

In reply please quote LU2300005
Or ask for Christine Niblock

21 March 2023

Holly Jenkins
WDC External Consultant
hjenkins@propertygroup.co.nz

Dear Holly

s92 Response: LU2300005 - Brentwood Ave Street Tree Removal

The following seeks to clarify the proposal and provide further information in response to the request for information pursuant s92 of the RMA 1991.

1. Further information and assessment of proposed replacement tree species

Refer to our in-house Arborists' comments on the replacement tree species (Attachment 1).

"My recommendation would be Ginkgo biloba 'Fastigiata' or Magnolia Aurora. Both trees are deciduous and slow growing, that are suited for small berms."

Further to this comment, an ecological report prepared by Wild Ecology, dated 14/03/2023, is provided with the following comments relevant to tree replacement species (Attachment 3)

"Should native species be the preference of the local residents, Wild Ecology would recommend limiting the native species selection within the road berms to titoki (Alectryon excelsus) or pohutukawa (Metrosideros excelsa) 'Maori princess.'" pg.7

A tree pallet is also provided as Attachment 2. This list is derived from our Global Street Tree Replacement consent LU2200116 granted December 2022. The proposal suggests the residents would like input into the replacement tree species.

As such, it is suggested a condition may be appropriate that allows the residents (facilitated through Council) to make the tree replacement selection from the tree pallet, with final approval required by the Parks Manager before planting.

2. Outline what will occur after the tree and rootball removal, particularly those extending into the surrounding environment

Refer to our in-house Arborists' comments as provided in Attachment 1;

"The roots that do not get removed from the stump grinding, just in the ground and over a long period of time are turned into organic material as pathogens and insects in the soil starts to feed on the roots. This process does not create voids or sink holes in the ground."

3. Actual and potential effects on ecological values

An ecological report prepared by Wild Ecology, dated 14/03/2023, is provided. The following are excerpts of relevance to the level of effects on ecological values;

“...the current ecological value of these trees is assessed as low and the trees are primarily valued for their the visual amenity of the area, rather than their ecological value.” pg 6

“The proposed removal of the trees will not result in any adverse ecological effect, albeit best practice measures are proposed to minimise the potential effects on avifauna which likely periodically feed and rest within the trees.” pg 7

The ecological effects are considered less than minor overall.

I hope the information provided is satisfactory to allow processing of the consent to continue, if you require any further information, please do not hesitate to get in touch.

Yours sincerely,



Christine Niblock

Team Leader - Infrastructure Planning

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Attachments:

1: Arborist Comments (Email)

2: Street Tree Replacement Pallet

3: Ecologist Report

APPENDIX 1: Arborist Comments

From: [Paul Leyland](#)
To: [Christine Niblock](#)
Subject: Arborist Comments Brentwood Ave
Date: Tuesday, 21 March 2023 12:27:26 pm
Attachments: [LU2200116 - Appendix B - Suitable Replacement Tree Species.pdf](#)
[image001.png](#)

Hi Christine,

I have attached the palate of replacement trees that we are using for our street tree and park and reserve tree replacement. My recommendation would be Ginkgo biloba 'Fastigiata' or Magnolia Aurora. Both trees are deciduous and slow growing, that are suited for small berms. The Ginkgo will provide colour through its leaf change in autumn when it turns from green to yellow. The Magnolia has pink flowers in the spring. Both trees are not know for causing damage to footpaths as they do not have vigorous root structures.

The roots that do not get removed from the stump grinding, just in the ground and over a long period of time are turned into organic material as pathogens and insects in the soil starts to feed on the roots. This process does not create voids or sink holes in the ground.

Let me know if you need anything else.

Many Thanks

Paul Leyland

Advance Cert and Level 4 in Arboriculture

Technical Officer | Parks & Recreation Department

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APPENDIX 2: Street Tree Replacement Pallet

