

Occasional species include tawapou, ti kouka, karaka, kahikatea, ponga, mahoe and whau.

(c) The remnants to the east along the coast consist of kanuka/manuka-pohutukawa coastal forest, with the occasional puriri and ti kouka.

(d) The larger remnant to the south-east is dominated by kanuka forest.

(e) The adjacent cliffs feature pohutukawa.

Significant flora

Calystegia tugoriorum (Regionally Significant), tawapou (Regionally Significant).

Fauna

Kukupu (Gradual Decline).

Significance

The remnants contain old-growth pohutukawa forest, which is a rare forest type in Northland and a nationally threatened habitat type. Representative site for type (a) kanuka/manuka-pohutukawa coastal forest, and type (c) pohutukawa coastal forest.

Presence of a threatened bird species, and two plants of regional significance.

8.1 ha at this site are administered by the Department of Conservation.

PATAUA ESTUARY REMNANTS

Survey no.	Q07/011
Survey date	26 June 1997
Grid reference	Q07 471 072, Q07 468 084, Q07 461 062, Q07 458 074, Q07 474 066, Q07 465 073, Q07 463 081, Q07 457 067, Q07 467 087
Area	109 ha (107 ha forest, 2 ha shrubland)
Altitude	0-80 m asl

Ecological unit

- (a) Kanuka/manuka shrubland on hillslope
- (b) Kauri coastal forest on ridge
- (c) Totara-kanuka/manuka forest on hillslope
- (d) Kanuka/manuka-kauri-totara forest on hillslope
- (e) Kanuka/manuka forest on hillslope
- (f) Kanuka/manuka-tanekaha-totara forest on hillslope
- (g) Totara forest on hillslope

Landform/geology

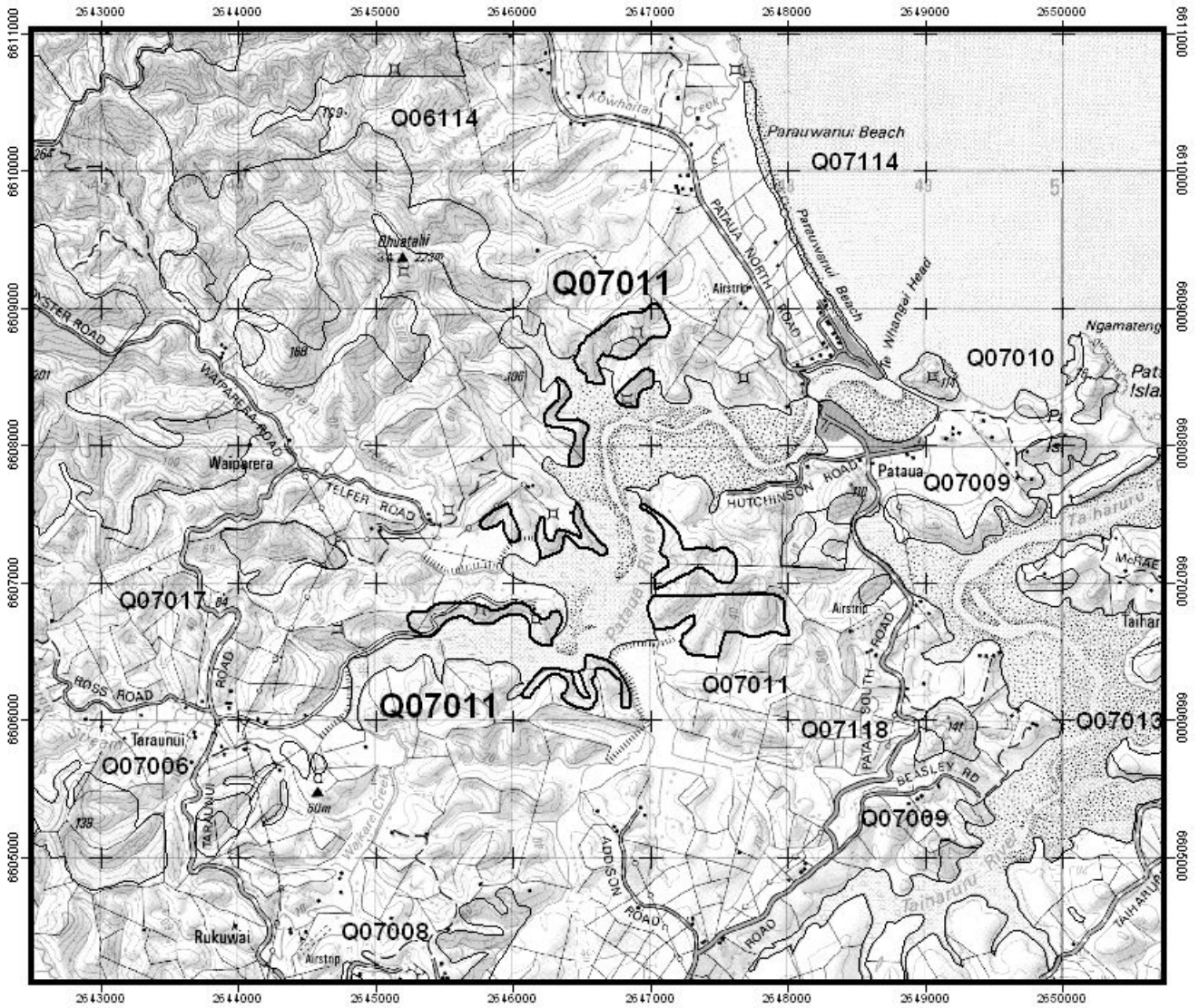
Coastal hills of Waipapa Terrane greywacke adjoining the Pataua Estuary.

Vegetation

Series of small coastal remnants bordering the Pataua Estuary.

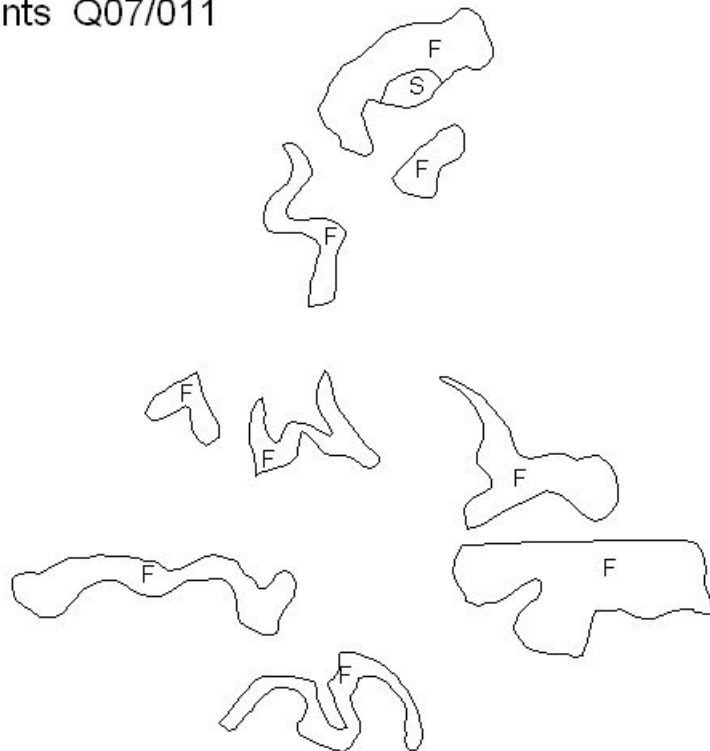
(a) The northern side of Pataua Estuary contains three small coastal forest remnants. The remnant on the south-western side of the site consists of kanuka/manuka shrubland, with frequent puriri, pohutukawa, totara, kohekohe, kowhai, and tree ferns. Several kahikatea are present near the estuary.

(b) The northern remnant is dominated by kauri secondary forest. Totara is frequent.



Pataua Estuary Remnants Q07/011

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland



Type (a) vegetation is repeated on the edge of this remnant, and also contains frequent puriri, tanekaha, and totara.

Type (b) vegetation is repeated in the small remnant to the south of the above area. Frequent species include totara, kanuka/manuka, rimu, kowhai, puriri, kahikatea, and tree ferns.

(c) Several relatively large remnants occur on the south-east side of the estuary. The remnant at the end of Hutchinson Road consists primarily of totara-kanuka/manuka secondary forest, with frequent rimu and tanekaha. Species which occur occasionally include rewarewa, taraire, karaka, kowhai, kahikatea, kohekohe, and kauri.

Within this area is a small pocket of type (b) forest on the ridge, with low numbers of rimu and tanekaha.

(d) The eastern side of this remnant contains a small area of kanuka/manuka-kauri-totara secondary forest, with frequent puriri, kowhai, and pohutukawa, and occasional rimu.

(e) Just south of this area is a remnant dominated by kanuka/manuka secondary forest. Frequent species include kowhai, rimu, kauri, tanekaha, and totara, with occasional rewarewa and kohekohe.

