

## 4.2 LEVEL 2 SITES

SITE NAME	SURVEY NO.	GRID REF.
Herekino River South Remnants	N05/004	N05 292 595, N05 294 595, N05 291 591
Upper Mangakotukutuku Stream	O05/021	O05 370 655, O05 367 656, O05 365 657, O05 364 660, O05 372 654
Waiotehue Stream Bush	O05/026	O05 381 623
Yuretich Rd Shrubland	O05/027	O05 354 626, O05 356 619, O05 351 622, O05 358 624
"137" Awaroa River Shrubland	O05/028	O05 361 605
Uwhiroa Stream Remnants	O05/029	O05 344 623, O05 339 625, O05 335 617
McDonald Rd Bush	O05/031	O05 339 607
Smith Rd Forest Remnants	O05/034	O05 333 583, O05 322 585, O05 314 582, O05 334 589, O05 317 587
Stephens Bush	O05/038	O05 302 548
Poutawhera Pa Shrubland	O05/039	O05 330 524
Pawarenga Rd Shrubland	O05/042	O05 396 530
Tamaho Rd Bush	O05/043	O05 347 534, O05 337 529, O05 336 528, O05 343 532
"165" Kohe Bush	O05/044	O05 356 534
Candy Bush	O05/047	O05 364 543, O05 351 540, O05 362 547
Maire Stream Pond	O05/050	O05 349 583
Grounds - Haumanga Rd Bush	O05/051	O05 382 556
Awaroa Rd Bush	O05/057	O05 386 588, O05 385 588
Mansbridge Scenic Reserve	O05/063	O05 494 606
Paponga Pond	O05/068	O05 507 560
Beer Bush	O05/070	O05 488 539
Runaruna Scenic Reserve	O05/073	O05 450 558, O05 444 555, O05 443 562, O05 450 563
Runaruna Rd Shrubland	O05/074A	O05 422 540
Irvine Rd Bush	O05/074B	O05 424 534, O05 427 527, O05 426 530, O05 435 541, O05 431 531
Panguru Bush Remnant	O05/093	O05 462 477
Puketawa Rd Bush	O05/095	O05 465 484, O05 464 492
Mihirau Bush	O05/100	O05 471 502
Te Konoke Bush	O05/121	O05 590 505
Mudgeway Rd Bush	O05/126	O05 642 571
Upper Mangawero Stream Tributary Remnant	O05/147	O05 485 561
Whakaoma/Huraunui Stream Secondary Forest Remnant	O05/150	O05 630 550
Kahikatoa Rd Pond	O05/153	O05 610 555
Koutu Shrubland	O06/011	O06 484 366

### HEREKINO RIVER SOUTH REMNANTS

Survey no.	N05/004
Survey date	12 December 1994
Grid reference	N05 292 595, N05 294 595, N05 291 591
Area	16 ha (3 ha forest, 13 ha shrubland)
Altitude	< 20-40 m asl

#### *Ecological unit*

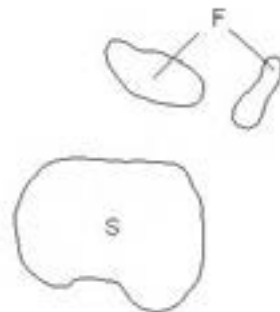
- (a) Kanuka-puriri forest on coastal hillslope
- (b) Kanuka shrubland on coastal hillslope



### Herekino River South Remnants N05/004

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

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



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

Coastal hills on sandstone adjoining the Herekino River.

### ***Vegetation***

Two isolated forest remnants and an area of shrubland.

(a) The two remnants consist of kanuka and puriri with occasional totara, kahikatea and ti kouka.

(b) The shrubland is kanuka to 4 m with occasional ti kouka, totara, rewarewa and mamaku.

Along the mangrove edge is a fringe of manuka.

### ***Fauna***

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

### ***Significance***

Shrubland adjoining and buffering the Herekino Harbour and remnants providing habitat for kiwi and potential habitat for kukupa. Although it is the only site in the Ecological District where type (a) kanuka-puriri forest is recorded and NI brown kiwi have been reported, the small, fragmented nature of the site limits its significance.

## **UPPER MANGAKOTUKUTUKU STREAM**

Survey no.	O05/021
Survey date	21 November 1994
Grid reference	O05 370 655, O05 367 656, O05 365 657 O05 364 660, O05 372 654
Area	2 ha
Altitude	c. 60 m asl

### ***Ecological unit***

(a) Constructed pond in stream valley

(b) Raupo reedland in stream valley

(c) Manuka-bracken association on hillslope

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

Dissected hill country on Mangakahia Complex sandstone and siliceous mudstone.

### ***Vegetation***

(a) Two artificial ponds.

(b) Raupo with rushes occurs sparsely on the margins.

(c) Intermittent patches of raupo surrounded by manuka, 2-3 m tall, bracken and open ground.

The entire area has recently been planted in pines.

### ***Fauna***

Not surveyed.

### ***Significance***

A small wetland, potentially habitat for wildlife.

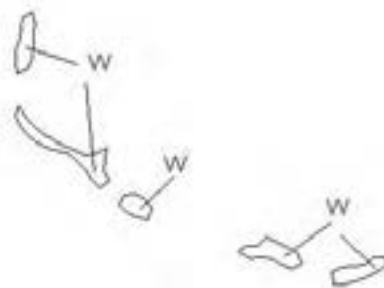




### Upper Mangakotukutuku Stream O05/021

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

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



Only record of type (c) in the Ecological District; however, the quality and value of this habitat at the time of survey does not warrant Level 1 status.

