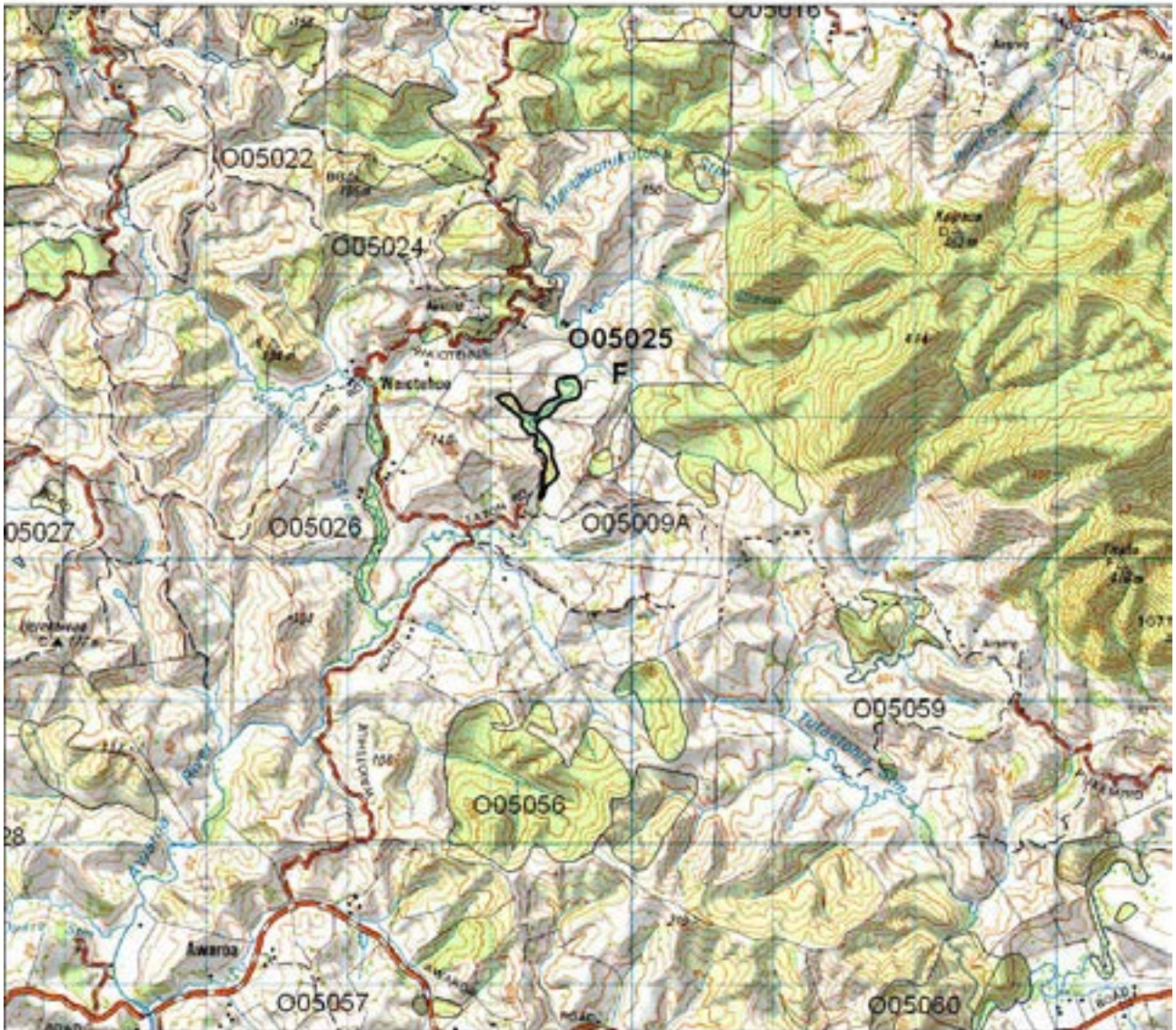


OTANEROA SCENIC RESERVE

Survey no. O05/025
Survey date 18 November 1994
Grid reference O05 393 628
Area 10 ha
Altitude 20-60 m asl

Ecological unit

(a) Taraire forest on moderate to steep hillslope (95%)



Otaneroa Scenic Reserve O05/025

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

(b) Kanuka shrubland on moderate to steep hillslope (5%)

Landform/geology

Alluvial valley flats and dissected hill country on Mangakahia Complex sandstone.

Vegetation

(a) On the steep east bank of the Otaneroa Stream, taraire is abundant and totara and towai frequent. Other species present include kowhai, kahikatea, rimu, tawa, rewarewa, karaka and isolated kauri and northern rata. Titoki, pukatea, toro and miro are also present.

The understorey contains houhere, wheki, and pigeonwood.

(b) Adjoining this is an area of kanuka shrubland between 2–5 m tall containing frequent totara and towai. Rewarewa, mingimingi, karamu, tutu, and koromiko are also present.

Further upstream is another area of taraire, type (a). Titoki, pukatea, towai, totara, kahikatea and rewarewa are also present.

Fauna

Kukupu (Gradual Decline).

Significance

Representative site for type (a), taraire forest. This site provides riparian protection and is a seasonal food source for the threatened kukupu. Two hectares (20% of this site) is administered by the Department of Conservation as a Scenic Reserve.

