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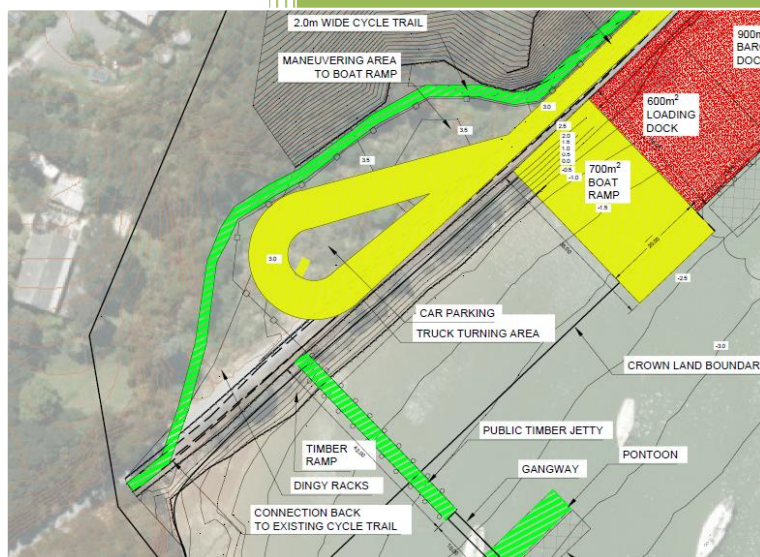
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Bay of Islands Planning

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Ecological Assessment of a Proposed Vehicle Turning Area at Opuia Marina.



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1. Introduction

This report assesses the ecological values of an area at Opua that it is proposed as a vehicle turning area and parking area associated with the Opua Marina (**Figure 1**). The assessment area and the proposed vehicle turning and parking facilities are shown in **Figure 2**.

This report describes the vegetation, flora and fauna on site and assesses their ecological values. Photographs are presented in **Appendix 1**.



Figure 1: The location of the study area at Opua.

