

FOLEY

Survey no. O04/057
Survey date 20 March 1994
Grid reference O04 464 780
Area 33.4 ha
Altitude 60-180 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Secondary totara forest on hillslope
- (c) Raupo reedland in valley bottom

Landform/geology

Dissected hill country of Motatau Complex calcareous mudstone and sandstone lithofacies.

Vegetation

Type (a) Taraire forest. The main bush area is taraire dominant with kahikatea, totara, tanekaha and towai. Rewarewa, kauri, rimu, puriri and kawaka also occur. Near the ridge top there are several dozen pole kawaka. Fan fern is also found here, near where a large kauri tree was removed by a previous owner in the recent past. A large track was bulldozed to remove this tree, and is acting as a weed corridor. The invasive African club moss is present on the track.

The understorey consists mainly of kohekohe, mamangi and tree ferns.

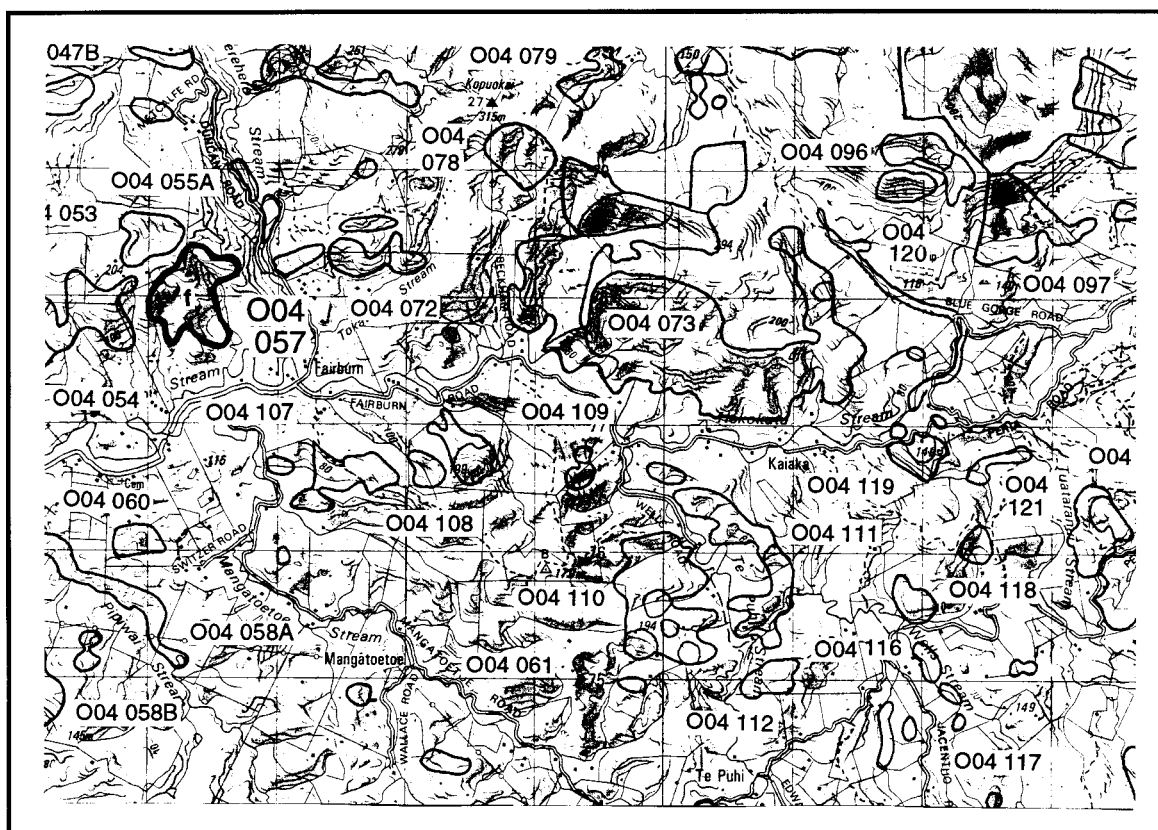


Figure 53. Foley, O04 057

Each grid is 1000 m × 1000 m and equals 100 ha. f = forest.

Type (b) Kanuka forest. With kahikatea and totara. Puriri and mamaku also occur. African club moss is also present in this area.

Type (c) Raupo reedland (not mapped). A small area of raupo on the lower bush edge.

Significant flora

Kawaka - notable species in the Ecological District, in an unusually dense stand.

Fan fern - uncommon in the Ecological District.

Fauna

NZ pigeon (Category B threatened species); kauri snail (Category C threatened species). NI brown kiwi (Category A threatened species).

Significance

Apart from the area damaged by the timber removal and the presence of African club moss, away from the margins the forest is relatively intact. The area contains one of the most dense patches of kawaka regeneration known in the Ecological District.

Threatened species habitat.

PAMAPURIA REMNANTS

Survey no.	O04/058
Survey date	9 November 1994
Grid reference	O04 430 750
Area	14.1 ha
Altitude	20-60 m asl

Ecological unit

- (a) Secondary kahikatea forest on gentle hillslope
- (b) Kahikatea-taraire forest on hillslope
- (c) Secondary totara forest on hillslope
- (d) Taraire forest on hillslope
- (e) Manuka shrubland on hillslope
- (f) Puriri-taraire forest on hillslope
- (g) Manuka-kanuka-towai shrubland on hillslope

Landform/geology

Low hill country of Motatau Complex limestone.

Vegetation

Type (a) Secondary kahikatea forest on gentle hillslope. Present in the westernmost remnant with (b). Puriri, pukatea and taraire are occasional.

Type (b) Kahikatea-taraire forest on hillslope. Present in the westernmost remnant with (a). Kanuka is frequent; totara and rimu occasional.

Type (c) Secondary totara forest on hillslope. Located to the south-east of (a) and (b) above. Kahikatea is frequent.

Type (d) Taraire forest on hillslope. The two central remnants comprise this type. The smallest one only has totara as an associated species, but the other also contains puriri, kahikatea, rewarewa and nikau.

PIPIWAI STREAM SWAMP

Survey no. O04/058A
Survey date 9 November 1994, 20 March 1995
Grid reference O04 450 760
Area 31.2 ha
Altitude 30 m asl

Ecological unit

- (a) Raupo reedland on alluvium
- (b) Open water
- (c) Secondary kahikatea-totara forest on toeslope

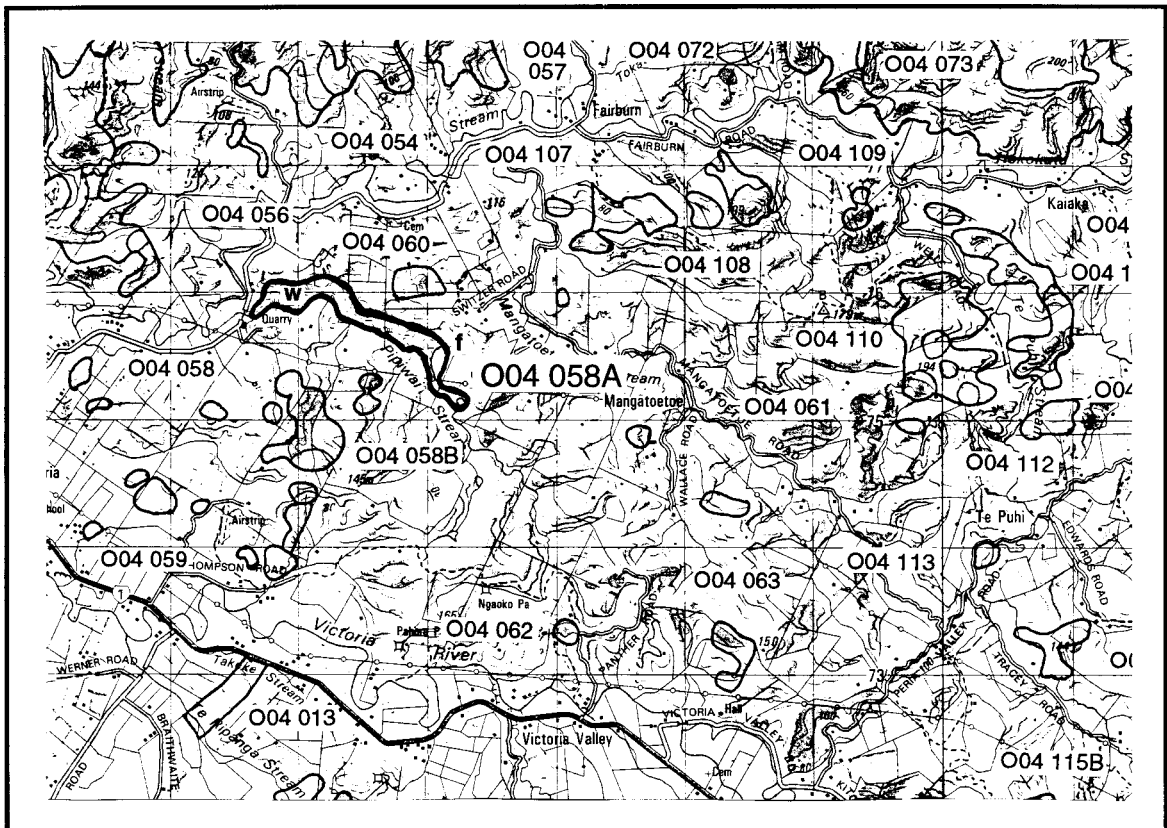
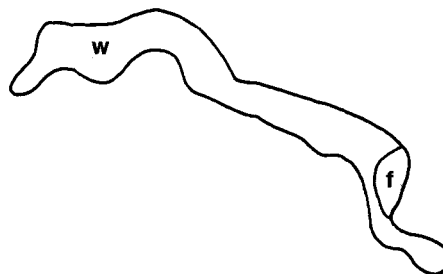


Figure 55. Pipiwai Stream Swamp, O04 058A

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

f = forest; w = wetland.



Landform/geology

Holocene alluvial flats and wetland in valley of Pipiwai stream, and adjoining area of Motatau Complex limestone.

Vegetation

Type (a) Raupo reedland. An extensive raupo swamp with scattered kahikatea, cabbage tree, manuka and willow. The raupo grades into a small area of open water (Type (b)).

Type (c) Secondary kahikatea-totara forest. On the edge of the raupo near the head of the swamp is a small area of secondary kahikatea and totara with occasional puriri.

Fauna

Australasian bittern (Category O threatened species), spotless crane, banded rail reported (both regionally significant species).

Significance

A representative site for these vegetation types and the largest raupo swamp in the Ecological District.

Important habitat for threatened and regionally significant wetland birds.

THOMPSON RD FOREST (#1)

Survey no.	O04/058B
Survey date	10 November 1994
Grid reference	O04 450 745
Area	37.9 ha
Altitude	60-120 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Manuka shrubland on hillslope
- (c) Taraire-kahikatea forest on hillslope
- (d) Puriri-taraire forest on hillslope

Landform/geology

Low hill country of Motatau Complex limestone

Vegetation

Type (a) Taraire forest. Taraire is abundant over almost all the northern area with scattered towai, rimu, kahikatea, rewarewa, puriri and totara.