TONGAROA STREAM REMNANT

Survey no.	O05/030
Survey date	21 November 1994
Grid reference	O05 340 634
Area	66 ha (49 ha forest, 17 ha shrubland)
Altitude	> 20 to 100 m asl

Ecological unit

- (a) Towai forest on hillslope
- (b) Taraire forest on hillslope
- (c) Taraire-towai forest on hillslope
- (d) Manuka shrubland on hillslope
- (e) Manuka-totara-towai forest on hillslope
- (f) Kahikatea secondary forest on toeslope

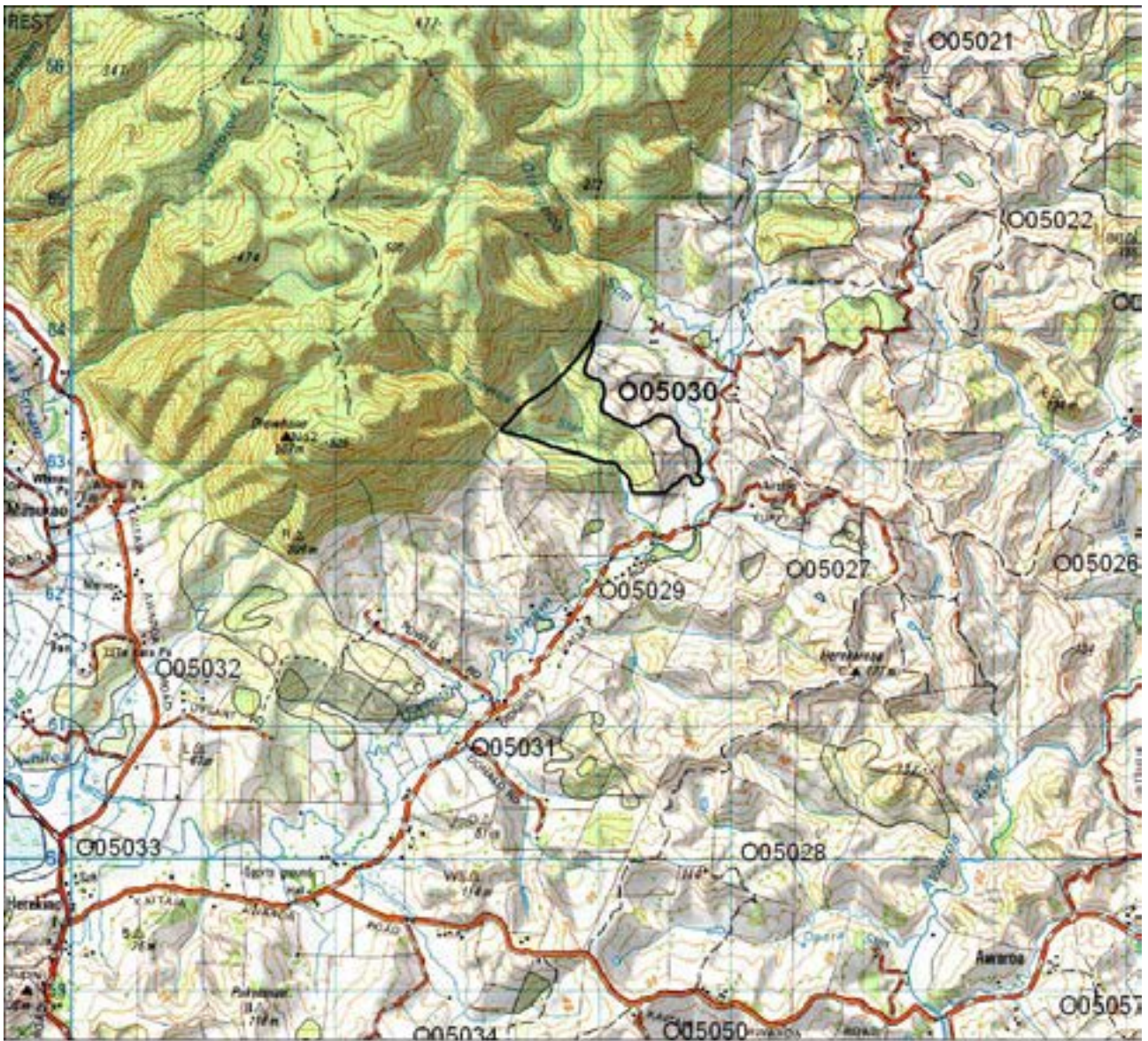
Landform/geology

Landslide of Tangihua Complex material derived from adjoining igneous massif and overlying Mangakahia Complex sandstone.

Vegetation

(a) On the higher slopes of the Tongaroa Stream catchment, towai is dominant with northern rata and taraire. Rewarewa, kauri, kohekohe, puriri, nikau, rimu and kahikatea also occur here.

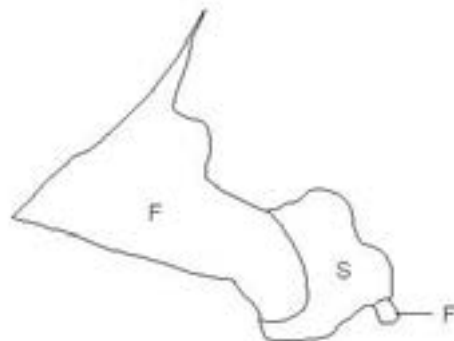
(b) On the lower slopes taraire is dominant. Emergent northern rata and towai are frequent. Rimu, kahikatea and kauri are occasional emergents. Puriri, pukatea, rewarewa and totara also occur.



Tongaroa Stream Remnant O05/030

Each grid is 1000m x 1000m
and = 100 ha.

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



(c) There is also an area of co-dominant taraire and towai with kanuka and northern rata and the occasional rimu and totara.

On the margins the following vegetation types occur:

(d) Low manuka shrubland (2-3 m tall) with totara, ti kouka, mamaku, towai, kahikatea, and wattle.

(e) Manuka, totara and towai forest with the occasional rewarewa and mamaku.

(f) A very small area of secondary kahikatea.

Fauna

NI brown kiwi (Serious Decline) and NI tomtit (Regionally significant species).

Significance

Contiguous with Herekino Forest (Ahipara Ecological District) and as a result sharing many of the values of the greater habitat. The area includes tall forest with emergents and presence of a threatened and regionally significant species.

