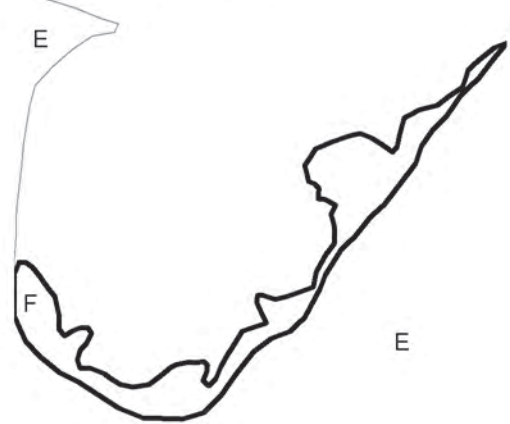




## Q08/217 Paparoa Creek Marginal Strip No. 1 and Surrounds

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

0 250 500 1,000 Metres

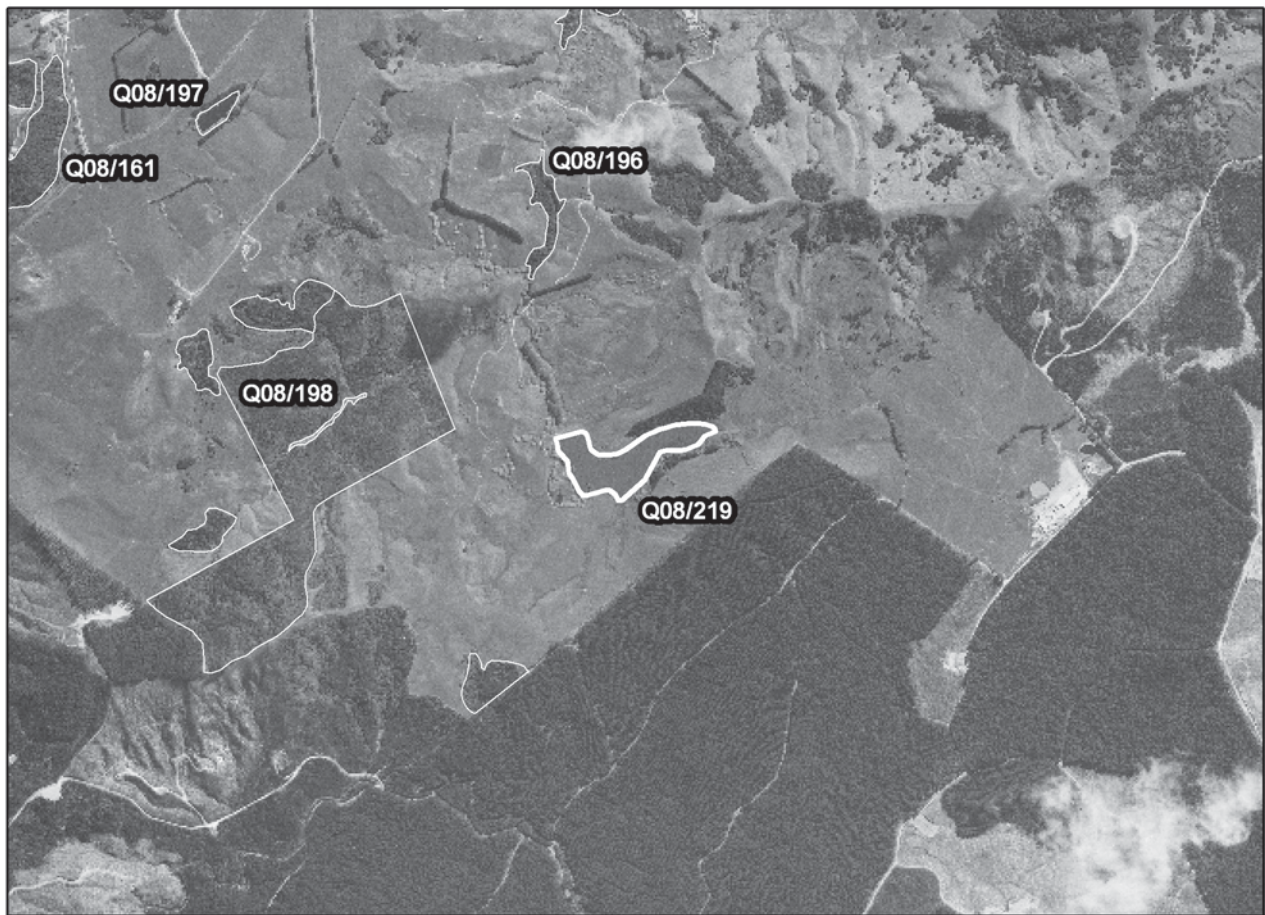


### UPPER KAITARA CREEK POND

Survey no.	Q08/219
Survey date	Not surveyed
Grid reference	Q08
Area	5.8 ha
Altitude	55 m asl

#### *Ecological unit*

(a) Open water (constructed freshwater farm pond) (100%)



## Q08/219 Upper Kaitara Creek Pond

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

0 250 500 1,000 Metres



### ***Landform/geology***

Man-made pond/lake.

### ***Vegetation***

As the site was not surveyed on the ground (due to lack of visibility/accessibility), recent aerial photography (flown in 2002) was used to determine certain characteristics. It appears to be a constructed farm pond without emergent aquatic vegetation, which has poplars or willows on the southern bank and pines (probably a radiata pine plantation) on part of the northern bank.

### ***Fauna***

Not surveyed.

**Significance**

As one of the few relatively large, open, freshwater ponds in Otamatea ED Northland, this site probably has habitat value for indigenous waterbirds. At present there is insufficient information to assess the site's significance.

**PUKETOTARA FOREST REMNANT 1**

Survey no.	Q09/002
Survey date	30 November 2005
Grid reference	Q09 283 484 (2 remnants)
Area	3.5 ha
Altitude	10-66 m asl