(f) This remnant also contains an area of kanuka/manuka-tanekaha-totara forest, with some rimu and kauri.

(g) South-west from this area is a long, narrow remnant adjacent to the estuary which is dominated by totara secondary forest. Kanuka/manuka and tanekaha are frequent throughout.

The small remnants on the western side of the estuary are dominated by type (c) vegetation. Associated species include tanekaha, rimu, kauri, and tree fern, with kahikatea, northern rata, puriri, rewarewa, and pohutukawa less common. Type (a) shrubland is also repeated in some areas.

Fauna

NI brown kiwi (Serious Decline) recorded in 1993, kukupa (Gradual Decline), tui. The snail *Liarea turriculata* "Manaiā" (Range Restricted) is also present. Banded kokopu (Regionally Significant) and shortfin eel present in the forest stream at the end of Hutchinson Rd.

Significance

Presence of threatened species. The remnants are the few estuarine forest areas left on the Pataua Estuary, and provide an important buffer function.

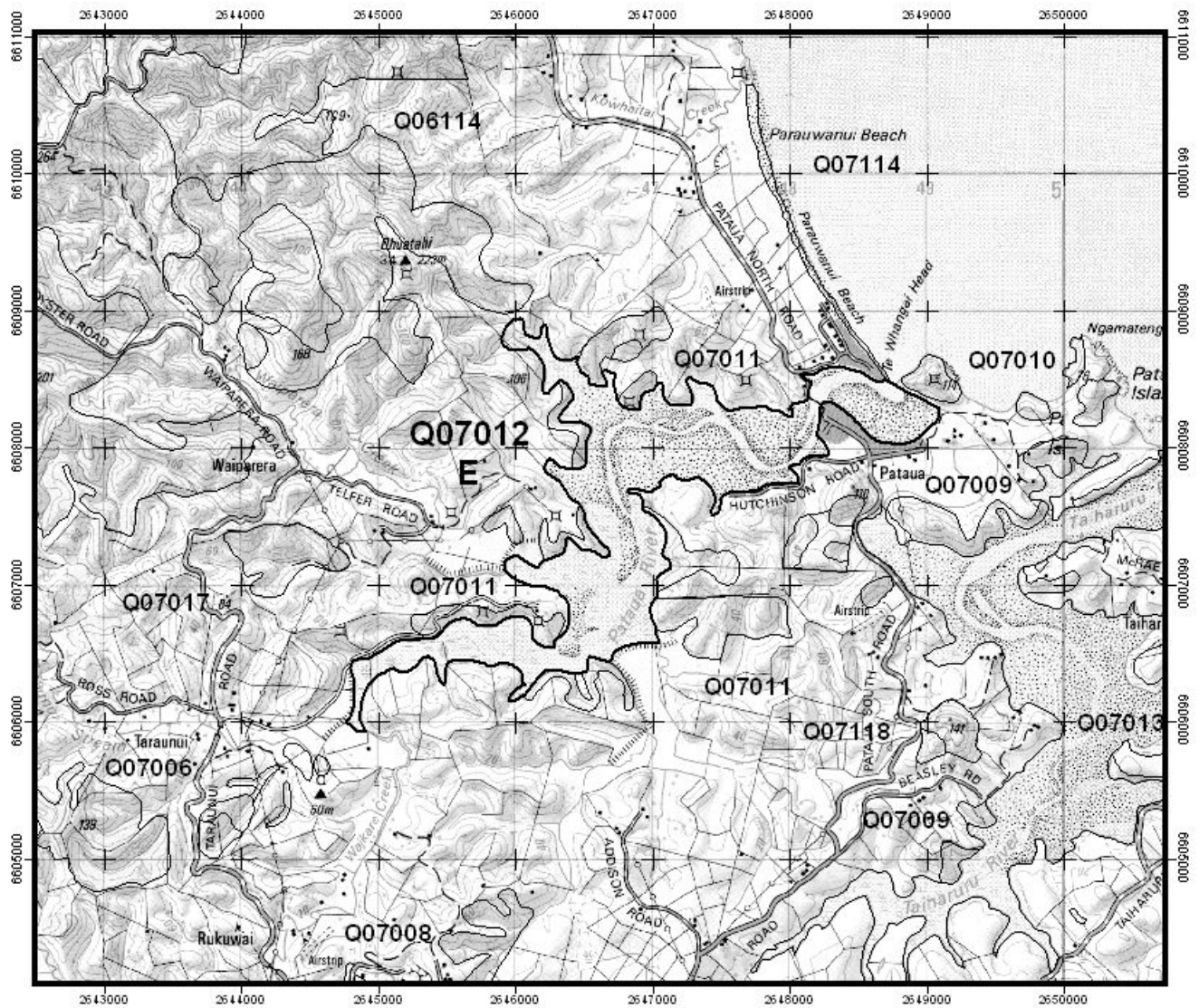
Representative site for type (b) kauri coastal forest, and type (d) kanuka/manuka-kauri-totara forest.

PATAUA ESTUARY

Survey no.	Q07/012
Survey date	26 June 1997
Grid reference	Q07 469 074
Area	281 ha
Altitude	Sea level

Ecological unit

(a) Mangrove forest on estuary



Pataua Estuary Q07/012

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland

Landform/geology

Estuary.

Vegetation

(a) The site is composed primarily of mangrove forest, with frequent raupo and jointed twig-rush on the edges. Oioi occurs in low amounts on the edges of the habitat.

Fauna

Grey duck (Nationally Endangered), matuku (Nationally Endangered), reef heron (Nationally Endangered), Caspian tern (Nationally Vulnerable), white-fronted tern (Gradual Decline), banded rail (Sparse), black shag (Sparse), little black shag (Sparse), NI fernbird (Sparse), pied shag (Sparse), variable oystercatcher (Regionally Significant), Australasian harrier, bar-tailed godwit, black-backed gull, little shag, NZ kingfisher, paradise shelduck, pied stilt,

pukeko, red-billed gull, Pied oystercatcher, welcome swallow, white-faced heron.

Significance

Representative site supporting threatened and regionally significant species. A good example of an estuarine habitat.

8.1 ha are a Recreation Reserve administered by the Department of Conservation.

TAIHARURU ESTUARY

Survey no.	Q07/013
Survey date	5 June 1997
Grid reference	Q07 500 045, Q07 504 059
Area	384 ha (379 ha estuary, 5 ha wetland)
Altitude	sea level

Ecological unit

- (a) Mangrove forest on estuary
- (b) Oioi saltmarsh on estuary
- (c) Manuka-raupo association adjacent to estuary
- (d) *Cyperus* sp. association adjacent to estuary
- (e) Oioi-sea rush saltmarsh on estuary

Landform/geology

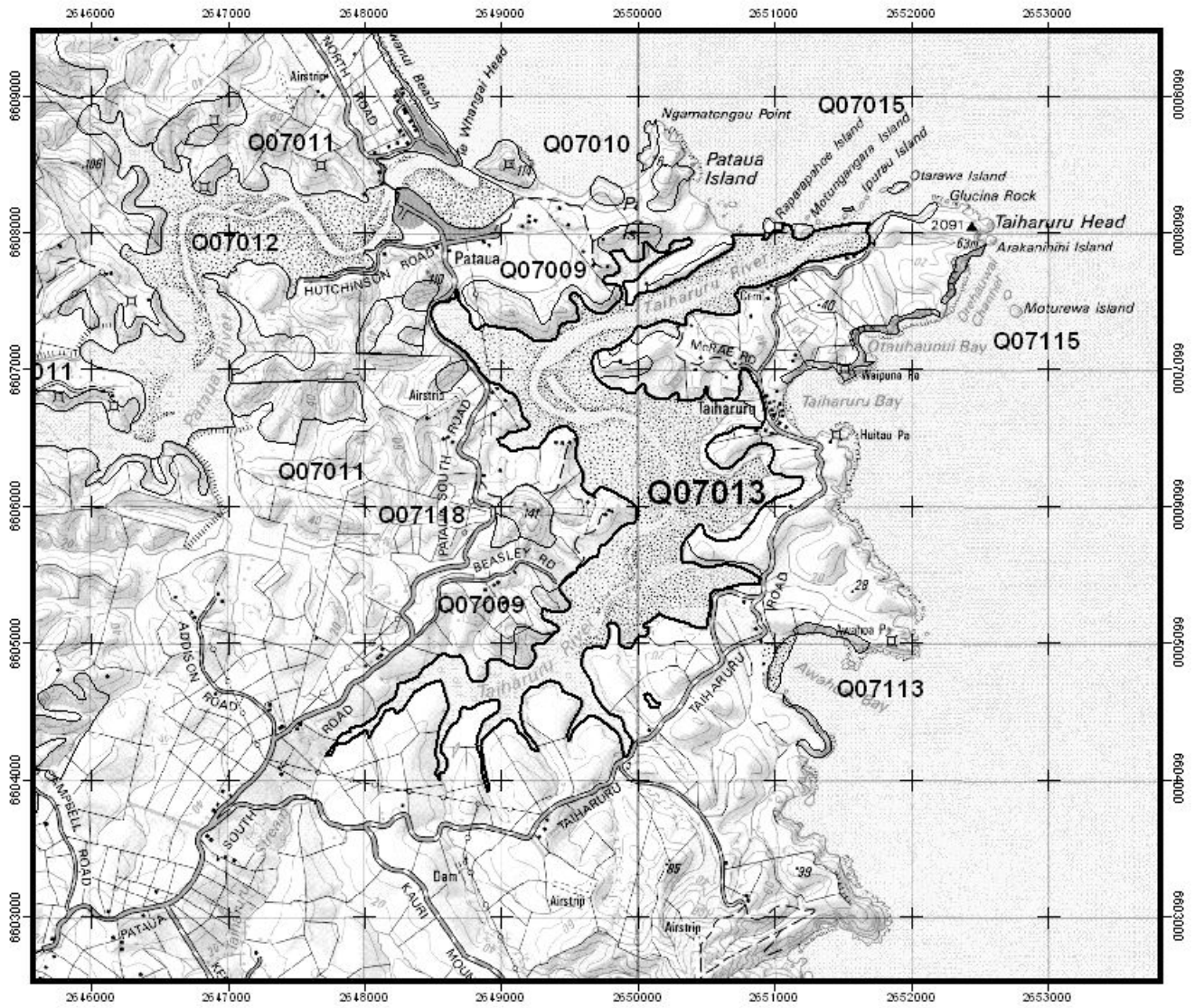
Estuary.