Representative site for type (a) towai forest and type (c) taraire-towai forest.

DYSART/POWELL RD BUSH

Survey no.	O05/032
Survey date	21 November 1994
Grid reference	O05 327 611, O05 317 616, O05 313 611
Area	144 ha (17 ha forest, 127 ha shrubland)
Altitude	< 20-100 m asl

Ecological unit

(a) Manuka shrubland on hillslope

(b) Kanuka/manuka shrubland on hillslope

(c) Taraire forest in gully

(d) Kahikatea-kanuka secondary forest on hillslope

(e) Kahikatea-totara secondary forest on hillslope

Landform/geology

Dissected hill country on Mangakahia Complex sandstone adjoining the igneous massif of Ahipara Ecological District.

Vegetation

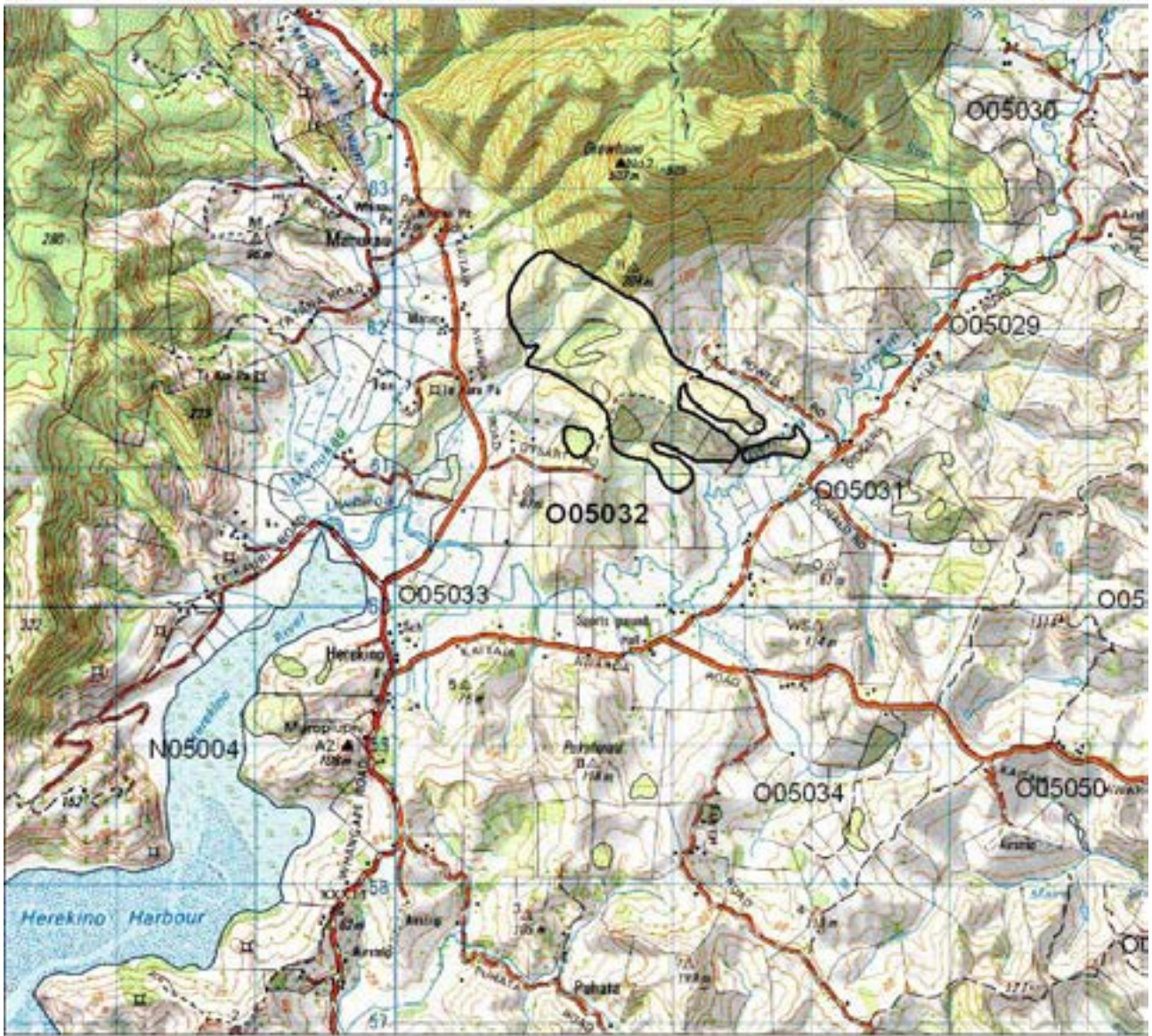
A mosaic of manuka shrubland with pockets of broadleaf and secondary podocarp.

(a) Manuka shrubland mostly 2-4 m tall with occasional mamaku and totara, comprising much of the vegetation on the lower slopes.

(b) Tall kanuka/manuka shrubland occurs at higher altitudes nearer the Herekino Forest and Powell Rd. It also contains totara, kahikatea, kauri, tanekaha, puriri, ti kouka and mamaku.

Above the Uwhiroa Stream there is a similar area which contains kowhai and taraire, but no tanekaha or kauri.

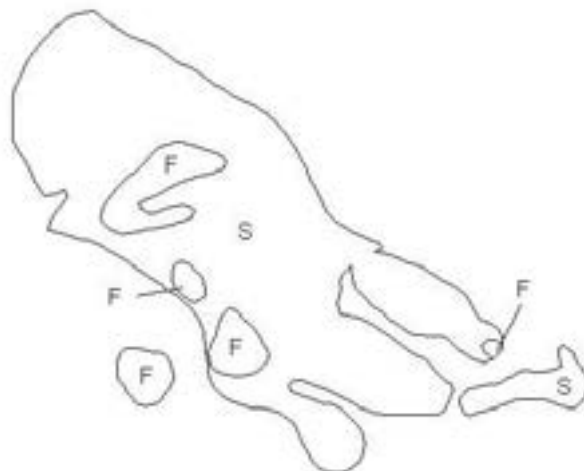
(c) In the southern gully, taraire is common with frequent puriri and kahikatea. Rewarewa, totara and northern rata also occur. To the north, taraire is abundant with scattered northern rata, kahikatea, puriri, kauri, tanekaha and kanuka.