**Q09/002 Puketotara Forest Remnant 1**

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



### ***Ecological unit***

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

### ***Landform/geology***

Gully underlain by Miocene thinly interbedded sandstone and mudstone (Waitemata Group).

### ***Vegetation***

The composition of this remnant reflects its secondary, disturbed character, with kanuka and totara being the dominant canopy species. Puriri and kahikatea are frequent throughout and there are occasional individuals of kohekohe, karaka, kauri, mahoe and ti kouka in the canopy. Mapou is common on the edges, as are some environmental weeds such as garden nasturtium and woolly nightshade. The understorey appears to be grazed and the site is only partially fenced.

### ***Fauna***

Not surveyed.

### ***Significance***

This degraded block of riparian forest provides some protection to the lower reaches of a small stream leading down to the estuarine habitats of the Whakaki Creek. It forms a discontinuous corridor linking Timber Bay Forest (Q09/001) to Ngamotu Farm Pond (Q09/031), and to the mangrove forests on the fringe of the estuary. This is not considered to be one of the best representative examples of its type in the Northland part of the ED.

## **STONY CREEK FOREST REMNANTS**

Survey no.	Q09/003
Survey date	9 November 2005
Grid reference	Q09 294 472 (2 remnants)
Area	5.6 ha
Altitude	0-34 m asl