Vegetation

- (a) The majority of the site consists of mangrove forest of up to 3 m in height. Oioi and sea rush are frequent on the edges of the mangrove areas.
- (b) In the north-western corner of the estuary, there is a small area of oioi saltmarsh on the western side of the road, adjacent to the shrubland area. Raupo and pampas can be found on the edges of the area.
- (c) On the eastern side of the estuary, adjacent to the Taiharuru Village, is a small area of intermediate freshwater wetland, dominated by raupo and manuka. Kuta is frequent within this area, with ti kouka in low numbers. Mexican devil is present within the wetland area, as well as pampas, kikuyu, and wild ginger on the edges of the habitat.
- (d) Southwards, the wetland becomes dominated by *Cyperus* sp., with frequent raupo, sea rush, and kuta. Oioi and harakeke grow in small amounts on the edges.
- (e) This area then merges back into saltmarsh, with sea rush and oioi the dominant species. *Cyperus* sp. is also present.

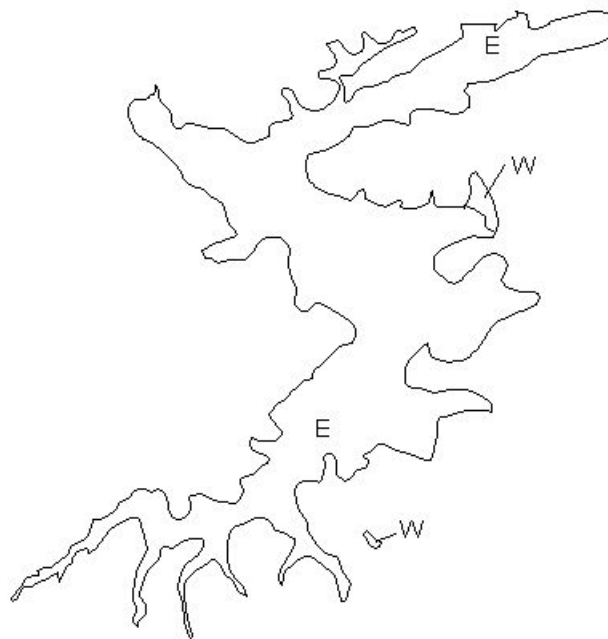
Fauna

Grey duck (Nationally Endangered), matuku (Nationally Endangered), reef heron (Nationally Endangered), Caspian tern (Nationally Vulnerable), northern NZ dotterel (Nationally Vulnerable), banded dotterel (Gradual Decline), white-fronted tern (Gradual Decline), banded rail (Sparse), black shag (Sparse), little black shag (Sparse), pied shag (Sparse), spotless crane (Sparse), variable oystercatcher (Regionally Significant), Australasian harrier, bar-tailed godwit, black-backed gull, little shag, NZ kingfisher, paradise shelduck, pied stilt,



Taiharuru Estuary Q07/013

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland



pukeko, red-billed gull, pied oystercatcher, welcome swallow, white-faced heron. NI fernbird (Sparse) reported.

Significance

An important habitat for birds, including many threatened and one regionally significant species. A good example of an estuarine habitat.

Representative site for type (a) mangrove forest, type (c) manuka-raupo association, and type (e) oioi-sea rush saltmarsh. Only record of type (c) in the Ecological District.

3.4 ha at this site are a reserve administered by the Department of Conservation.

WHANUI BUSH

Survey no.	Q07/014
Survey date	29 July 1997
Grid reference	Q07 417 070
Area	771 ha (736 ha forest, 35 ha shrubland)
Altitude	20-290 m asl

Ecological unit

- (a) Kanuka/manuka-totara forest on hillslope
- (b) Taraire-towai forest in gully
- (c) Totara forest on hillslope
- (d) Kanuka/manuka-towai forest on hillslope
- (e) Kanuka/manuka shrubland on hillslope
- (f) Towai forest on hillslope
- (g) Totara-towai forest on hillslope
- (h) Kauri-rimu forest on ridge
- (i) Kahikatea-totara forest on hillslope

Landform/geology

Deeply incised valleys in hill country of Waipapa Terrane greywacke.

Vegetation

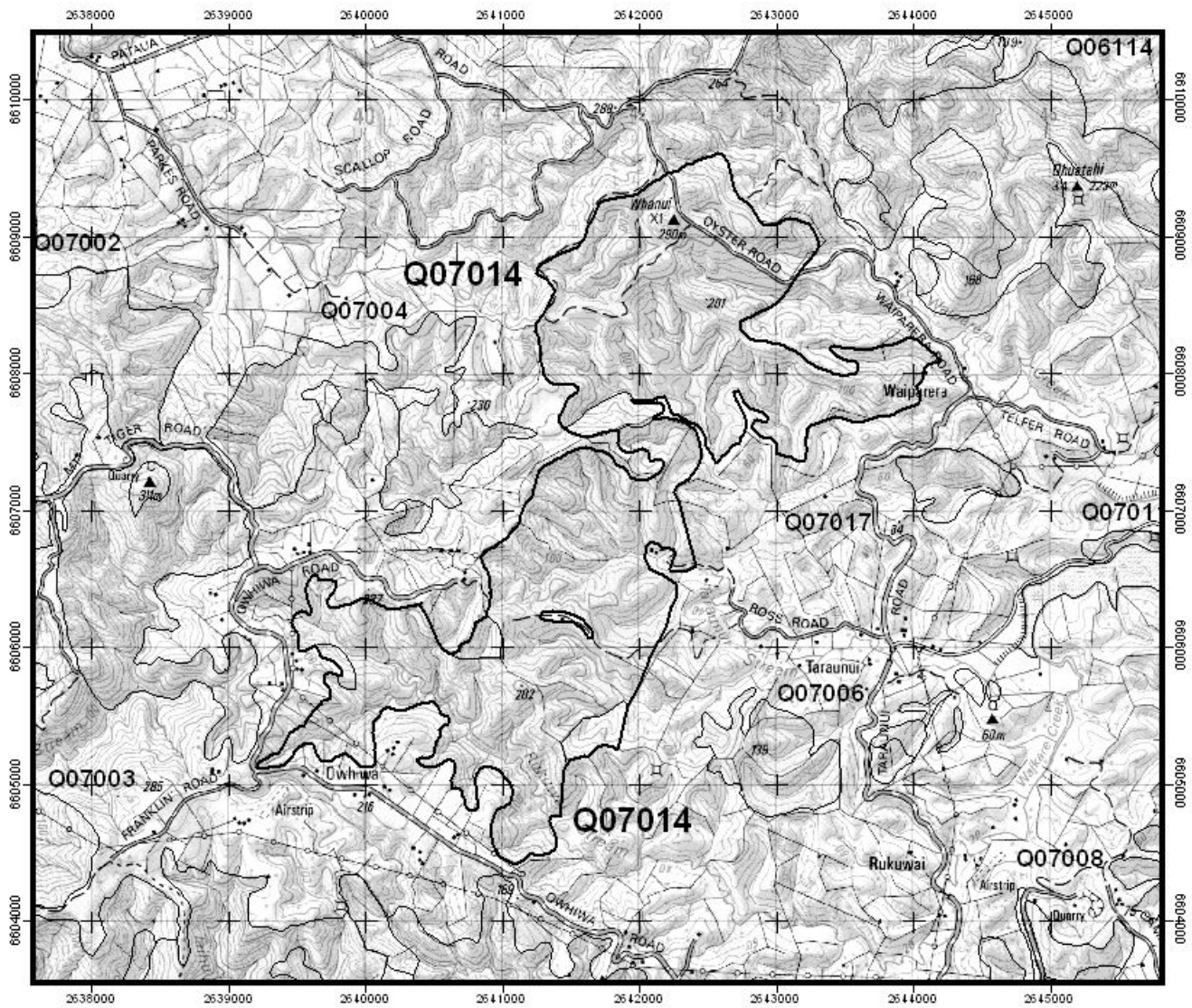
(a) Kanuka/manuka-totara secondary forest is the dominant vegetation type in the area around Whanui Trig, as well as on the north-east side of Oyster Road. Associated species occur in varying frequencies throughout this area, and include towai, nikau, rimu, matai, rewarewa, taraire, puriri, tanekaha, miro, karaka, kohekohe, kauri, and kahikatea.