Dysart/Powell Rd Bush O05/032

Each grid is 1000m x 1000m
and = 100 ha.

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



- (d) Secondary kahikatea forest with kanuka occurs in pockets in Dysart Rd. Totara, rimu, puriri, rewarewa, kauri, tanekaha, taraire, ti kouka and mamaku also occur.
- (e) Secondary kahikatea and totara forest with occasional puriri, titoki and ti kouka occurs in Powell Rd.

Fauna

NI brown kiwi (Serious Decline).

Significance

A large habitat with pockets of secondary podocarp forest. Contiguous with Herekino Forest (Ahipara Ecological District) and a partial sequence from unmodified forest to the upper reaches of Herekino Harbour.

Only one of two sites of type (d) recorded in the Ecological District.

Presence of a threatened species.

Stewardship Land, administered by the Department of Conservation, protects one hectare of this site.

UPPER HEREKINO RIVER

Survey no.	O05/033
Survey date	12 December 1994
Grid reference	N05 297 605, O05 298 602, O05 301 612
Area	81 ha (27 ha shrubland, 54 ha wetland)
Altitude	0-60 m asl

Ecological unit

- (a) Harakeke-*Juncus* sp. association on alluvium
- (b) Manuka shrubland on alluvium
- (c) Raupo reedland on alluvium
- (d) Manuka-raupo swamp association on alluvium
- (e) Harakeke-saltmarsh ribbonwood swamp association on alluvium
- (f) Mamaku-manuka shrubland on gentle hillslope
- (g) Manuka-saltmarsh ribbonwood shrubland on alluvium
- (h) Giant umbrella sedge-raupo swamp association on alluvium

Landform/geology

Low sandstone ridge and estuarine/alluvial flats.

Vegetation

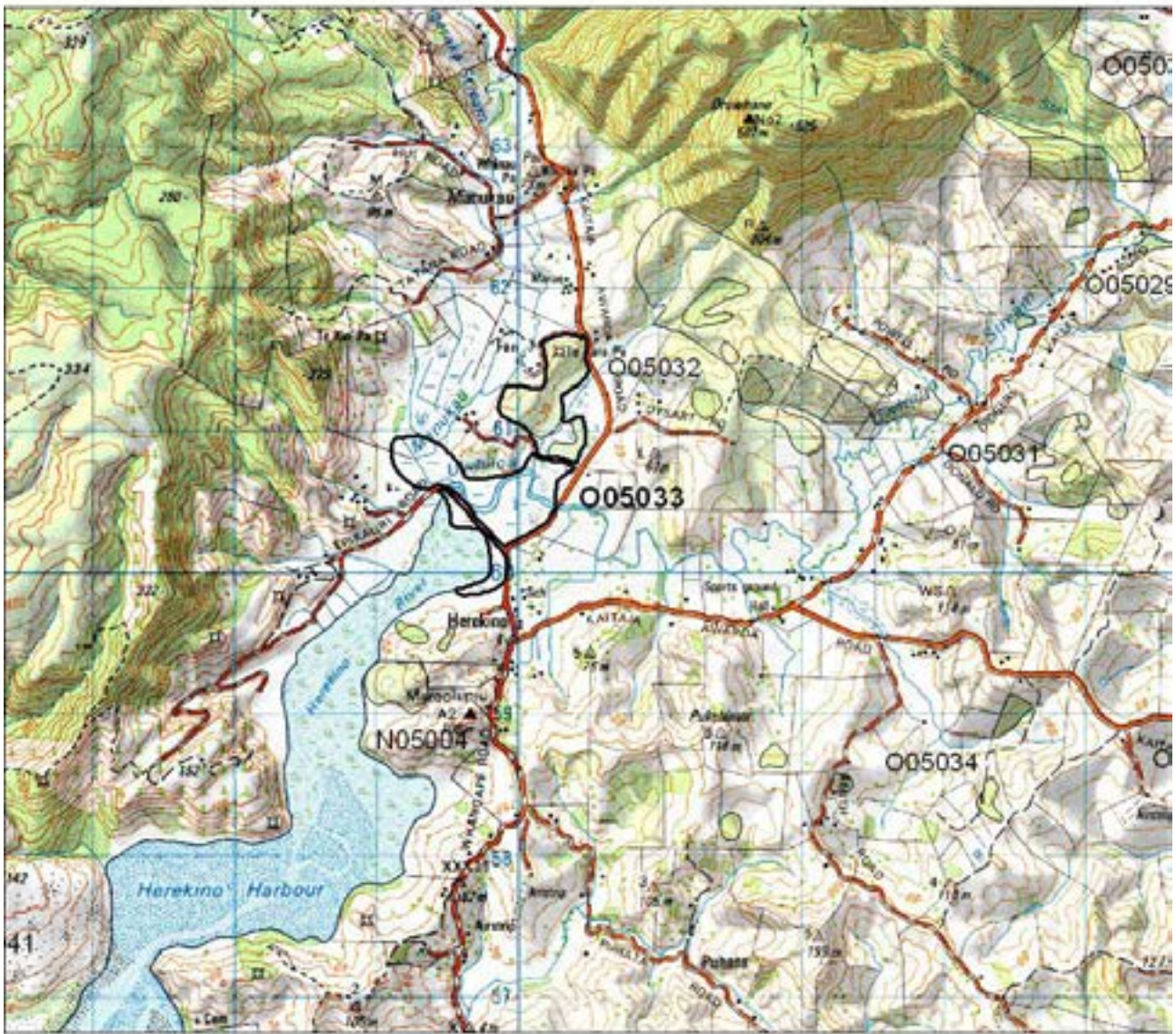
(a) Harakeke and *Juncus* sp. occur where the Uwhiroa Stream joins the Herekino Harbour. Raupo is occasional.

