27 July 2023

South Waikato District Council
C/- Feathers Planning
PO Box 1462
HAMILTON

Dear Karla Putt

S92 Reponse - Plan Change Application RM220139, J & T Quigley Limited, 1861 Ongaroto Road, Whakamaru

1 Introduction

This letter has been prepared in response to the request for Further Information (Schedule 1 Clause 23(1) RMA) for the above application, received from Karla Putt on behalf of South Waikato District Council. Text in red has been included by Louise Feathers of Feathers planning. The following ecological matters have been addressed as follows:

> *10. Landscape – Vegetation*
>
> *i) Further information relating to the composition/extent of proposed mitigation vegetation. The presence of diverse sweeps of different stature vegetation both characterises landscape naturalness and typifies rural character. It is considered there would be a very high reliance on successful establishment of mitigation vegetation to screen and buffer proposed development, given also visual amenity effects are assessed in the LVA at 'moderate' and 'moderate-high' levels. Toward the southern and north-western extents of the site it is noted areas of the Structure Plan have minimal-to-no mitigation planting.*
>
> *iv)Please provide comment on measurable parameters to be included within future legal mechanisms (private covenants and/or Consent Notices) and Management Plans specific to trees and shrub-tier vegetation. Comment should also be provided relevant to non-Covenant/Consent Notice vegetation proposed within future lots and contributing to mitigation*
>
> *vi) Details of the proposed vegetation type and spacing along proposed new internal roadways, including necessary growth form to provide mitigation. Furthermore please advise why no Covenant-protected vegetation is included at the new access road edge of Concept proposed Lots 27 & 28.*

2 Response to 10 i

2.1 Vegetation Composition

The composition of the vegetation is provided in the indicative plant list table (Table 1 - overleaf). Full details of the composition and extent of the ecological mitigation planting will be provided in an Ecological Restoration and Management Plan (ERMP) at the resource consenting stage (as per the recommendation in the Ecological Impact Assessment Report).

Table 1: Indicative plant list table from the landscape plan.

Indicative Plant List (Plants suited to this area)			
Botanical Name	**Common Name**	**Phase planted**	
		Initial establishment	Enhancement planting
Low planting			
Astelia chathamica	Chatham Island Astelia	x	
Cordyline australis	Ti kouka/cabbage tree	x	
Hebe stricta	Koromiko	x	
Myrsine australis	Red Mapou	x	
Phormium tenax	Harakeke/ NZ Flax	x	
Medium planting			
Alectryon excelsus	Titoki	x	
Aristotelia serrata	Wineberry/makomako	x	
Brachyglottis repanda	Rangiora	x	
Coprosma robusta	Glossy karamu	x	
Cordyline australis	Ti kouka/cabbage tree	x	
Cyathea medullaris	Mamaku, Black ponga, Black tree fern	x	
Fuchsia excorticata	Kotukutuku, Tree fuchsia	x	
Griselinia littoralis	Kapuka, NZ broadleaf	x	
Kunzea robusta	Kanuka	x	
Leptospermum scoparium	Manuka	x	
Myrsine australis	Red Mapou	x	
Pseudopanax arboreus	Whauwhaupaku, five finger	x	
Tall planting			
Dacrydium cupressinum	Rimu		x
Knightia excelsa	Rewarewa	x	x
Phyllocladus trichromanoides	Tanekaha, Celery Pine	x	x
Podocarpus totara	Totara	x	x
Prumnopitys taxifolia	Matai, Black pine		x

2.2 Additional Covenant Areas

Additional covenant areas have been proposed in the north and south of the site to provide a continuous site buffer and ecological corridor.

Mitigation planting toward the southern and north-western extent of the site is proposed of low to moderate-height vegetation, including flax and shrubs. Other species in addition to those listed in the indicative plant list in the landscape concept plan may include *Phormium cookianum, Coprosma lucida, Carex virgata and Cortaderia fulvida*. Planting densities for the low growing vegetation is c. 1.2m spacings with the total planting density c. 8,000 plants/ha. Central Volcanic Plateau Ecological Region and the Atiamuri Ecological District). What to plant in the central volcanic plateau ecological region | Waikato Regional Council

2.3 Potential Temporary Visual Effects

The potential temporary visual effects of development will be considered at the time of resource consent being sought and in particular will depend on:

- Proposed staging;
- Whether the existing pines remain in stages, or are removed in totality prior to an application.

The Applicant has advised that staging is likely to occur over a 30-year timeframe, as indicated on the Figure 1. In this case, pines are likely to be removed over potentially 3 stages, and new planting implemented on a staged basis. The staging will be designed so that pedestrian access and planting is in the earliest stage for that area i.e having the pedestrian access formed and planted in stage 2 rather than stage 4.

In order to ensure the temporary visual effects of the subdivision are considered, avoided, remedied or mitigated at the time of subdivision, I recommend that a new assessment criterion is added to 8.4.13 'Subdivisions' which says;

g) In respect of subdivision within the Paradise Point Structure Plan area, the extent to which temporary visual effects of future dwellings are managed via staging, vegetation planting or vegetation retention.