### ***Ecological unit***

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

### ***Landform/geology***

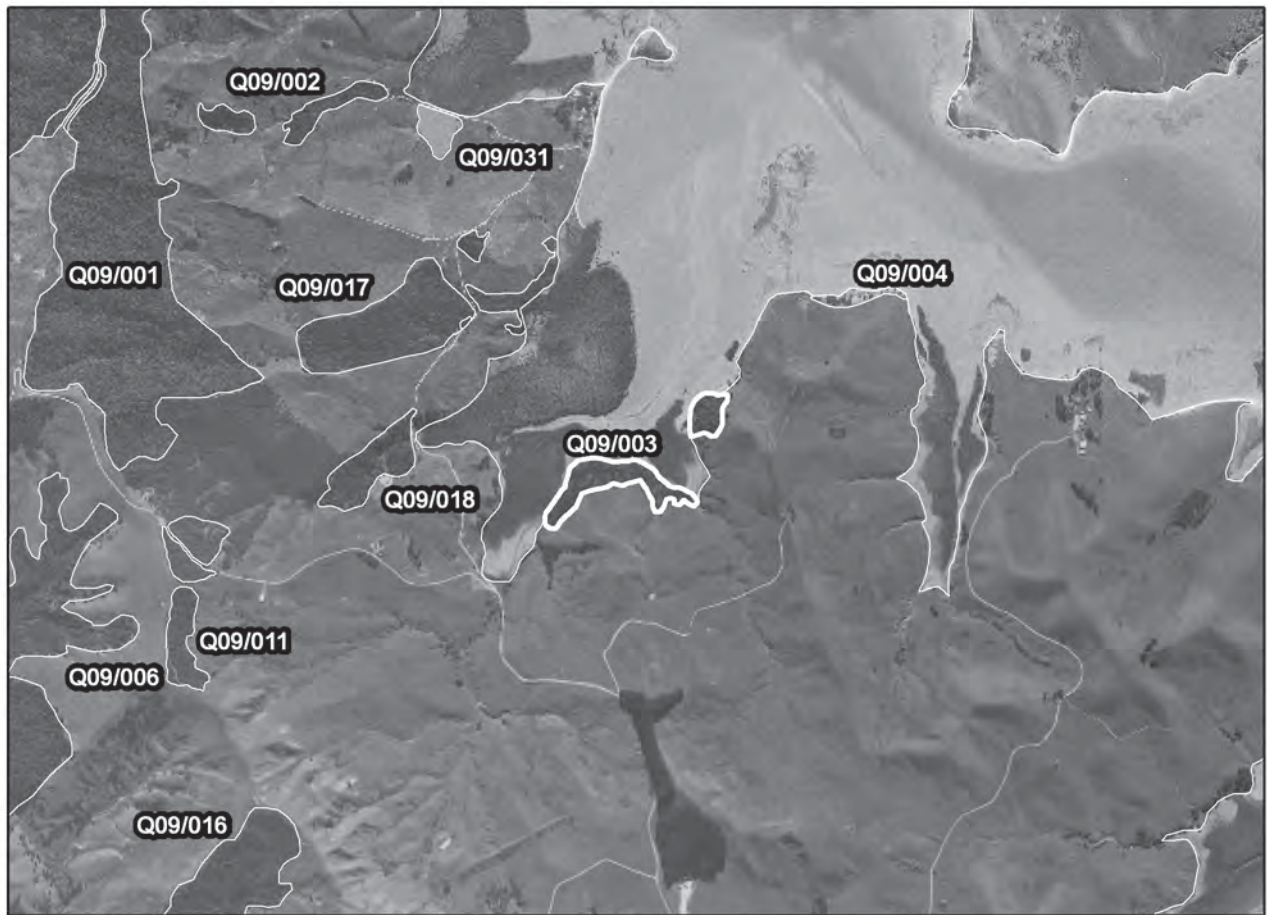
Coastal hillsides underlain by Oligocene micritic limestone (Mahurangi Limestone, Motatau Complex); Miocene thinly interbedded sandstone and mudstone (Waitemata Group).

### ***Vegetation***

This site comprises two coastal indigenous forest remnants on the shores of Stony Creek, on the eastern, sheltered coast of Puketotara Peninsula. Both remnants have a relatively open canopy dominated by totara and kanuka with frequent kowhai, and occasional tarata and ti kouka. The site is not fenced and is very sparsely vegetated underneath as a result of grazing.

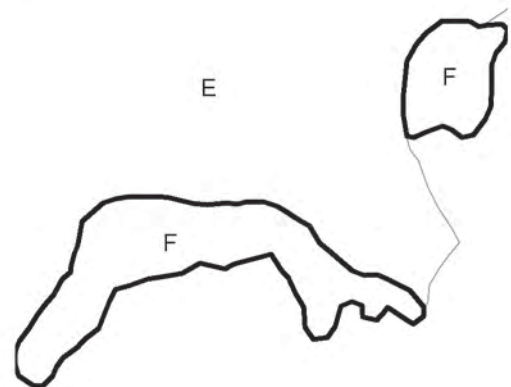
### ***Fauna***

Not surveyed.