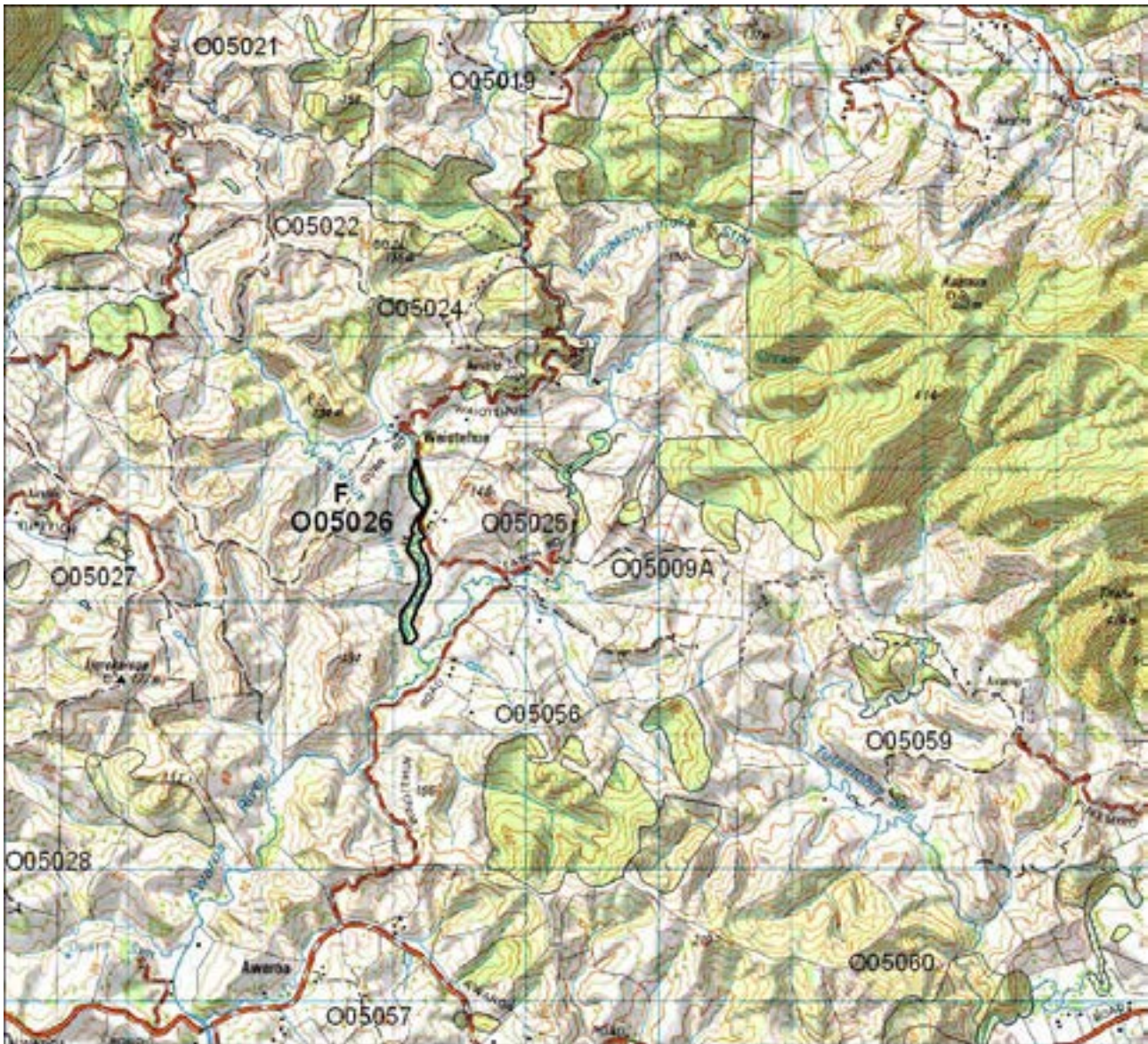


## WAIOTEHUE STREAM BUSH

Survey no. O05/026  
Survey date 18 November 1994  
Grid reference O05 381 623  
Area 11 ha  
Altitude < 20 m asl

### *Ecological unit*

(a) Taraire treeland on alluvium (30%)



### Waiotehue Stream Bush O05/026

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

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

(b) Totara secondary treeland on alluvium (70%)

***Landform/geology***

Alluvial flats in the valley of the Waiotehue Stream. The valley walls are in Mangakahia Complex sandstone, with Pleistocene alluvial terrace on the eastern bank in the south.

***Vegetation***

(a) Taraire is common over one third of the area with frequent totara and towai. Other species occurring are rewarewa, pukatea, kahikatea, titoki, kanuka, ti kouka and nikau.

(b) Most of the site is riparian vegetation in which totara is abundant and kanuka occasional.

***Fauna***

Not surveyed.

***Significance***

Riparian vegetation on alluvium is uncommon in the Ecological District and Region but the quality of this site limits its significance.

Marginal Strip, administered by the Department of Conservation protects 4 ha of this site.

**YURETICH RD SHRUBLAND**

Survey no.	O05/027
Survey date	21 November 1994
Grid reference	O05 354 626, O05 356 619, O05 351 622, O05 358 624
Area	10 ha (9.7 ha shrubland, 0.3 ha wetland)
Altitude	40-100 m asl

***Ecological unit***

(a) Kanuka/manuka shrubland on hillslope (70%)

(b) Constructed wetland

***Landform/geology***

Four remnants located on dissected hill country on Mangakahia Complex sandstone.

***Vegetation***

(a) Remnant shrubland vegetation about 2-3 m tall in gullies and on steep slopes. Totara, kahikatea, puriri, towai, ti kouka, mahoe, and pate are occasional.

Pines have been planted in part of the valley bottom.

(b) A small constructed wetland occurs.

