

pasture, but it is set within a landscape of exotic plantation forest (radiata pine and Tasmanian blackwood), with a coastal inlet (Tahupo Creek) nearby. Several farm tracks and patches of rough pasture and exotic scrub are interspersed between the remnants. Tasmanian blackwood, planted extensively on the northern and eastern sides of the remnants, was observed regenerating on open ground at the edges of the site, as was radiata pine.

(a) The predominant ecological unit is kanuka forest with frequent associates of kahikatea, ti kouka, emergent radiata pine and occasional mamangi, kauri, mapou, totara, *Coprosma macrocarpa*, mamaku, mahoe and akepiro.

(b) There are scattered remnants of manuka shrubland with frequent associates of ti kouka and young kanuka.

Fauna

Not surveyed.

Significance

The site is compromised by grazing and stock trampling, but this is not uniform throughout, as indicated by the uneven regeneration, first as manuka shrubland and later as kanuka forest. Because of the disturbed nature of the vegetation, neither of these ecological units are representative examples of their type in the Northland Conservancy part of the ED. Invasion of the natural communities by wilding plantation species (Tasmanian blackwood and radiata pine) is a problem.

MATAKOHE RIVER BRIDGE FOREST REMNANTS

Survey no.	Q08/101
Survey date	17 November 2005
Grid reference	Q08 184 641 (2 remnants)
Area	2.4 ha
Altitude	0-20 m asl

Ecological units

(a) Totara-kanuka forest on moderate hillslope (70%)

(b) Puriri-kowhai-karaka forest on moderate to steep hillslope (20%)

(c) Kauri forest on moderate hillslope (10%)

Landform/geology

Coastal flats of Pleistocene alluvium.

Vegetation

This site comprises two tiny remnants of forest next to the bridge over the Matakohē River on State Highway 12.

(a) On the true right bank totara-kanuka forest occurs, with occasional tarata and kowhai.

(b) On the true left bank there is a mixture of abundant puriri with common occurrence of karaka and kowhai. Totara and kanuka are frequent, in the canopy and ti kouka and large emergent radiata pine occur occasionally.

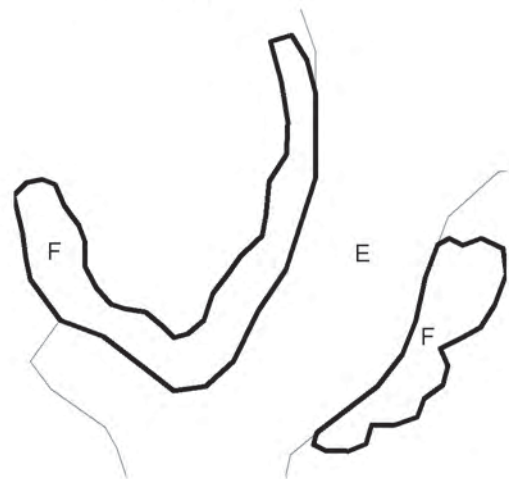
(c) A small, dense stand of kauri rickers occurs on a knoll on the true right bank. Tanekaha and kanuka are also present.



Q08/101 Matakohe River Bridge Forest Remnants

S = Shrubland
 F = Forest
 W = Wetland
 E = Estuarine

0 250 500 1,000 Metres



Fauna

Australasian harrier.

Significance

This is a very small site, open to edge effects. On the true right bank, grazing is a threat to the sustainability of the forest, and on the true left bank, which is steeper, dumping of refuse and weeds is a problem.

HARTLES QEII COVENANT AND SURROUNDS

Survey no. Q08/104
Survey date 17 November 2005
Grid reference Q08 216 632
Area 2.9 ha
Altitude 19-46 m asl

Ecological unit

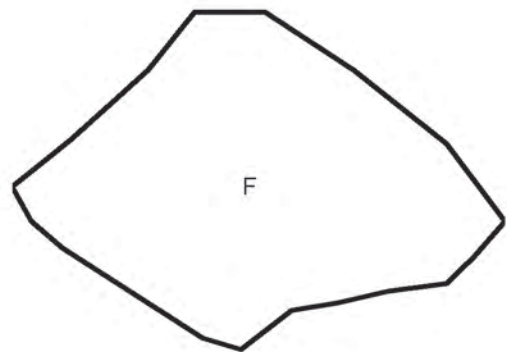
(a) Totara-kahikatea forest on moderate hillslope (100%)



Q08/104 Hartles QEII Covenant and Surrounds

S = Shrubland
F = Forest
W = Wetland
E = Estuarine

0 250 500 1,000 Metres



Landform/geology

Hillslope underlain by melange (undifferentiated Mangakahia & Motatau Complex lithologies).