### Q09/003 Stony Creek Forest Remnants

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



***Significance***

Though degraded, the forest here provides a protective vegetation buffer to Stony Creek, partially assisting in control of sediment runoff from farmland into the Kaipara Harbour. A history of grazing is evident in the lack of palatable coastal broadleaved species making up the canopy. This is not a particularly good example of this ecological unit, therefore it is not considered to be representative.

## STONY CREEK HEADLAND

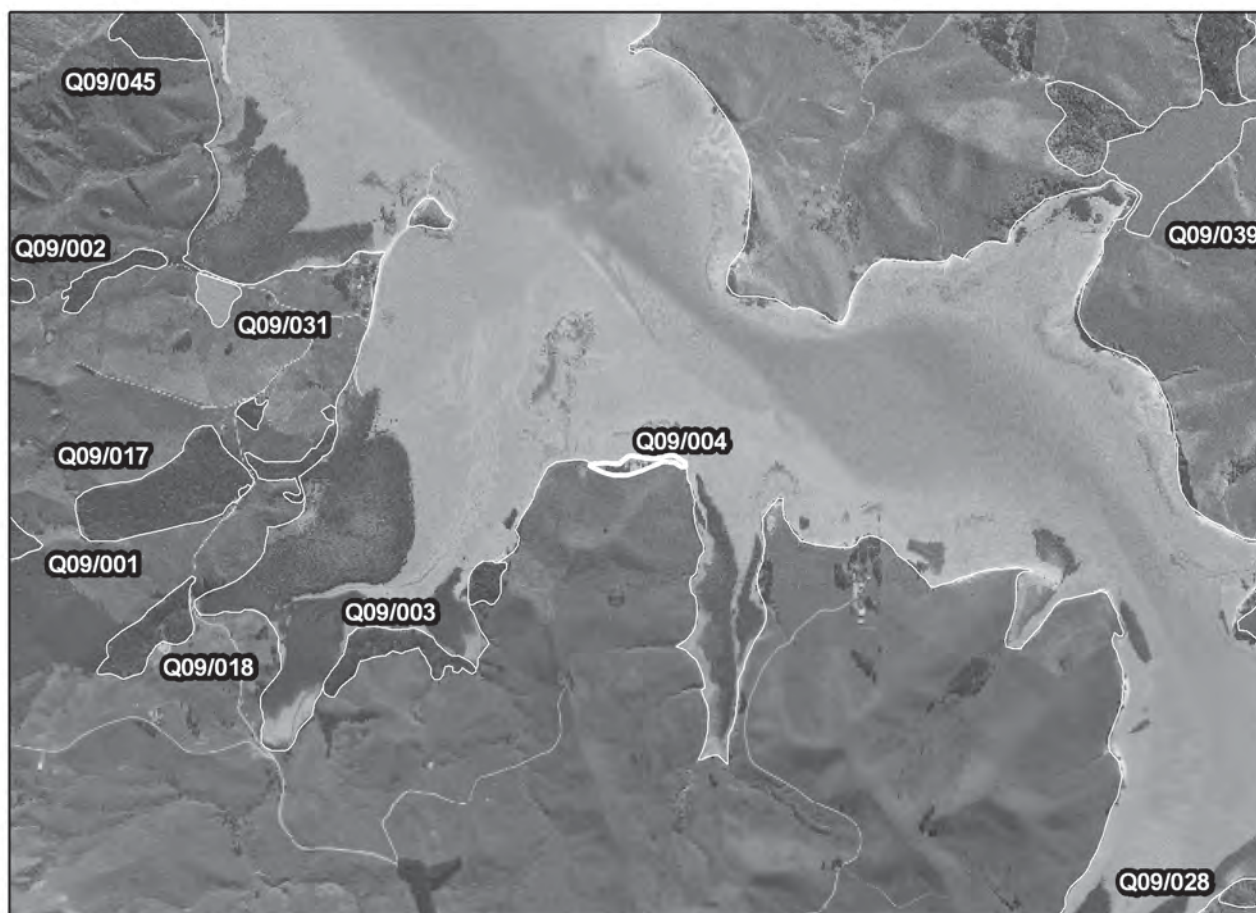
Survey no. Q09/004  
Survey date 9 November 2005  
Grid reference Q09 261 481 (3 remnants)  
Area 1.0 ha  
Altitude 0-28 m asl

