

BAYER ROAD SHRUBLAND

Survey no. Q08/211
Survey date 14 November 2002 (Wildland Consultants 2004)
Grid reference Q08 392 526
Area 1.0 ha
Altitude 40 m asl

Ecological unit

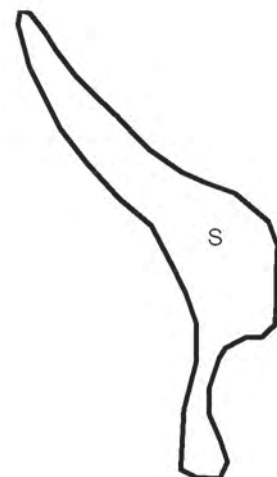
(a) Putaputaweta shrubland in small depression (100%)



Q08/211 Bayer Road Shrubland

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

0 250 500 1,000 Metres



Landform/geology

Valley floor wetland on Pleistocene alluvium.

Vegetation

This narrow site is surrounded by a tall radiata pine plantation. It has an upper tier of putaputaweta with frequent emergent manuka, wheki and ti kouka, and a few scattered emergent radiata pine. Harakeke and karamu are frequent throughout the site, while gorse and pampas are restricted to the margins. The ground cover is exotic grass, with kiokio, blackberry, umbrella sedge and lake clubrush scattered throughout the site. Occasional *Carex virgata* and bush lawyer are present. This site is swampy in places.

Fauna

Fantail, grey warbler, shining cuckoo.

Significance

This site merits Level 1 significance as it is the only example of putaputaweta shrubland found in Otamatea ED Northland. It also has potential habitat value for threatened birds of shrubland/wetland habitat, such as the NI fernbird and spotless crane, though none were detected here at the time of the survey. Due to its high water table, this site is vulnerable to a sudden change in hydrology and/or exposure if pines are felled directly around it.

TE MIRA ROAD WETLAND

Survey no.	Q08/212
Survey date	29 October 2002 (Wildland Consultants 2004)
Grid reference	Q08 212 524
Area	4.5 ha (3.1 ha shrubland, 1.4 ha wetland)
Altitude	40–104 m asl

Ecological units

- (a) Manuka shrubland in gully (60%)
- (b) Raupo reedland in gully (30%)
- (c) Mahoe shrubland in gully (10%)

Landform/geology

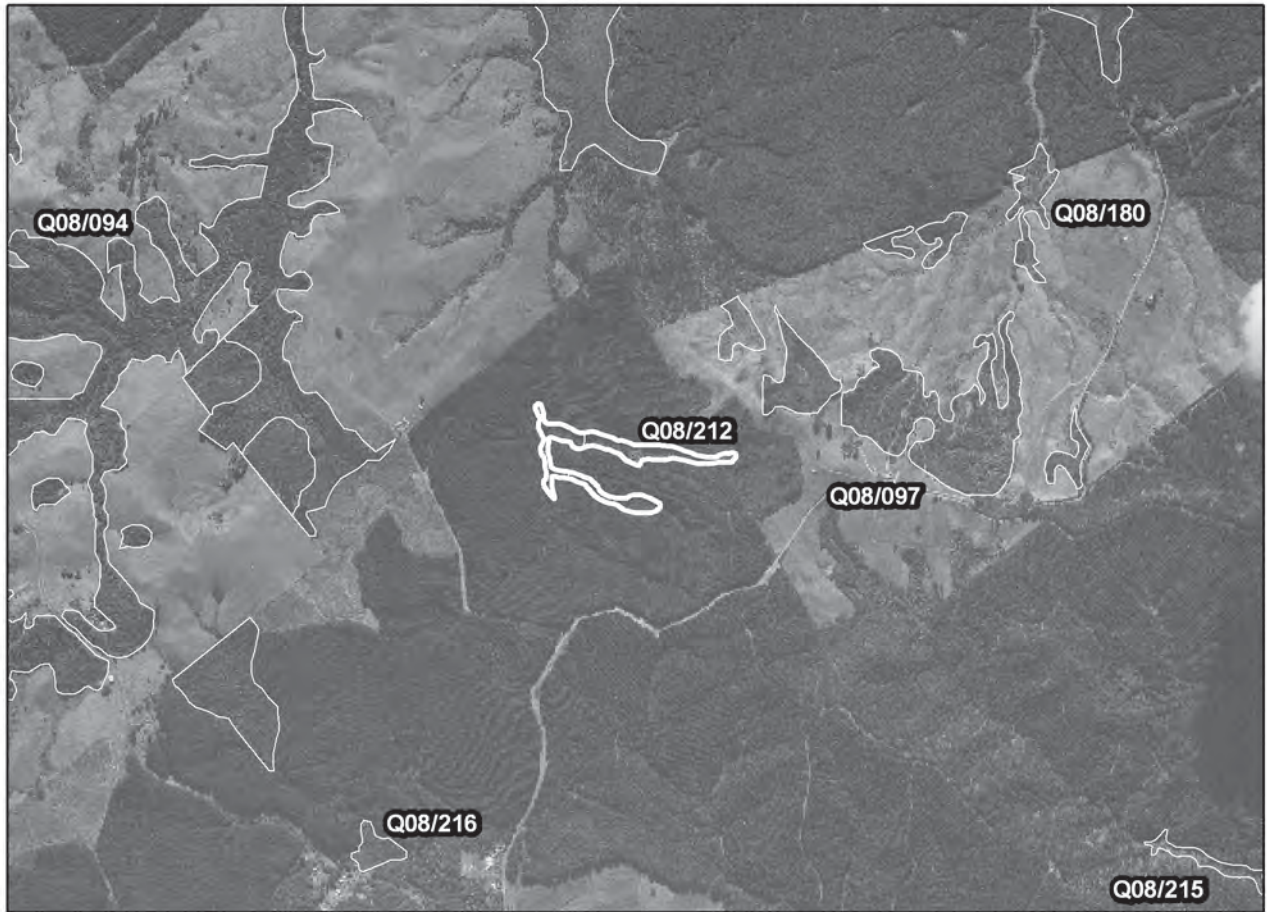
Valley wetland on Holocene alluvium.