Type (b) Manuka shrubland. On the margins of the northern block, low manuka is abundant with frequent gorse and tobacco weed, and occasional mamaku and totara. Type (b) also occurs in the centre of the southern block with occasional tobacco weed and gorse.

Type (c) Taraire-kahikatea forest. Occurs in the southern section of the south block with frequent puriri and occasional pukatea, rimu, towai, totara and a single kauri.

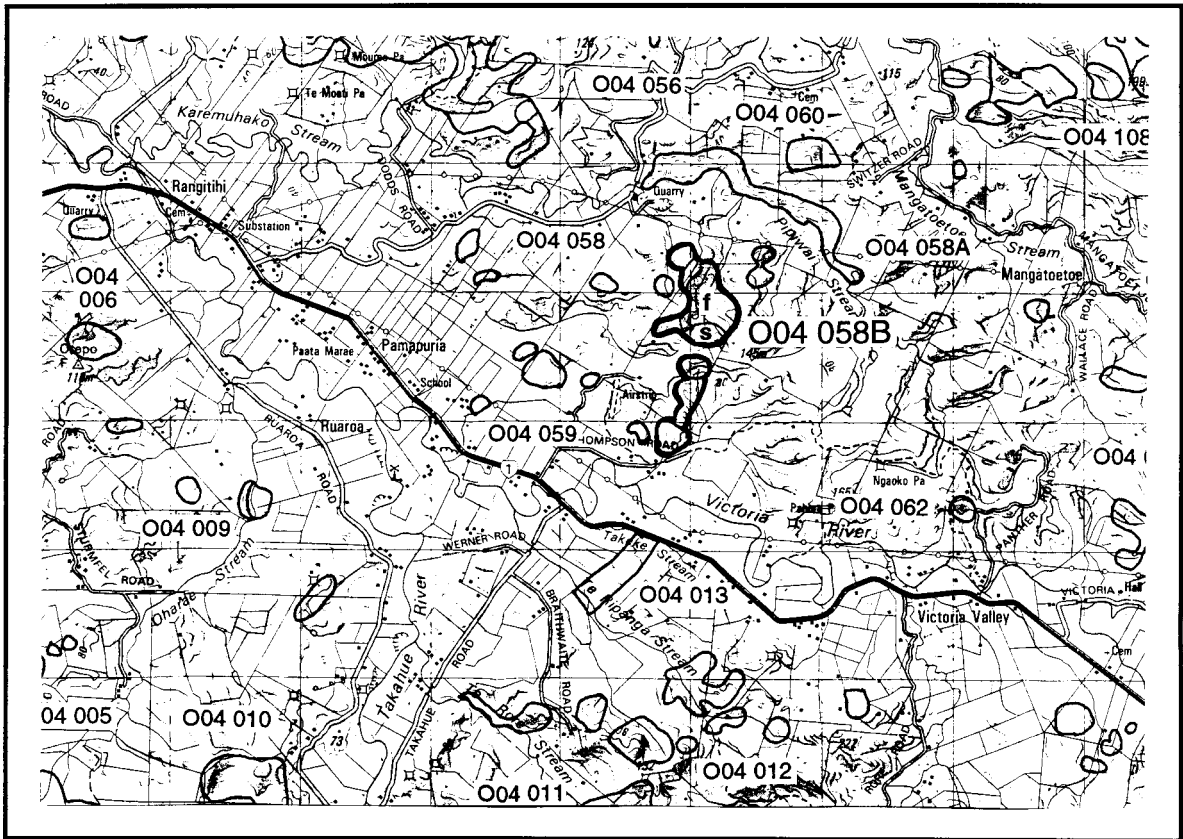
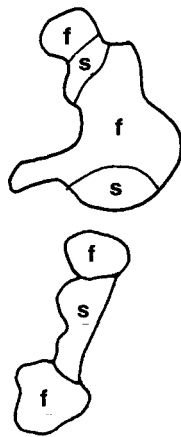


Figure 56. Thompson Road Forest #1, O04 058B
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.



Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species).

Significance

A representative site for taraire forest, being one of the few areas on limestone soils in the Ecological District.

Important for threatened species.

MANGATOETOE RD

Survey no. O04/061
Survey date 10 November 1994
Grid reference O04 485 750
Area 11.1 ha
Altitude 80-100 m asl

Ecological unit

- (a) Towai-taraire forest on hillslope
- (b) Puriri-taraire forest on hillslope
- (c) Totara forest on hillslope

Landform/geology

Hill country of Motatau Complex limestone and calcareous mudstone and sandstone lithofacies.

Vegetation

Several remnants, mostly taraire dominant, some with towai or puriri co-dominant. Totara is generally frequent.

One block is totara dominant.

Other species present in these blocks are rimu, kahikatea, rewarewa, kauri, titoki, and karaka.

Fauna

NI brown kiwi (Category A threatened species).

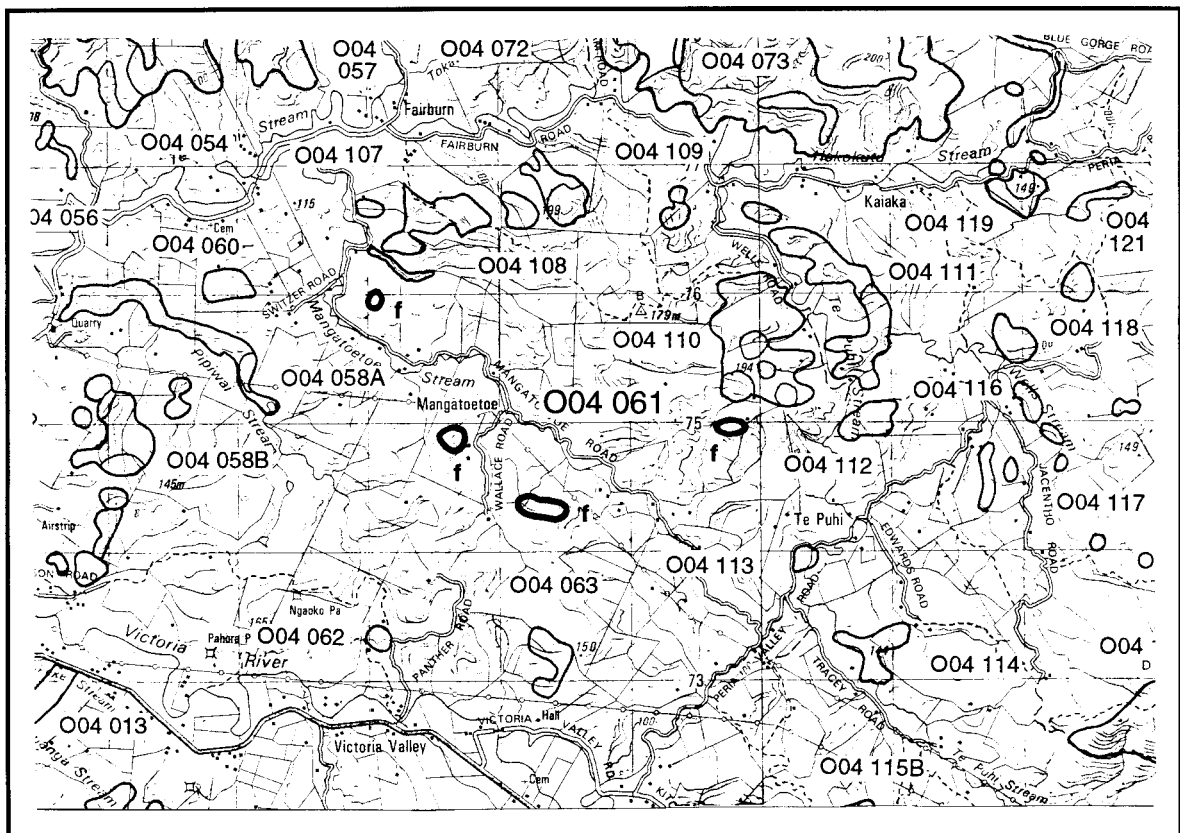


Figure 58. Mangatoetoe Road, O04 061

Each grid is 1000 m x 1000 m and equals 100 ha. f = forest.

Significance

The remnant at Wallace Rd (approximately 5 ha) is a representative site, being one of only two sites of puriri-taraire forest on limestone in the ecological district.

Kiwi habitat and collectively the sites provide a seasonal food source for NZ pigeon.

PANTHER RD

Survey no. O04/062
Survey date 10 November 1994
Grid reference O04 470 735
Area 2.6 ha
Altitude 80-120 m asl

Ecological unit

(a) Secondary totara forest on hillslope

Landform/geology

Hill country on Motatau Complex limestone.

Vegetation

Secondary totara with kahikatea, kanuka and taraire and scattered rewarewa, puriri, titoki, rimu and nikau.

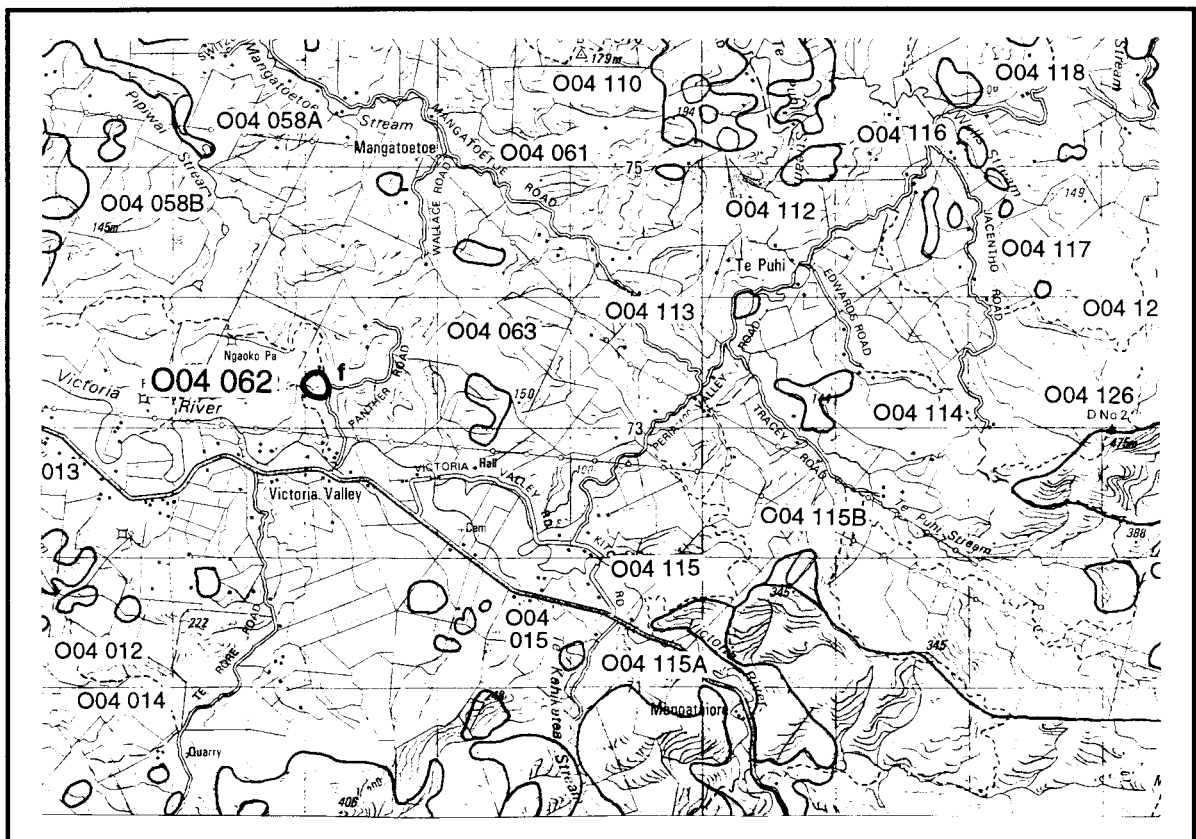


Figure 59. Panther Road, O04 062

Each grid is 1000 m x 1000 m and equals 100 ha. f = forest.