### *Ecological unit*

(a) Totara treeland on coastal cliff (100%)

### *Landform/geology*

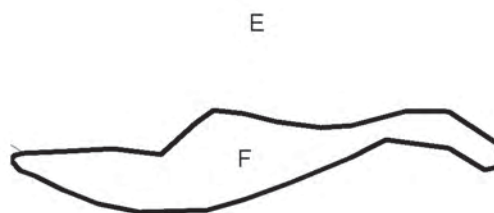
Coastal hillside underlain by Oligocene micritic limestone (Mahurangi Limestone, Motatau Complex).



## Q09/004 Stony Creek Headland

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

0 250 500 1,000 Metres



### ***Vegetation***

Scattered totara occur on a limestone cliff above the Whakaki River. On the landward side there is grazed pasture, and on the seaward side there is a narrow beach and extensive shallow mudflats and sandflats used by waders (e.g. northern NZ dotterel, banded dotterel, pied oystercatcher, pied stilt). These wading areas are part of the Otamatea River site (Q08/062).

### ***Fauna***

Not surveyed.

### ***Significance***

This site is very isolated and small, but is one of the only headlands in the Whakaki River with some indigenous vegetation remaining. It is quite degraded and not representative of its type.

## **MOTUKUMARA POINT FOREST REMNANTS**

Survey no.	Q09/007
Survey date	9 December 2005
Grid reference	Q09 253 457 (6 remnants)
Area	20.7 ha
Altitude	0-71 m asl

### ***Ecological units***

- (a) Pohutukawa-kanuka forest on steep coastal margin (45%)
- (b) Puriri-kanuka forest on steep coastal margin (25%)
- (c) Pohutukawa-kanuka-gorse treeland on steep coastal margin (20%)
- (d) Pohutukawa-kanuka treeland on steep coastal margin (10%)

### ***Landform/geology***

Coastal hillsides underlain by Miocene muddy sandstone, volcanoclastic gravelly sandstone and hyaloclastite breccia (Waitakere Group).

### ***Vegetation***

This site comprises vegetation on the fringes of a prominent headland in the southwest of Puketotara Peninsula, as well as vegetation extending around its western side to a point opposite Motuouhi and Moturoa Islands. Most of the ecological units have pohutukawa as a main component. Many of the pohutukawa are showing evidence of dieback, perhaps due to possum browse, which is obvious at a number of sites in the vicinity.

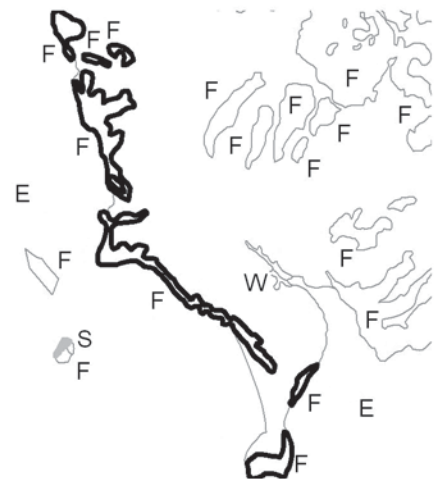
- (a) Much of the site is very steep and supports large pohutukawa trees and kanuka as the main cover. Puriri, karaka, harakeke, manuka and ti kouka are frequent, with occasional bracken, kowharawhara, mingimingi, ngaio and kowhai.
- (b) A small west-draining seepage has abundant puriri mixed with lesser amounts of kanuka and ti kouka, and occasional emergent kauri rickers and rewarewa.
- (c) The northernmost part of the remnant is a similar type to (a) except that the indigenous vegetation is sparse, and gorse is common.
- (d) While sharing the common components of pohutukawa and kanuka with type (a) pohutukawa-kanuka forest, the narrowest stretches of coastal forest



## Q09/007 Motukumara Point Forest Remnants

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

0 250 500 1,000 Metres



are only 20–25 m wide and now comprise ‘treeland’ due to extensive edge effects, frequent gaps in the canopy and their mainly bare ground or exotic grassland ground layers.