Vegetation

This site comprises a narrow raupo reedland at the bottom of two upper tributaries of Te Mira Creek on the eastern Hukatere peninsula. An extensive radiata pine plantation surrounds it. The banks and upper sections of the wetland are vegetated in a narrow, predominantly indigenous shrubland, dominated either by manuka or mahoe. Frequent species in the shrubland include putaputaweta, ti kouka, wheki, *Coprosma propinqua*, karamu, hangehange, raupo, koromiko, kiokio, bracken, pate and mamaku. Blackberry and pampas can be locally common.

Fauna

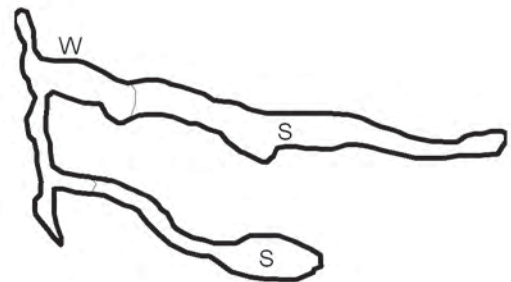
Fantail, grey warbler.



Q08/212 Te Mira Road Wetland

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

0 250 500 1,000 Metres



Significance

This site contains one of the best representative examples of raupo reedland in a gully system remaining in Otamatea ED Northland, but it would be very vulnerable to disturbance if the entire surrounding pine plantation were clear-felled around it. The site has potential habitat value for threatened avifauna associated with freshwater wetland, such as the NI fernbird and spotless crane, though none were detected here at the time of the survey.

EASTERN BOUNDARY FOREST (CARTER HOLT HARVEY)

Survey no. Q08/214
Survey date 31 October 2002 (Wildland Consultants 2004)
Grid reference Q08 238 520 (2 remnants)
Area 5.8 ha
Altitude 60-94 m asl

Ecological units

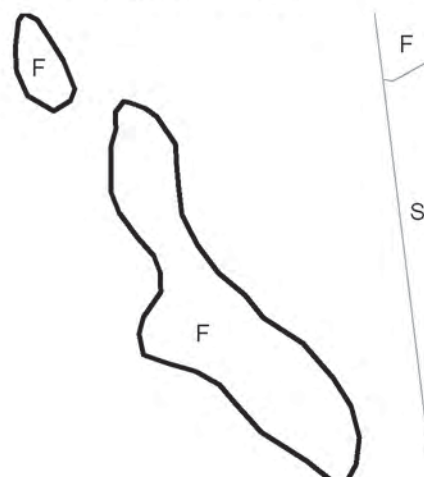
- (a) Totara-mamaku forest in gully (90%)
- (b) Kauri-totara-tanekaha forest on moderate hillslope (10%)



Q08/214 Eastern Boundary Forest (Carter Holt Harvey)

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

0 250 500 1,000 Metres



Landform/geology

Valley wetland on Holocene alluvium.