***Fauna***

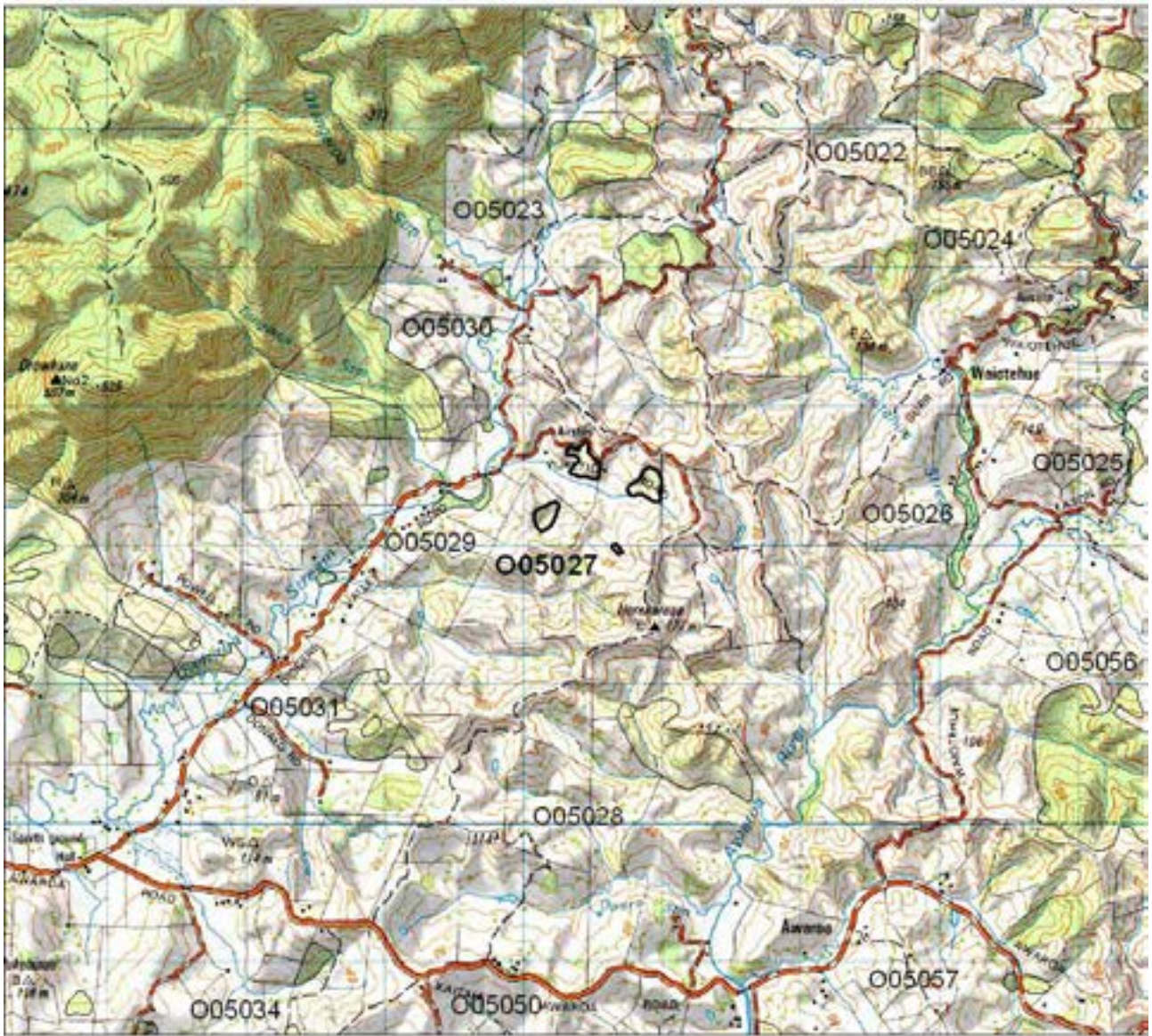
Kukupa (Gradual Decline) reported.

***Significance***

Water catchment and soil retention values.

The threatened kukupa is reported from this site, but the quality of this site does not warrant Level 1 status.

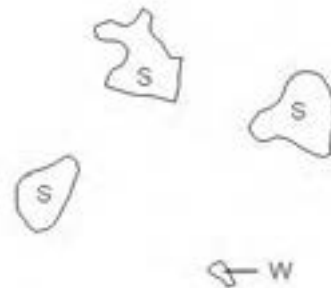




Yuretich Rd Shrubland O05/027

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

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



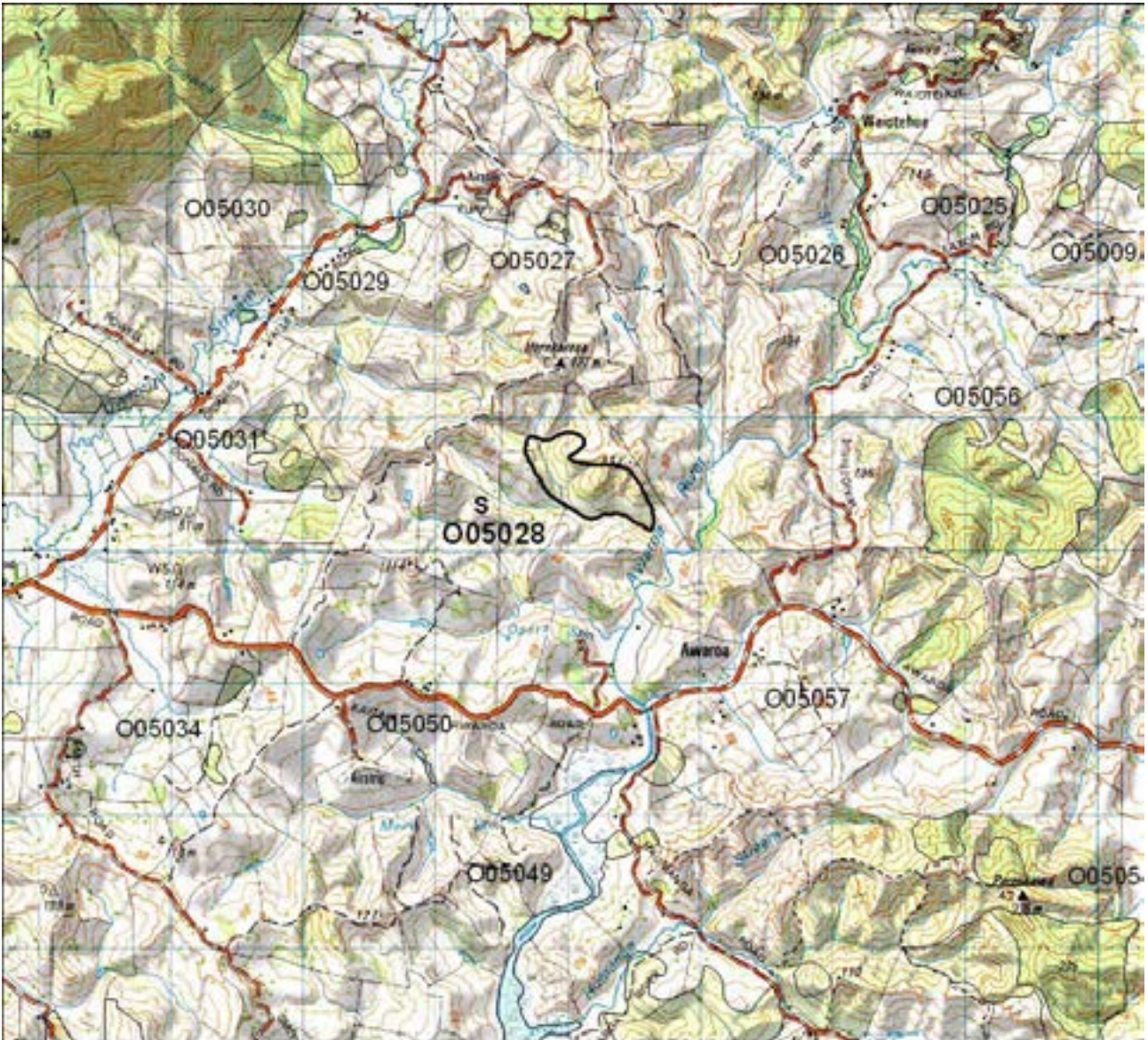


## "137" AWAROA RIVER SHRUBLAND

Survey no. O05/028  
Survey date 10 January 1995  
Grid reference O05 361 605  
Area 36 ha  
Altitude <20-137 m

### *Ecological unit*

(a) Kanuka/manuka shrubland on moderate to steep hillslope



"137" Awaroa River Shrubland O05/028

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



(b) Manuka-totara shrubland on moderate to steep hillslope

***Landform/geology***

Dissected hill country on Mangakahia Complex sandstone.

