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FROM: Mark Delaney, Senior Ecologist

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WELLSFORD NORTH FAST-TRACK –ECOLOGY RFI RESPONSE

Wellsford Welding Club Limited (“the applicant”) has lodged an application for a referred project (Wellsford North Project) under the Covid-19 Recovery (Fast-track Consenting) Act 2020 (FTCA). This application relates to a residential development within the north-western portion of Part Allotment SE 118 Parish of Oruawharo (Area 1) and within the western portion of Part Lot 4 DP 9919 (Area 2, Appendix I), Wellsford (the Site). Following a review of the application, the Ministry for the Environment (MfE) requires additional information under section 22 of the FTCA.

This memorandum is in response to the further information requests pertaining to ecology outlined in MfE’s s22 letter¹. MfE’s requests that are relevant to ecology are shown in green below and numbers are consistent with the request number within the s22 letter.

2. Comments received indicate that there is insufficient evidence to discount the ephemeral flow paths A, B and C within Area 2 as natural wetlands. Please provide additional supporting evidence, including full vegetation plot results, dominance test and prevalence index results, and any supporting data sheets, to clearly demonstrate that the identification of natural wetlands on the site has been undertaken in accordance with the Wetland delineation protocols (Ministry for the Environment, 2020) and where applicable the Wetland delineation hydrology tool for Aotearoa New Zealand (Ministry for the Environment, 2021).

Prior to the site visit in December 2021, the site was assessed via a desktop review and site visits. The desktop assessment noted factors such as changes in vegetation and surface water on current and historical aerial images, and a review of data such as the Current Biodiversity layers, predicted watercourses and contours on Auckland Council’s Geomaps.

Representative vegetation plots were undertaken within Ephemeral flow paths A, B and C of Area 2 on 13 December 2021, by a qualified freshwater ecologist and in accordance with the MfE wetland delineation protocols² and the wetland vegetation tool³.

¹ S22 Letter prepared by Stephanie Frame, Manager, COVID-19 Fast-track Consenting, dated 25 May 2022.

² Ministry for the Environment. 2020. Wetland delineation protocols. Wellington: Ministry for the Environment.

³ Clarkson BR 2014. A vegetation tool for wetland delineation in New Zealand. Landcare Research Contract Report LC1793.

Photos of the vegetation plot areas are provided in Photos 1-6 and the results of the vegetation plots are presented in Tables 1-3.



Photo 1. Location of the Ephemeral flow path A vegetation plot.



Photo 2. Close up of the Ephemeral flow path A vegetation plot

Table 1. Vegetation plot data for Ephemeral flow path A.

Scientific Name	Common Name	Biostatus Origin	Indicator Status	% Cover	Dominant
<i>Cenchrus clandestinus</i>	Kikuyu	Exotic	FACU	15	Yes
<i>Juncus effusus</i>	Soft Rush	Exotic	FACW	5	No
<i>Lolium perenne</i>	Perennial ryegrass	Exotic	FACU	30	Yes
<i>Lotus pedunculatus</i>	Lotus	Exotic	FAC	2	No
<i>Paspalum dilatatum</i>	Paspalum	Exotic	FACU	10	No
<i>Paspalum distichum</i>	Mercer grass	Exotic	FACW	10	No
<i>Ranunculus repens</i>	Creeping buttercup	Exotic	FAC	15	Yes
<i>Trifolium repens</i>	White clover	Exotic	FACU	2	No
		Total	Cover	89	
Percent of dominant species that are OBL, FACW or FAC					33%
Prevalence Index					3.47



Photo 3. Location of the Ephemeral flow path B vegetation plot.



Photo 4. Close up of the Ephemeral flow path B vegetation plot

Table 2. Vegetation plot data for Ephemeral flow path B.

Scientific Name	Common Name	Biostatus Origin	Indicator Status	% Cover	Dominant
<i>Cenchrus clandestinus</i>	Kikuyu	Exotic	FACU	50	Yes
<i>Juncus effusus</i>	Soft Rush	Exotic	FACW	3	No
<i>Lolium perenne</i>	Perennial ryegrass	Exotic	FACU	5	No
<i>Paspalum distichum</i>	Mercer grass	Exotic	FACW	25	Yes
<i>Ranunculus repens</i>	Creeping buttercup	Exotic	FAC	10	No
<i>Trifolium repens</i>	White clover	Exotic	FACU	1	No
		Total	Cover	94	
Percent of dominant species that are OBL, FACW or FAC					50%
Prevalence Index					3.30



Photo 5. Location of the Ephemeral flow path C vegetation plot.



Photo 6. Close up of the Ephemeral flow path C vegetation plot

Table 3. Vegetation plot data for Ephemeral flow path C.