Vegetation

This site comprises two indigenous forest remnants nestled in an extensive radiata pine plantation, in the gully head of a small stream flowing southeast to Hollands Bay. It has a more dense understorey than comparable remnants in pastoral landscape due to the buffering effect of surrounding tall pines and the lack of grazing and trampling by livestock.

(a) The main forest type in the gully is dominated by totara and mamaku with frequent ti kouka and manuka, and occasional putaputaweta, pate, mahoe, karaka and pampas.

(b) On drier slopes there are groves of kauri, tanekaha and totara with frequent kanuka and puriri. A large number of occasional canopy species was recorded, including ti ngahere, ti kouka, ponga, kahikatea, hangehange, rewarewa, tawa, mahoe, mapou, tarata, putaputaweta, northern rata, pate, karaka, kiekie, radiata pine and black wattle.

Significant flora

Ti ngahere, northern rata and tawa are all locally uncommon in Otamatea ED Northland.

Fauna

Grey warbler, fantail, silvereye, kingfisher.

Significance

Three locally uncommon species were recorded here (northern rata, tawa and ti ngahere). The occurrence of northern rata is particularly significant, as it is currently only known at four sites in the whole of Otamatea ED Northland. This site also contains the only example of ecological unit (a), totara-mamaku gully forest in the Northland Conservancy part of the ED. The site is vulnerable to exposure and climatic impacts if pines are clear-felled around it.

PARRY ROAD WETLAND

Survey no.	Q08/215
Survey date	30 October 2002 (Wildland Consultants 2004)
Grid reference	Q08 232 511
Area	1.6 ha
Altitude	28-46 m asl

Ecological unit

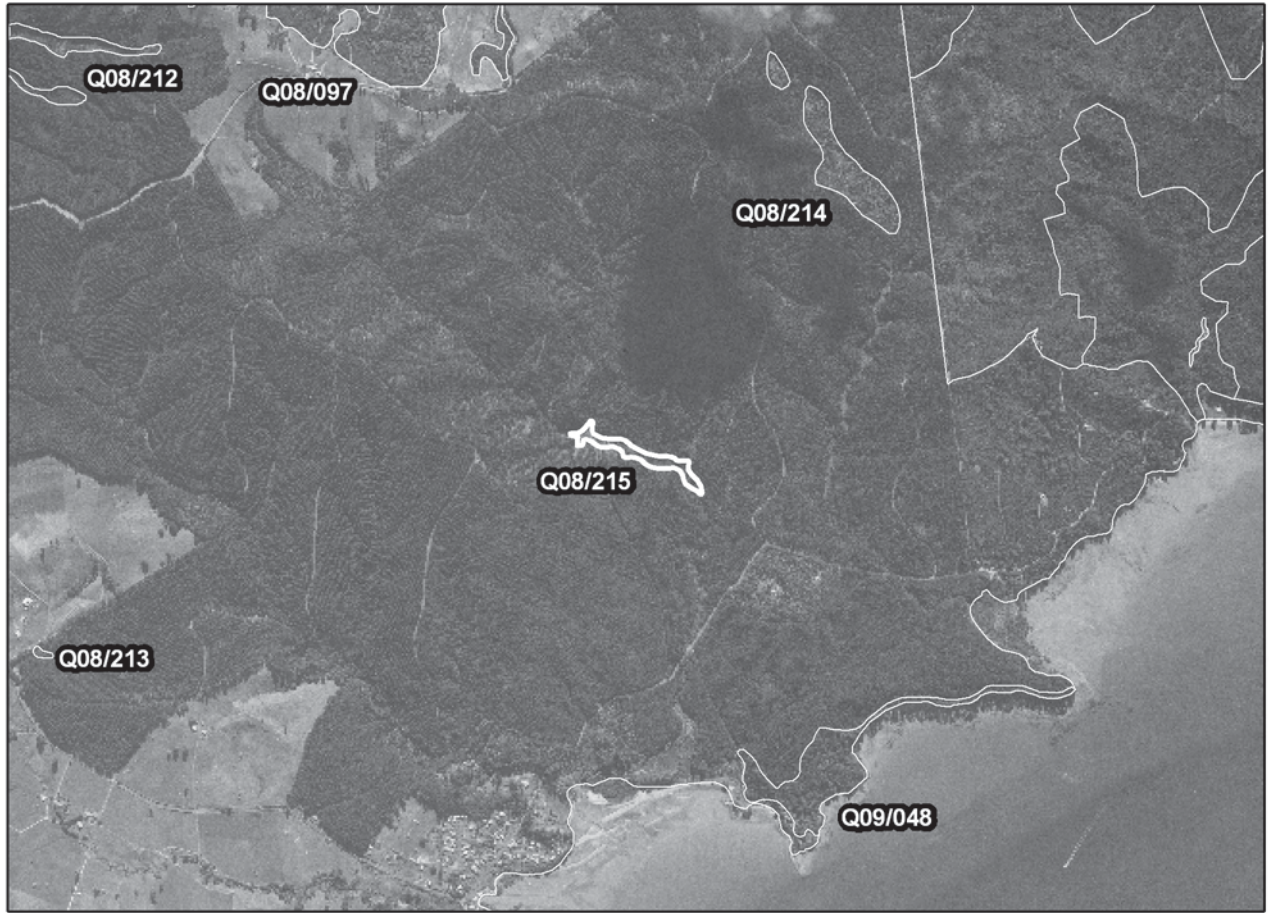
(a) Raupo-bracken reedland in small depression (100%)