(b) Gullies within this area consist of taraire-towai secondary forest, with frequent karaka and rewarewa, and occasional rimu, tanekaha, kauri, tawa, and nikau.

(c) To the east towards Waiparera, the forest is totara-dominant, with kanuka/manuka and puriri also present.

The east-facing slopes at the end of Ross Road are dominated by type (a) vegetation, with lesser amounts of (d) kanuka/manuka-towai forest, and kanuka/manuka shrubland.

Type (a) vegetation is repeated again off the end of Owhiwa Road. Frequent species within this area include towai, taraire, kahukatea, rimu, kauri, and tanekaha, with occasional puriri and rewarewa.



Whanui Bush Q07/014

Each grid is 1000m x 1000m

and = 100 ha

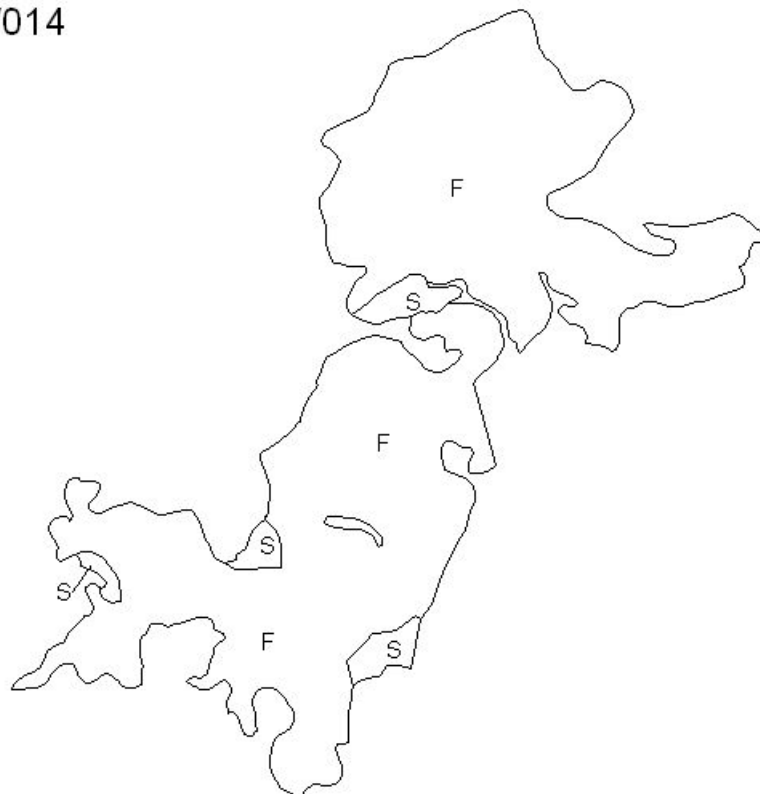
S = shrubland

F = forest

W = wetland

E = estuarine

D = duneland



Type (e) vegetation occurs on the edges of this area.

(f) Moving south from the end of Owhiwa Road, the area around the high point is dominated by towai forest, with frequent taraire, rimu, tawa, tanekaha, and totara. Rewarewa, kauri, puriri, and kahikatea are less common.

(g) Secondary forest in the Rukuwai Stream area is dominated by totara and towai, with frequent taraire, rimu, puriri, and kanuka/manuka, and occasional rewarewa, kauri, tanekaha, and northern rata.

(h) Within this area is a small piece of kauri-rimu secondary forest, with occasional tanekaha, puriri, kahikatea, and rewarewa.

(i) The southern side of the site contains a small piece of kahikatea-totara secondary forest, with puriri, rimu, and swamp maire in low numbers.

Type (d) vegetation is repeated in the area around Owhiwa. Other species present include totara, mamaku, puriri, tanekaha, rewarewa, and tawa. Type (e) vegetation is also repeated in this area.

Fauna

NI brown kiwi (Serious Decline) present in very low numbers in 2004 (R. Pierce, pers. comm.), kukupa (Gradual Decline) and tui utilise this area, as well as the more common forest birds. NI tomtit (Regionally Significant) are present in the area around Oyster Road. NI kaka (Nationally Endangered), bellbird (Regionally Significant) and red-crowned kakariki (Regionally Significant) visit the area. Banded kokopu (Regionally Significant) have been recorded in streams in the area. The snail *Amborhytida dunni* (Gradual Decline).

Significance

A large, contiguous area, which provides habitat for threatened and regionally significant species. The site links other large forest remnants in the area.

Representative site for type (b) taraire-towai forest, and type (i) kahikatea-totara forest.

92.3 ha at this site are protected; 41.8 ha by a Queen Elizabeth II National Trust covenant and 50.5 ha are a reserve administered by the Department of Conservation.

MANGANESE POINT COASTAL FOREST REMNANT

Survey no.	Q07/016
Survey date	27 June 1997
Grid reference	Q07 409 995
Area	7 ha
Altitude	0-80 m asl

Ecological unit

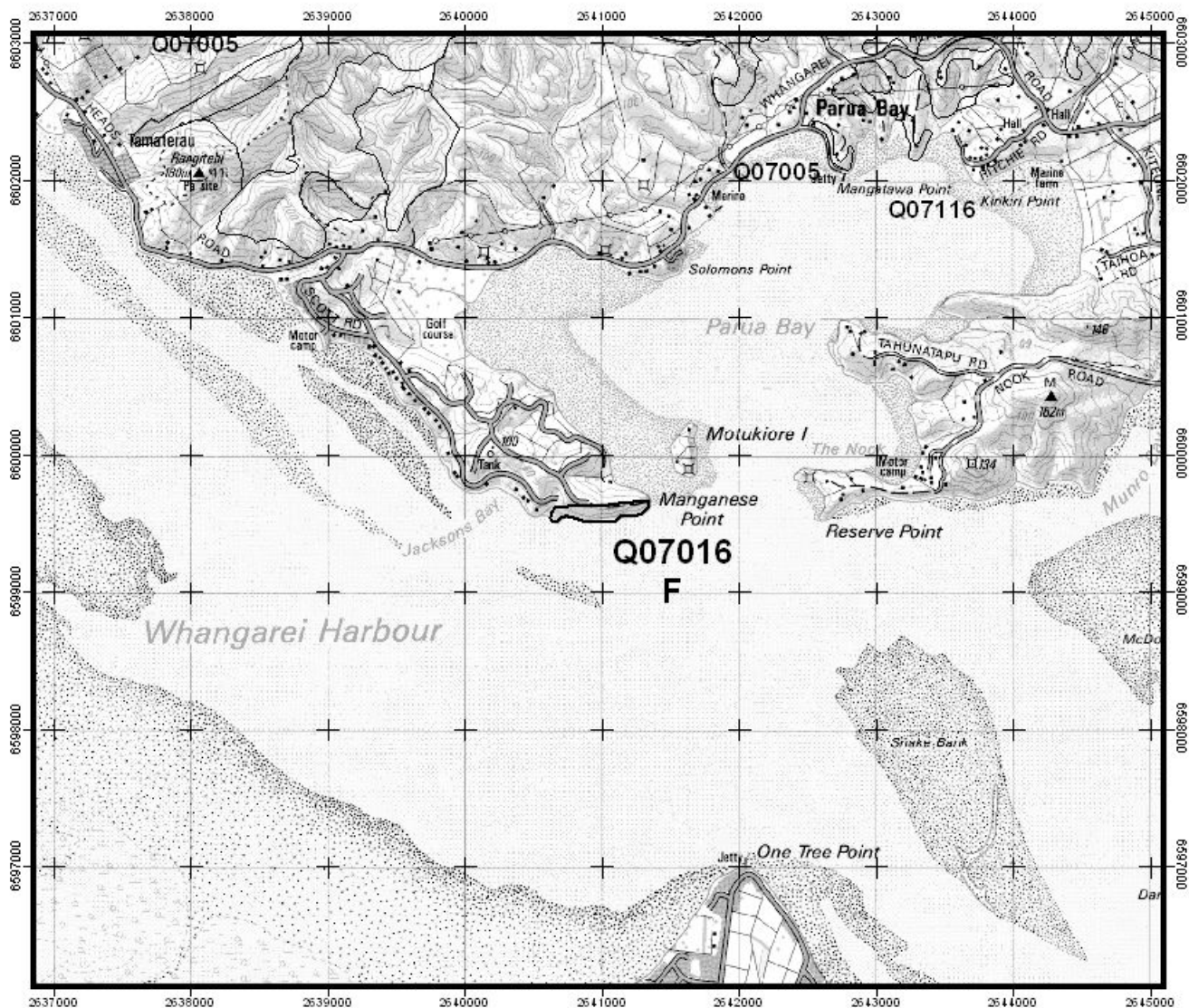
(a) Puriri-taraire coastal forest on steep hillslope

Landform/geology

Headland of Waipapa Terrane greywacke at the mouth of Parua Bay within Whangarei Harbour.