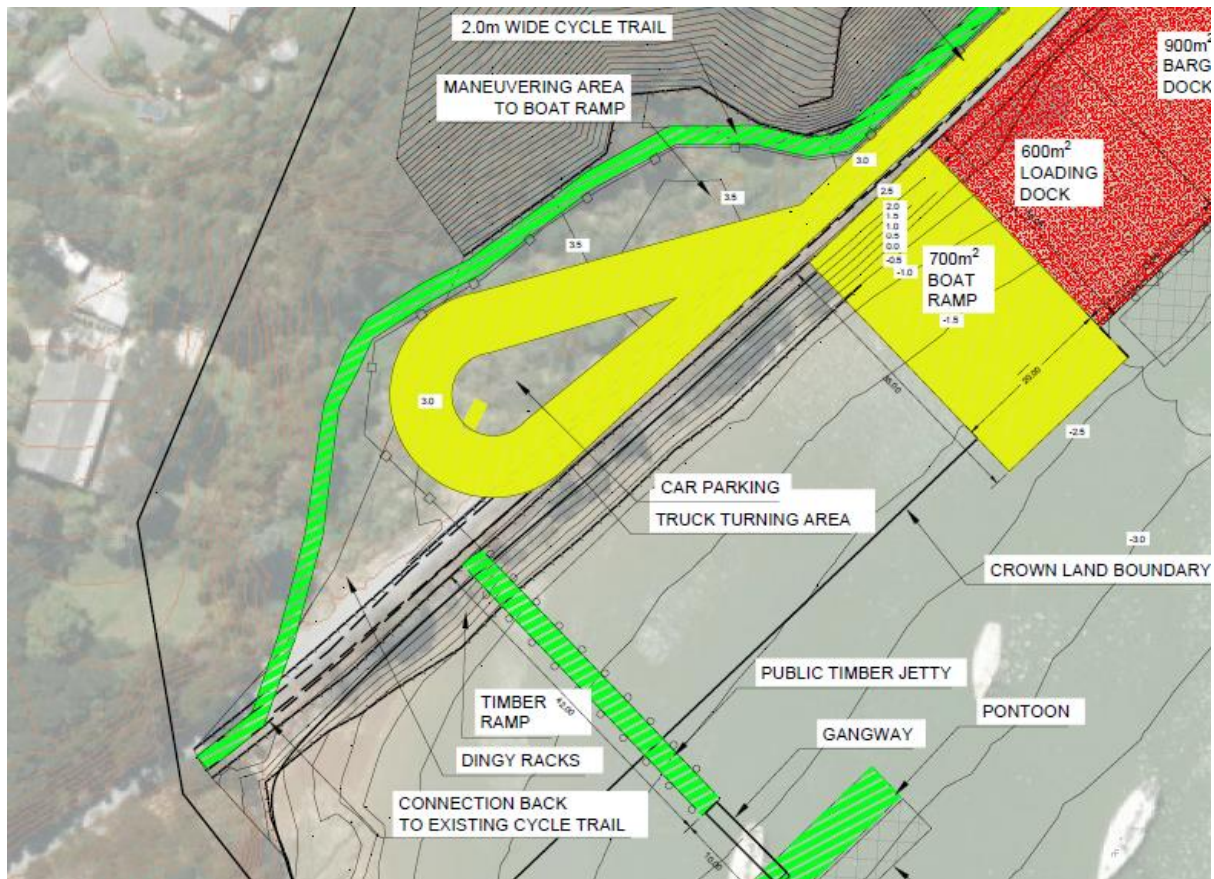


Figure 2: The area assessed in this report comprises the yellow-shaded loop (the proposed vehicle turning areas) and the tear-drop shaped area enclosed by the loop.

2. Methods

A site inspection was undertaken by one person on the morning of 23 April 2019 during fine weather. Descriptions of the vegetation and habitats were compiled and a list of plant species was recorded. All native species of birds that were heard or seen were also recorded.

3. Site Description

3.1 Surrounding Landuses

The assessment area is part of a larger block of land that includes a forested spur, light industry associated with the marina and vehicle access (**Figure 3**). To the east, the site is bounded by an estuary and channel at the mouth of the Kawakawa River. There is a narrow strip of vegetation next to the water and a cycle path called Pou Herenga Tai (Twin Coast Cycle Trail). The western side of the assessment area is bounded by residential properties.



Figure 3: Landuses surrounding the assessment area (shown with red arrow).

3.2 Vegetation and Habitats

Most of the assessment area is relatively low-lying and dominated by introduced species of plants, most of which are environmental weeds (refer to the photos in **Appendix 1**). The most abundant species are pampas (*Cortaderia selloana*) and cotoneaster (*Cotoneaster glaucophyllus*). Other weedy species include tobacco weed (*Solanum mauritianum*), black wattle (*Acacia mearnsii*), privet (*Ligustrum* sp.) and flowering cherry (*Prunus campanulata*).

Pohutukawa (*Metrosideros excelsa*) are scattered on the margins of the assessment area, including at the base of the steep slopes on its northern and western sides. These slopes are vegetated in kanuka (*Kunzea robusta*) forest. Other species in the forest include mapou (*Myrsine australis*), hangehange (*Geniostoma ligustrifolium*), ponga (silverfern; *Cyathea dealbata*) and karamu (*Coprosma robusta*).

The narrow strip between the water and the cycle track has pohutukawa, harakeke (flax, *Phormium tenax*), cotoneaster, kanuka and seedlings of totara (*Podocarpus totara*).

3.3 Flora

Twenty-one (21) indigenous species of vascular plants were recorded in the assessment area or on its margins (refer to **Appendix 2**). All are relatively common and are typical of secondary coastal forest in Whangaruru Ecological District.

Eleven (11) introduced plant species were recorded (refer to **Appendix 3**) and most are invasive weeds. These species dominate the low-lying area that forms the majority of the assessment area.

3.4. Fauna

Three species of native birds were recorded during the site inspection: piwakawaka (fantail; *Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*) and silvereye (tauhou, *Zosterops lateralis*). Other species that were not observed but which are probably present are riroriro (grey warbler; *Gerygone igata*) and ruru (morepork, *Ninox novaeseelandiae*). All of these species are relatively common and none are classified as 'threatened' or 'at risk'.