Landform/geology

Valley wetland on Holocene alluvium.

Vegetation

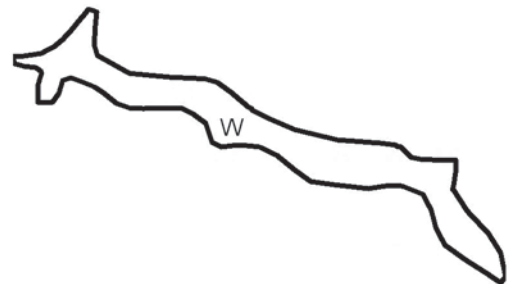
This site comprises a moderate-sized wetland in a shallow stream valley surrounded by an extensive radiata pine plantation. The vegetation is predominantly indigenous though Mexican devil occurs throughout, and pampas and black wattle are scattered around the margins. The main canopy cover in the wetland is formed by raupo and bracken, while ti kouka, manuka,



Q08/215 Parry Road Wetland

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

0 250 500 1,000 Metres



harakeke and tutu are frequently emergent. Occasional patches of *Baumea* sp., *Carex virgata*, *C. secta*, kiokio, karamu, koromiko, pampas and tangle fern are present.

Fauna

Grey warbler, silvereve, fantail.

Significance

This is a unique and representative example of raupo-bracken reedland in Otamatea ED Northland. The site is potential habitat for threatened avifauna associated with freshwater wetland, such as the NI fernbird and spotless crane, though none were detected here at the time of the survey. As with all indigenous habitat remnants in a pine forest landscape, this site is vulnerable to sudden changes in microclimate caused by clear-felling of the plantation.

TINOPAI ROAD WETLAND

Survey no. Q08/216
Survey date 29 October 2002 (Wildland Consultants 2004)
Grid reference Q08 204 511
Area 1.5 ha
Altitude 40 m asl

Ecological unit

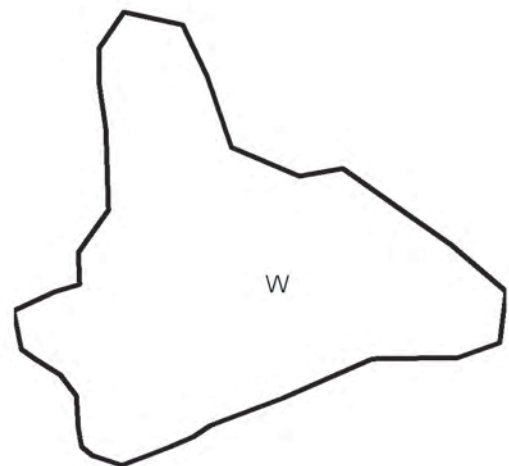
(a) Raupo reedland in small depression (100%)



Q08/216 Tinopai Road Wetland

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

0 250 500 1,000 Metres

A horizontal scale bar with tick marks at 0, 250, 500, and 1,000 Metres.

Landform/geology

Valley wetland on Holocene alluvium.

Vegetation

This site comprises a moderate-sized wetland of indigenous vegetation set in a landscape of radiata pine plantations and weedy treeland (mainly wattles). Raupo dominates, with frequent emergent manuka, ti kouka and harakeke. In patches, *Baumea* sp. and lake clubrush, bracken and kiokio are mixed with the raupo. The site's narrow margins are dominated by brush wattle have several other weed species including Japanese honeysuckle, blackberry, pampas and Kahili ginger. Despite this, frequent mahoe, karamu, ponga and hangehange occur in the margins and the occasional tall mamaku leans out over the wetland.

