Memorandum

Bioresearches
A Babbage Company

To:	**Neil Construction Limited**	**Date:**	20 December 2022
Subject:	**Tōtara Landing – Ecology RFI Response**	**Ref:**	65887

Bioresearches were engaged by Neil Construction Limited ("the applicant") to provide a high-level ecological assessment for an application under the Covid-19 Recovery (Fast-track Consenting) Act 2020[1]. The proposal is for a residential development within the adjoining sites at 101 Tōtara Road, 105-107 Tōtara Road, and 9 McKean Road, Whenuapai (collectively referred to as "the site", or Tōtara Landing). Subsequently, the Ministry for the Environment (MfE) have issued a Section 92 request. The ecological matters are as follows:

"Provide a copy of the full ecological report (if available), including:

i) Supporting worksheets and assessment for the delineation of the natural wetland on the project site; and

ii) Calculations and additional details of the proposed offset of the 45 metres of stream reclamation."

Bioresearches have provided a response to MfE's request in this memorandum. It should be noted that in addition to the Fast-Track Ecology Assessment (dated 4 October 2022)[1], no further ecological reporting has been undertaken to date.

Natural wetland delineation methodology

During the initial desktop review of topography, hydrology and aerial imagery, a putative wetland was identified in the east of the site. The putative wetland was visually inspected during the site visit within the growing season[2], and was confirmed to meet the definition of a 'natural inland wetland' as per the National Policy Statement for Freshwater Management 2020 (NPS-FM) definitions.

As per the Ecology Assessment[1], the wetland was delineated using the MfE Wetland Delineation Protocols[3]. Upon visual inspection, the vegetation was clearly dominated by plant species with the wetland indicator status rankings 'obligate' (OBL) and 'facultative wetland' (FACW)[4]. The dominant species were swamp willowherb (*Epilobium pallidiflorum* – OBL), swamp millet (*Isachne globosa* – OBL), mercer grass (*Paspalum distichum* – FACW), soft rush (*Juncus effusus* – FACW), slender knotweed (*Persicaria decipiens* - OBL), and sharp spike sedge (*Eleocharis acuta* – OBL). Therefore, the rapid test for wetland presence was met and no further vegetation assessments or plots were required to delineate the wetland.

Although a hydrology assessment was not required to delineate the wetland further under the MfE protocols, the area was considered to meet more than one primary hydrology indicator as per the MfE

[1] Bioresearches. (2022). *Tōtara Road & McKean Road Fast Track – Ecology Assessment*. Prepared for Neil Construction Limited. Dated 4 October 2022.

[2] Ministry for the Environment. (2021). *Wetland delineation hydrology tool for Aotearoa New Zealand*. Wellington: Ministry for the Environment.

[3] Ministry for the Environment. (2022). *Wetland delineation protocols*. Wellington: Ministry for the Environment.

[4] Clarkson, B.R., Fitzgerald, N.B., Champion, P.D., Forester, L., Rance, B.D. (2021). *New Zealand wetland plant list 2021*. Manaaki Whenua – Landcare Research Contract Report LC3975 for Hawke's Bay Regional Council.

Hydrology Tool[2], including surface water and soil saturation. Permanent hydrology is evident based on the size of the overall catchment, as well as the clear longevity of the wetland based on its presence in 1940's aerial imagery.

The edges of the wetland were defined by a distinctive change in the dominant vegetation type (i.e. from OBL/FACW dominant to facultative upland/upland dominant pasture species), as well as the topography of the area which show the wetland within a depression in the land.

Proposed stream reclamation

From an ecological context, Bioresearches is of the understanding that the initial stage of the fast-track process is to provide a high-level assessment of the site's constraints and whether the proposal can be supported from an ecological perspective. Further details and assessment, including required Stream Ecological Valuation (SEV) and offset calculations, are to be provided at the next stage.

The Auckland Unitary Plan (Operative in Part 2016) and the NPS-FM provide for consenting pathways for stream reclamation. During the consenting process, the mitigation hierarchy is able to be followed as required under the Resource Management Act 1991 (RMA), which will include avoidance, minimisation, rehabilitation and otherwise, biodiversity offsetting or compensation.

Bioresearches is of the opinion that the effects of the proposed development are able to be appropriately avoided, remedied, mitigated, offset where required to avoid a no net loss or compensated.

Additional comments

It should be noted that based on the updated NPS-FM which was published on 9 December 2022, coastal wetlands are to be excluded from the definition of a 'natural inland wetland' from the 5th January 2023. Therefore, the identified coastal wetlands to the west of the site will not be subject to NES-F regulations, however may still be subject to relevant coastal protection rules under the AUP.

Regards,

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