***Vegetation***

(a) A reasonably large area of low kanuka/manuka shrubland, discontinuous in places with scattered puriri, totara, pine and mamaku.

(b) To the south is a smaller area of manuka and totara.

***Fauna***

Habitat suitable for NI brown kiwi (Serious Decline) which are present in adjacent areas.

***Significance***

A partial linkage between Herekino Forest and other sites in the Awaroa-Broadwood area and a potential refuge for wildlife. Survey recommended for NI brown kiwi.

**UWHIROA STREAM REMNANTS**

Survey no.	O05/029
Survey date	21 November 1994
Grid reference	O05 344 623, O05 339 625, O05 335 617
Area	6 ha
Altitude	< 20 m asl

***Ecological unit***

(a) Totara treeland on alluvium

(b) Taraire-totara forest on hillslope

***Landform/geology***

Two remnants located on alluvial flats in the valley. One remnant located on the surrounding hills of Mangakahia Complex sandstone.

***Vegetation***

(a) Along the stream totara is abundant with frequent taraire and scattered puriri, ti kouka, kahikatea, karaka and willow.

(b) Across the road is a remnant in which taraire and totara are both common. Rimu, kahikatea, nikau, puriri, rewarewa, towai and mamaku also occur.

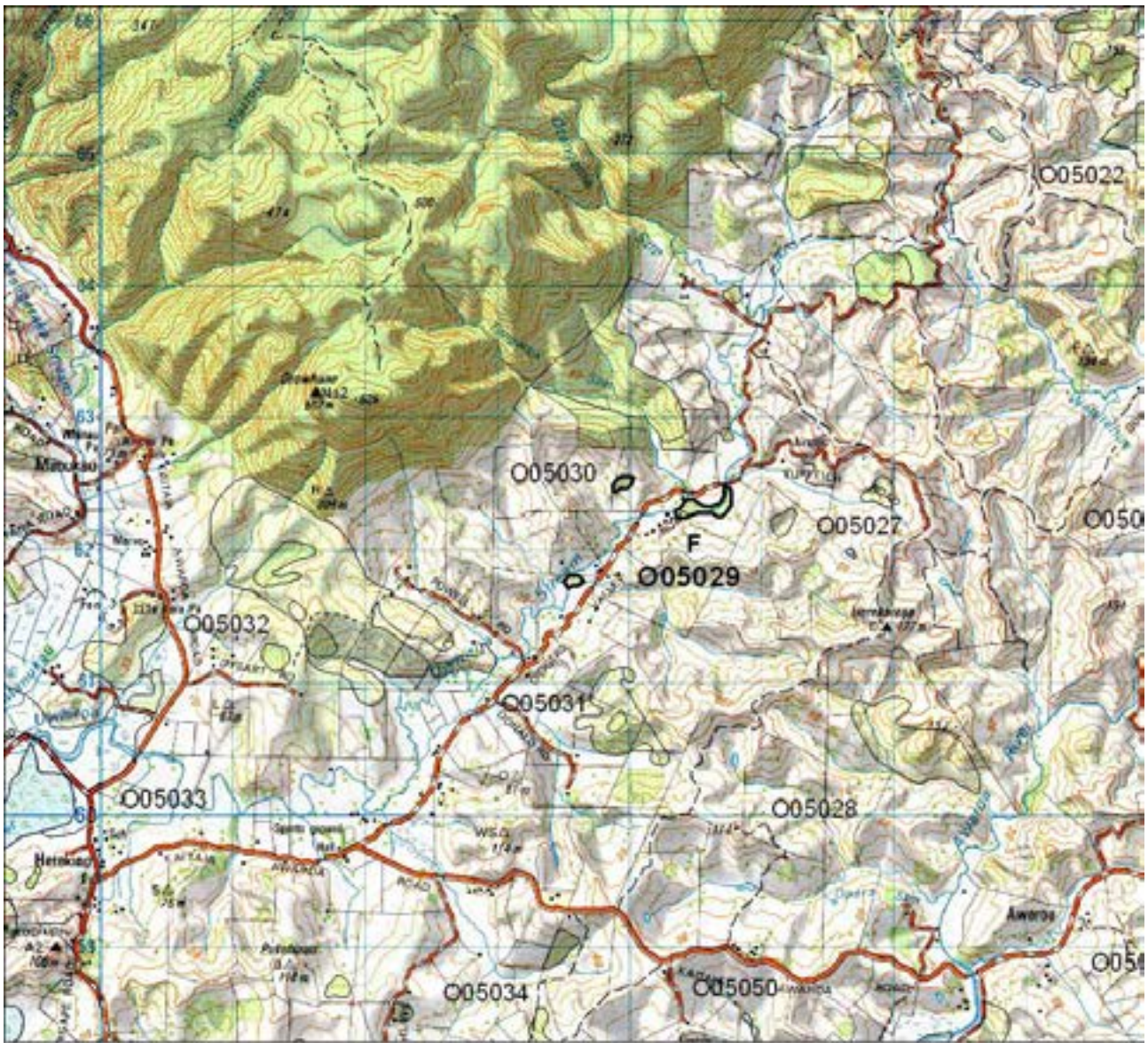
Downstream, totara is common, type (a) and taraire frequent. Kahikatea, titoki, kowhai, pine and macrocarpa are also present.

***Fauna***

Not surveyed.

***Significance***

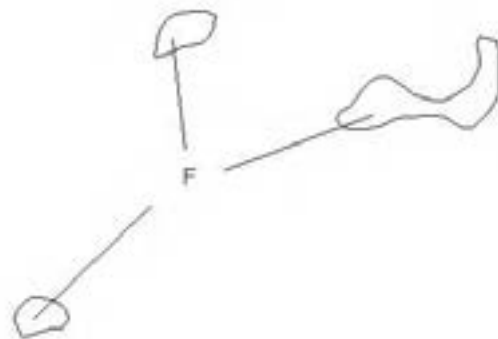
Riparian vegetation providing shading to the Uwhiroa Stream and a broadleaf-podocarp remnant which is a potential food source for the threatened kukupa. One of two sites in the Ecological District where type (b), taraire-totara forest is recorded.