Fauna

North Island fernbird (Sparse), kingfisher, fantail.

Significance

This site is representative of some of the best raupo reedland in the Northland Conservancy part of Otamatea ED, mainly due to its medium size and high species richness. It is significant as a habitat for the threatened North Island fernbird, and is one of only two locations where this bird is currently known to survive within Otamatea ED Northland. The site is severely impacted by weed infestation, however, and is at risk of further invasion if plantations are clear-felled up to its margins.

HANERAU STREAM FOREST REMNANTS

Survey no.	Q08/218
Survey date	12 January 2006
Grid reference	Q08 330 559 (6 remnants)
Area	11.7 ha
Altitude	0–78 m asl

Ecological units

- (a) Totara-kahikatea-karaka forest on gentle coastal margin (60%)
- (b) Taraire-karaka-totara forest on moderate hillslope (40%)

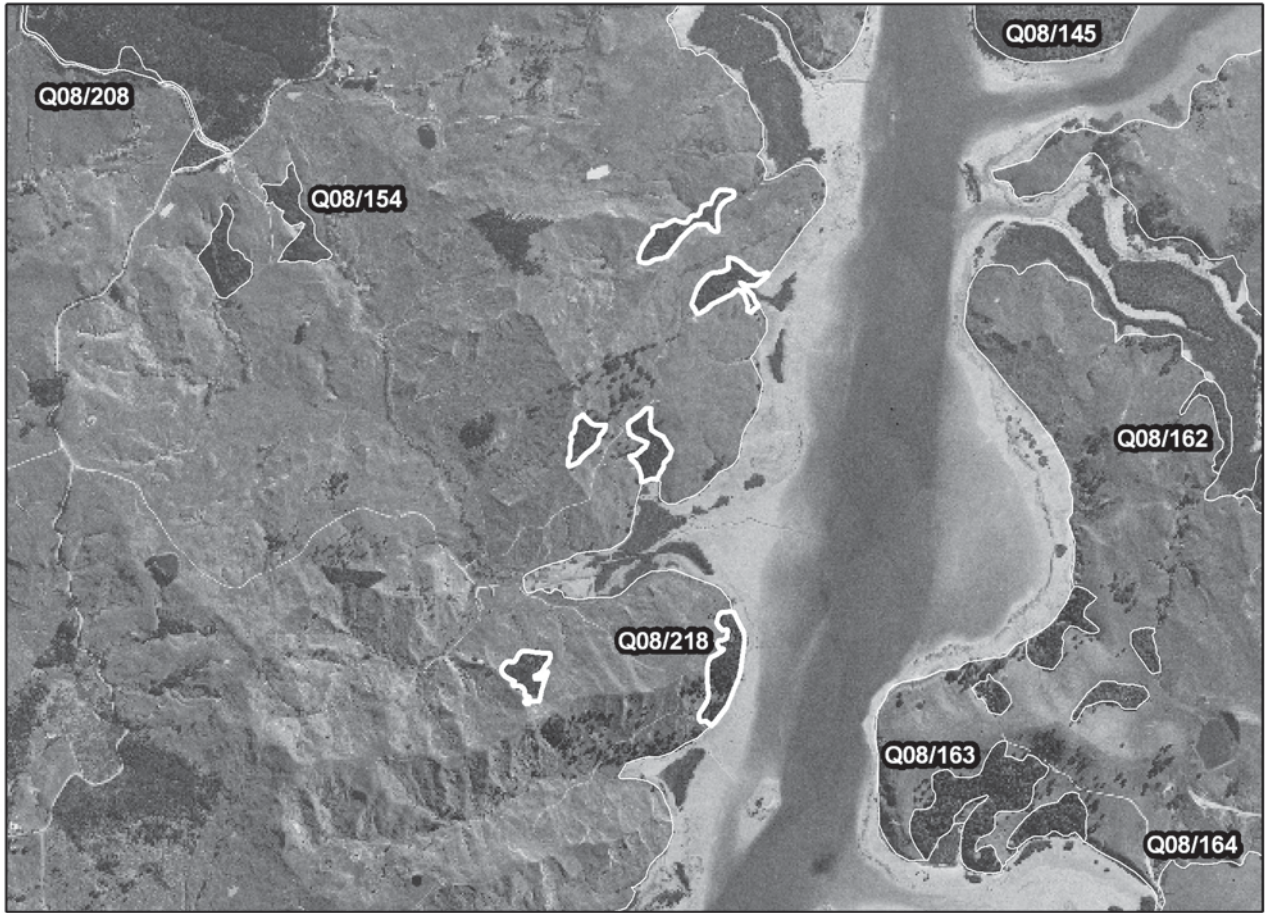
Landform/geology

Hillslopes and gullies underlain by Mangakahia Complex sandstone and mudstone, and melange (undifferentiated Mangakahia & Motatau Complex lithologies).