(b) On the margins manuka is abundant with scattered ti kouka, saltmarsh ribbonwood and koromiko.

In the lower reaches of a tributary from Orowhano, is a varied wetland system that originally extended as far as the Kaitaia-Awaroa Rd comprising:

(c) Raupo with scattered harakeke, ti kouka and saltmarsh ribbonwood.

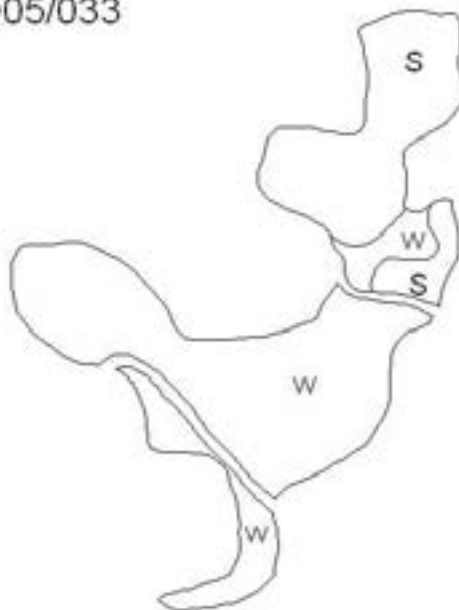
(d) Low manuka with raupo and isolated kahikatea, as well as the species mentioned above.



Upper Herekino River O05/033

Each grid is 1000m x 1000m
and = 100 ha

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



(e) Harakeke and saltmarsh ribbonwood with frequent raupo and occasional mangrove as the salt interface is reached.

1–2 m tall manuka (type b) occurs on the drier ground.

(f) In the adjoining shrubland, mamaku and manuka are common, with scattered gorse and kahili ginger.

At the Manukau Stream confluence there is:

Type (c), raupo with manuka.

Type (g), manuka and saltmarsh ribbonwood with ti kouka and occasional harakeke.

(h) Along the channel by the Kaitaia–Awaroa Rd Bridge giant umbrella sedge and raupo occur.

On the margins of type (b) manuka shrubland occurs with scattered ti kouka, kahikatea and saltmarsh ribbonwood.

The western side of the area adjoins a larger area of low manuka.

Fauna

Australasian bittern (Nationally Endangered), banded rail, NI fernbird, and spotless crane (all Sparse). NI brown kiwi (Serious Decline) is present in an adjacent habitat and may be present in the shrubland area—survey is needed to confirm this.

Significance

A mosaic of high quality habitat for several threatened species of national significance and representing diverse freshwater/saltwater vegetation types.

Representative site for all ecological units. Types (a), (d), (e), (f) and (g) are unrecorded elsewhere in the Ecological District and only one of two sites of type (h).

Marginal Strip of 2 ha, administered by the Department of Conservation occurs within this site.

PAUANUI BUSH

Survey no.	O05/035
Survey date	1 October 1994, 23 March, 29 September 1995
Grid reference	O05 325 556, O05 326 547, O05 330 541
Area	280 ha (50 ha forest, 230 ha shrubland)
Altitude	0–c. 220 m asl

Ecological unit

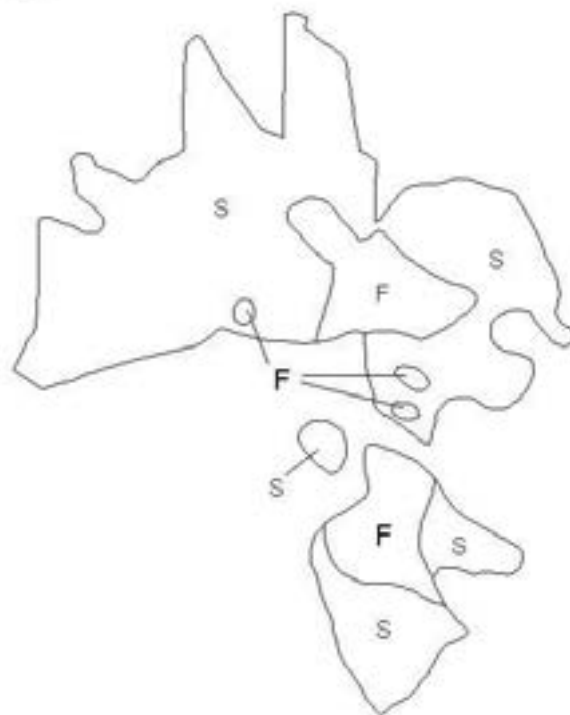
- (a) Manuka shrubland on ridge and hillslope
- (b) Kanuka/manuka shrubland on hillslope
- (c) Towai forest in gully
- (d) Taraire forest on hillslope and gully
- (e) Kahikatea–taraire forest in gully
- (f) Grass–sedge association on valley flats



Pauanui Bush O05/035

Each grid is 1000m x 1000m
and = 100 ha.

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



Landform/geology

Dissected hill country on Mangakahia Complex sandstone including headwaters and large parts of stream catchments.

Vegetation

An extensive semi-contiguous area of shrubland and broadleaf-podocarp remnants.

(a) Much of the area is regenerating shrubland between 1–8 m tall with scattered ti kouka, mamaku, houhere, totara, puriri and kahikatea. The understorey consists of *Coprosma rhamnoides* and hangehange with *Gabnia setifolia*, tree ferns, kiokio and scattered mistflower. This vegetation type is common on valley sides.