Uwhiropa Stream Remnants O05/029

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

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





## **MCDONALD RD BUSH**

Survey no. O05/031  
Survey date 21 November 1994  
Grid reference O05 339 607  
Area 24 ha (2 ha forest, 22 ha shrubland)  
Altitude 20-100 m asl

### ***Ecological unit***

- (a) Manuka shrubland on hillslope (40%)
- (b) Nikau-puriri-taraire forest on hillslope (<5%)
- (c) Taraire forest on hillslope (<5%)
- (d) Kanuka/manuka shrubland on hillslope (50%)

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

Dissected hill country on Mangakahia Complex sandstone.

### ***Vegetation***

- (a) Just under half the area is 2-4 m tall dominant manuka with occasional ti kouka and totara.
- (b) A small pocket of nikau, puriri and taraire occurs.
- (c) Dominant taraire also occurs in a small area with occasional kahikatea, rimu, totara, nikau, puriri and rewarewa.
- (d) About half the area is dominant kanuka/manuka shrubland (to 8 m tall) with the occasional kahikatea and totara.

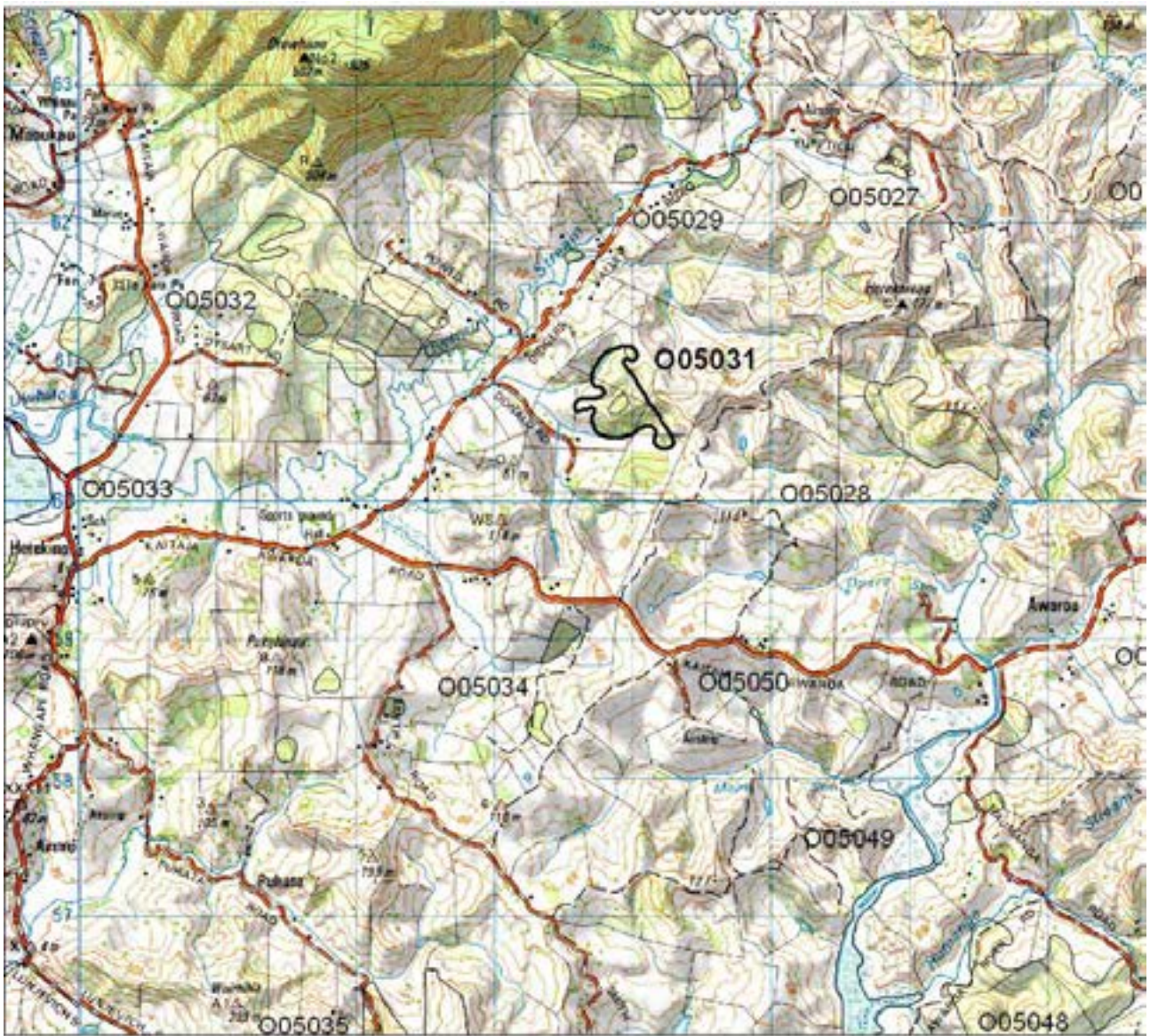
### ***Fauna***

Habitat suitable for NI brown kiwi (Serious Decline) which is present in adjacent areas.

### ***Significance***

A partial linkage between Herekino Forest and other sites in the Awaroa-Broadwood area and potential refuge for kiwi. Also provides some catchment protection.

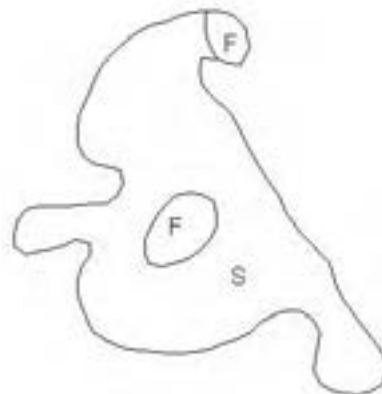
Type (b) is small in extent but is not recorded elsewhere in the Ecological District.



McDonald Rd Bush 005/031

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

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





## **SMITH RD FOREST REMNANTS**

Survey no. O05/034  
Survey date 10 January 1995  
Grid reference O05 333 583, O05 322 585, O05 314 582  
O05 334 589, O05 317 587  
Area 13 ha  
Altitude 20-80 m asl

### ***Ecological unit***

- (a) Kahikatea secondary forest on hillslope
- (b) Kahikatea-kanuka forest on hillslope
- (c) Kahikatea-kanuka-puriri secondary forest on hillslope

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

Dissected hill country on Mangakahia Complex sandstone.

### ***Vegetation***

Five small secondary podocarp and broadleaf-podocarp remnants.

- (a) The southeastern remnant contains abundant kahikatea with frequent kanuka and taraire. Puriri, totara and nikau are occasional.