Vegetation

This site comprises widely scattered indigenous forest remnants spread over a pastoral landscape in the vicinity of Hanerau Stream, on the western bank of the Otamatea River (Q08/062).

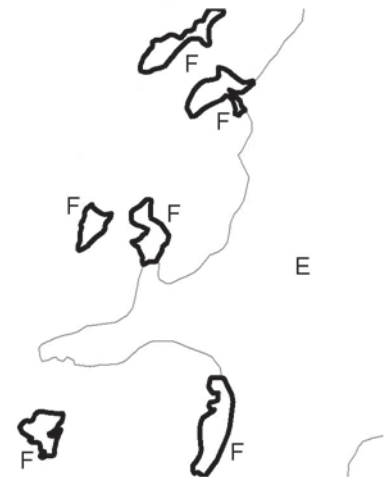
- (a) Remnants adjacent to the coast comprise mainly totara, kahikatea and karaka, with frequent puriri and occasional rewarewa, matai and kowhai.
- (b) Further from the coast, the forest composition changes to a mixture of taraire, karaka and totara. Puriri are frequent, with occasional kahikatea and kowhai.



Q08/218 Hanerau Stream Forest Remnants

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

0 250 500 1,000 Metres



Fauna

Kingfisher, tui.

Significance

These remnants are all rather small and isolated, but they represent the last vestiges of indigenous vegetation in the local area. Totara-kahikatea-karaka forest on gentle coastal margin (a) is unique and representative, which increases the significance of this site, which is otherwise in poor condition. The site serves as a protective vegetation buffer to the shores of the Otamatea River, and appears to serve as habitat to common forest birds.

WHAKAPIRAU CREEK CONSERVATION AREA AND SURROUNDS

Survey no. Q08/220
 Survey date 2 May 2006
 Grid reference Q08 273 573
 Area 0.5 ha
 Altitude 0-20 m asl

Ecological unit

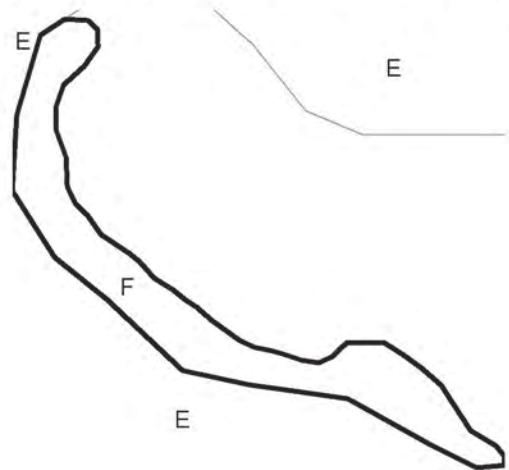
(a) Kowhai-karaka forest on gentle coastal margin (100%)



Q08/220 Whakapirau Creek Conservation Area and Surrounds

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

0 250 500 1,000 Metres



Landform/geology

Not surveyed.

Vegetation

This site comprises a narrow strip of kowhai-karaka forest on the southwestern coastal margin of a small peninsula in the upper Whakapirau Creek. Totara is frequent with a localised group of large-leaved milk tree, occasional titoki, tawa and single examples of mature emergent kahikatea and matai. The remnant is grazed and relatively bare underneath.

Significant flora

Large-leaved milk tree (Sparse); nine trees and one sapling were counted at this site. Tawa (locally uncommon).

Fauna

Not surveyed.

Significance

This site is significant for the presence of a threatened coastal tree species, large-leaved milk tree (Sparse), which is not known to occur anywhere else on the Kaipara Harbour shoreline. The site is currently unfenced. Approximately 0.2 ha of the site is within the Whakapirau Creek Conservation Area (administered by DOC), which includes the large-leaved milk tree population.