Vegetation

This is a small, compact forest remnant with a canopy of totara and emergent kahikatea. Kauri rickers are frequent emergents and there are occasional kowhai, puriri and manuka in the canopy (especially around edges).

Fauna

Not surveyed.

Significance

The site is partially encompassed by a QEII Open Space Covenant (1.2 ha) and is at least partially fenced. The fenced areas are likely to have a healthier understorey than other similar remnants of its size and type. The small size of the site is a limiting factor to its long term viability; however it is still important at the landscape scale as a 'stepping stone' for mobile wildlife which may use several forest remnants as habitat.

EAST PAHI FOREST REMNANTS

Survey no.	Q08/106
Survey date	17 November 2005
Grid reference	Q08 210 612 (6 remnants)
Area	23.0 ha
Altitude	0-58 m asl

Ecological units

- (a) Totara-kowhai forest on steep coastal margin (60%)
- (b) Kanuka-totara forest on moderate hillslope (25%)
- (c) Totara-kahikatea forest on gentle coastal margin (15%)

Landform/geology

Coastal hillslopes underlain by Eocene glauconitic sandstone (Pahi Greensand, Te Kuiti Group); Eocene thickly bedded glauconitic sandstone (Omahuta Sst, Motatau Complex); Oligocene micritic limestone (Mahurangi Limestone, Motatau Complex); melange (undifferentiated Mangakahia & Motatau Complex lithologies).

Vegetation

This site comprises a string of forest remnants up to 500 m apart distributed along the east coast of the Pahi peninsula. These would once have been part of a continuous area of forest on the sheltered side of the peninsula. Pasture, groves of exotic trees (e.g. eucalyptus, Douglas fir, radiata pine, maritime pine and various other conifers) and residential developments are now present in the intervening landscape.

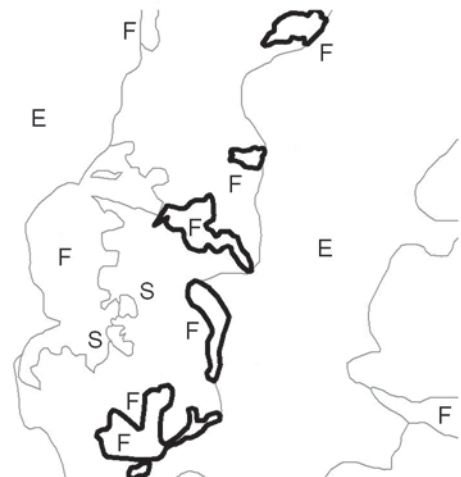
- (a) In the south of the remnant and particularly near the coast, totara and kowhai are the main canopy trees. There are frequent kanuka, kahikatea, karaka and puriri, and occasional ti kouka, rewarewa, kauri, ngaio, matai, kohekohe, rimu, radiata pine and other unidentified conifers. Elaeagnus forms



Q08/106 East Pahi Forest Remnants

S = Shrubland
 F = Forest
 W = Wetland
 E = Estuarine

0 250 500 1,000 Metres



impenetrable 10 m high hedges along the southern coastal portion, often excluding all other species. Hawthorn is also present.

(b) Further inland some areas are dominated by kanuka with associated totara and occasional taraire, puriri, macrocarpa and maritime pine.

(c) In the northern part, next to Aute Bay, a forest type of totara and kahikatea occurs which is similar to other sites further upstream (e.g. Lower Pahi River Scenic Reserve and Surrounds Q08/103), but more impoverished. The forest is sparse due to grazing. Occasional puriri, ti kouka and hawthorn are present.

Fauna

Grey warbler, kingfisher, pukeko.

Significance

This site is highly disturbed and appears to be grazed. Weed infestations have reduced the site's natural character. Despite this degradation, the site still has value as a protective vegetation buffer to the harbour, and acts as a habitat corridor in a landscape with recently increased development pressures. An area of 3.5 ha, corresponding to part of (a), totara-kowhai forest on steep coastal margin, is within a QEII Open Space Covenant.