Vegetation

A small coastal forest remnant on the Manganese Point headland.



Manganese Point Coastal Forest Remnant Q07/016

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland

(a) Puriri and taraire are the dominant species, with frequent kohekohe, pohutukawa, karaka, and kowhai. Rewarewa and totara are present in low numbers.

Fauna

Kukupa (Gradual Decline).

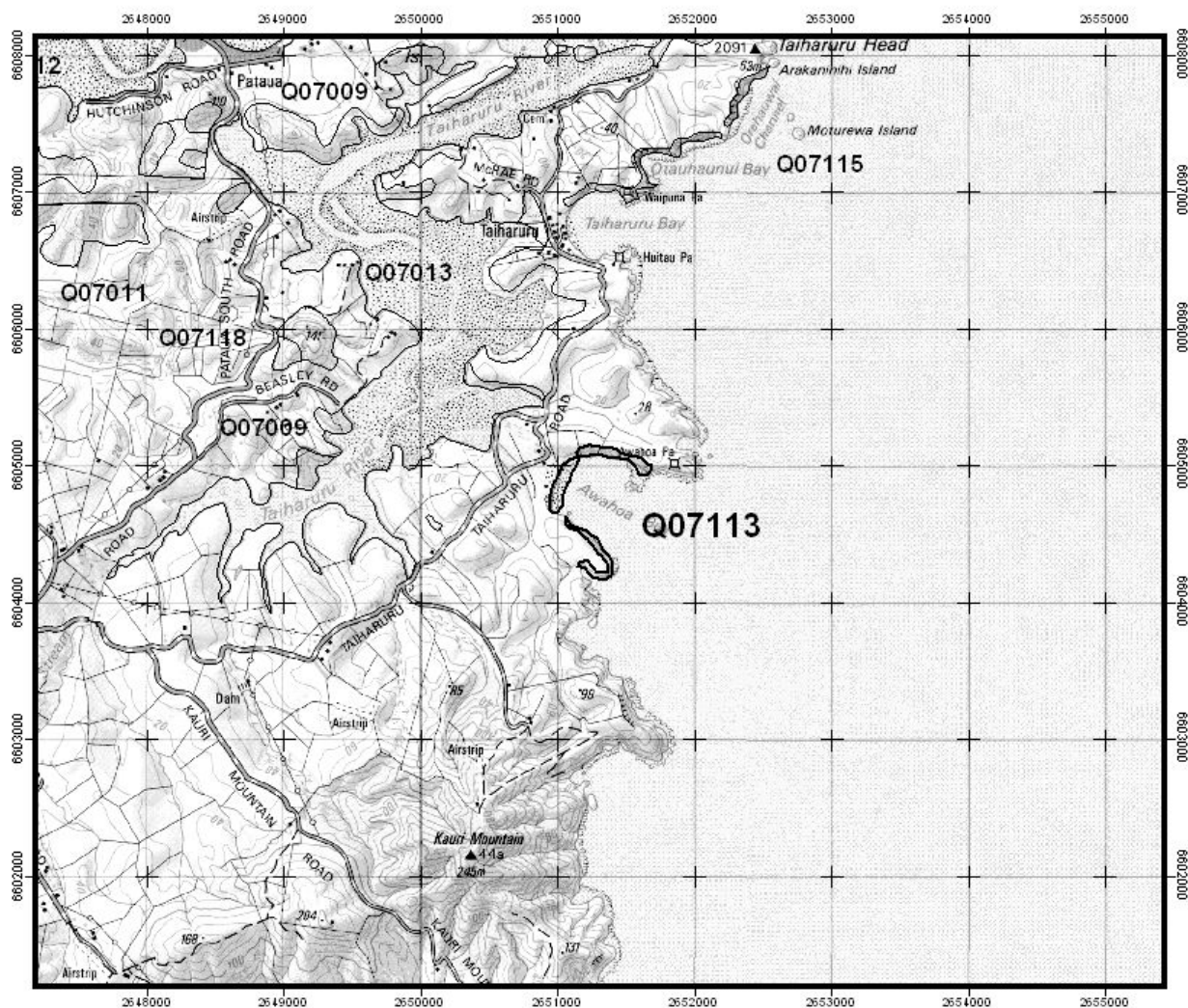
Significance

Presence of a threatened species. One of the few remaining coastal remnants on the Whangarei Harbour.

Representative site, and the only record of puriri-taraire coastal forest in the Ecological District.

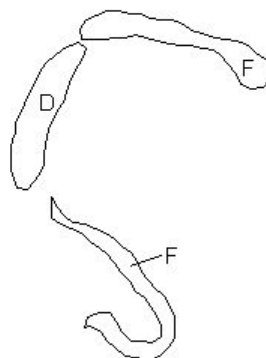
AWAHOA BAY BEACH & COASTAL REMNANTS

Survey no. Q07/113
 Survey date 13 March 2004
 Grid reference Q07 510 048, Q07 514 050, Q07 513 043
 Area 11 ha (7 ha forest, 4 ha duneland)
 Altitude sea level



Awahoa Bay Beach & Coastal Remnants Q07/113

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland



Ecological unit

- (a) Coastal sandfield on foredune
- (b) Pohutukawa coastal forest on cliffs

Landform/geology

Holocene foredune, and coastal cliffs of Waipapa Complex greywacke and chert.

Vegetation

- (a) The sheltered sandy beach and dune is approximately 500 m long. The beach is bordered by kikuyu, with the occasional pohutukawa.
- (b) The two forest remnants on either side of the beach are dominated by pohutukawa, with frequent houpara and harakeke.

Fauna

Significant site for roosting waders, with high numbers of birds recorded there in 2004. Wader count was as follows: two banded dotterels (Gradual Decline), 16 northern New Zealand dotterel (Sparse); four pied shag (Sparse); two variable oystercatchers (Regionally Significant); 30-40 bar-tailed godwit; and 20-30 South Island pied oystercatcher.

Significance

Presence of threatened and regionally significant species. Important high-tide roost site for waders that use Taiharuru Estuary (Q07/013), and possibly Pataua Estuary (Q07/012).

PARAUWANUI BEACH

Survey no.	Q07/114
Survey date	12 July 2004
Grid reference	Q07 478 098
Area	10 ha
Altitude	sea level