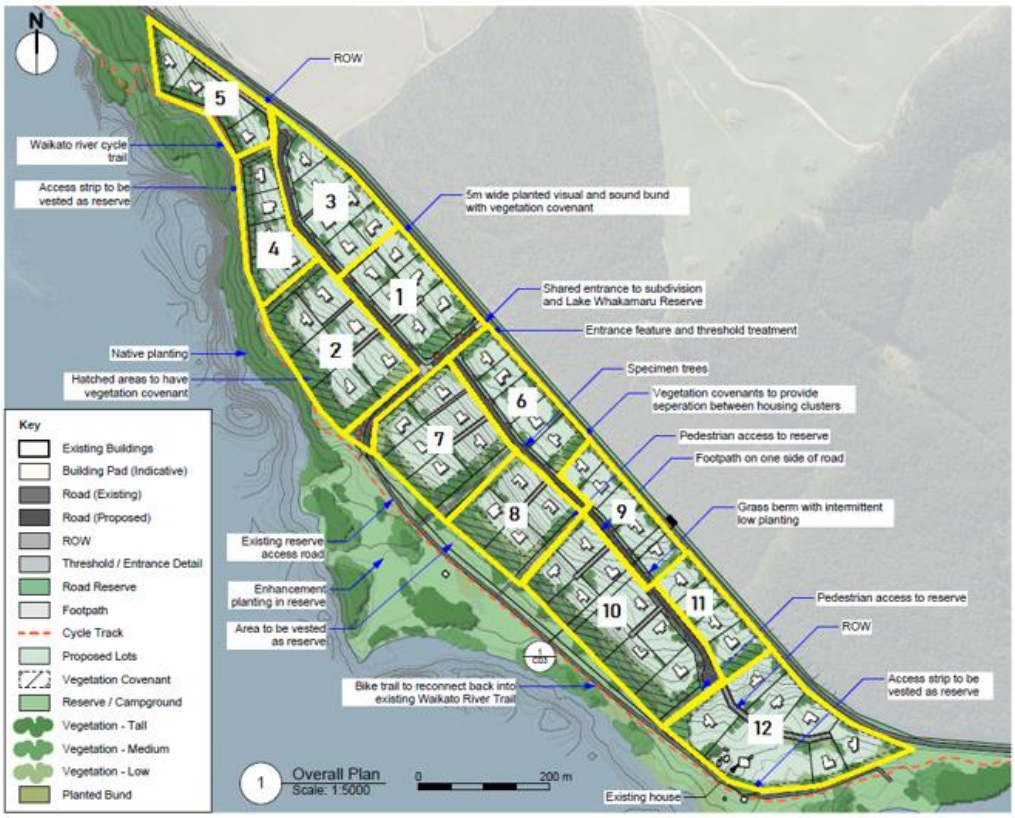

Figure 1: Proposed staging.

3 Response to 10 iv

The key objective is to create largely self-sustaining habitats where plant pests are largely controlled to zero density in order to achieve this the following measurable parameters will be included in the ERMP:

- Maintenance of plantings shall continue until plantings have reached sufficient maturity to be largely self-sustaining and have reached 80% canopy closure for all ecosystem types. The survival rate shall ensure a minimum 90% of the original density and species.
- Plant replacement maintenance shall be undertaken for a minimum of 5 years, including the ongoing replacement of plants that do not survive so that stems per hectare native plant density is no less 1 plant per 2 square metres for indigenous forest and riparian habitats.
- All key pest plants shall be controlled at a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration from all covenant areas.

In a similar approach to that above, in order to ensure that the potential ongoing visual effects of the subdivision are managed, I recommend that a new assessment criterion is added to 8.4.13 'Subdivisions' which says;

h) In respect of subdivision within the Paradise Point Structure Plan area, and potential visual effects of future development, the extent to which the proposed covenanted areas align with the Paradise Point Structure Plan.

i) In respect of subdivision within the Paradise Point Structure Plan area, the extent to which other measures (such as management and monitoring plans) are adopted to ensure that visual effects of future buildings are managed on an ongoing basis.

4 Response to 10 vii

This question cannot be specifically addressed until a subdivision layout and staging plan is finalised. Until that time, we offer the following:

It is expected that the vegetation will begin to mitigate the effects of the subdivision once 80 % canopy closure is reached. This is usually achieved within 3 to 5 years of planting being undertaken, particularly where colonising or early successional indigenous plant species are used. For this to be achieved ongoing management would be required which will be detailed in a ERMP and would include plant maintenance as detailed below.

4.1 Planting Maintenance

Planted areas should be regularly maintained to keep them weed-free and plants should be released. Weed control and releasing of plants should be carried out four times per year for three years following completion of planting. This involves removing weeds and competing vegetation from around each plant (releasing) by either spraying or mechanical means (brush cutter). Grasses can be quickly cleared by hand if preferred. Regular releasing is very important and promotes fast growth which minimises time to canopy closure. The plantings should be inspected three months after planting and any dead or dying plants removed and replaced with the same species. It is normal to expect a mortality rate of at least 10%. Additional plants should be planted in the spaces where other plants died.

Table 2: Approximate timeline of restoration planting, weed control and plant release.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pre-planting weed control	■	■										
Planting					■	■	■	■	■			
Plant release/weed control (**year 1**)		■			■			■			■	
Plant release/weed control (**years 2 – 5**)		■									■	

Yours sincerely

Brenda Bartels

Senior Ecologist - 2 Awa Ecology