Scientific Name	Common Name	Biostatus Origin	Indicator Status	% Cover	Dominant
<i>Cenchrus clandestinus</i>	Kikuyu	Exotic	FACU	35	Yes
<i>Juncus effusus</i>	Soft Rush	Exotic	FACW	15	No
<i>Lolium perenne</i>	Perennial ryegrass	Exotic	FACU	10	No
<i>Paspalum distichum</i>	Mercer grass	Exotic	FACW	20	Yes
<i>Ranunculus repens</i>	Creeping buttercup	Exotic	FAC	15	No
		Total	Cover	95	
Percent of dominant species that are OBL, FACW or FAC					50%
Prevalence Index					3.11

All three areas failed both the Dominance Test ($\leq 50\%$) and the Prevalence Index (> 3.0), indicating that the plant community within the ephemeral overland flow paths of Area 2 are not hydrophytic, and as such these areas were classified as ‘non-wetlands’ as per the National Policy Statement for Freshwater Management 2020 (NPS-FM).

The MfE guidance on defining natural wetlands⁴, provides a flow chart which clearly illustrates that the use of the wetland vegetation tool alone can be used to determine whether an area should be considered a wetland under the RMA. If a wetland is not considered a wetland under the RMA then it cannot be considered a natural wetland under the NPS-FM. As such, the lack of wetland vegetation alone can be used to conclude that the ephemeral overland flow paths in Area 2 are not natural wetlands, unless there is “uncertainty”.

We do not consider there to be any uncertainty in this instance as the Site and much of the surrounding landscape has been devoid of native vegetation and managed as agricultural land for at least the last 60 years. This is consistent from what can be observed through historical aerials and from what was observed during our site visits. As such, the current conditions were considered “normal circumstances”. Additionally, all plots were dominated by FACU species and there were no “strong elements of facultative [FAC] species” which Clarkson (2014) cautions against⁵ regarding uncertainty.

Despite the lack of uncertainty and although not required, further wetland assessments were undertaken to confirm the findings. Hydric soil assessments were undertaken by an experienced ecologist in December 2021 using the MfE prescribed methodologies⁶. Hydrological assessments were

⁴ Ministry for the Environment. 2021. Defining ‘natural wetlands’ and ‘natural inland wetlands’. Wellington: Ministry for the Environment.

⁵ It should also be noted that Clarkson (2014) provides “pakihi” and “gumland” as examples of ecosystems with strong elements of FAC species, which the Eastern Gully is neither of.

⁶ Fraser S, Singleton P, Clarkson B 2018. Hydric soils – field identification guide. Envirolink Tools Contract C09X1702. Manaaki Whenua – Landcare Research Contract Report LC3233 for Tasman District Council.

not undertaken as at the time of the site assessment there was heavy rainfall and the areas in question are located within ephemeral overland flow paths which often have temporary surface water or waterlogged soils following heavy or sustained rainfall. AS the wetland hydrology tool⁷ states, not all areas with ponding are wetlands but may have surface water after heavy rainfall events. Additionally, the wetland hydrology tool states “hydrology indicators are one-off observations that identify the presence or absence of a wetland in areas where hydrophytic vegetation and hydric soils are present or uncertain”. As hydrophytic vegetation and hydric soils were assessed as not present and there was no uncertainty, the hydrology assessments were deemed unnecessary.

In the middle of each vegetation plot (i.e. the thalweg or close to the thalweg of each ephemeral overland flow path) a soil pit was dug to assess the soils. All soil samples collected were dug to a depth of 400 mm or greater. Photos 7-12 show the location and soil samples for each area. Table 4 presents the soil sample results.



Photo 7. Location of the Ephemeral flow path A soil sample



Photo 8. Ephemeral flow path A soil sample.



Photo 9. Location of the Ephemeral flow path B soil sample



Photo 10. Ephemeral flow path B soil sample.

⁷ Ministry for the Environment. 2021. Wetland delineation hydrology tool for Aotearoa New Zealand. Wellington: Ministry for the Environment.



Photo 11. Location of the Ephemeral flow path C soil sample

Photo 12. Ephemeral flow path C soil sample.

Table 4. Soil sample results.

Sample	Depth (mm)	Colour	Peaty Material	Mottles or Reddish Root Channels	Evidence of Hydric Soil
A	0-400	7.5YR 4/4	No	No	No
B	0-400	10YR 6/4	No	No	No
C	0-400	10YR 5/4	No	No	No

Soil colour was consistent throughout the profiles of all three soil samples. All three soil samples had no pale low chroma colours, no peaty soils and no mottles of any colour or reddish root channels. As such, no hydric soil indicators were considered present within the ephemeral overland flow paths of Area 2 and the soils were assessed as 'other'.

In conclusion the ephemeral overland flow paths of Area 2 are not considered natural wetlands under NPS-FM as the areas did not pass the wetland vegetation assessments (failed both the Dominance Test and the Prevalence Index), did not exhibit any evidence of hydric soils.

Appendix I: Map of Area 2