Ecological unit

- (a) Spinifex grassland on dunes
- (b) Exotic grass spp. grassland on dunes

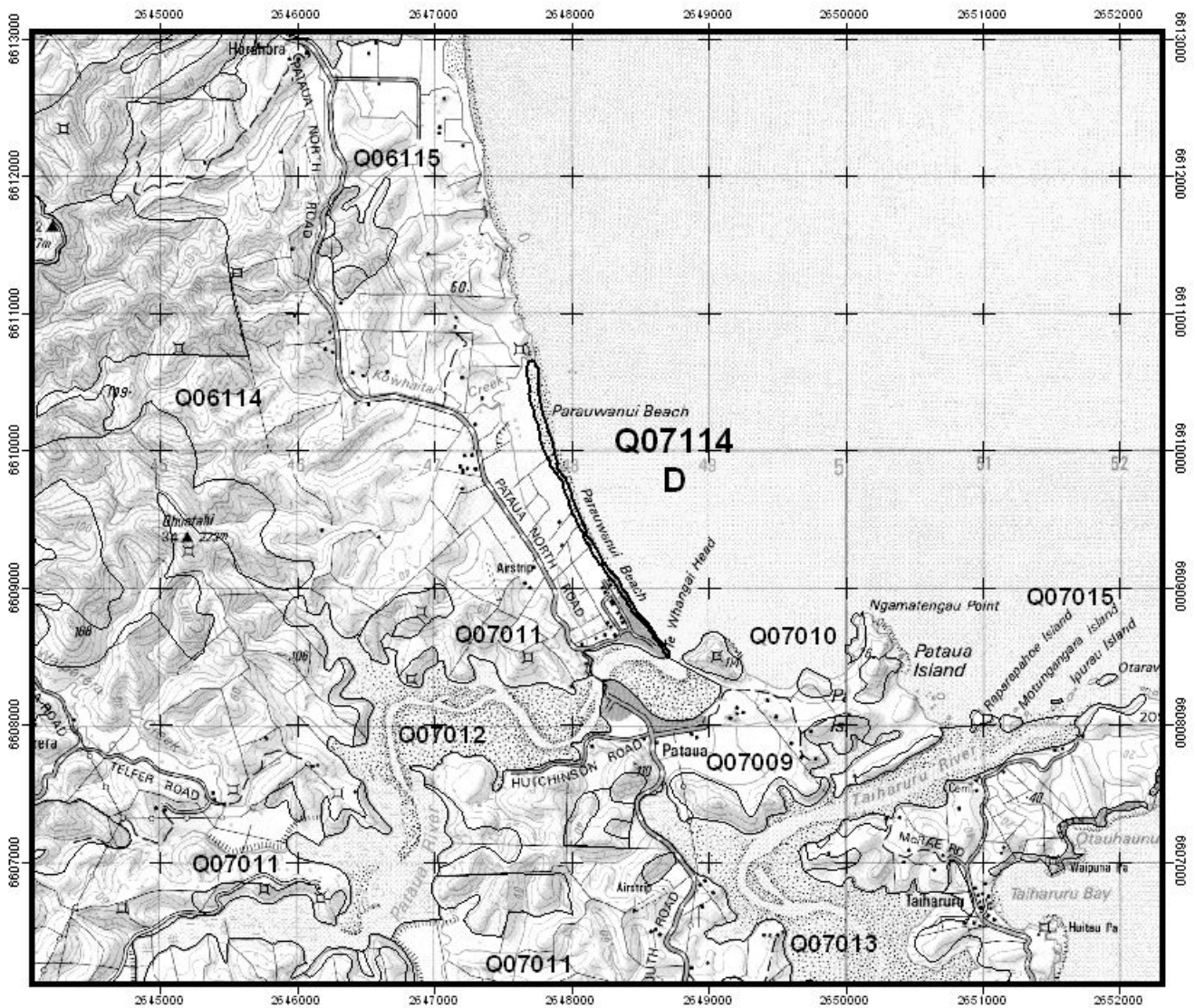
Landform/geology

Holocene transverse dunefield.

Vegetation

A large area of dune land running almost the length of Parauwanui Beach.

- (a) Spinifex grassland dominates the majority of the site, covering the whole of the foredune and extending into the hind dune in places. The threatened plant *Pimelea arenaria* is growing in good numbers throughout this area. There are small amounts of pingao throughout the dunes (some planted), as well as exotic grasses, dandelion, and gazania.
- (b) Exotic grass spp. dominate the majority of the hind dune. *P. arenaria* is also found in numerous places. Gazania occurs in large patches or scattered through the grasses, and there is also the occasional.



Parauwanui Beach Q07/114

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland

Significant flora

Large area of *Pimelea arenaria* (Gradual Decline) on the dunes, with at least 600 plants recorded in 1999. The northern North Island *P. arenaria* appears to be different from that further south, and this site contains the largest known population of this northern taxon. Pingao (Gradual Decline).

Fauna

Northern NZ dotterel (Nationally Vulnerable), variable oystercatcher (Regionally Significant).

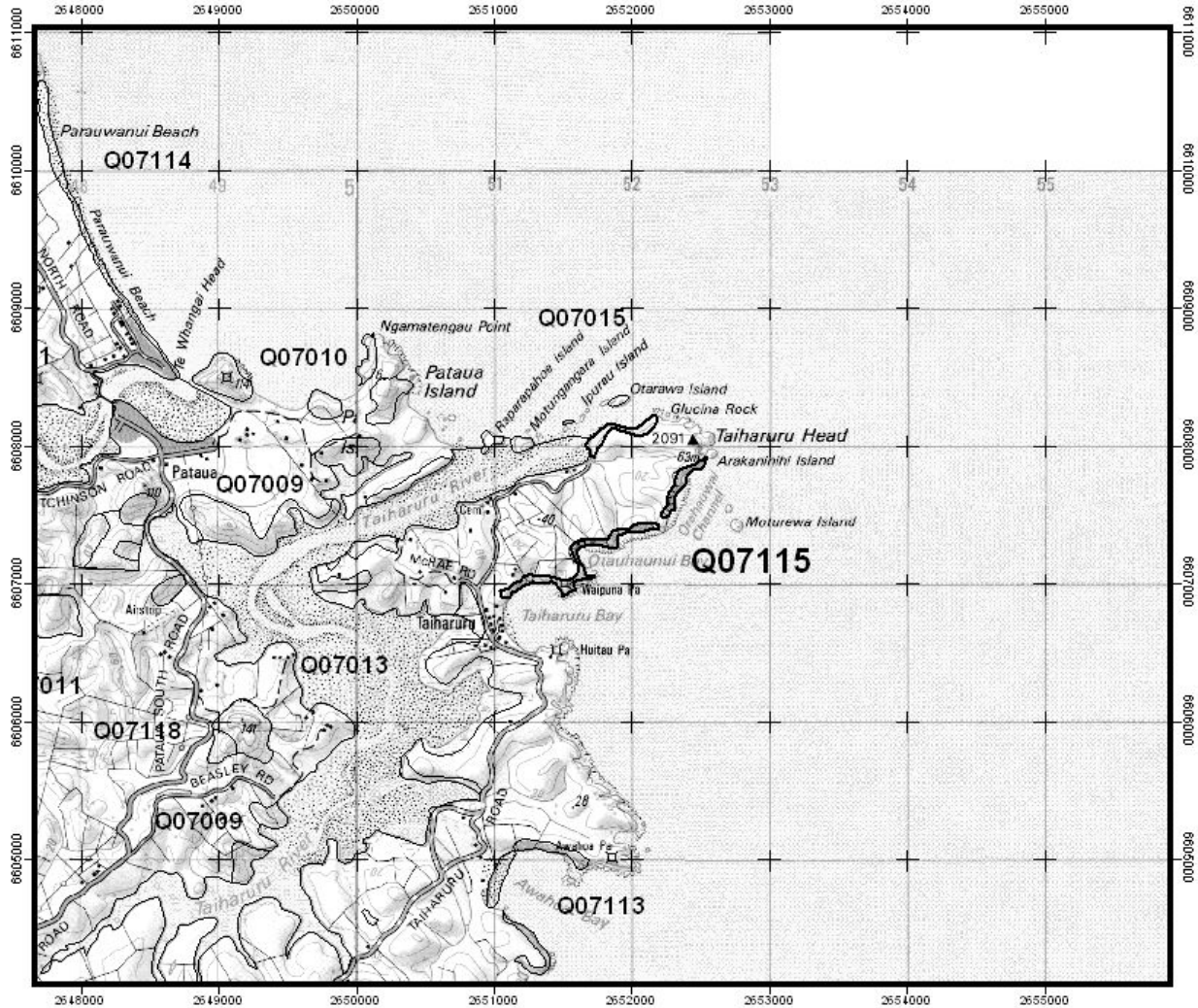
Significance

One of the largest and least modified dune habitats in the Ecological District. Representative site for type (a) spinifex grassland. Presence of threatened and regionally significant species.

6 ha at this site are protected by a Queen Elizabeth II National Trust covenant.

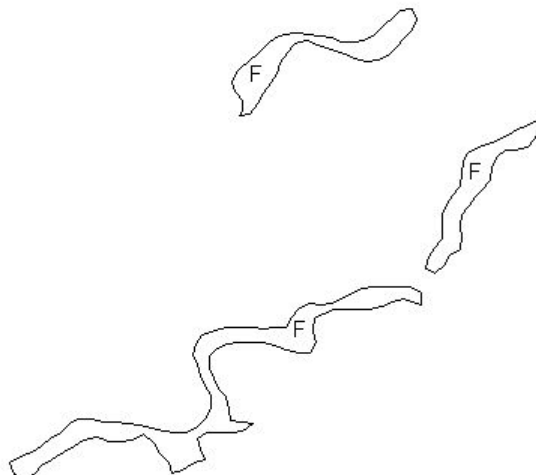
TAIHARURU HEAD COASTAL REMNANTS

Survey no. Q07/115
 Survey date 3 December 2004
 Grid reference Q07 519 081, Q07 523 077, Q07 516 072
 Area 14 ha
 Altitude 0-40 m asl



Taiharuru Head Coastal Remnants Q07/115

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland



Ecological unit

- (a) Pohutukawa coastal forest on headland

Landform/geology

Coastal cliffs of Waipapa Complex greywacke.