TIMBER BAY FOREST

Survey no.	Q09/001
Survey date	9 November 2005
Grid reference	Q09 272 480 (3 remnants)
Area	125.8 ha (123.8 ha forest, 1.8 ha shrubland, 0.2 ha wetland)
Altitude	0-160 m asl

Ecological units

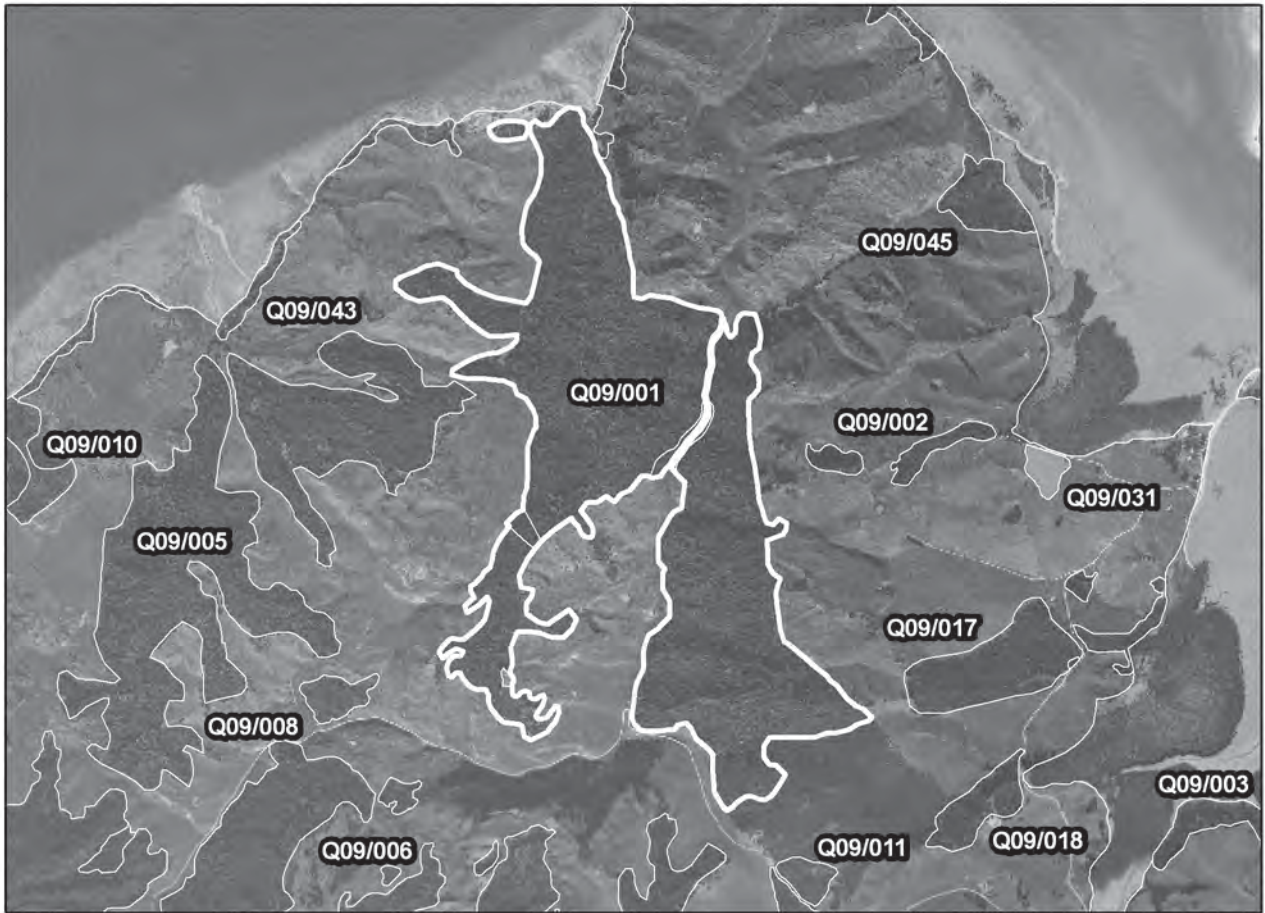
- (a) Kanuka-totara-kahikatea forest on moderate to steep hillslope (50%)
- (b) Kauri forest on ridge top and moderate hillslope (15%)
- (c) Kauri-tanekaha forest on moderate to steep hillslope (14%)
- (d) Mamaku-nikau-pukatea forest in gully (13%)
- (e) Puriri-kowhai forest on gentle coastal margin (2%)
- (f) Kanuka-manuka shrubland on moderate to steep hillslope (2%)
- (g) Totara-puriri-kanuka forest on steep coastal margin (2%)
- (h) Raupo reedland in small depression (1%)

Landform/geology

Hillslopes and gullies underlain by Miocene thinly interbedded sandstone and mudstone, and polymict igneous conglomerate (Waitemata Group).