WDC - Berm Tree Species List	Common Name	Height	Narrow Berm	Deciduous	Native	Description
Acer Red Palmatum 'Emperor'		6-10m		*		Broadly columnar, deciduous. Brilliant red colour.
Acer Palmatum 'Shindishojo'		3 - 5m	*	*		Red spring foliage, deciduous.
Acer R Bowhall						
Callistemon citrinus	Bottlebrush	5m				Bright Red Flowers Late Spring
Fraxinus grifithii	Evergreen Ash	5m				Panicles of white flowers in summer
Ginkgo biloba 'Fastigiata'	Upright Ginkgo	10m+	*	*		Upright form, deciduous. Yellow foliage in spring.
Gordonia " Moonlight Magic"	Gordonia	6m	*			Large White / Yellow Centred Flowers Late spring/ early summer
Hymenosporum flavum	Australian Frangipani	10m x 4m	*			Narrow Tree , Yellow scented flowers
Jacaranda mimosaeifolia	Jacaranda	8m+				Beautiful Mauve flowers late spring / early summer
Lagerstroemia indica " Bergerac "	Crepe Myrtle	4-6m	*	*		Bark and flower display, deciduous.
Lagerstroemia indica " Kimono "	Crepe Myrtle					
Liriodendron tulipifera 'Fastigiata'	Tulip Tree Upright	15m+		*		Compact upright form. Large tree, deciduous.
Magnolia Aurora		4m	*			Locally Bred (Oz Blumhardt), Large Deep Pink Flowers in Spring
Magnolia Black Tulip		6m				Large Dark Ruby Red Flowers in Spring. Vigorous Grower.
Magnolia Stellata and varieties	Star Magnolia	3-7m		*		Late winter/early spring flowering, deciduous.
Michela doltsopa " Silver Cloud "		8m				Evergreen , Scented White Flowers late winter
Pyrus calleryana Aristocrat	Ornamental Pear	8m x 6m		*		White Flowers Spring / Red Autumn Foliage
Stenocarpus sinuatus	Queensland Firewheel Tree	7m x 4m	*			Spectacular Red Wheel Shaped Flowers Late Summer
Trystaniopsis laurina	Kanooka	7m+				Yellow Flowers Summer
Quercus cercis	Turkey Oak	15m+		*		Character areas, large tree, deciduous.
Quercus robur " Fastigiata "	English Oak Upright	10m+		*		Deciduous
Agathis australis	Kauri	10+			*	
Alectryon excelsus	Titoki	7m+			*	
Dacrycarpus dacridoidies	Kahikatea	10+			*	
Knigthea excelsa	Rewarewa	12m+	*		*	Upright form, gully and river link, evergreen.
Metrosideros excelsa 'var'	Pohutukawa	8+			*	
Metrosideros " Mistral "		6+			*	
Nestegis lanceolata	White Maire	7m+	*		*	Handsome tree with narrow leaves, evergreen.
Pennantia corymbosa	Kaikomako	6-10m	*		*	
Rhopalostylis chathamica pittii	Pitt Isl Nikau	6m+	*		*	
Sophora Chathamica	Kowhai	6-10m			*	Flowers , gully links , bird attractant, mostly evergreen.
Sophora microphylla	Kowhai	6-10m			*	Flowers , gully links , bird attractant, mostly evergreen.
Weinmannia racemosa	Kamaha	6-10m	*		*	



Ecology memo

Proposed street tree removal
and replacement
at

Brentwood Avenue,
Kamo

March 14th 2023

DOCUMENT QUALITY ASSURANCE

Bibliographic reference for citation: Wild Ecology (2023). *Ecology summary memo prepared for proposed street tree removal and replacement at Brentwood Avenue, Kamo*. Report prepared by Wild Ecology for Whanagrei District Council.

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1.0 INTRODUCTION

1.1 Scope

Whangarei District Council (WDC) has submitted an application for a resource consent for the removal of 33 magnolia trees and 1 rewarewa tree classified as Public Trees and located throughout the road reserve on Brentwood Avenue, Kamo. Wild Ecology were engaged by WDC ('the Applicant') to assess the ecological value of the existing trees, the potential adverse effects associated with their removal and evaluate and provide advice as to whether the proposed replacement plant species palette could improve the overall ecological value of the locality in the ecological context of Kamo.

Wild Ecology was provided the following background information in relation to the proposal:

- Application for Resource Consent to Whangarei District Council for TREE-R Removal of any Public Tree
- Brentwood Avenue Location Plan
- Arboricultural Report – prepared by Arborlab dated October 2022
- S92 Request for LU230005 dated 20 February 2023

Wild Ecology reviewed and critically assessed the information provided in the reporting prepared for the resource consent application and other relevant documentation with the following sections outlining the actual and potential effects associated with the street tree removal and proposed replacement.

2.0 ECOLOGICAL CONTEXT

2.1 Site context

The site is located at Brentwood Avenue, Kamo servicing multiple residential properties. The ecological context of Brentwood Avenue and immediate surrounds is largely of built structure with minimal indigenous vegetation present, apart from a small stand of indigenous trees primarily consisting of mature totara (*Podocarpus totara*) contained within a Local Purpose (Neighbourhood) Reserve (Lot 6 DP 107035) which is located at the southern end of Brentwood Avenue. Brentwood Avenue does not contain any relevant WDC or NRC ecological overlays itself, and is located approximately 500m south of Proposed Significant Natural Areas (SNAs) Hurupaki Cone (W081) and 500m north of Lower Whau Valley Forest (W120). The site does not have any structural or functional connectivity to these areas, and having reviewed aerial photography of the site and immediate surrounds in conjunction with NRC and WDC relevant ecological overlays, the site appears to be of distinctively low existing ecological value.