(b) The bulk of the main basin is kanuka/manuka to 8 m tall with an understorey of wheki, ponga, *Coprosma rhamnoides* and hangehange and ground cover of thread fern or the club moss *Lycopodium volubile*.

(c) In the upper gullies towai is dominant with houhere, kohekohe and totara, with an understorey of mamaku, kiekie, taurepo and parataniwha. No environmental weeds were evident here in 1994/95.

(d) On the Puhata side of the trig, taraire occurs with frequent towai and occasional nikau, rewarewa, kahikatea, rimu, puriri, totara and mamangi.

On the Awaroa River side are areas of type (d) taraire forest. Below the trig taraire is abundant and rewarewa, puriri, kahikatea and totara occasional. To the north, nikau, towai, puriri and kahikatea occur frequently.

(e) Over the ridge to the northwest, both taraire and kahikatea are common and puriri frequent.

(f) The valley bottom on the Puhata side consists of narrow, waterlogged grassy flats with *Carex virgata*, kiokio and mistflower.

There are some grassy patches on the ridges, and some stands of exotic plantings at the end of Puhata Rd. Around the trig, the land is reverting and open areas are frequent amongst the low manuka.

Fauna

NI brown kiwi (Serious Decline) and kauri snail (Gradual Decline).

Significance

A large representative area for type (a), (b) and (e), with pockets of bush supporting threatened species.

NGATAUHE STREAM REMNANTS

Survey no.	O05/037
Survey date	23 March 1995
Grid reference	O05 312 535, O05 310 546, O05 316 546
Area	139 ha (5 ha forest, 134 ha shrubland)
Altitude	sea level–140 m asl

Ecological unit

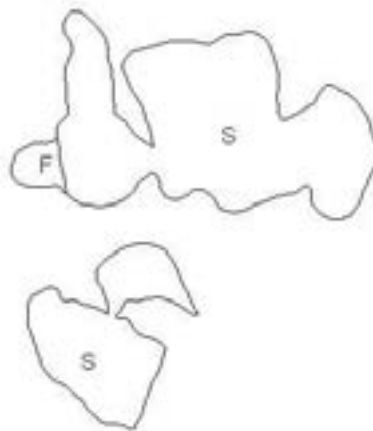
(a) Kahikatea–manuka secondary forest on hillslope



Ngatauhe Stream Remnants O05/037

Each grid is 1000m x 1000m
and = 100 ha.

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



(b) Manuka shrubland on hillslope

Landform/geology

A large proportion of a catchment in dissected hill country on Mangakahia Complex sandstone.

Vegetation

(a) In the Hapumateroto Stream catchment the canopy is open and slips and erosion are apparent. There is a small stand of secondary kahikatea with manuka and occasional puriri, taraire, rimu, rewarewa, northern rata, nikau and ti kouka.

(b) In the neighbouring Ngatauhe Stream catchment the ridges are cleared, and there has been recent (1995) crushing and tracking. At the head of this catchment is a very steep area with low manuka, frequent ti kouka, and harakeke.

Fauna

Not surveyed by the Department of Conservation. NI brown kiwi (Serious Decline) has been reported from this site.

Significance

Catchment protection, and NI brown kiwi habitat.

Only record of type (a) in the Ecological District.

ROTOWHENUA RIVER SHRUBLAND

Survey no.	O05/037A
Survey date	23 March 1995
Grid reference	O05 320 539
Area	5 ha
Altitude	0-20 m asl

Ecological unit

(a) Manuka shrubland on coastal margin

Landform/geology

Gully in Mangakahia Complex sandstone with some estuarine deposits of alluvium.

Vegetation

Along the coastal fringe manuka shrubland occurs with frequent kowhai. This grades into saltmarsh of the Whangape Harbour.

Fauna

Not surveyed.

Significance

Buffer to Whangape Harbour.

Coastal shrubland is a nationally uncommon vegetation type.



Rotowhenua River Shrubland O05/037A

Each grid is 1000m x 1000m
and = 100 ha.