### ***Fauna***

Pied oystercatcher.

### ***Significance***

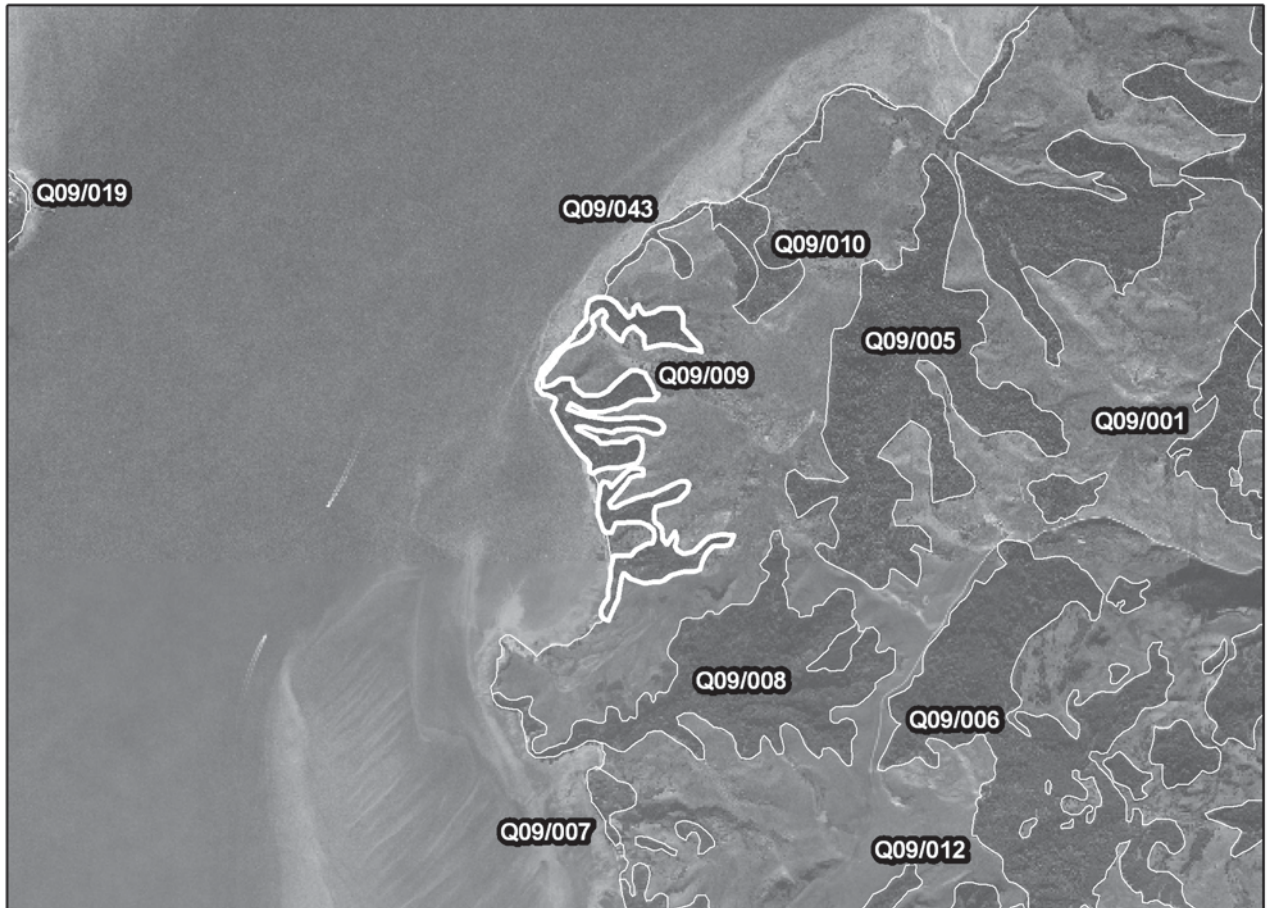
This site includes a very narrow band of coastal forest where only the most inaccessible trees have not been cleared for farming. For this reason the site is



relatively isolated, fragmented and poorly buffered. None of the ecological units are considered to be particularly good examples of their type. They do, however, play a role in stabilising the steep coastal margins.