UPPER PAHI RIVER SCENIC RESERVE, RABBIT AND GOAT ISLANDS AND SURROUNDS

Survey no.	Q08/109
Survey date	18 November 2005
Grid reference	Q08 241 638 (4 remnants)
Area	7.7 ha
Altitude	0-40 m asl

Ecological unit

(a) Totara-kanuka forest on steep coastal margin (100%)

Landform/geology

Coastal hillsides and islets of undifferentiated Eocene-Oligocene mudstone, sandstone and bioclastic limestone (Motatau Complex); [note: islands not visited but presumed to be Motatau Complex].

Vegetation

This site contains two small forested islands in the upper saline reaches of the Pahi River, surrounded by mangrove forest/shrubland, and two nearby forest remnants on the northern banks. The canopy is formed primarily of totara, followed by kanuka. Kowhai is frequent, with occasional tanekaha, ti kouka and emergent matai. Matai is present in the Upper Pahi Scenic Reserve, which is the westernmost forest remnant on the shore.

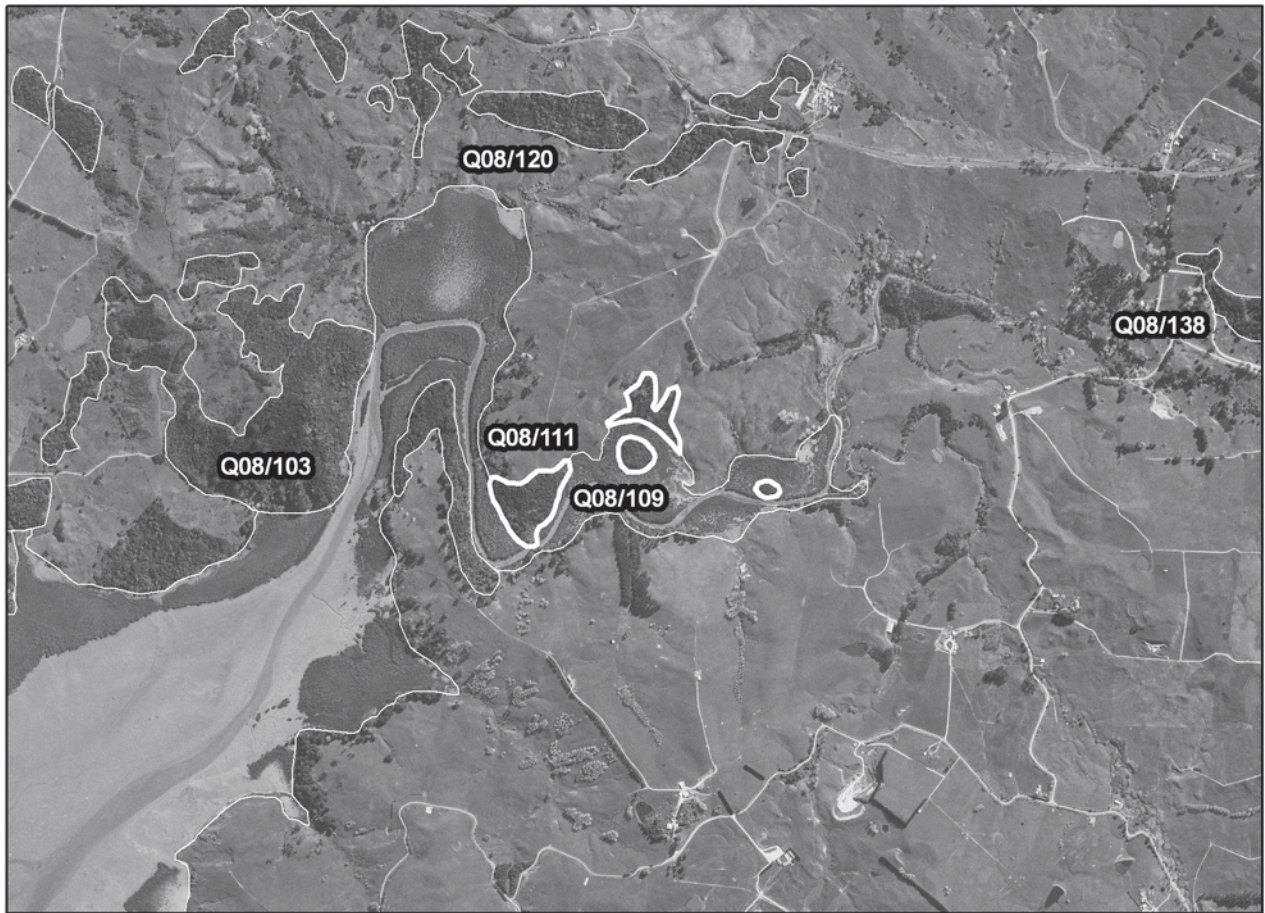
A 1996 survey found Goat Island to have a canopy of kanuka with emergent tanekaha, totara and kauri, while Rabbit Island had kanuka mixed with totara, kauri and rimu. Species lists for each of the islands are provided, showing there to be reasonable diversity, despite their small size (SSBI Q08/H064). No rare or threatened plants were recorded. The site was found to be impacted by possums and stock, i.e. the islands are not inaccessible to land animals.