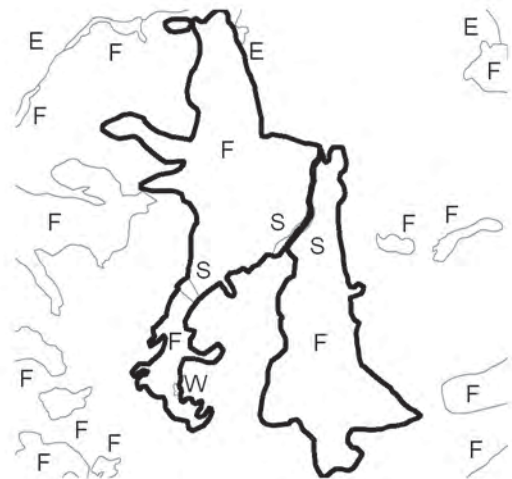
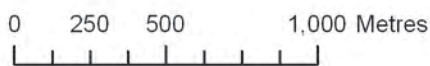
Vegetation

This is the largest continuous forest remnant on Puketotara Peninsula and contains all elements of a sequence of secondary forest types (i.e. none probably older than 150 years) extending from the coast to ridges 2 km inland. Pohutukawa occurs sporadically from the coast right up to the top of the remnant. Timber Bay Forest is currently grazed and has a relatively sparse



Q09/001 Timber Bay Forest

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



understorey, though landowners plan to exclude stock in the near future (Tony Walden, landowner, pers. comm.). A fence is present along the western margin of the site, however it excludes two small arms of forest extending westwards. (a) The main forest matrix comprises kanuka, kahikatea and totara, which clothe the predominantly east-facing hillslopes. Other species in this forest type include frequent kauri and pohutukawa, and occasional rewarewa, nikau, rimu, tarata and lancewood.

- (b) The tops of ridges and hillslopes support dense stands of kauri rickers, with local occurrences of rewarewa, kanuka, tanekaha, totara, toru and mamangi. The associated species are often just below the kauri stand on the ridge crest where it grades into the main forest matrix.
- (c) In the southern part of the remnant, on spurs running eastwards down from the trig station, there are stands of dense kauri rickers and young tanekaha. Rewarewa and mamangi occur frequently with occasional toru and lancewood. This forest type reflects the very dry and infertile conditions on ridge tops.
- (d) The Waikanai Stream gully and tributaries support very diverse broadleaved-podocarp forest dominated by tree ferns (mamaku and ponga), nikau, and pukatea, with occasional taraire and very local northern rata. A pohutukawa-northern rata hybrid was noted in this forest type.
- (e) A small patch of puriri-kowhai forest with occasional ti kouka and pohutukawa is present on the steep coastal hillslope facing Timber Bay.
- (f) Small patches of kanuka-manuka shrubland have regenerated from former pasture, probably due to recent fencing and exclusion of stock.
- (g) An isolated remnant of totara-puriri-kanuka forest stands above the cliffs on Timber Bay.
- (h) Raupo reedland is present in a small depression in a gully head.

Significant flora

Northern rata × pohutukawa (regionally significant), northern rata (locally uncommon).

Fauna

Australasian harrier, paradise shelduck, welcome swallow. Kukupa (Gradual Decline) regularly use this forest remnant.

Significance

This is one of the largest and most diverse forest tracts remaining in Otamatea ED Northland, and the whole site is representative of a coastal vegetation sequence from ridge top to gully bottom on Waitemata Group geological units. The Waikanai stream catchment is the only catchment in the Northland part of the ED which is predominantly covered in indigenous forest, and provides a valuable contribution to Kaipara Harbour catchment protection. This is one of only four sites where northern rata has been recorded in the study area, and is a site of northern rata × pohutukawa hybridism (*Metrosideros robusta* × *M. excelsa* is a regionally significant hybrid). The forest has the capacity to provide habitat for good populations of common forest birds. It may support indigenous geckos and skinks (though none have been found), and possibly large invertebrates such as kauri snails and weta. Kukupa are known to use this forest, but they are threatened by poachers who gain access to the site from the water (Tony Walden, pers. comm.). The other less visible threats to forest birds and other fauna are introduced predatory mammals (e.g. possums, stoats, rats, feral cats, etc.), which are definitely present in high numbers (Tony Walden, pers. comm.). Still very little is known about the ecology of this extensive and valuable remnant.