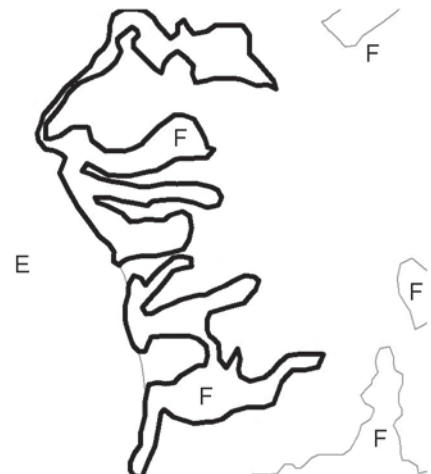
### PUKETOTARA FOREST REMNANTS 5

Survey no. Q09/009  
 Survey date 9 December 2005  
 Grid reference Q09 250 478 (2 remnants)  
 Area 15.5 ha



### Q09/009 Puketotara Forest Remnants 5

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



Altitude 0–100 m asl

***Ecological units***

- (a) Kanuka forest in gully (80%)
- (b) Pohutukawa forest on steep coastal margin (15%)
- (c) Taraire–puriri–kanuka forest on moderate to steep hillslope (5%)

***Landform/geology***

Coastal hillsides underlain by Miocene muddy sandstone and volcanoclastic gravelly sandstone (Waitakere Group).

***Vegetation***

This site encompasses six fingers of forest in small gullies flowing westwards towards the Otamatea River Confluence (Q09/021), as well as the forest on the coastal margin which connects them. In the surrounding landscape there is grazed pasture, from which livestock have free access to the indigenous forest.

- (a) The majority of the area is covered by relatively depauperate, fragmented kanuka forest with frequent puriri and pohutukawa, and occasional tanekaha, ti kouka and mapou.
- (b) The forest on the steep coastal margins contains >80% pohutukawa with frequent individuals of puriri, kanuka and karaka scattered throughout. Gorse is frequent and there are occasional ti kouka and pampas.
- (c) One small area of taraire–puriri–kanuka forest is nestled at the head of the deepest gully in the northern part of the remnant.

***Fauna***

Not surveyed.

***Significance***

Though the condition of the forest is relatively poor, and the ecological units are not good representative examples of their type, this site provides a relatively long protective vegetation buffer between the harbour and the pasture. It also provides some riparian protection to the ephemeral streams in the gullies.

**PUKETOTARA FOREST REMNANT 6**

Survey no. Q09/010  
Survey date 9 November 2005  
Grid reference Q09 254 484  
Area 4.6 ha  
Altitude 0–83 m asl