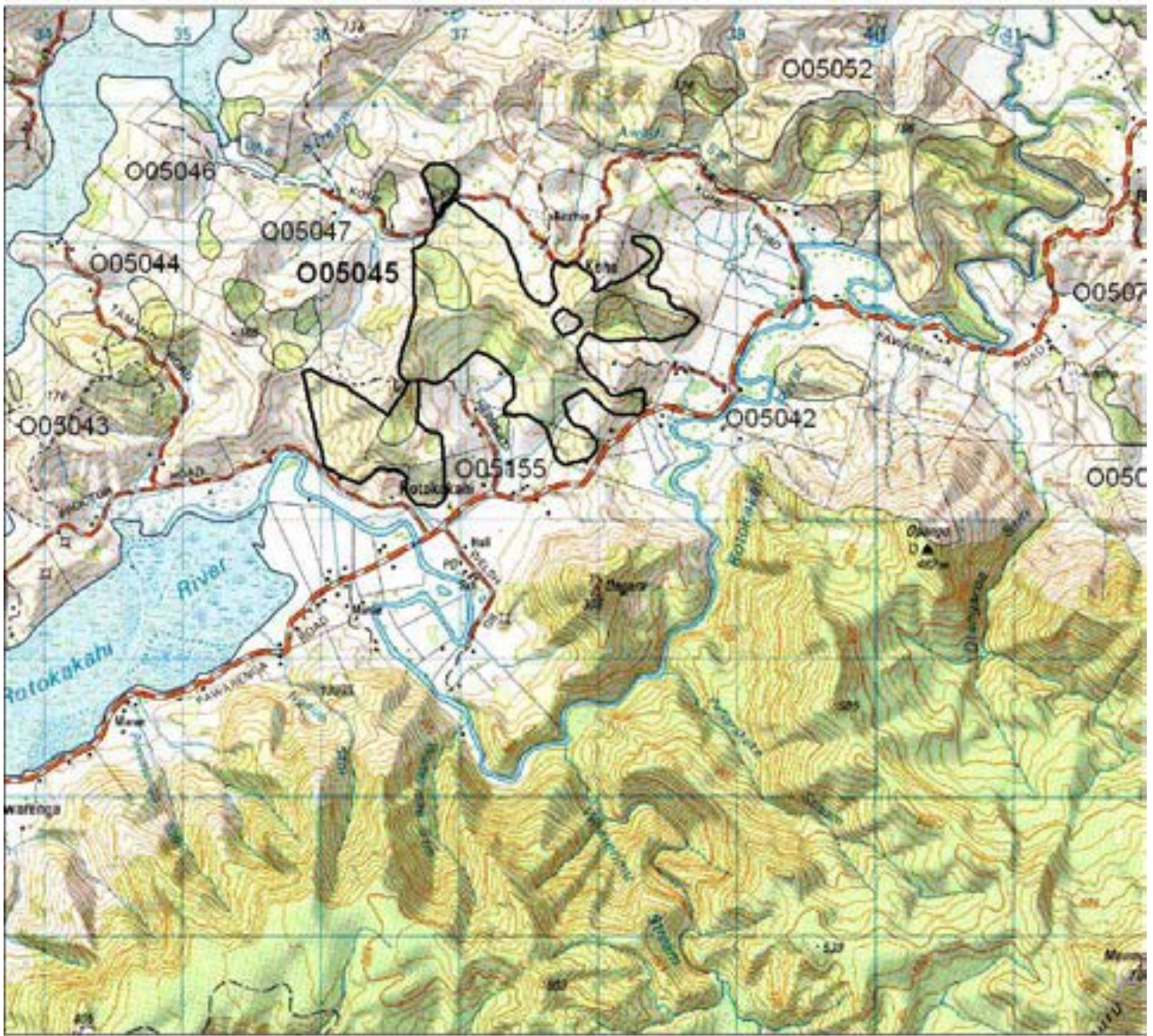
S = shrubland
F = forest
W = wetland
E = estuarine
D = duneland

KOHE BUSH

Survey no.	O05/045
Survey date	17 February 1995
Grid reference	O05 372 532, O05 368 543
Area	234 ha (198 ha shrubland, 36 ha forest)
Altitude	20-120 m asl

Ecological unit

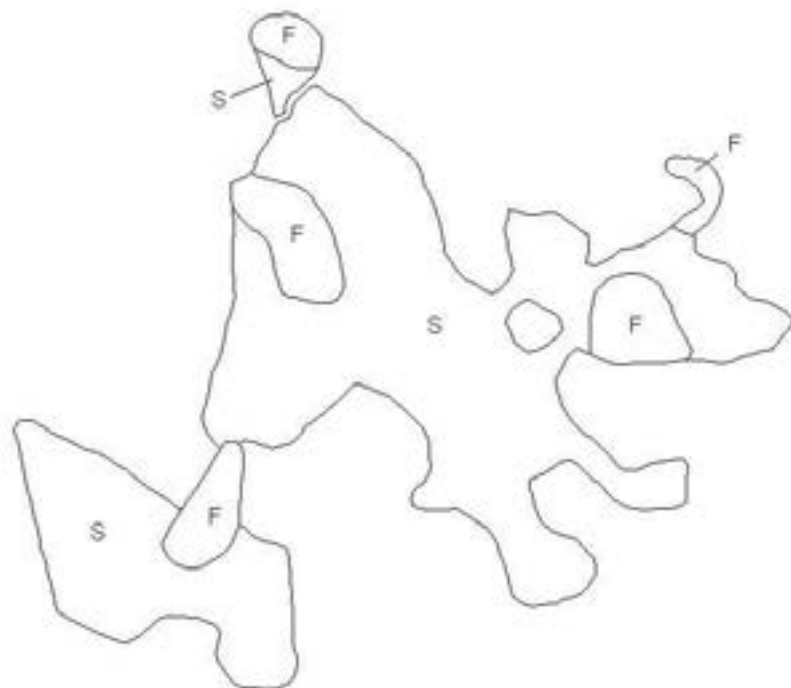
(a) Manuka shrubland on hillslope



Kohe Bush O05/045

Each grid is 1000m x 1000m
and = 100 ha.

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



- (b) Manuka forest on hillslope
- (c) Kahikatea secondary forest on toeslope
- (d) Taraire forest on hillslope
- (e) Manuka-totara forest on hillslope

Landform/geology

A large area extending from hill top downslopes on dissected hill country on Mangakahia Complex sandstone.

Vegetation

A mosaic of shrubland and secondary podocarp with broadleaf remnants.

(a) Manuka shrubland to about 3 m tall comprises much of the area. Other species to be found are rewarewa, totara, kahikatea, puriri, ti kouka, mamaku, towai and tanekaha. Some taller vegetation occurs on the south eastern side which contains frequent tanekaha and occasional towai, mamaku, rewarewa and totara.

East of Herbert Rd, eucalypt and pine stands are growing within the shrubland.

(b) On Kohe Rd, and by the Pawarenga papakainga, the manuka has developed into secondary forest with frequent totara and kahikatea and occasional towai, puriri, rimu, nikau, taraire and kauri.

(c) On the eastern end is an area of secondary kahikatea with frequent totara and occasional puriri and rimu.

(d) Taraire occurs in two areas, on the Herbert property and west of Herbert Rd. Kahikatea and towai are frequent in these areas, with scattered nikau, mamaku, northern rata, rewarewa, puriri, rimu and totara.

(e) Manuka is abundant and totara common alongside type (b). Kahikatea is frequent and puriri and taraire occasional.