Vegetation

Narrow strip of coastal forest around the headland from Taiharuru Bay to the mouth of the Taiharuru Estuary.

- (a) The forest is dominated by an open canopy of pohutukawa forest, with frequent houpara and harakeke, and occasional kowhai, ti kouka, and kowharawhara.

Fauna

Not surveyed.

Significance

Representative site, and an example of a nationally rare forest type.

PARUA BAY REMNANTS

Survey no.	Q07/116
Survey date	31 January 1991–7 December 2004
Grid reference	Q07 431 031, Q07 435 027, Q07 432 022, Q07 429 027, Q07 426 021
Area	47 ha (44 ha forest; 1 ha wetland; 2 ha estuary)
Altitude	0–40 m asl

Ecological unit

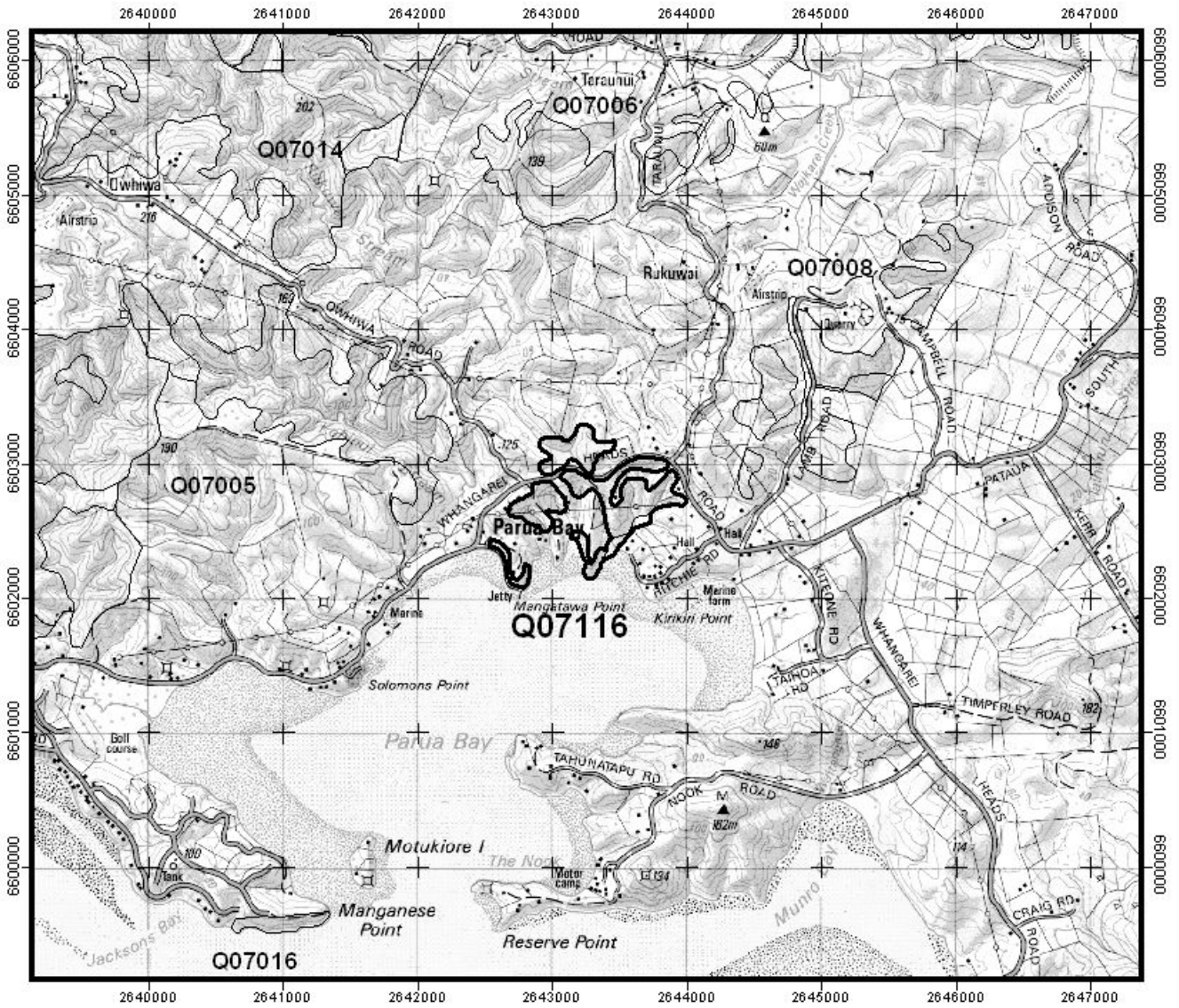
- (a) Rimu–totara coastal forest on hillslope
(b) Pohutukawa–totara coastal forest on hillslope
(c) Pohutukawa–puriri–taraire coastal forest on hillslope
(d) Raupo wetland on flat
(e) Kuta–*Baumea juncea* wetland on flat
(f) Mangrove forest on estuary

Landform/geology

Coastal cliffs of Waipapa Complex greywacke.

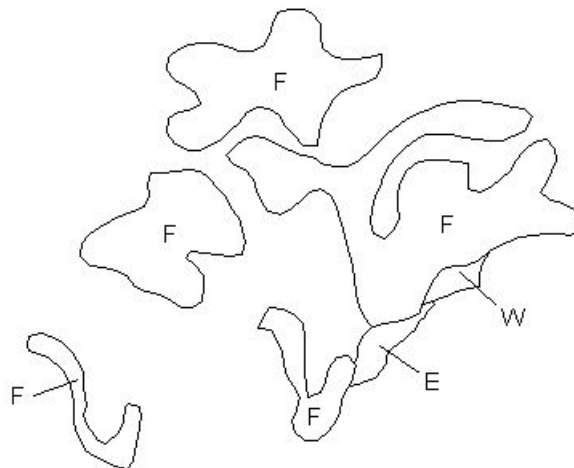
Vegetation

- (a) This vegetation type is found in the northern part of the site, including the area to the north of Whangarei Heads Road. Frequently associated species include kauri and puriri, with occasional tanekaha, kahikatea, rewarewa, karaka, taraire and nikau.
- (b) Pohutukawa–totara coastal forest dominates towards the coast, with rimu frequent.
- (c) The coastal forest adjacent to the jetty is composed of pohutukawa–puriri–taraire forest with frequent totara and kauri, and occasional rimu, mamaku, kohekohe, kanuka/manuka, kowhai, kahikatea and ti kouka.
- (d) On the eastern side of the site is a small raupo wetland area with occasional manuka and ti kouka.
- (e) The raupo wetland grades into kuta–*Baumea juncea* wetland, which in turn grades into type (f) mangrove forest.



Parua Bay Remnants Q07/116

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland



Fauna

Kukupa (Gradual Decline), NI fantail, grey warbler, NZ kingfisher, tui.

Significance

An example of a nationally rare habitat type, and one of the few coastal remnants still on the Whangarei Harbour. A representative site for types (a), (b), (c) and (e) and the only records of these ecological units in the Ecological District.

Presence of a threatened bird species.

KINGS KAURI SCENIC RESERVE

Survey no. Q07/117
Survey date 2 December 2004
Grid reference Q07 350 053
Area 9 ha
Altitude 20-120 m asl

Ecological unit

- (a) Kauri-rimu forest on hillslope
- (b) Kanuka/manuka-totara forest on hillslope

Landform/geology

Hillcountry of Waipapa Terrane greywacke.

Vegetation

(a) The majority of the site consists of kauri-rimu forest with occasional rewarewa, puriri and taraire. Species present in low numbers include miro, white maire, mamaku, towai and totara.

(b) Kanuka/manuka-totara forest is found around the edges of the site, with rimu, puriri, mamaku, tanekaha and nikau in low numbers.

Significant flora

Willow-leaved maire (Gradual Decline).

Fauna

Kukupu (Gradual Decline), and the snail *Amborhytida dunniæ* (Serious Decline).

Significance

Presence of threatened plant and animal species. Representative site for type (a) kauri-rimu forest.