The remnant adjacent to Smith Rd also contains abundant kahikatea, type (a), with the occasional puriri and totara.

The northeastern remnant contains abundant kahikatea with frequent totara and occasional puriri.

- (b) Kahikatea and kanuka occurs in some of the other remnants with frequent puriri and taraire. Nikau, rimu, totara and rewarewa are occasional.

- (c) In the northeastern remnant kahikatea, kanuka and puriri occur with frequent totara and occasional nikau.

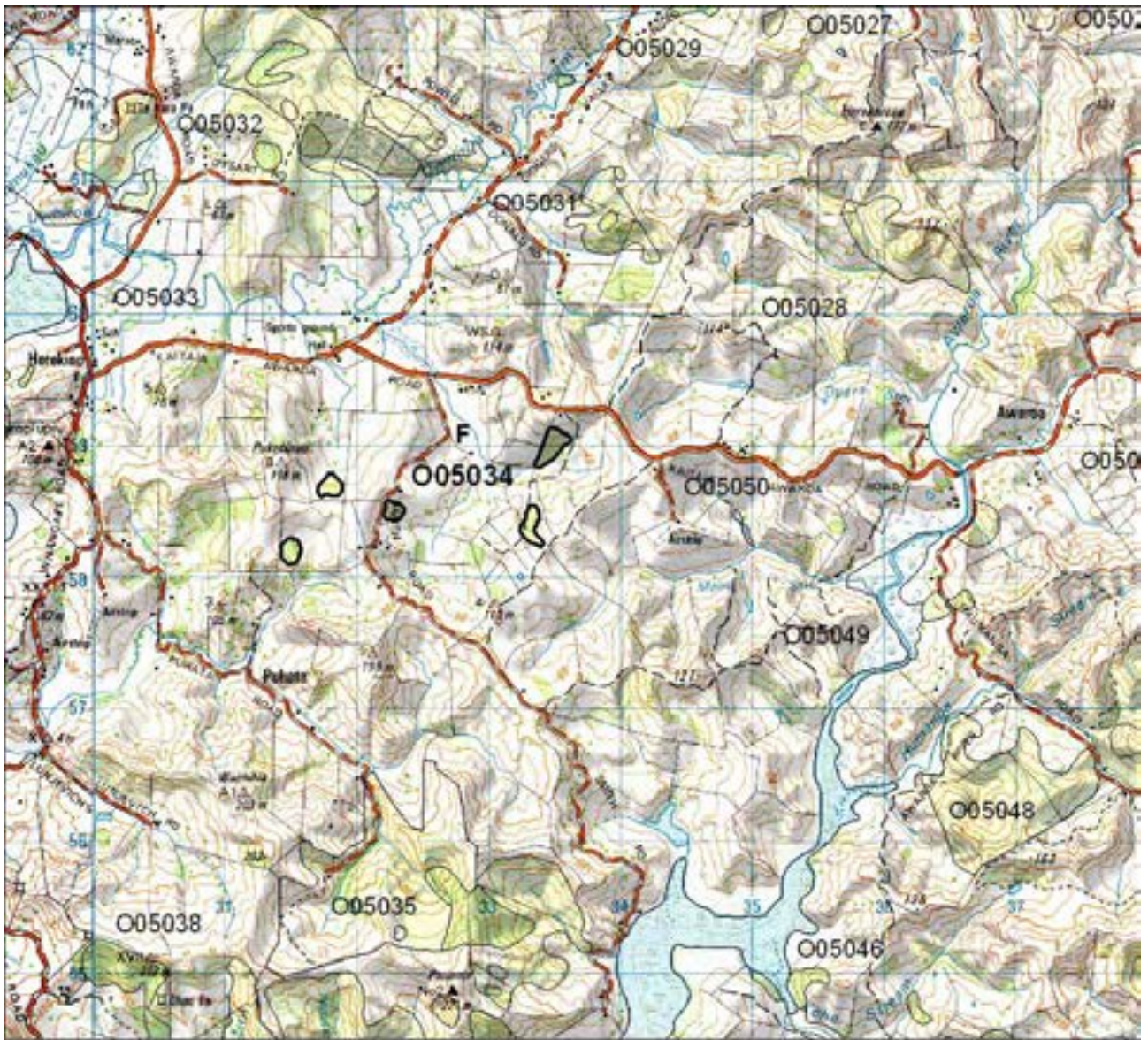
### ***Fauna***

Not surveyed.

### ***Significance***

Possible seasonal food source for kukupa.

Only record of type (c) and only one of two records of type (b) in the Ecological District but the small size of this site limits its significance.



Smith Rd Forest Remnants O05/034

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

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





## STEPHENS BUSH

Survey no. O05/038  
Survey date 2 March 1995  
Grid reference O05 302 548  
Area 21 ha  
Altitude c. 100-212 m asl

### *Ecological unit*

- (a) Taraire forest on hillslope (90%)
- (b) Manuka-towai shrubland on hillslope (10%)



### Stephens Bush O05/038

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

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

(c) Manuka shrubland on hillslope

**Landform/geology**

Dissected hill country on Mangakahia Complex sandstone.

**Vegetation**

(a) Most of the site is taraire-dominant with frequent towai, puriri and manuka. Also present are kahikatea, karaka, totara, rewarewa, nikau, ti kouka, lancewood and the occasional northern rata. The canopy is discontinuous in places, especially near the margins.

The sub-canopy consists of kohekohe, *Coprosma areolata*, ponga and houhere. The shrub layer is largely confined to tree ferns and small-leaved *Coprosma* species (due to grazing), although there is more diversity on the steeper slopes near the summit, where *Olearia albida* can be found. A large number of very small seedlings of houhere, kahikatea, mapou and putaputaweta are present. Apart from these, the ground layer consists of threadfern, rasp fern, native grass, hook grass and maidenhair fern.

(b) About 10% of the area is manuka and towai (6 m tall) with ti kouka, puriri, mamangi and kahikatea.

(c) Along a watercourse running below the pa site, a corridor of manuka occurs with frequent ti kouka and occasional kahikatea, puriri, taraire, northern rata, rewarewa, towai, pukatea and mamaku.

Significant flora

*Olearia albida* (Regionally significant species).

**Fauna**

Common bush birds.

**Significance**

This site is of interest due to evidence of coastal influence and combination of plant species but is degraded from stock grazing.

Presence of a regionally significant species.