Fauna

Not surveyed by the Department of Conservation however NI brown kiwi (Serious Decline) has been reported from this site.

Significance

A large contiguous area with vigorous regeneration and pockets of good quality broadleaf-podocarp forest.

Representative site for type (b) manuka forest.

Habitat for a threatened species.

KOHE STREAM REMNANTS

Survey no.	O05/046
Survey date	17 February 1995
Grid reference	O05 351 549
	O05 353 547
Area	11 ha (7 ha forest, 4 ha wetland)
Altitude	0-80 m asl

Ecological unit

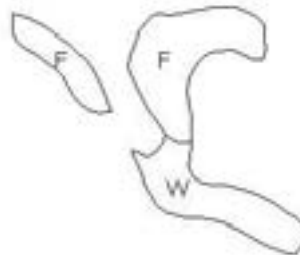
- (a) Manuka forest on hillslope
- (b) Taraire forest on hillslope



Kohe Stream Remnants O05/046

Each grid is 1000m x 1000m
and = 100 ha.

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland



- (c) Manuka shrubland on coastal margin
- (d) Raupo-*Juncus* sp. association in brackish zone

Landform/geology

Bush and shrubland on dissected hill country on Mangakahia Complex sandstone adjoining marine/freshwater interface.

Vegetation

(a) On the northern side of the Kohe Stream mouth there is an area of manuka (> 8 m tall) with frequent tanekaha, and occasional totara, puriri, kahikatea, mamaku and ti kouka.

(b) Within type (a) there is a small patch of taraire with scattered puriri, towai, kauri, kahikatea, tanekaha, rewarewa and karaka.

(c) On the land edge adjoining the mangroves is a band of low manuka with occasional tanekaha and kauri.

On the southern bank there is a small area of manuka shrubland with occasional puriri, kahikatea, titoki, kauri and tanekaha.

(d) Beyond the tidal influence, raupo becomes abundant with common *Juncus* sp. and frequent oioi. Manuka, totara and *Coprosma propinqua* occur on the drier areas.

Fauna

NI fernbird (Sparse).

Significance

An uncommon habitat sequence of remnant coastal riparian vegetation and freshwater wetland adjoining high-quality estuarine habitat (Whangape Harbour).

Presence of a threatened species.

Representative site for type (a) and (d).

AWAROA RIVER RD REMNANT

Survey no.	O05/048
Survey date	10 January 1995
Grid reference	O05 369 563
Area	86 ha
Altitude	> 0-c. 100 m asl

Ecological unit

(a) Kanuka/manuka shrubland on hillslope

(b) Puriri-taraire forest on hillslope

Landform/geology

A whole catchment of dissected hill country on Mangakahia Complex sandstone.

Vegetation

(a) A large area of kanuka/manuka shrubland with occasional kahikatea and totara.

(b) A pocket of puriri and taraire forest occurs with scattered nikau, totara, kauri, tanekaha and totara. The regionally significant *Coprosma parviflora* occurs in the understorey.

Significant flora

Coprosma parviflora (Regionally significant species).



Awaroa River Rd Shrubland 005/048

Each grid is 1000m x 1000m
and = 100 ha.

S = shrubland
F = forest
W = wetland
E = estuarine
D = duneland

Fauna

Not surveyed by the Department of Conservation, but NI brown kiwi (Serious Decline) has been reported from this site.

Significance

A large area of kanuka/manuka shrubland in the upper Whangape Harbour catchment with water and soil protection functions. Indigenous shrubland areas are important ecosystems for forest succession and can provide important habitat to native plants and animals including threatened and regionally significant species.

In this case, habitat for a threatened and regionally significant species.

HAUMANGA RD WETLAND

Survey no.	O05/049
Survey date	10 January 1995
Grid reference	O05 367 584 O05 365 578 O05 361 578
Area	38 ha (5 ha forest, 7 ha shrubland, 26 ha wetland)
Altitude	0-80 m asl

Ecological unit

- (a) Raupo reedland on alluvium
- (b) Manuka shrubland on alluvium
- (c) Giant umbrella sedge-raupo swamp association on alluvial flat
- (d) *Coprosma propinqua*-manuka-totara shrubland on river bank
- (e) Kanuka forest on hillslope
- (f) Taraire forest on hillslope
- (g) Kanuka/manuka shrubland on hillslope

Landform/geology

Dissected hill country on Mangakahia Complex sandstone running down to alluvial/estuarine wetlands at head of Whangape Harbour.

Vegetation

An area of wetland at the tidal interface, with semi-contiguous dry land vegetation.

- (a) The adjoining saltmarsh grades into raupo with frequent *Juncus* sp. and type (b) low manuka with isolated harakeke, ti kouka and mangrove.
- (c) Giant umbrella sedge and raupo occur along the Awaroa River banks.
- (d) *Coprosma propinqua*, manuka and totara occur between the road and the river bank with frequent harakeke and occasional mapou.
- (e) Adjoining the wetland kanuka with frequent kahikatea and totara occurs. Puriri, ti kouka and kauri are occasional.
- (f) Across the road from type (e), a taraire remnant occurs with frequent kahikatea and puriri. Occasional species include nikau and totara.
- (g) Kanuka and manuka shrubland (4-8 m tall) with frequent tanekaha and totara occurs further up the road. Mamaku, kahikatea, ti kouka, and grass patches are also present.

Fauna

Not surveyed.

Significance

A sequence from saltmarsh to terrestrial vegetation.

Representative site for vegetation types (a), (b), (c), (d), (e) and (g). Type (d) is unrecorded elsewhere in the Ecological District and it is one of only two sites of type (c).



Haumanga Rd Wetland O05/049

Each grid is 1000m x 1000m
and = 100 ha

- S = shrubland
- F = forest
- W = wetland
- E = estuarine
- D = duneland