Fauna

Not surveyed.

Significance

Although small, the diversity of canopy species and intact canopy contribute to the site being the best example of totara forest on limestone in the Ecological District.

Potential food source for NZ pigeon.

VICTORIA VALLEY RD

Survey no. O04/063
Survey date 10 November 1994
Grid reference O04 484 733
Area 9.2 ha
Altitude 70-150 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Puriri-taraire forest on hillslope
- (c) Taraire forest on hillslope
- (d) Secondary kanuka forest on hillslope

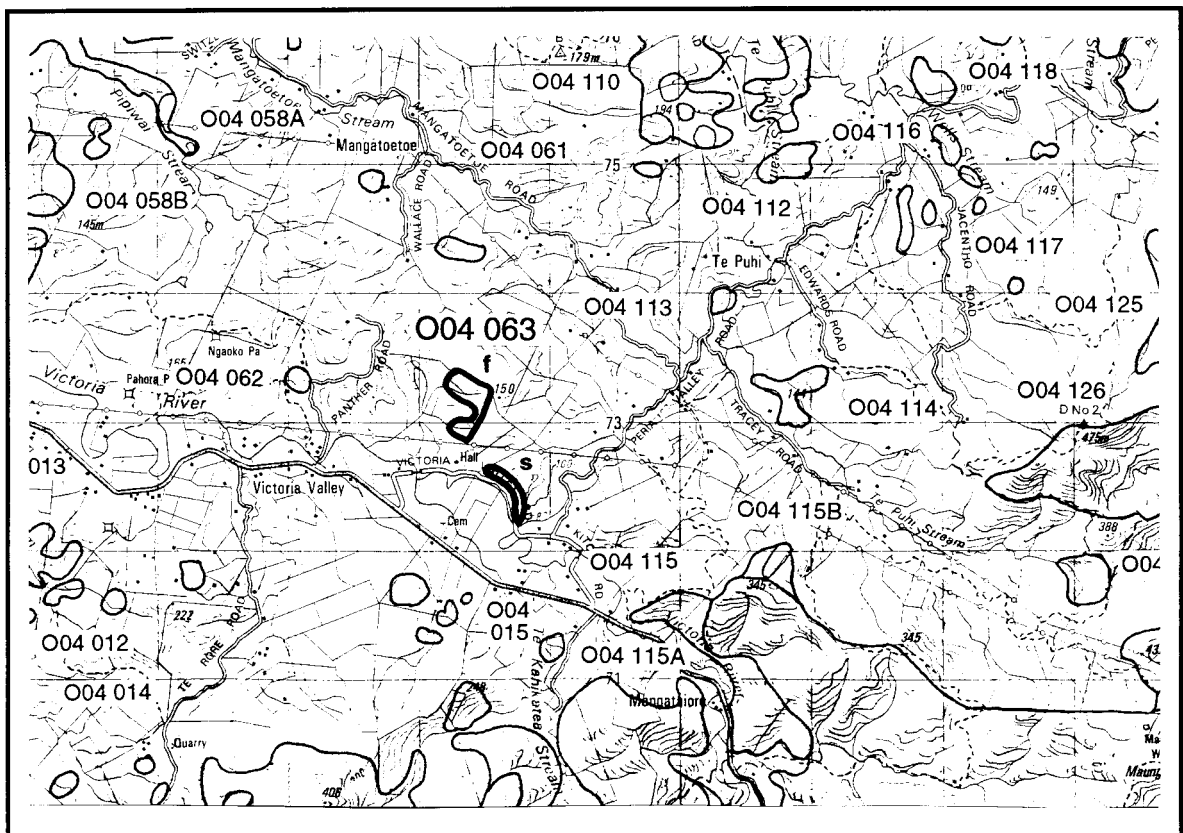


Figure 60. Victoria Valley Road, O04 063

Each grid is 1000 m x 1000 m and equals 100 ha. f = forest; s = shrubland.

Landform/geology

Hill country of Mangakahia Complex sandstone with an area of Tangihua Complex igneous rocks adjacent to Victoria Valley Rd.

Vegetation

Type (a) Manuka-kanuka shrubland. Forms most of the area above the river and is about 2–3 m tall with scattered mamaku and totara.

Type (b) Puriri-taraire forest. A small area above the river with totara and the occasional rewarewa.

Type (c) Taraire forest. Occurs further over the hill from the river, with puriri and kahikatea, and occasional rimu, totara, towai, pukatea and rewarewa.

Type (d) Secondary kanuka forest. Adjoins (c) and contains frequent kahikatea and totara and occasional puriri and mamaku.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Headwaters of catchments and riparian buffer to the Victoria River.

Habitat for kiwi.

SCHLUTER/VINAC PEKERAU

Survey no.	O04/064
Survey date	30 June 1995
Grid reference	O04 442 857
Area	43.3 ha
Altitude	30-140 m asl

Ecological unit

- (a) Manuka shrubland on hillslope
- (b) Manuka-kanuka shrubland on hillslope
- (c) Puriri-taraire forest in gully
- (d) Cabbage tree-putaputaweta shrubland on alluvium
- (e) Secondary kahikatea on alluvium

Landform/geology

Valleys in Motatau Complex calcareous mudstone and sandstone lithofacies with Holocene alluvial flats in lower reaches.

Vegetation

Type (a) Manuka shrubland. Manuka 4–6 m in height with *Dracophyllum lessonianum*, mingimingi, *Cassytha paniculata*, *Schoenus tendo* and cabbage tree, with a fairly open canopy, on gumland soils.

Type (b) Manuka-kanuka shrubland. Manuka 8–10 m in height with tanekaha, totara, and occasional kauri. Also a fairly open canopy with totara and kohekohe seedlings. There is some pampas and gorse in the more open areas and occasional wattle.

Type (c) Puriri-taraire forest. In the gully with rimu, rewarewa, and a sub-canopy of nikau and kohekohe.

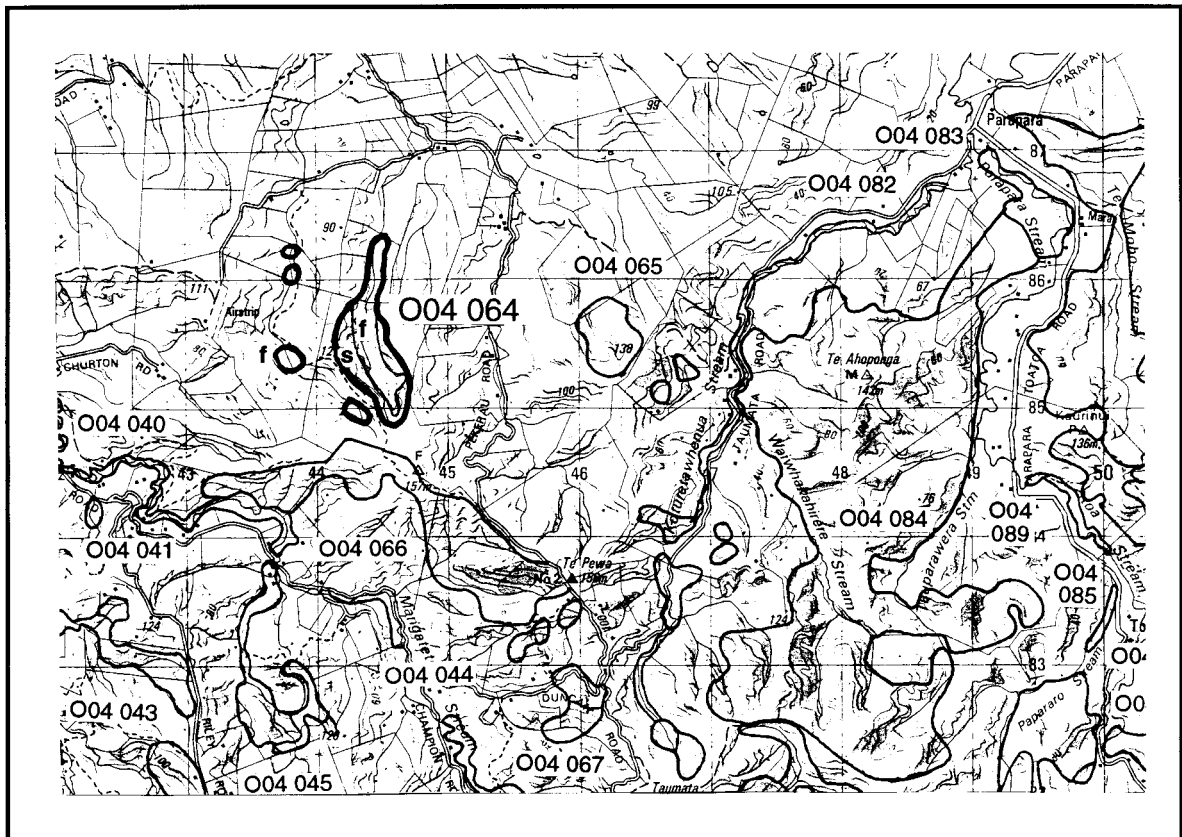
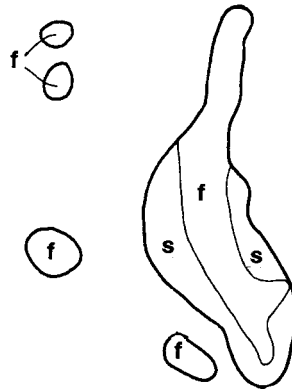


Figure 61. Schluter/Pinac Pekerau, O04 064

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

f = forest; s = shrubland.



Type (d) Cabbage tree-putaputaweta shrubland. With lady fern, nikau and occasional kahikatea, in swampy areas.

Type (e) Secondary kahikatea. Remnants occur in the gully to the northwest of the main block, with totara, kanuka and the occasional cabbage tree and puriri. One of these is linked to a further small area of taraire by sporadic manuka and totara.

Fauna

Not surveyed but presence of NI brown kiwi (Category A threatened species) likely as present in adjacent area. NZ pigeon (Category B threatened species). Freshwater mussels (*Hyridella* sp.).