Fauna

Not surveyed.

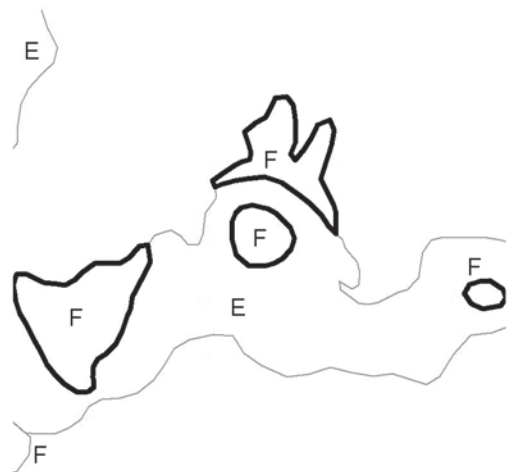
Significance

The ecological unit present in this site is better represented in other parts of the ED in Northland Conservancy, in sites that are less fragmented and impacted by mammals. However, it provides a valuable natural vegetation buffer for Pahi River, and may be important as a habitat 'stepping stone' for mobile wildlife that make use of many forest remnants. 3.5 ha of this site is within Scenic Reserve administered by DOC.



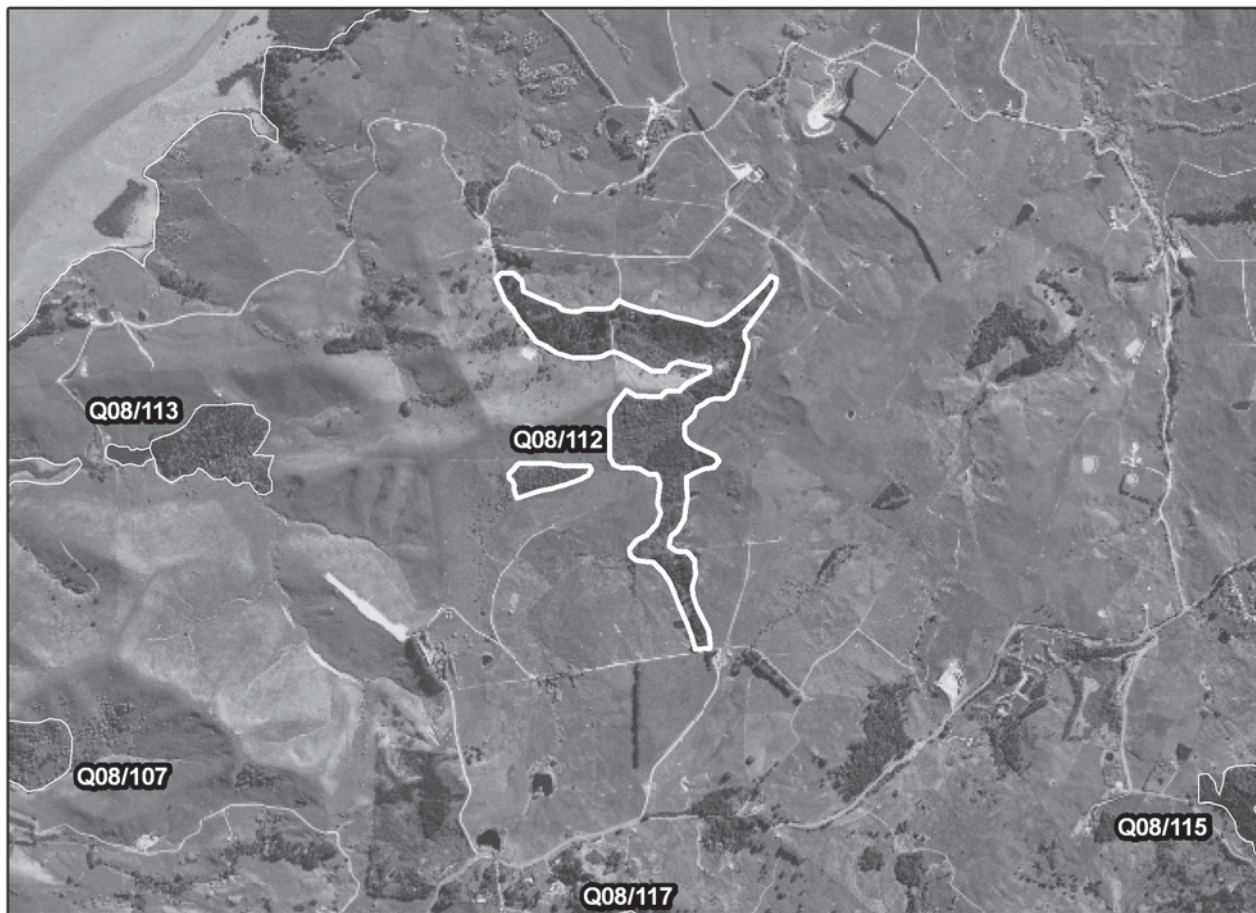
**Q08/109 Upper Pahi River Scenic Reserve,
Rabbit and Goat Islands and Surrounds**