**POUTAWHERA PA SHRUBLAND**

Survey no.	O05/039
Survey date	17 February 1995
Grid reference	O05 330 524
Area	26 ha
Altitude	0-127 m asl

**Ecological unit**

(a) Manuka shrubland on hillslope

**Landform/geology**

Dissected hill country on Mangakahia Complex sandstone.

**Vegetation**

Manuka shrubland about 3 m tall with a discontinuous canopy. Scattered pine and mamaku are also present. Soil erosion is apparent, evidently from repeated burning.





## Poutawhera Pa Shrubland O05/039

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

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

### ***Fauna***

NI brown kiwi (Serious Decline) in nearby habitat.

### ***Significance***

Soil conservation values on steep land bordering Whangape Harbour.







***Landform/geology***

Hill country on Mangakahia mudstone bounding the river and Mangakahia Complex sandstone under most of the area.

***Vegetation***

Manuka shrubland 2-3 m tall with occasional mamaku, tanekaha, kauri and kahikatea.

***Fauna***

Not surveyed.

***Significance***

Vegetation close to Rotokakahi River. Further survey required to determine the diversity of species at this site.

**TAMAHO RD BUSH**

Survey no.	O05/043
Survey date	17 February 1995
Grid reference	O05 347 534, O05 337 529, O05 336 528, O05 343 532
Area	45 ha (19 ha forest, 26 ha shrubland)
Altitude	20m-140 m asl

***Ecological unit***

- (a) Taraire secondary forest on hillslope
- (b) Manuka-totara forest on hillslope
- (c) Manuka shrubland on hillslope

***Landform/geology***

Four remnants on dissected hill country of Mangakahia Complex sandstone.

***Vegetation***

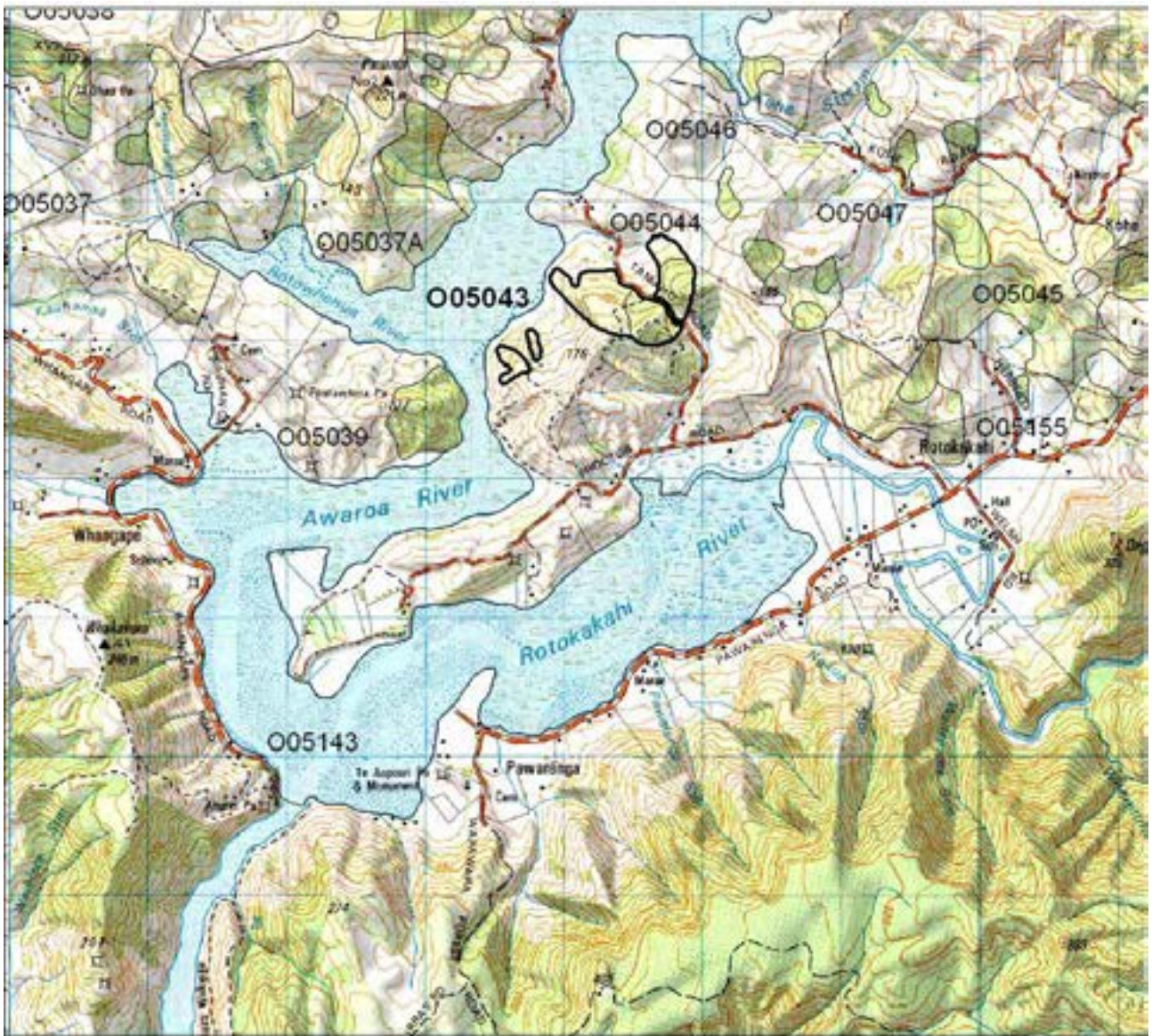
- (a) On the eastern side taraire is abundant with frequent nikau and puriri and occasional kahikatea, rimu and rewarewa.
  - (b) Manuka is abundant and totara common with frequent kahikatea, and occasional puriri and nikau.
  - (c) The remainder is mostly manuka to 6 m tall.
- On the hillside to the south is scattered low manuka.

***Fauna***

Not surveyed.

***Significance***

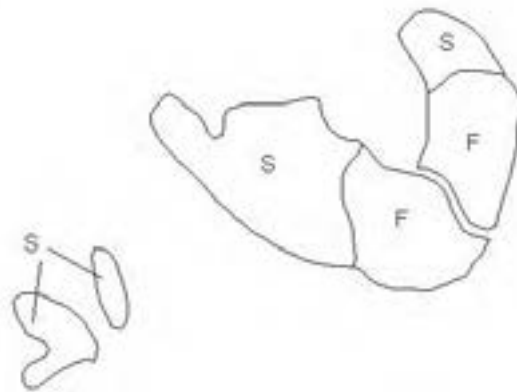
There is considerable erosion on the cleared land in this vicinity, with evidence of extensive siltation in the tidal area adjacent. The retention of the vegetative cover would be advisable.