Significance

A diversity of vegetation types constituting a representative site for manuka shrubland and the only site recorded in the Ecological District of a cabbage tree-putaputaweta association. The site is approaching the southern limit for naturally occurring *Cassytba paniculata*.

A large area providing habitat for the threatened NZ pigeon not easily accessible to poachers.

PEKERAU BUSH

Survey no.	O04/065
Survey date	28 April 1995
Grid reference	O04 463 854
Area	19.7 ha
Altitude	40-140 m asl

Ecological unit

- (a) Tanekaha forest on ridge
- (b) Puriri-taraire forest in gully
- (c) Kanuka forest on hillslope
- (d) Kahikatea-cabbage tree-giant umbrella sedge swamp in depression

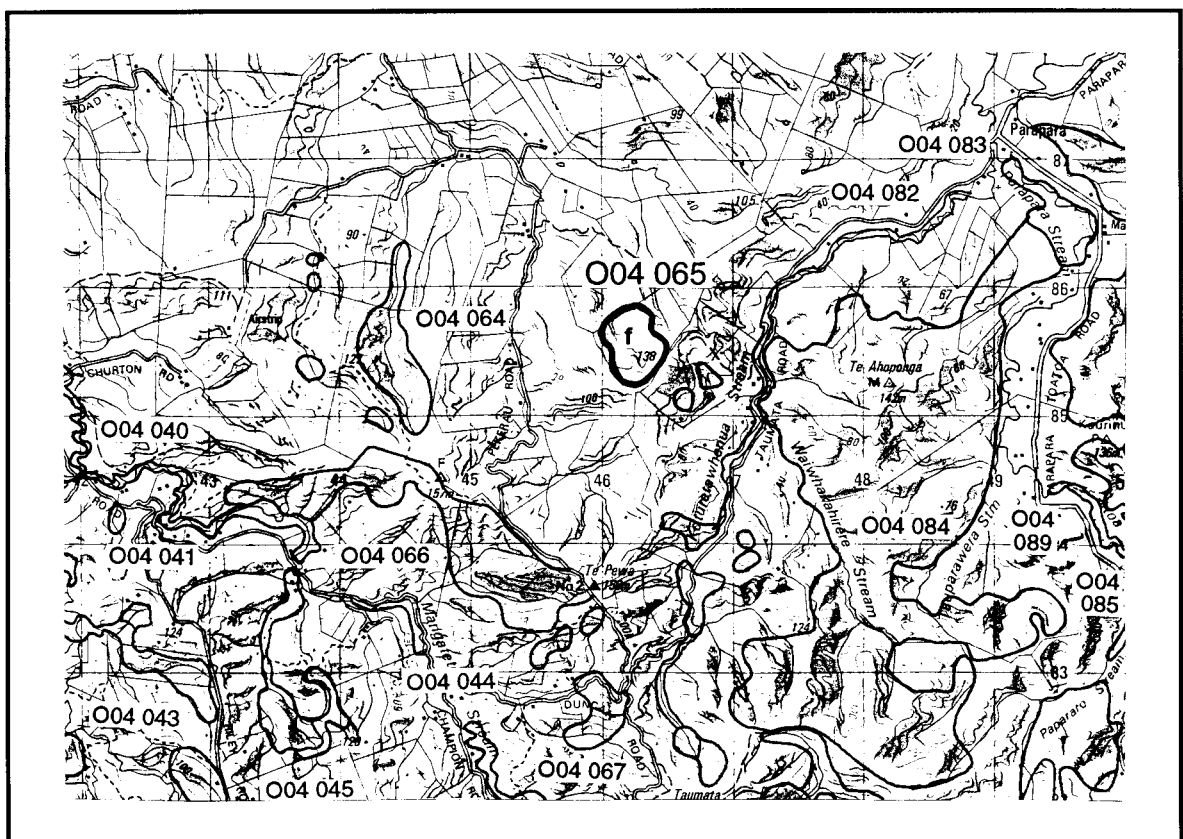


Figure 62. Pekerau, O04 065

Each grid is 1000 m x 1000 m and equals 100 ha. f = forest.

Landform/geology

Valley head in Motatau Complex calcareous mudstone and sandstone hill country.

Vegetation

Type (a) Tanekaha forest. With emergent kauri (15–20 m tall) and towai, totara and kanuka, the average canopy height being about 10 m.

Type (b) Puriri-taraire forest. In the gullies with a sub-canopy of kohekohe (canopy height 12–15 m).

Type (c) Kanuka forest. About 8 m tall with tanekaha, totara and kauri.

Type (d) Kahikatea-cabbage tree-giant umbrella sedge swamp. A small swampy area (not mapped) towards the south of the block, with parataniwha, giant umbrella sedge, raupo, nikau, kiokio and grass surrounded by kahikatea, cabbage tree, wheki and putaputaweta. There are many large puriri, and a number of emergent rimu. Despite the poor understorey (primarily small-leaved *Coprosma* spp., tree ferns, hangehange and nikau) due to grazing, there is a moderate diversity of plant species (100). The area is relatively weed-free and has no pigs or goats.

Significant flora

The area is distinctive for its three concentrated sites of the Sparse *Pittosporum pimeleoides* subsp. *pimeleoides*. Also present is fan fern, uncommon in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species); kauri snail (Category C threatened species).

Significance

A representative site for tanekaha forest. The kahikatea-cabbage tree area, although small, is one of only three such examples of its type in the Ecological District.

The area has limited pests, and its location reduces the threat from any re-invasion.

Presence of the Sparse *Pittosporum pimeleoides* subsp. *pimeleoides*.

The site is protected by covenant under the Queen Elizabeth II National Trust.

TE PEWA

Survey no.	O04/066
Survey date	13 September 1994
Grid reference	O04 456 835
Area	125.8 ha
Altitude	40-140 m asl

Ecological unit

- (a) Manuka shrubland on hillslope
- (b) Taraire forest on hillslope
- (c) Totara-towai-kanuka forest on hillslope
- (d) Puriri forest on hillslope

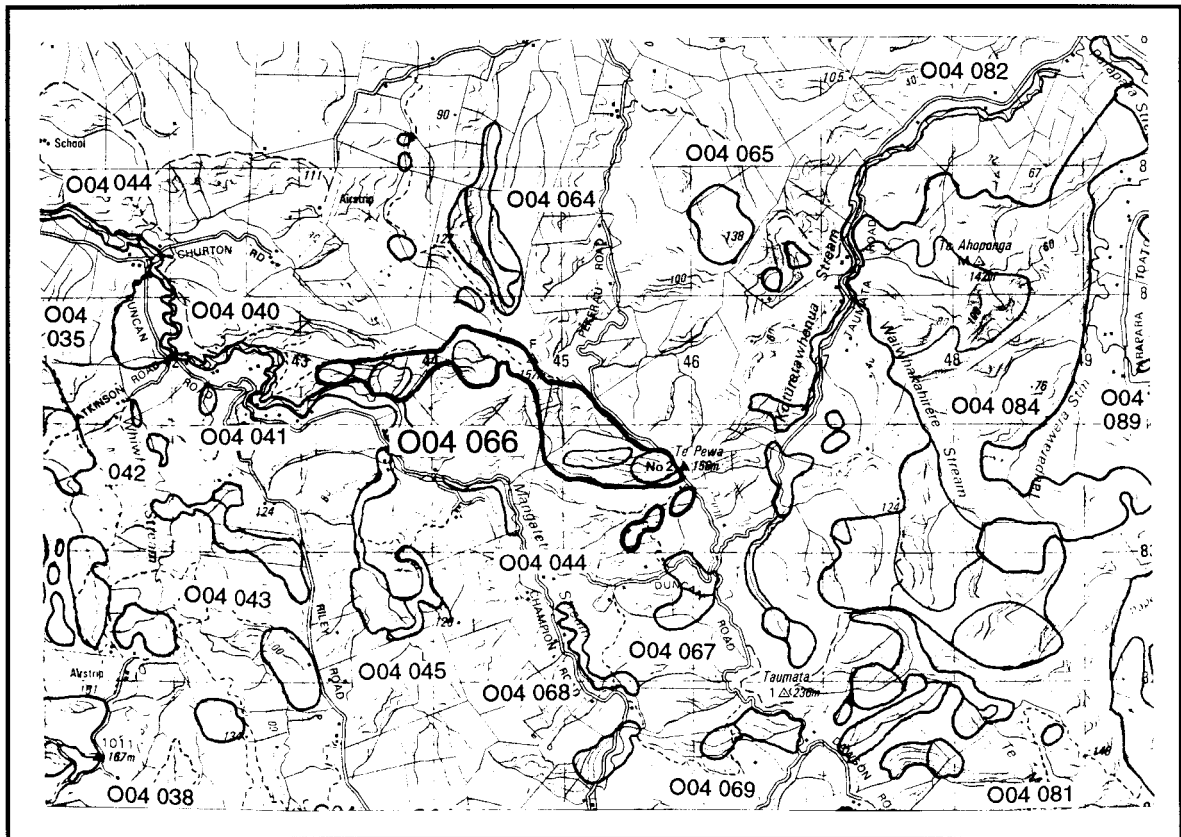


Figure 63. Te Pawa, O04 066

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

f = forest; s = shrubland.

(e) Secondary totara forest on hillslope

(f) Secondary totara-kanuka forest on hillslope

Landform/geology

Dissected hill country in Motatau Complex calcareous mudstone and sandstone.

Vegetation

Type (a) Manuka shrubland. Comprises most of the area with occasional puriri, totara, mamaku or cabbage tree.

Within this are several areas of broadleaf-podocarp forest:

Type (b) Taraire forest. With occasional puriri, rewarewa and tanekaha. One area has frequent kauri rickers as well as occasional rimu and totara. Another has kauri, kohekohe, kahikatea and cabbage tree occurring rarely. Near Four Crossroads, puriri, totara and kanuka are frequent.

Type (c) Totara-towai-kanuka forest. With frequent taraire, and occasional puriri, kahikatea and cabbage tree.

Type (d) Puriri forest. With frequent kohekohe and taraire. Kahikatea, nikau, kauri, rimu, tanekaha, totara and rewarewa are also present.

Type (e) Totara forest. Occurs in a small area near Four Crossroads. Other species present are kahikatea, kohekohe, rewarewa, towai, kawaka, pukatea, nikau, mamaku and cabbage tree. Some of this area has been planted with exotic timber species (Kingett-Mitchell).

Type (f) Kanuka-totara shrubland. Of varied height. Occurs in the south separated from the rest of the habitat. On the edges some pines and macrocarpa occur.

Significant flora

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species).

Significance

A fairly large contiguous habitat, with a diversity of vegetation types.

It is also habitat for a threatened fauna species and a notable tree species.

CHAMPION RD

Survey no.	O04/068
Survey date	13 September 1994
Grid reference	O04 453 814
Area	21.7 ha
Altitude	40-130 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Kahikatea-taraire forest on alluvium
- (c) Secondary totara-kanuka treeland on alluvium
- (d) Totara-puriri-kahikatea forest on alluvium

Landform/geology

Holocene alluvial flats along the Mangatete Stream valley, and adjoining hillslopes of Motatau Complex calcareous mudstone and sandstone lithofacies.

