

To: Karaka North Development
c/- Cappella

Date: 19 April 2021

Attention: Chris Lin

Ref: 63179

Subject: Karaka North – NPS-FM and NES-F relating to wetland triggers

The following memorandum presents a summary of the information in the Karaka North Village Ecological Assessment (Bioresearches, 2020), with additional field data collected at the time of the site visit and information supplied by Rob Wallace, as it would relate to the natural wetland triggers in the National Policy Statement for Freshwater Management 2020 (NPS-FM) and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F).

Part of the Karaka Village ecological assessment was to classify the aquatic habitats on the site. Although no wetlands were located on the site, the classification included identification of some marginal habitats i.e. not a wetland and not a stream on the site. These marginal or indeterminate habitats have been reassessed under the definitions in the NPS-FM to determine whether any of these habitats would trigger the regulations relating to natural wetlands within the associated NES-F.

The definition of a natural wetland in the NPS-FM refers directly back to the definition in the RMA i.e. *wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions*. The NPS-FM then has the following exclusions:

natural wetland means a wetland (as defined in the Act) that is not:

- (a) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or*
- (b) a geothermal wetland; or*
- (c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain derived water pooling.*

The NPS-FM then defines *improved pasture means an area of land where exotic pasture species have been deliberately sown or maintained for the purpose of pasture production, and species composition and growth has been modified and is being managed for livestock grazing*.

The information from the ecological report is summarised as Figure 1¹ and the areas of indeterminate habitats that have been reassessed according to the above definitions as Table 1.

In summary, there are no natural wetlands on the site.

¹ Figure 4 from Bioresearches (2020). Karaka North Village – Ecological Assessment June 2020. Report prepared for Karaka North Village Ltd. 31pp.



Figure 1. Ground-truthed Classification of Auckland Unitary Plan Overland Flow Paths Overlay.
Aquatic habitats (blue), overland flow paths – not a stream (white), habitats with some aquatic features but not a stream and not a wetland at time of site assessment.

Table 1. Habitats reassessed according the natural wetland criteria in the NPS-FM and NES-F.

Site	Description	
A – Central gully upper section	Boggy patch at the top of main stem central reach below the Oak lined farm access, near fenced grassed area around the bore.	Dominated by grass and terrestrial species – refer Photos 1 and 2. Not a natural wetland.
B – Central gully in upper flow path, above the bush area.	Two small boggy patches in the flow path, with 10% or less cover of water pepper.	Less than 10% wetland plants, within pasture. Not a natural wetland.
C – Tributary 16	Tributary 16 near the boundary fence which formed a boggy area, but with some vegetation indicative of a wetland	Some rushes in paddock with more than 50% pasture grass – refer Photo 3. Not a natural wetland.
D – Lower third of Tributary 18	Lower third of Tributary 18, with two small boggy areas with a low presence of wetland vegetation. The upper one was temporary induced by vehicle ruts in the access track to the south-western paddock, and the second on a hillock approximately 115m up the catchment from the estuary.	Both patches meet the criteria as improved pasture, located in high points with temporary rain derived pooling and more than 80% pasture grass. Not natural wetlands.



Photos 1 and 2. Site A - Fenced area in Upper Central Gully, pasture grass.



Photo 3. Site C - Tributary 16, improved pasture with greater than 60% pasture grass.

Wetland Delineation protocols were published by the Ministry for the Environment to support the NPS-FM wetland policy. These protocols provide an assessment method for wetland identification by experienced ecologists in cases that are clearly wetlands, and on-site delineation of areas that are less clear-cut. The primary tool used is the Clarkson (2014) Vegetation Tool that applies the Dominance Test and the Prevalence Index. Our team have been carrying out wetland surveys using these tests for over five years and are very familiar with the methodologies. Step 1 of the procedure is to determine the project area, is it a putative wetland? If the area is not a putative wetland the procedure does not apply.

None of the areas on this site were assessed as putative wetlands at any stage of any of the ecological assessments. All of the sites were located in an actively farmed pastoral site where pasture grass was the dominant vegetation type.

Yours sincerely
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