### Tamaho Rd Bush O05/043

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

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





## "165" KOHE BUSH

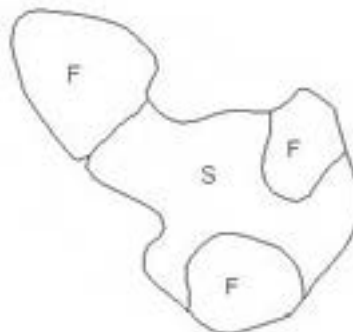
Survey no. O05/044  
Survey date 17 February 1995  
Grid reference O05 356 534  
Area 25 ha (13 ha forest, 12 ha shrubland)  
Altitude 80-140 m asl



### " 165 " Kohe Bush O05/044

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

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



### ***Ecological unit***

- (a) Manuka shrubland on hillslope (30%)
- (b) Taraire forest on hillslope (50%)
- (c) Manuka forest on hillslope (10%)

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

Dissected hill country on Mangakahia Complex sandstone.

### ***Vegetation***

- (a) Pockets of bush are linked by manuka shrubland about 4 m tall with scattered totara, rewarewa, ti kouka and kahikatea.
- (b) About half the area is taraire-dominant with frequent nikau and occasional totara, kahikatea, puriri, rimu and northern rata.
- (c) The remaining area is secondary manuka forest with occasional rimu, kahikatea, totara, towai, puriri and nikau.

### ***Fauna***

Not surveyed.

### ***Significance***

Potential food source for the threatened kukupa.

Regenerating vegetation on steep slopes providing catchment protection.

## **CANDY BUSH**

Survey no.	O05/047
Survey date	17 February 1995
Grid reference	O05 364 543, O05 351 540, O05 362 547
Area	10 ha
Altitude	30-100 m asl

### ***Ecological unit***

- (a) Taraire secondary forest on hillslope
- (b) Kahikatea secondary forest on hillslope

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

Scattered remnants on hillsides in dissected hill country on Mangakahia Complex sandstone and Mangakahia Complex mudstone in the valley.

### ***Vegetation***

Three small forest remnants.

- (a) The southwestern remnant is taraire-dominant with frequent puriri and occasional rewarewa, towai, kahikatea, tawa and totara.  
The northeast remnant is also taraire-dominant, type (a) with frequent totara and kahikatea. Kauri, puriri, rewarewa and nikau are occasional.
- (b) In the remaining remnant alongside Kohe Rd, kahikatea is common with frequent rimu and manuka. Puriri, totara, pukatea and towai are occasional.

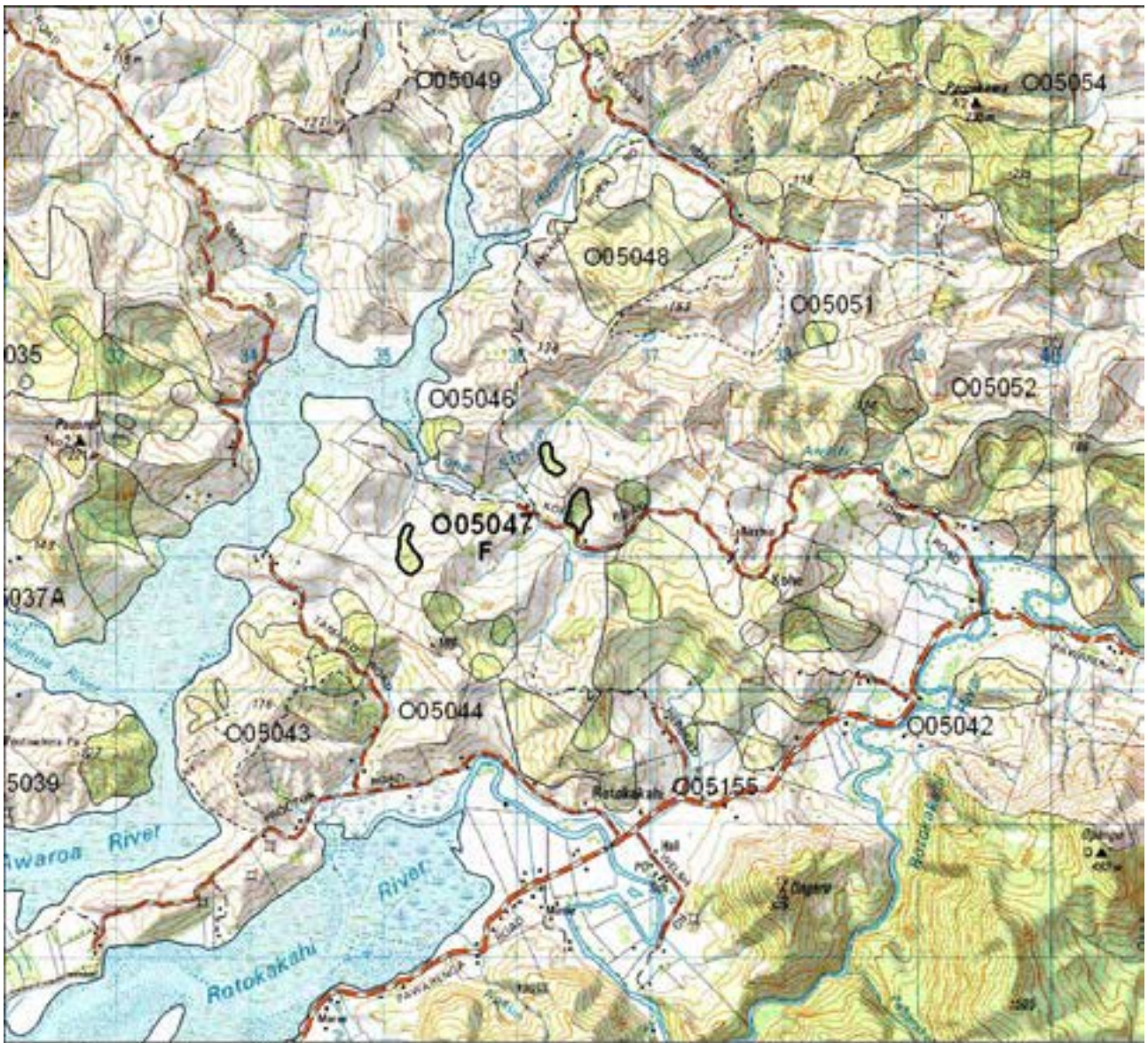
### ***Fauna***

Not surveyed.

### ***Significance***

Potential seasonal food source for the threatened kukupa.





**Candy Bush O05/047**

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

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