Vegetation

Type (a) Taraire forest. The main area of bush near the end of Champion Rd is taraire-dominant with puriri, kohekohe and nikau. Associated species are kahikatea, totara, rewarewa, towai, pukatea, matai and northern rata.

Further downstream of Type (b) the vegetation is similar to the main bush but contains cabbage tree and kanuka.

This area is fenced but had some timber extracted a few years ago, creating an open area which is regenerating mainly in cabbage tree, pampas, pate, soft rush and cutty grass.

Type (b) Secondary kanuka forest. Occurs on one corner with mamaku and totara with occasional rimu, tanekaha and puriri.

Type (c) Manuka-kanuka shrubland. Of about 4 m in height, comprising approximately 20% of the total area.

Fauna

NZ pigeon (Category B threatened species), NI brown kiwi (Category A threatened species) in low numbers; kauri snail (Category C threatened species).

Significance

Headwater catchment of the Mangatete Stream (O04/044) and in close proximity to several other sites (O04/081 Dawson Rd, O04/068 Champion Rd, O04 067 Four Crossroads).

Habitat for threatened species.

METCALFE RD

Survey no.	O04/070
Survey date	13 September 1994
Grid reference	O04 454 796
Area	30 ha
Altitude	60-120 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Taraire-kahikatea forest on hillslope
- (c) Secondary totara forest on hillslope
- (d) Nikau-puriri forest in gully
- (e) Puriri-taraire forest in gully and on hillslope

Landform/geology

Gullies in Motatau Complex calcareous mudstone and sandstone hill country with Holocene alluvial flats in the valley of the Mangatete Stream.

Vegetation

Type (a) Taraire forest. The largest block is mostly taraire with scattered puriri, kohekohe and mamaku.

Also occurs in the central block, with frequent totara and occasional kahikatea, kohekohe, puriri and rewarewa.

Type (b) Taraire-kahikatea forest. Comprises about 10% of the largest block. Nikau is occasional in the canopy.

Also comprises the north-east block with frequent totara and occasional puriri, rimu and rewarewa.

Type (c) Secondary totara forest. Abundant on the margins of the largest block. Dominant in the south-east block with frequent puriri and occasional rimu and kahikatea.

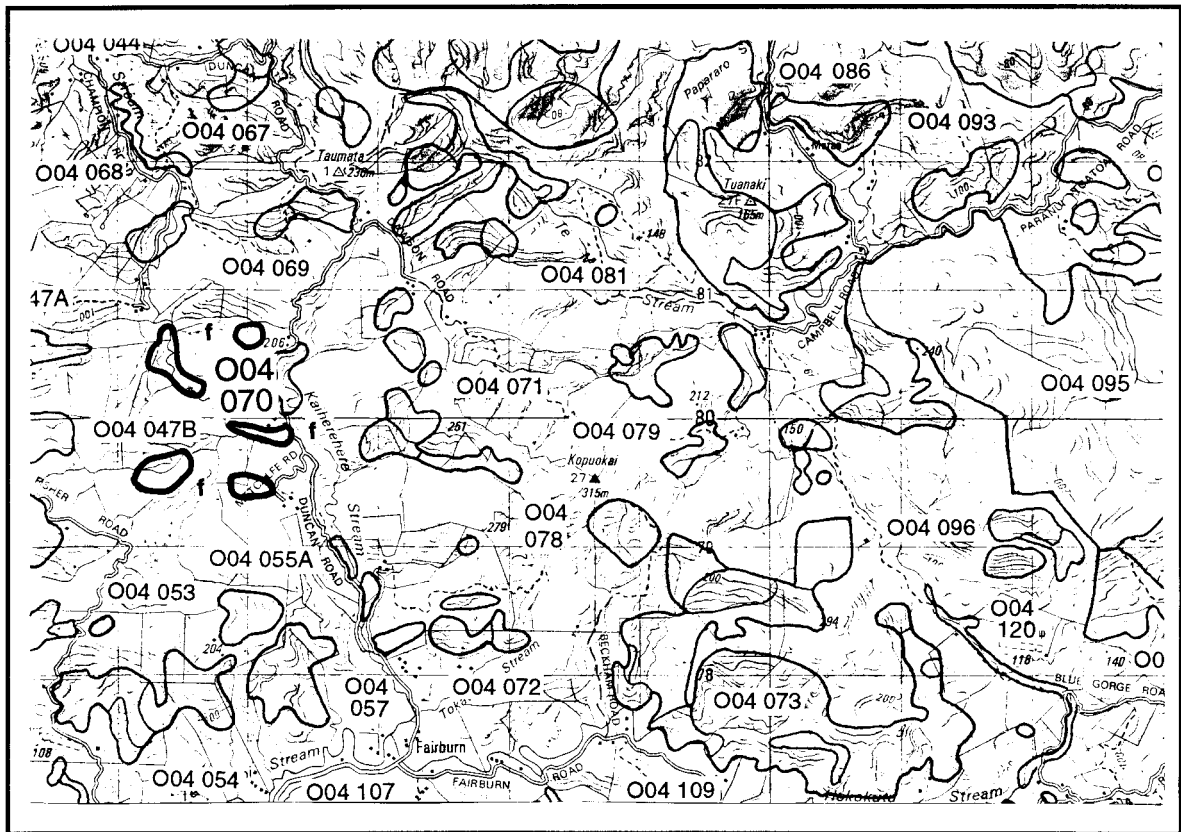
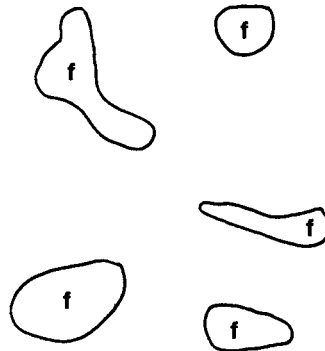


Figure 66. Metcalfe Road, O04 070
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest.



Type (d) Nikau-puriri forest. Occurs in the gully to the north-west with frequent kahikatea.

Type (e) Puriri-tairaire forest. Also occurs in the gully to the north-west with occasional kauri, mamaku, totara, kohekohe, cabbage tree and rimu.

Fauna

NI brown kiwi (Category A threatened species).

Significance

The north-western area is the only site in the Ecological District where nikau-puriri forest has been recorded and is a representative site. This remnant has a

strong puriri component. The south-eastern area also has a frequent puriri component.

Habitat for kiwi, food source for NZ pigeon, and part of the catchment head of the Mangatete Stream.

KAIHEREHERE STREAM

Survey no. 004/071
Survey date 13 September 1994
Grid reference 004 470 795
Area 65.8 ha
Altitude 60-220 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Secondary totara forest in gully
- (c) Towai-taraire forest on hillslope
- (d) Taraire-kahikatea forest on hillslope
- (e) Totara-puriri forest on hillslope
- (f) Kanuka shrubland on hillslop

Landform/geology

Hill country of Motatau Complex calcareous mudstone and sandstone, with Holocene alluvial flats in the valley of Kaiherehere Stream.

Vegetation

This catchment contains a number of broadleaf-podocarp remnants with areas of secondary podocarp and shrubland.

Type (a) Taraire forest. Near the head of the catchment (on the southern side of Dawson Rd) are two taraire-dominant remnants with kahikatea, rimu, rewarewa, totara, towai, tanekaha, matai, pukatea, northern rata and kauri scattered within them.

Below Duncan Road is a very steep slope that is taraire-dominant also but with kohekohe and puriri. Tawa, matai, lancewood, rewarewa, rimu and towai are also present.

Opposite Metcalfe Rd the taraire-dominant remnant has frequent kahikatea, as well as occasional puriri, totara, towai and titoki. Another narrow strip along the road is taraire dominant with totara and puriri and includes miro and kawaka as well as the other species mentioned above.

The other gully remnants are taraire with puriri, kahikatea and puriri. Kauri occurs rarely in one of these.

Type (b) Secondary totara forest. With kahikatea and occasional rewarewa, towai, rimu and puriri. It is linked to the taraire remnants at the head of the catchment by a narrow intermittent strip of totara with puriri in a gully.

Type (c) Towai-taraire forest. It is linked by a thin strip of intermittent manuka along the stream to the taraire remnant opposite Metcalfe Rd, and adjoins Type (d).

Type (d) Taraire-kahikatea forest. With nikau and kanuka, as well as occasional rewarewa, rimu and towai.

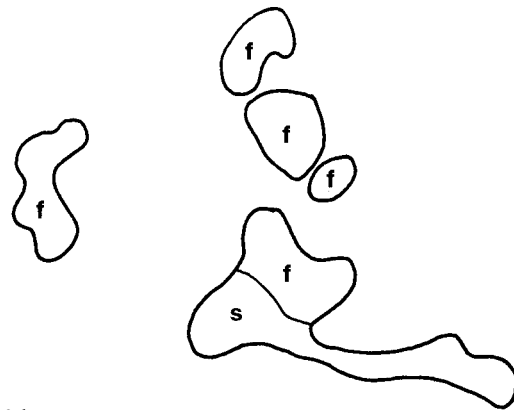
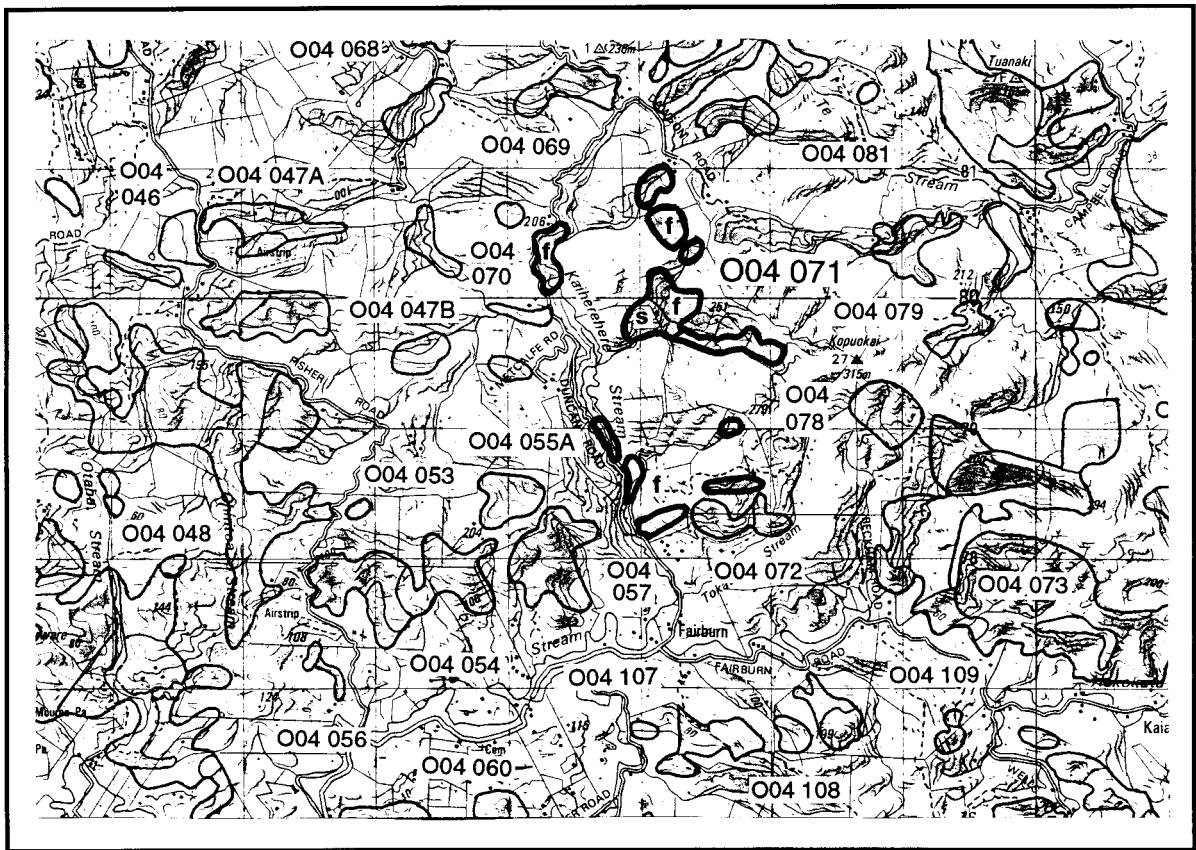
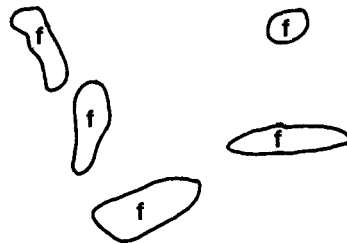