Figure 1: Showing the site in relation to proposed Significant Natural Areas (SNAs)

2.2 Ecological value of streetscape trees

Generally, the main purpose of a road corridor is to enable the movement of people, provision of access to private property, and the provision of utilities. The road corridor also has an important role in the amenity or streetscape value of the area. While some amenity or streetscape trees can sometimes be of high ecological value, in areas that have developed infrastructure around an existing feature (i.e a large historic pohutukawa), generally street tree ecological value is limited to carbon sequestration and provision of some optimal habitat for common and mobile avifauna moving within the wider urban/residential setting. Amenity and streetscape trees often require to be managed within the road corridor to ensure that safe & efficient management, maintenance and upgrading of infrastructure and utilities can be undertaken in a coordinated manner. Some streetscape tree species planted at the time of development of the original infrastructure during early 1980s and 1990s are often incompatible with the urban setting given their vigorous growth, extensive tree root zones and risk posed to infrastructure and general health and safety of the local residents, and thus these trees often require removal so that a more suitable species can be selected based on the understanding of tree growth habits.

2.3 Ecological value of existing vegetation

It is understood that the existing vegetation lining the margins of Brentwood Avenue generally consists of 33 bull bay magnolia (*Magnolia grandiflora*), one rewarewa (*Knightia excelsa*) and possibly a single frangipani (*Plumeria sp.*) tree (which is likely growing on a private property). Given that the current vegetation is primarily exotic (non-native) in origin, apart from the single rewarewa, the current ecological value of these trees is assessed as low and the trees are primarily valued for their the visual amenity of the area, rather than their ecological value. From

reviewing their description within the Arborlab report the trees are unlikely to support any 'Threatened' or 'At Risk' flora and fauna, noting that these are most likely periodically utilised by common and highly mobile urban and pastoral native and non-native bird species. Given that similar vegetation type and structure is plentiful within other nearby streets and private properties, the proposed removal of these trees is unlikely to have any adverse effect on the common fauna currently utilising the trees associated with Brentwood Avenue. The trees do not appear to have any potential to support bat fauna and there are no previous known records of long tail bat (*Chalinolobus tuberculatus*) along Brentwood Avenue. The trees do not provide suitable habitat for indigenous herpetofauna (lizards), albeit it is likely that exotic pest species such as rainbow skink (*Lampropholis delicata*) are present on site and surrounds.

3.0 POTENTIAL ECOLOGICAL EFFECTS AND BEST PRACTICE

Table 1 below describes the actual and potential ecological effects relating to the proposed tree removal at Brentwood Avenue, Kamo. As assessed above the existing exotic trees within Brentwood Avenue are considered to have a low ecological value, noting that these are primarily valued for their the visual amenity of the area. The proposed removal of the trees will not result in any adverse ecological effect, albeit best practice measures are proposed to minimise the potential effects on avifauna which likely periodically feed and rest within the trees.

It is understood that the cleared trees will be offset through replacement planting as outlined in 6.9 of the Arboricultural Report. The Arborist advises it may not be practical to plant more than a 1:1 ratio within Brentwood Avenue (ref section 7.5 Arboriculture Report) and to consider the location of some replacement trees outside of Brentwood Avenue.

WDC provided a species palette typically utilised for berm tree planting and Wild Ecology has reviewed this list which also includes a number of indigenous tree species. It is understood that the final offset planting species palette will be selected in consultation with the local residents. From an ecological perspective, while the use of native trees for offset planting could incrementally enhance the ecological value of the area, the root zones of indigenous trees are very temperamental and generally indigenous trees do not perform well or thrive in built-up environments near or below paved surfaces. Exotic trees are often much better suited to be used as residential street trees as their root zones are more easily containable. Should native species be the preference of the local residents, Wild Ecology would recommend limiting the native species selection within the road berms to titoki (*Alectryon excelsus*) or pohutukawa (*Metrosideros excelsa*) 'Maori princess.' These species have been shown to be compatible with the urban environment as they have a conical upright form and do not develop aerial roots making these species a great tree for streets or narrow berms.