S = Shrubland
 F = Forest
 W = Wetland
 E = Estuarine



MOONEY ROAD FOREST REMNANT

Survey no.	Q08/112
Survey date	Not surveyed
Grid reference	Q08 243 617 (2 remnants)
Area	29.3 ha
Altitude	40-120 m asl



Q08/112 Mooney Road Forest Remnant

S = Shrubland
 F = Forest
 W = Wetland
 E = Estuarine

0 250 500 1,000 Metres



Ecological unit

(a) Totara-kanuka forest in gully (100%)

Landform/geology

Hillslopes and gullies underlain by Eocene glauconitic sandstone (Pahi Greensand, Te Kuiti Group), Oligocene micritic limestone (Mahurangi Limestone, Motatau Complex), and melange (undifferentiated Mangakahia & Motatau Complex lithologies).

Vegetation

The site was not visible from public roads, therefore an estimate of the vegetation cover was made from inspection of recent aerial photography (flown in 2002). The vegetation cover appears to be totara-kanuka forest. The forest does not appear to be fenced on all sides. It covers two stream gullies, therefore it would be likely to contain wetland species, or perhaps entire wetland or gully vegetation types, dominated by species such as kahikatea, kowhai, karaka, puriri and ti kouka.

Fauna

Not surveyed.

Significance

There is insufficient information to assess the full significance of this site. However, this vegetation type is relatively common in Otamatea ED Northland. The forest provides valuable riparian protection in this largely pastoral landscape.

AWAKINO CREEK FOREST AND WETLAND

Survey no.	Q08/113
Survey date	Not surveyed
Grid reference	Q08 229 616
Area	8.9 ha (8.1 ha forest, 0.8 ha wetland)
Altitude	16-37 m asl

Ecological unit

- (a) Kanuka-totara-kowhai forest on gentle hillslope (91%)
- (b) Open water (constructed freshwater farm pond) (9%)

Landform/geology

Hillslopes underlain by Oligocene micritic limestone (Mahurangi Limestone, Motatau Complex).