Figure 67. Kaiherehere Stream, O04 071

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

f = forest; s = shrubland.



Type (e) Totara-puriri forest. A small area adjoining (d) with occasional rewarewa.

Type (f) Kanuka shrubland. Forms a buffer of varying height to Type (d).

Significant flora

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Habitat for kiwi and potential food source for NZ pigeon; the two roadside areas in particular are diverse and on extremely steep slopes.

TOKATOKA STREAM

Survey no. O04/072
Survey date 13 September 1994
Grid reference O04 476 777

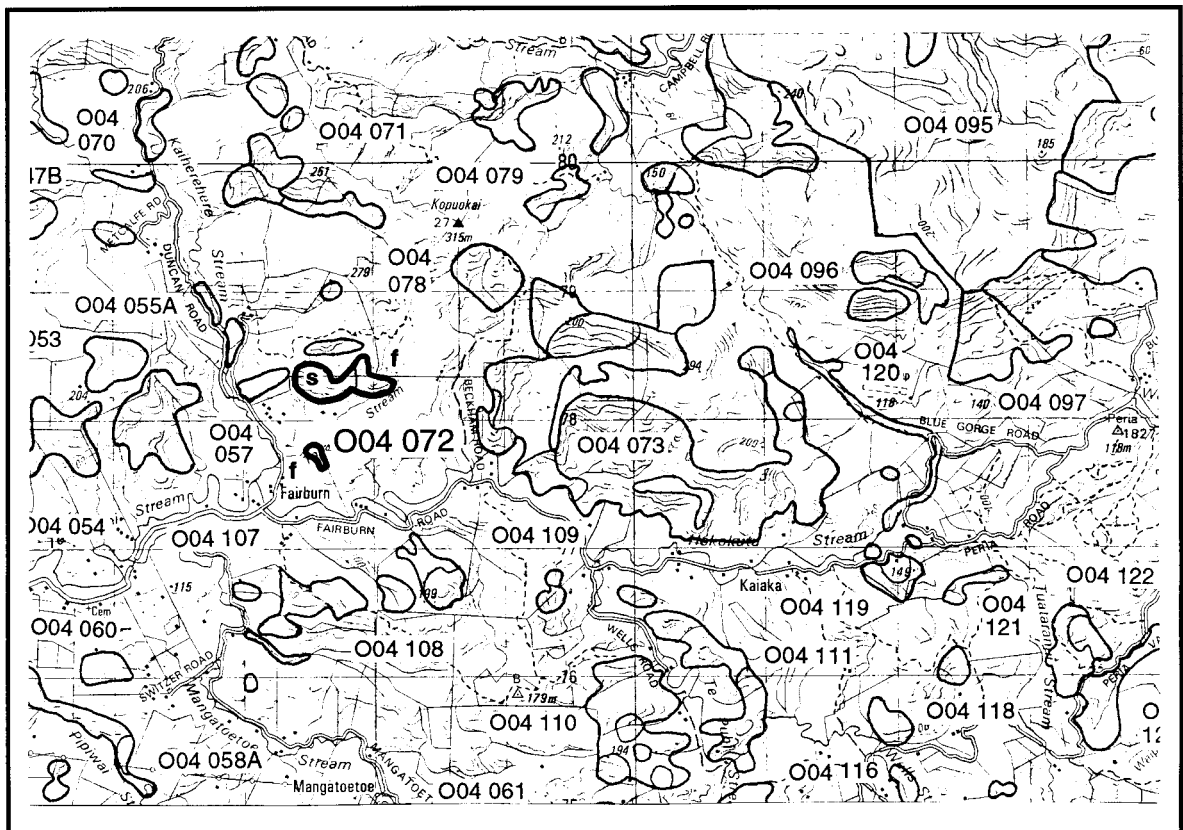


Figure 68. Tokatoka Stream, O04 072

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

f = forest; s = shrubland.



Area 16.5 ha
Altitude 100-200 m asl

Ecological unit

- (a) Secondary kahikatea forest on alluvium
- (b) Secondary totara-kahikatea forest on hillslope
- (c) Towai-manuka-mamaku shrubland on hillslope

Landform/geology

Hill country of Motatau Complex calcareous mudstone and sandstone lithofacies, with Holocene alluvial flats in the valley of Tokatoka Stream.

Vegetation

Type (a) Secondary kahikatea forest. A small remnant with puriri by the Tokatoka Stream.

Type (b) Secondary totara-kahikatea forest. Occurs across the stream with taraire and occasional puriri.

Type (c) Towai-manuka-mamaku shrubland. A larger area of low shrubland with areas of open grass and scattered puriri, totara and kahikatea, and adjoining (b).

Fauna

NI brown kiwi (Category A threatened species).

Significance

Kahikatea is much reduced from its former extent in the Ecological District.

Habitat for kiwi.

KAIAKA

Survey no. O04/073
Survey date 26 August, 9 November 1994
Grid reference O04 500 780
Area 268.4 ha
Altitude 40-290 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Secondary totara forest on hillslope
- (c) Taraire forest on hillslope
- (d) Secondary kahikatea forest on hillslope
- (e) Open water - constructed pond in valley bottom
- (f) Raupo-*Juncus* reedland in valley bottom
- (g) Towai-mamaku shrubland on hillslope
- (h) Totara-kanuka shrubland on hillslope
- (i) Totara-towai forest on hillslope
- (j) Taraire-kahikatea forest on hillslope
- (k) Totara-kahikatea forest on hillslope

Landform/geology

Dissected hill country of Motatau Complex calcareous mudstone and sandstone, with Holocene alluvial flats and freshwater wetlands in Hokokutu Stream valley.

Vegetation

Type (a) Manuka-kanuka shrubland. Mainly contiguous or almost contiguous, mostly around 6 m tall, with occasional mamaku, totara, rewarewa, puriri and towai. To the north the shrubland tends to be between 2 and 4 m tall and also contains some pampas and bracken in a small area. To the east, the escarpment along Blue Gorge is regenerating in manuka with some pampas and isolated puriri, kahikatea and totara.

Type (b) Secondary totara forest. Occurs on the western edge of Type (a) with kanuka and occasional kahikatea, towai, rewarewa and puriri. There are a small number of macrocarpa on the outside edge.

Pockets also occur in the north usually with taraire, puriri, towai, and nikau.

Type (c) Taraire forest. Occurs in pockets along the escarpment of Blue Gorge, but the vegetation is not contiguous. In the north there is a reasonably sized stand of taraire forest with frequent totara. On the north bank of the Hokokutu Stream is another area of taraire dominance with towai and kahikatea on the lower slopes. Rewarewa, puriri, kohekohe, rimu and mamaku occur occasionally. Opposite Wells Rd, towai and mamaku are locally common.

Type (d) Secondary kahikatea forest. Pockets occur in the north usually with taraire, puriri, towai, and nikau.

Types (e) and (f) Open water/raupo-*Juncus* reedland (not mapped). Constructed ponds on a tributary of the Hokokutu Stream are mostly open water with scattered *Juncus sarophorus* and *Carex virgata* on the margins. About a third is *Juncus* and raupo with occasional flax.

Type (g) Towai-mamaku shrubland. A small area opposite Wells Rd with frequent manuka and kanuka and occasional totara and rewarewa.

Type (h) Totara-kanuka shrubland. A small area occurring on the northern margin with occasional mamaku and towai.

Type (i) Totara-towai forest. A small area north of Wells Rd with frequent kahikatea and occasional puriri, mamaku and kohekohe.

Type (j) Taraire-kahikatea forest. Occurs on the lower slopes of the northern outlier with occasional puriri, totara and nikau.

Type (k) Totara-kahikatea forest. A small remnant within the shrubland on the southern side of Blue Gorge. Puriri is occasional.

Significant flora

No significant species have been recorded from this site (no ground surveys have been carried out) but it is noteworthy that there are several historical records of threatened plant species from the general Kaiaka area, e.g. *Calystegia marginata* (Declining) (late 1890s and early 1900s), and *Rorippa divaricata* (Endangered), collected by Carse in 1920.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species), Australasian bittern (Category O threatened species), spotless crane and banded rail reported (both regionally significant species); banded kokopu (Category C threatened species).

BECKHAM RD

Survey no. O04/078
Survey date 26 August 1994
Grid reference O04 488 791
Area 18 ha
Altitude 160-300 m asl

Ecological unit

(a) Manuka-kanuka shrubland on hillslope

Landform/geology

Dissected hill country of Motatau Complex calcareous mudstone and sandstone.

Vegetation

A mosaic of regenerating manuka-kanuka up to 6 m on the steep south eastern slopes of Kopuakai. Mamaku and towai occur frequently, with totara, kahikatea and rimu occurring occasionally.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Steep head catchments of Te Puhi Stream, containing kiwi.