Table 1: Magnitude and level of effect for the proposed tree removal before and after best practice is applied

Effect/activity	Habitat impacted	Ecological value	Magnitude of effect (no best practice adopted)	Comment	Proposed best practice measures	Level of effect (with best practice employed)
Tree removal	Street trees	Low	Low	<p>It is understood that approximately 33 bull bay magnolia and 1 rewarewa tree are to be removed. Vegetation is primarily exotic with low existing ecological value.</p> <p>Trees cleared will be replaced with trees species that are better suited as street trees as per WDC Berm Trees Species palette.</p>	<p>Tree removal clearance protocols should be prepared, including procedures for minimising the area and duration of soil exposure from tree removal, minimising the volume of vegetation to be mulched, and minimising potential leachate from the machinery used.</p> <p>Vegetation clearance to take place using low impact machinery suited for site specific conditions.</p> <p>Vegetation removal should take place outside of the peak bird breeding season (September to February, inclusive), where practicable.</p> <p>Implementation of pre-vegetation clearance assessment to ensure that development footprint is clear of species with lesser mobility (herpetofauna).</p> <p>Mitigation and offsetting through replacement planting is outlined in 6.9 of the Arboricultural Report. The Arborist advises it may not be practical to plant more than a 1:1</p>	

Effect/activity	Habitat impacted	Ecological value	Magnitude of effect (no best practice adopted)	Comment	Proposed best practice measures	Level of effect (with best practice employed)
					ratio within Brentwood Avenue (ref section 7.5 Arboriculture Report) and to consider the location of some replacement trees outside of Brentwood Avenue.	
Introduction of pathogens and pest plants and organisms	Street trees	Low	Moderate	Some risk associated with the off-set replacement planting becoming a source of pest weed invasion.	No tree listed in the invasive weed species in the National Pest Plant Accord (NPPA) is to be planted as part of offset-replacement planting.	Low
				Potential introduction of pathogens (i.e. PTA, kauri dieback) and pest organisms (Argentine ants) on site through planting.	All replacement plants to be planted are to be eco-sourced locally and inspected for disease, pest organism presence and pest weeds prior to planting.	
Disturbance of wildlife	Street trees	Low	Moderate	Acute effects associated with initial vegetation clearance – site likely only used by common and mobile avifauna. Plentiful similar habitat nearby.	All works on site to be carried outside the breeding season for susceptible animals (e.g., outside primary bird breeding season September–February)	Negligible
Avifauna	Street trees	Low	Moderate	Trees likely utilised by common and mobile exotic and indigenous avifauna	Given that similar vegetation type and structure is plentiful within other nearby streets and private properties, the proposed removal of these trees is unlikely to have any adverse effect on the common fauna currently utilising the trees associated with Brentwood Avenue.	Negligible

Effect/activity	Habitat impacted	Ecological value	Magnitude of effect (no best practice adopted)	Comment	Proposed best practice measures	Level of effect (with best practice employed)
Herpetofauna	Street trees	Low	Low	No previous records of herpetofauna on site or within 2km radius. No suitable habitat for indigenous herpetofauna on site.	All vegetation clearance works to be carried out by an appropriately qualified arborist. Conduct vegetation clearance activities during warmer months, when lizards are active (October – April).	Negligible
Bats	Street trees	Low	Low	No long-tailed bat presence recorded on site or immediate surrounds, no roosting potential observed within the street trees	No loss of bat roosting trees anticipated as proposed vegetation clearance is to be restricted to 33 magnolia trees and a single rewarewa, which are not considered to provide a suitable habitat for bat roosts.	Negligible
Overall assessment		High	High			Low

4.0 CONCLUSIONS AND RECOMMENDATIONS

Wild Ecology have reviewed the proposed resource consent application for tree removal at Brentwood Avenue, Kamo and considers that the current actual and potential ecological value of the trees to be removed is low. The trees are primarily of exotic origin and do not form any structural or functional corridor linkages within the wider indigenous ecological context of Kamo. It is unlikely that the street trees provide suitable habitat for any 'At Risk' flora or fauna, and therefore the proposed removal of the trees will not result in any adverse ecological effect, albeit best practice measures are proposed to be employed during tree clearance to ensure that disturbance to common avifauna is kept to a practicable minimum as outlined under Table 1 above.

The proposal will, in fact, allow or the replacement of the existing incompatible street trees with species that are better suited to the urban environment to ensure that safe and efficient use of the roading networks can be maintained, while also ensuring that neighbourhood amenity is enhanced.

It is understood that to off-set the lost benefits provided by the trees, a replacement tree ratio of 3:1 will be employed. The Arborlab report notes that it may not be practical to plant more than a 1:1 ratio within Brentwood Avenue, therefore, replacement trees outside of Brentwood Avenue, in the wider area, could be undertaken. The species palette provided by WDC is considered as appropriate alternative species to be utilised within the replacement planting, albeit it is recommended that should indigenous tree species be utilised within the berms of Brentwood Avenue species selection is limited to titoki (*Alectryon excelsus*) or pohutukawa (*Metrosideros excelsa*) 'Maori princess.' These species have been shown to be compatible with the urban environment as they have a conical upright form and do not develop aerial roots making these species a great tree for streets or narrow berms.

5.0 REFERENCES

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