Vegetation

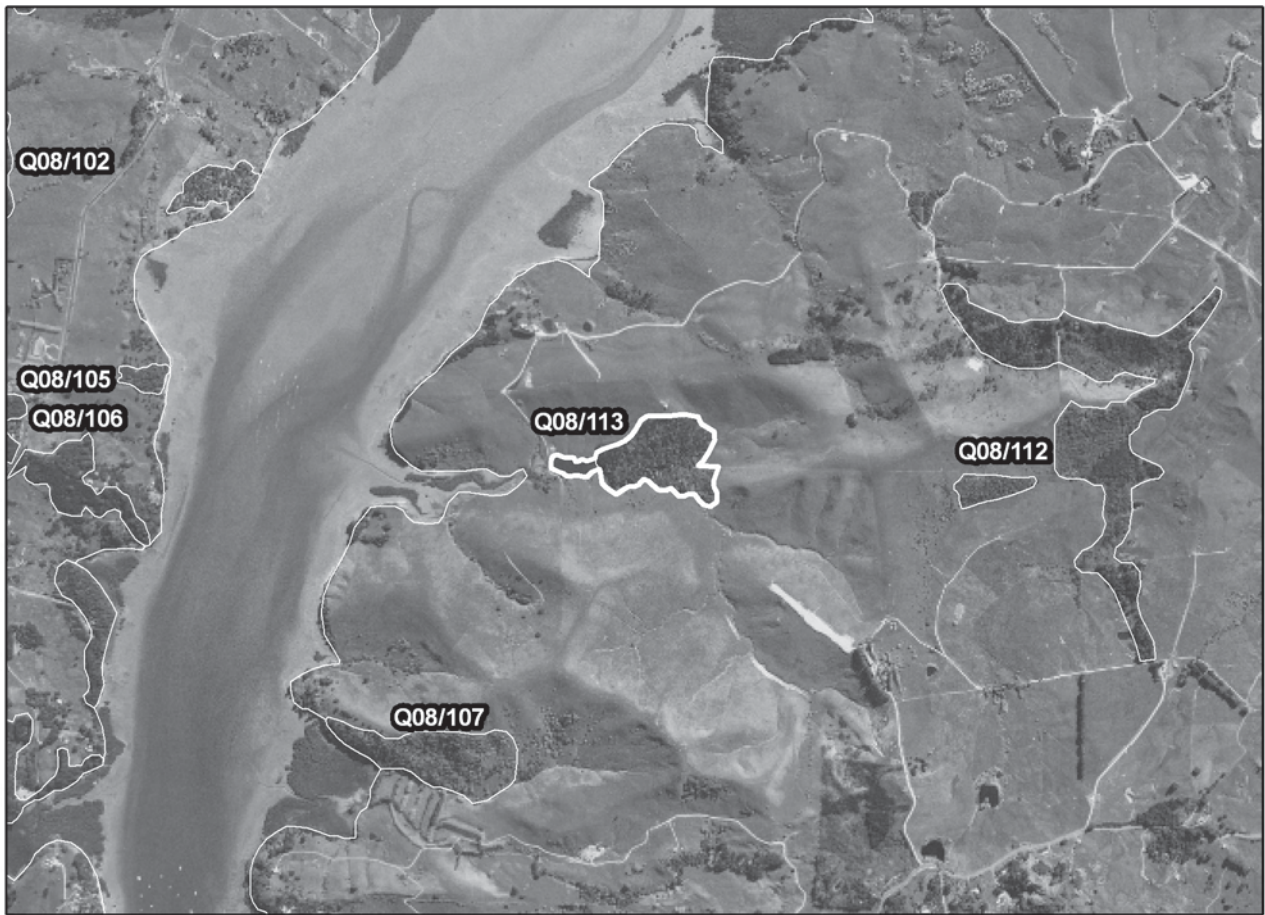
The site was not easily visible from public roads or from the harbour, therefore recent aerial photography (flown in 2002) was studied to estimate the vegetation type, which appears to be kanuka-totara-kowhai forest. The pond is obviously a constructed farm pond, created by damming the Awakino Creek, and does not appear to have much marginal wetland vegetation.

Fauna

Not surveyed.

Significance

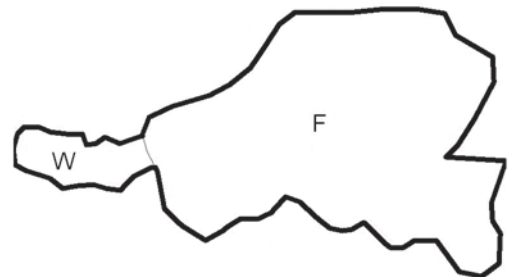
There is insufficient information to assess the full significance of this site. As a relatively large freshwater pond in close proximity to the harbour and to a forest remnant, it would be expected to have habitat value for waders and waterbirds. Constructed ponds currently provide the majority of habitat for indigenous waterbirds in Otamatea ED Northland.



Q08/113 Awakino Creek Forest and Wetland

S = Shrubland
 F = Forest
 W = Wetland
 E = Estuarine

0 250 500 1,000 Metres



FORD ROAD FOREST

Survey no.	Q08/114
Survey date	28 November 2005
Grid reference	Q08 273 609 (3 remnants)
Area	12.5 ha (9.8 ha forest, 2.8 ha shrubland)
Altitude	56–116 m asl

Ecological units

(a) Taraire-puriri forest on moderate to steep hillslope (65%)