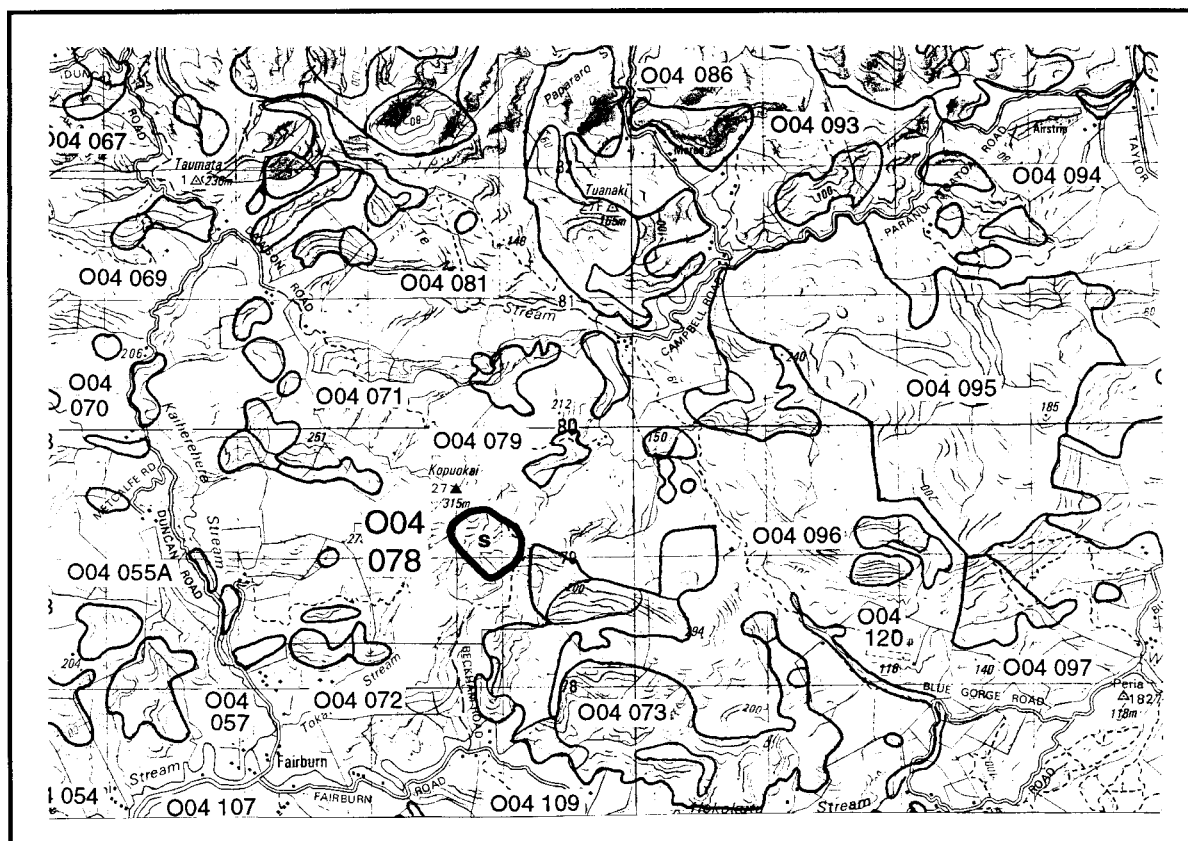


Figure 70. Beckham Road, O04 078

Each grid is 1000 m x 1000 m and equals 100 ha. s = shrubland.

KOPUAKAI

Survey no. O04/079
Survey date 28 August, 19 September 1994
Grid reference O04 495 802
Area 46.7 ha
Altitude 20-200 m asl

Ecological unit

- (a) Secondary towai-kanuka forest on steep hillslope
- (b) Taraire forest on hillslope

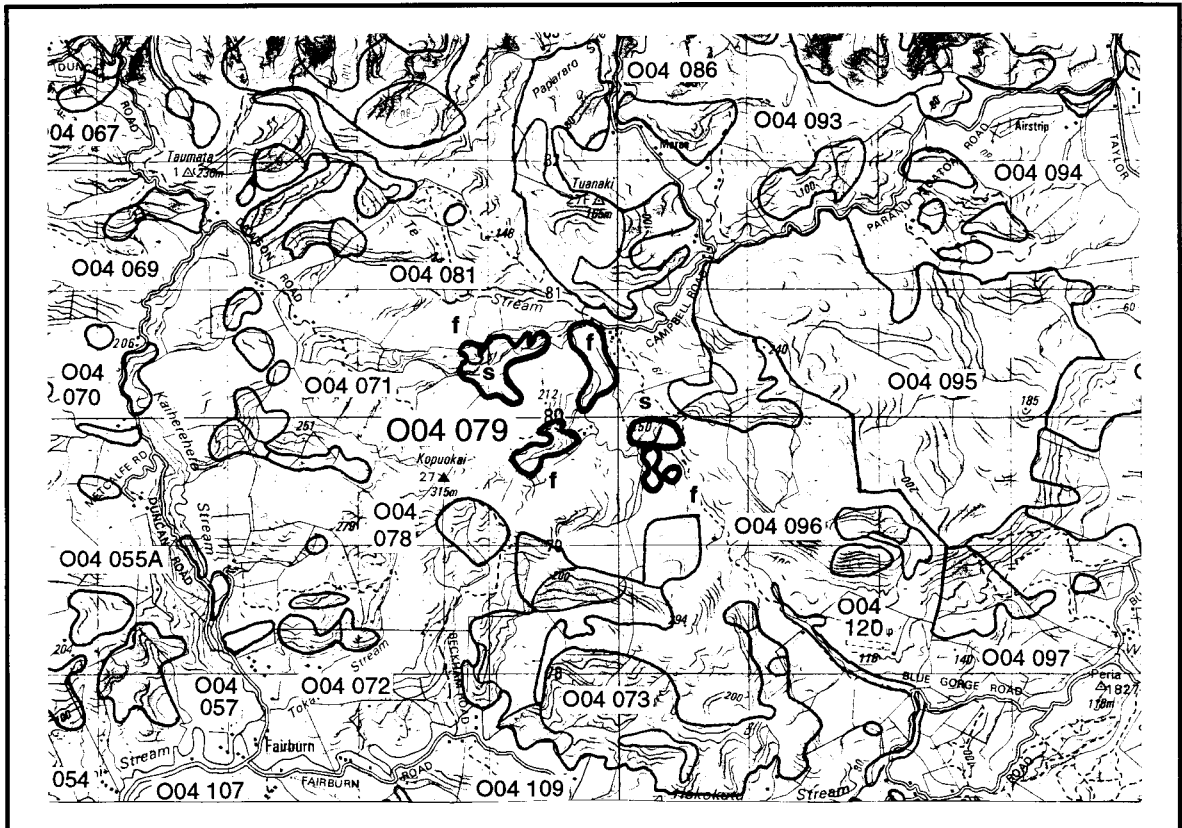
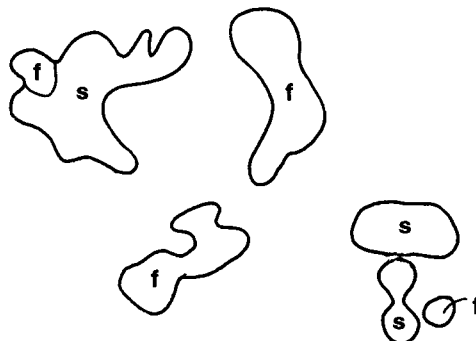


Figure 71. Kupuakai, O04 079

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

f = forest; s = shrubland.



- (c) Towai-taraire forest on hillslope
- (d) Manuka-kanuka shrubland on hillslope
- (e) Taraire-kahikatea forest in gully
- (f) Secondary kahikatea forest on hillslope

Landform/geology

Valleys in hill country of Motatau Complex calcareous mudstone and sandstone lithofacies.

Vegetation

Scattered narrow remnants and regeneration on steep sides of watercourses north of Kopuakai.

Type (a) Secondary towai-kanuka forest. Located in the south-west block. Taraire is frequent. Kauri, tanekaha and totara also occur.

Type (b) Taraire forest. A small area in the south-west block with totara and occasional kahikatea near the trig.

Also occurs in the north-east block with totara and towai. Rimu, puriri and rewarewa are occasional.

Type (c) Towai-taraire forest. In a very steep gully in the north-west block, with totara. Puriri, rewarewa, kahikatea, rimu, kohekohe, narrow-leaved maire and pukatea also occur.

Type (d) Manuka-kanuka shrubland. Between 2 and 4 m tall. Puriri, totara, towai and mamaku are scattered throughout.

Type (e) Taraire-kahikatea forest. In the north of the north-east block, the canopy of taraire-kahikatea with totara and nikau and occasional kohekohe and puriri is discontinuous.

Type (f) Secondary kahikatea forest. A small outlying remnant in the south-east of the site with frequent totara and taraire and occasional kauri, rimu and rewarewa.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Riparian buffer and catchment protection.

Kiwi habitat.

DAWSON ROAD

Survey no.	O04/081
Survey date	19 September 1994
Grid reference	O04 480 817
Area	76 ha
Altitude	50-120 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Puriri-kohekohe-taraire forest on steep hillslope
- (c) Tanekaha-totara-kanuka forest on ridge

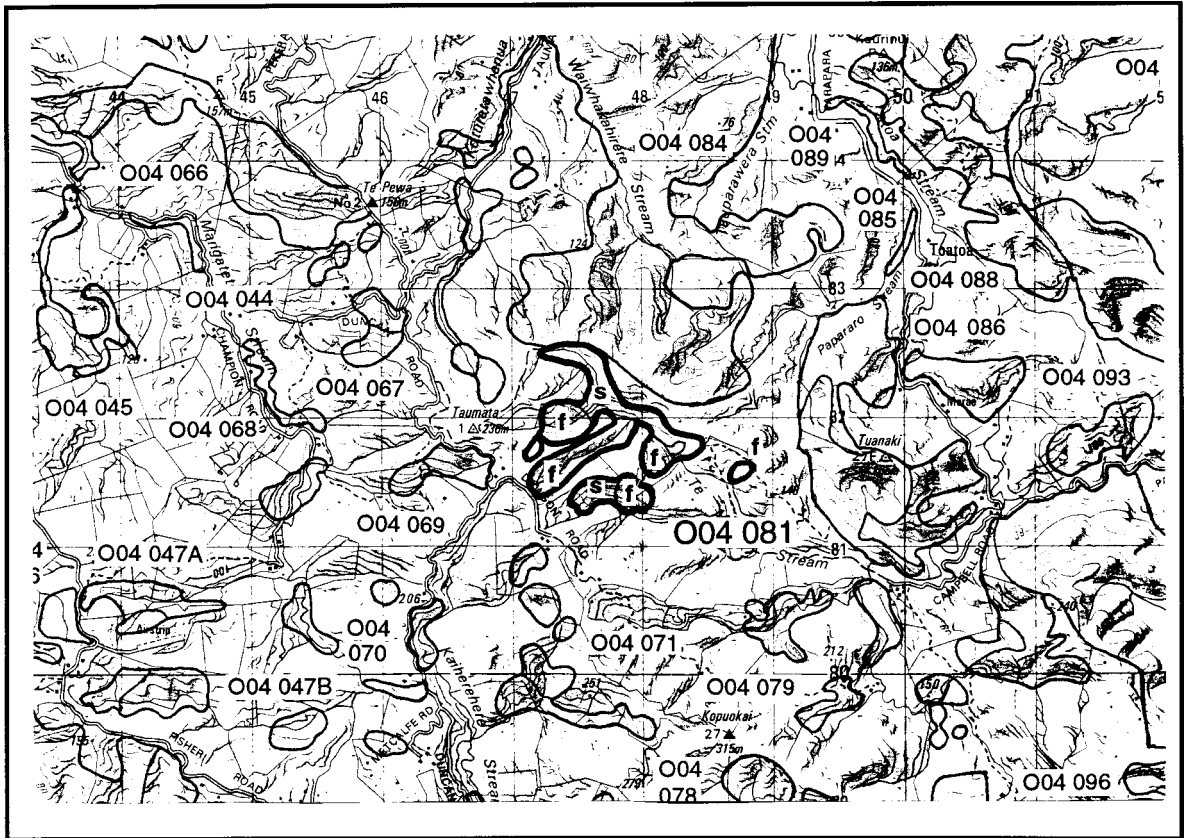
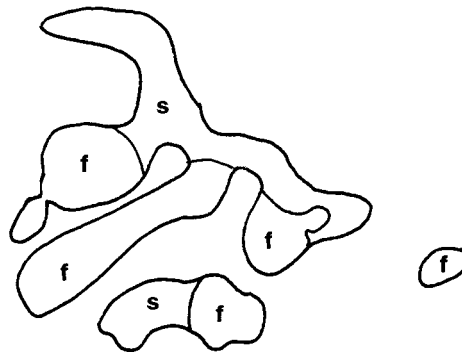


Figure 72. Dawson Road, O04 081

Each grid is 1000 m × 1000 m and equals 100 ha.

f = forest; s = shrubland.