***Ecological unit***

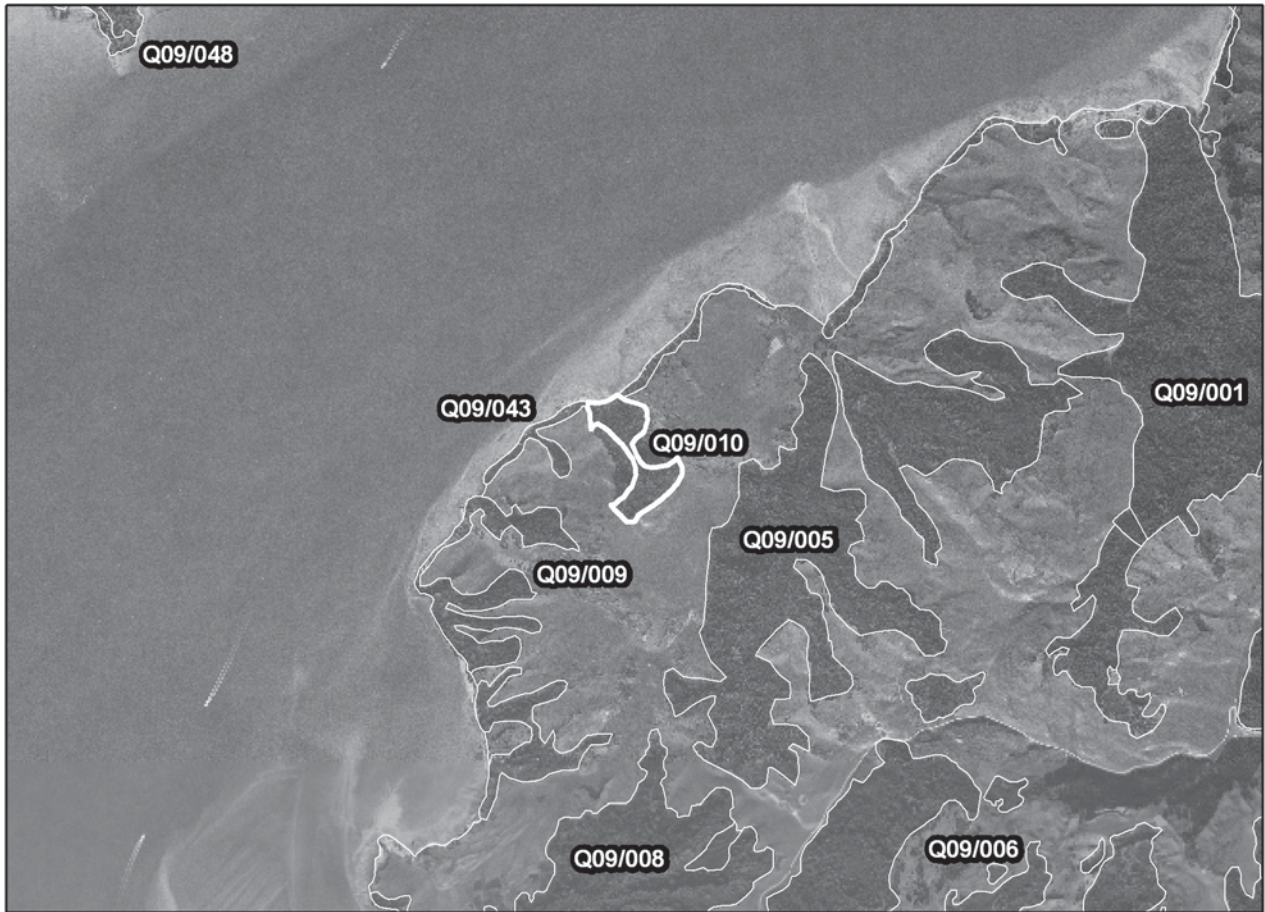
- (a) Kanuka forest on moderate to steep hillslope (100%)

***Landform/geology***

Coastal gully underlain by Miocene muddy sandstone and volcanoclastic gravelly sandstone (Waitakere Group).

***Vegetation***

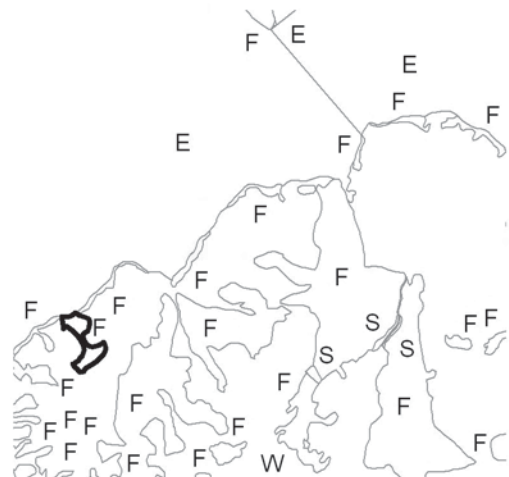
This site comprises a stand of kanuka forest on a steep hillslope with an area of tall radiata pine and maritime pine (excluded from site) on its western side,



## Q09/010 Puketotara Forest Remnant 6

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

0 250 500 1,000 Metres



which is otherwise surrounded by grazed pasture. Livestock have access throughout and gorse is prevalent on all edges.

### ***Fauna***

Not surveyed.

### ***Significance***

This site is of low quality compared to other comparable forest remnants nearby, though it does have some catchment protection functions, such as controlling sediment runoff from the local area into the Kaipara Harbour.