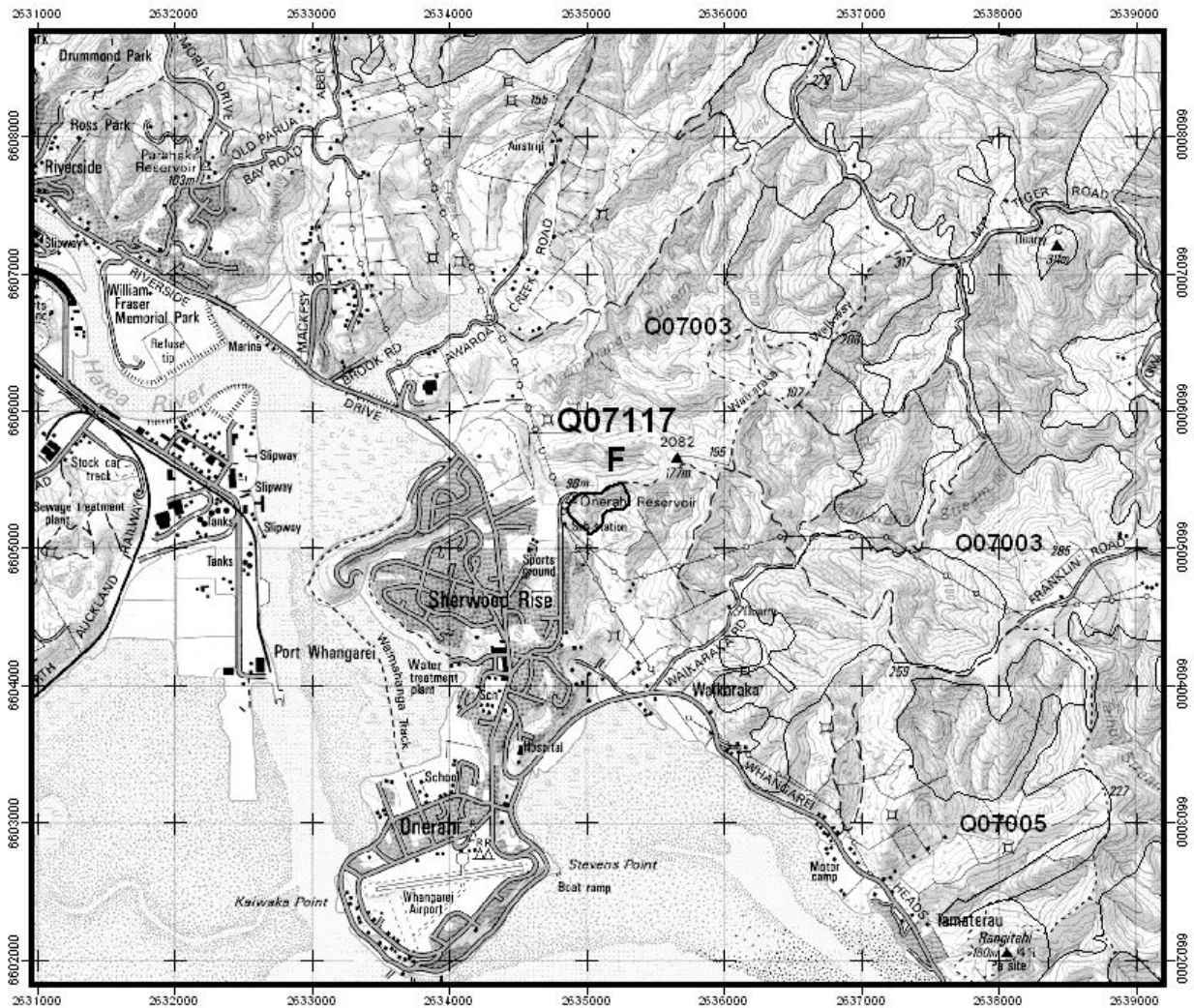
3.5 ha at this site are a Scenic Reserve administered by the Department of Conservation.

BEASLEY ROAD REMNANT

Survey no. Q07/118
Survey date 3 December 2004
Grid reference Q07 491 059
Area 15 ha (12 ha forest; 3 ha shrubland)
Altitude 40-141 m asl

Ecological unit

- (a) *Pinus* sp. forest on hillslope



Kings Kauri Scenic Reserve Q07/117

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland

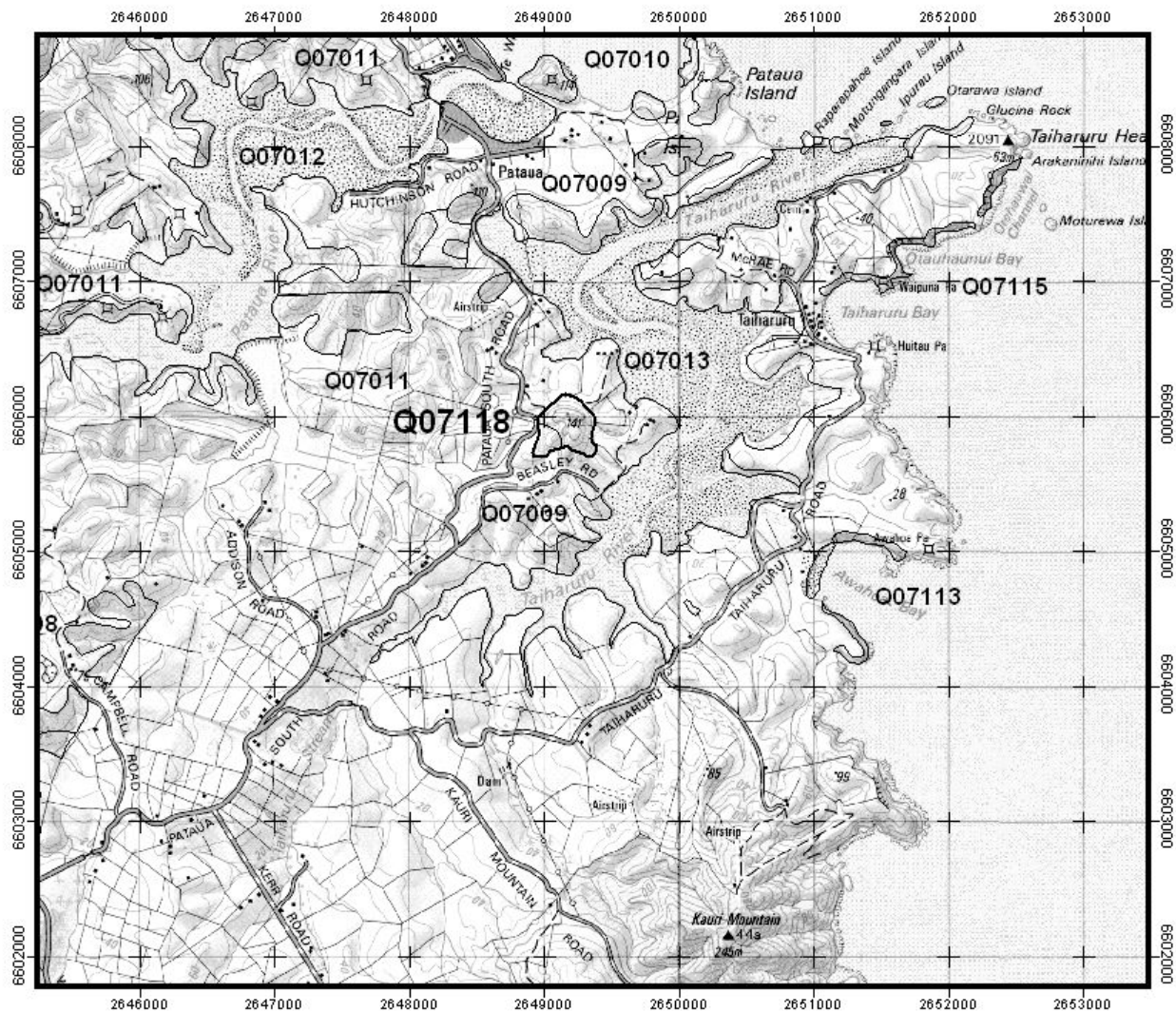
- (b) Kanuka/manuka shrubland on hillslope
- (c) Manuka shrubland on hillslope

Landform/geology

Hill of deeply weathered Taurikura Subgroup rhyolitic breccia.

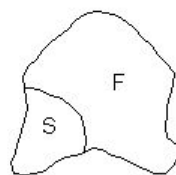
Vegetation

- (a) The site is predominantly *Pinus* sp. forest with an open canopy, with a sub-canopy of native species.
- (b) Within the site there are areas of kanuka/manuka shrubland, with frequent mapou and *Coprosma* spp., and occasional mingimingi, totara, mamaku, ponga and ti kouka.
- (c) There are also areas of gumland vegetation dominated by an open canopy of manuka, with occasional mingimingi, ti kouka and ponga.



Beasley Road Remnant Q07/118

Each grid is 1000m x 1000m
 and = 100 ha
 S = shrubland
 F = forest
 W = wetland
 E = estuarine
 D = duneland



Significant flora

Celmisia adamsii var. *rugulosa* (Range Restricted) is present in the kanuka/manuka shrubland and the manuka gumland.

Fauna

None recorded.

Significance

This is the only area of gumland vegetation and the only example of this geological type in this Ecological District. Also has the only record of the threatened plant *Celmisia adamsii* var. *rugulosa* in the Ecological District.

Representative site for type (c) vegetation.