8. Ecological Significance

The Far North District Plan provides criteria for assessing the significance of indigenous vegetation and habitats. These criteria are:

- (a) whether the area contains critical, endangered, vulnerable or rare taxa, or taxa of indeterminate threatened status (in the context of this clause, taxa means species and subspecies);
- (b) whether the area contains indigenous or endemic taxa that are threatened or rare in Northland;
- (c) whether the area contains representative examples in an ecological district of a particular habitat type;
- (d) whether the area has a high diversity of taxa or habitat types for the ecological district;
- (e) whether the area forms an ecological buffer, linkage or corridor to other areas of significant vegetation or significant habitats of indigenous fauna;
- (f) whether the area contains types that are rare in the ecological district;
- (g) whether the area supports good populations of taxa which are endemic to the Northland or Northland-Auckland regions;
- (h) whether the area is important for indigenous or endemic migratory taxa;
- (i) whether the area supports viable populations of species, which are typical of that type of habitat within an ecological district and retain a high degree of naturalness.

The assessment area does not meet any of these criteria for ecological significance because it is dominated by introduced species of plants and provides poor quality habitat. The slopes adjacent to the north of the assessment area are vegetated in kanuka forest and might meet criterion (j) but an assessment of this area was beyond the scope of this report.

9. Conclusions

The vegetation on the assessment area, which is a proposed turning and parking area for vehicles, is dominated by introduced weeds. The most abundant species are pampas and cotoneaster. Other weedy species include tobacco weed, black wattle, privet and flowering cherry. Three species of native birds were recorded on the site: piwakawaka (fantail), tui and silvereye.

The assessment area does not meet the criteria for ecological significance set out in the Far North District Plan and is of low ecological value because it is dominated by introduced weeds. It provides very poor habitat for native species.

The northern and western margins of the assessment area are a hillslope vegetated in pohutukawa and kanuka forest. It has value as habitat for common species of native flora and fauna.

Appendix One: Photographs



Plate 1: Pampas (*Cortaderia selloana*) dominates much of the assessment area. Kanuka forest (at rear of frame) is present on adjacent slopes.



Plate 2: *Cotoneaster glaucophyllus* (the red-fruited bush in centre-frame) is also common on the site.



Plate 3: The body of the site (at right of frame) is separated from the water by the cycle track. Pohutukawa trees grow next to the water



Plate 4: The hillslopes on the northern edges of the site are vegetated in kanuka forest.

Appendix Two: Native vascular flora

Ferns and fern allies	
<i>Adiantum cunninghamii</i>	common maidenhair
<i>Cyathea dealbata</i>	ponga, silver tree fern
<i>Cyathea medullaris</i>	mamaku, black tree fern
<i>Doodia australis</i>	rasp fern, pukupuku
Gymnosperms	
<i>Phyllocladus trichomanoides</i>	tanekaha
<i>Podocarpus totara</i>	totara
Dicotyledons (including trees, shrubs, herbs and climbers)	
<i>Alseuosmia quercifolia</i>	toropapa
<i>Coprosma robusta</i>	karamu
<i>Coprosma rhamnoides</i>	
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange
<i>Kunzea robusta</i>	kanuka
<i>Leptospermum scoparium</i> agg.	manuka
<i>Leucopogon fasciculata</i>	mingimingi
<i>Melicytus ramiflorus</i>	mahoe
<i>Metrosideros excelsa</i>	pohutukawa
<i>Myrsine australis</i>	mapou
<i>Piper excelsum</i>	kawakawa
<i>Pseudopanax arboreus</i>	whauwhaupaku, five-finger
<i>Weinmannia silvicola</i>	towai
Monocotyledons (including rushes sedges and grasses)	
<i>Dianella nigra</i>	turutu
<i>Phormium tenax</i>	harakeke, flax

Appendix Three: Introduced vascular flora

Introduced vascular plants ("weeds")	
<i>Acacia mearnsii</i>	black wattle, wattle
<i>Casuarina</i> sp.	she-oak
<i>Cortaderia selloana</i>	pampas
<i>Cotoneaster glaucophyllus</i>	cotoneaster
<i>Hedychium</i> sp.	wild ginger
<i>Ligustrum vulgare</i>	privet
<i>Prunus</i> spp.	flowering cherry
<i>Solanum mauritianum</i>	tobacco weed, woolly nightshade
<i>Ulex europaeus</i>	gorse
<i>Verbena bonariensis</i>	purpletop