proposed within 10 m of the natural wetlands. The proposed earthworks and development can be effectively designed and/or mitigated to ensure there is no partial drainage of any natural wetland or loss of ecological value. Furthermore, the proposed design currently provides for the opportunity to significantly increase the ecological value of the wetland through appropriate native buffer planting.

The proposed design also provides for the opportunity to significantly increase the ecological value of the surrounding CMA through appropriate native buffer planting.

Indirect adverse effects, such as sedimentation and stormwater contaminants, are proposed to be adequately mitigated through appropriate controls and following best practice guidelines, to ensure adverse effects on ecological values are no more than minor.

The proposed development of the site is consistent with the outcomes expected of the NPS-FM and the AUP-OP. A more comprehensive ecological assessment will be provided to support the development application at the expert consenting panel stage, which will further assess the potential indirect adverse effects and detail any proposed ecological enhancement actions.

Summary

The applicant proposes to lodge a Fast-track Consenting application for a retirement village development at 99 Tōtara Road, Whenuapai. A high-level ecological assessment was undertaken to accompany the application.

The site consists almost entirely of pasture grasses. Outside of the pasture grasses are garden amenity plantings, a shelterbelt of exotic macrocarpa trees and predominantly exotic coastal edge vegetation.

Two permanent streams are present within the south- eastern section of the site. A third stream is located further to the north along the eastern boundary of the site. All three streams have been highly modified through farming practices and were considered to have a low current ecological value.

Two natural inland wetlands present within the south- eastern section of the site. These wetlands are associated with the stream margins and are almost entirely dominated by mercer grass. The current ecological value of the wetlands was assessed as low, due to the dominance of exotic species, the low species diversity, the lack of riparian vegetation and the low hydrologic variation.

Direct effects of the proposed development will include vegetation removal and stream works. The proposed stream works consists of extending and upgrading the southernmost culvert as well as removing the eastern most culvert. Minor works, including earthworks and vegetation removal, are proposed within 10 m of the natural wetlands.

The proposed earthworks and development can be effectively designed and/or mitigated to ensure there is no loss of ecological value or loss of freshwater habitat extent. Furthermore, the proposed design currently provides for the opportunity to significantly increase the ecological value of the stream, wetland and CMA through appropriate native buffer planting.

Appendix A

Scheme plan showing the identified ecological features


Site
Stream
Natural Wetland
Culvert
10m Wetland & Stream Setback
Kānuka Scrub
Pōhutukawa
SEA
Pōhutukawa
DETACHED VILLA (130m2)
DETACHED VILLA (150m2)
DOUBLE 2 BED VILLAS
3,409 m²
TRIPLE 2 BED VILLAS
VILLA TERRACE A

Appendix B

Ecological features


Site
Stream
Natural Wetland
Culvert
10m Wetland & Stream Setback
Kānuka Scrub
Pōhutukawa
SEA
Pōhutukawa

Appendix C
Site Photographs

a)

b)

Figure 1. The site with predominately pastural land

a)

b)

Figure 2. a) Exotic and pest plant dominated coastal edge and b) kānuka scrub.

a)

b)

Figure 3. a) the lower reach of the permanent stream eastern arm and b) the upper reach of the permanent stream eastern arm with wetland margins.

a)

b)

Figure 4. The lower reach of the permanent stream western arm with wetland margins and b) the upper reach of the permanent stream eastern arm between the two culverts.

a)

b)

Figure 5. The lower reach of the intermittent stream and b) the upper reach of the intermittent stream.

Appendix D

1940 Aerial

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