- (d) Puriri-kohekohe forest on hillslope
- (e) Nikau forest on hillslope
- (f) Kahikatea forest in gully
- (g) Puriri-kahikatea forest on hillslope
- (h) Tanekaha forest on hillslope
- (i) Secondary totara-kanuka forest on hillslope
- (j) Manuka-kanuka shrubland on hillslope

Landform/geology

Dissected hill country of Motatau Complex calcareous mudstone and sandstone lithofacies.

Vegetation

Type (a) Taraire forest. The predominant type. Totara, kanuka and rewarewa are locally frequent. Associated species are rimu, kahikatea, kauri, tanekaha, kohekohe, towai, tawa, miro, puriri, pukatea and northern rata.

Type (b) Puriri-kohekohe-taraire forest. In one instance, puriri and kohekohe are co-dominant with taraire.

Type (c) Tanekaha-totara-kanuka forest on ridge. On the ridges the canopy consists of totara, tanekaha and kanuka with emergent rimu and occasional kauri. Kohekohe is dominant in the sub-canopy, and nikau is abundant. Mahoe, mamangi and mapou are occasional. The ground cover is mainly sedges with low ferns (shield fern, lady fern, gully fern, maidenhair and thread fern) and epiphytes are abundant. There are several large kauri, kahikatea and puriri. *Pittosporum pimeleoides* subsp. *pimeleoides* occurs locally in part of the area protected under a Queen Elizabeth II National Trust covenant. African club moss is locally dense on the adjoining Nga Whenua Rahui kawenata area.

Small areas of different associations occur:

Type (d) Puriri-kohekohe forest.

Type (e) Nikau forest. With puriri and kahikatea.

Type (f) Kahikatea forest. With rimu and totara.

Type (g) Puriri-kahikatea forest.

Type (h) Tanekaha forest. With totara.

Type (i) Totara-kanuka forest.

Type (j) Manuka-kanuka shrubland. Comprises the remainder of the area, between 3 and 6 m in height. About half of this has little else in the way of canopy species, but the rest contains totara, kohekohe, cabbage tree, mamaku, towai, puriri, five-finger, mapou, tutu and bracken.

Significant flora

The sparse *Pittosporum pimeleoides* subsp. *pimeleoides*.

Fauna

NZ pigeon (Category B threatened species); NI brown kiwi (Category A threatened species) in low numbers; kauri snail (Category C threatened species).

Significance

Catchment heads containing a diversity of species and vegetation types, adjacent to other large habitats. This area adjoins the large site of Te Ahoponga (O04/084) and is close to Tuanaki (O04/086), Taumata Bush (O04/069), Kaiherehere Stream (O04/071) and Koturetawhenua Stream (O04/082).

Representative site for taraire forest and tanekaha forest. It is the only site where puriri-taraire-kohekohe, puriri-kohekohe, nikau, and kanuka-totara-tanekaha forest associations have been recorded in the Ecological District.

Habitat for threatened species.

This site includes 16.5 ha protected under a Nga Whenua Rahui kawenata and 34.3 ha protected under a Queen Elizabeth II National Trust covenant.

KOTURETAWHENUA STREAM

Survey no. O04/082
Survey date 13 September 1994
Grid reference O04 467 850
Area 54.1 ha
Altitude <20-140 m asl

Ecological unit

- (a) Taraire forest on hillslope and alluvium
- (b) Manuka-kanuka shrubland on hillslope
- (c) Cabbage tree-kanuka shrubland on alluvium
- (d) Raupo reedland on alluvium

Landform/geology

Dissected hill country of Motatau Complex calcareous sandstone and mudstone, with Holocene alluvial flats and wetlands along the valley of Koturetawhenua Stream.

Vegetation

Type (a) Taraire forest. In the headwaters of this stream there is a small taraire remnant with totara and occasional puriri, kohekohe, nikau and mamaku.

Adjoining or near the stream in the central reaches are several taraire-dominant blocks of bush, in which totara and kahikatea are either common or frequent. Puriri is also sometimes common or frequent. Other species occurring are kanuka, kohekohe (both sometimes frequent), rewarewa, karaka, kauri, nikau, mamaku, rimu, miro, pukatea and titoki.

Type (b) Manuka-kanuka shrubland. A buffer to (a) in the headwaters, with scattered totara, puriri and cabbage tree.

Type (c) Cabbage tree-kanuka shrubland. The riparian vegetation in the lower reaches of the stream is dominated by cabbage tree, kanuka and kahikatea. Taraire, towai, titoki, tanekaha, kohekohe, puriri and putaputaweta are also found.

Type (d) Raupo reedland. In the upper and central reaches of the stream are several patches of raupo with occasional cabbage tree.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species).

Significance

A catchment notable for the considerable amount of riparian vegetation, providing good habitat conditions for indigenous freshwater fauna.

A representative site for taraire forest and cabbage tree-kanuka shrubland.

Habitat for kiwi and NZ pigeon.

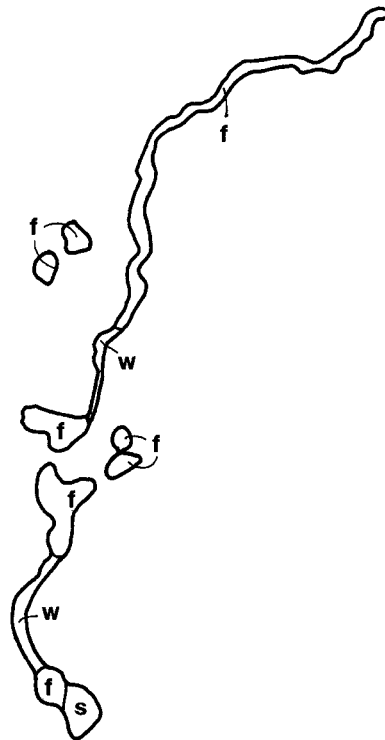
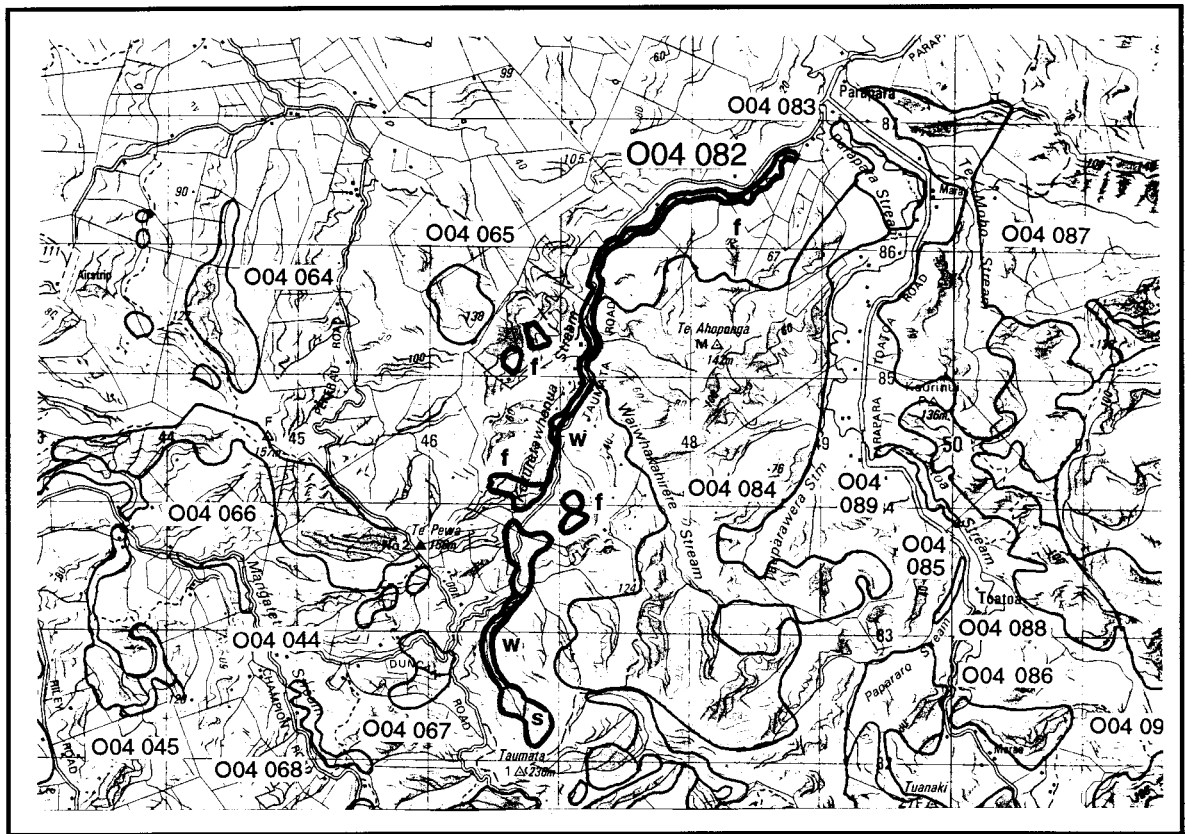


Figure 73. Koturetawhenua Stream, O04 082

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

f = forest; s = shrubland; w = wetland.

PARAPARA STREAM

Survey no. O04/083
Survey date 8 August 1994
Grid reference O04 495 865
Area 22.3 ha
Altitude 0-20 m asl

Ecological unit

(a) Secondary totara-kanuka shrubland on alluvium

Landform/geology

Holocene alluvial flats along the Parapara Stream valley.

Vegetation

Totara and manuka-kanuka are common. Kahikatea, cabbage tree, lacebark and macrocarpa are occasional. The canopy is high and fairly open but a high degree of shade is created.

Fauna

Not surveyed.

Significance

Representative site of totara-kanuka shrubland on alluvium.

The vegetation provides a degree of riparian shading contributing to suitable habitat conditions for indigenous freshwater fauna.

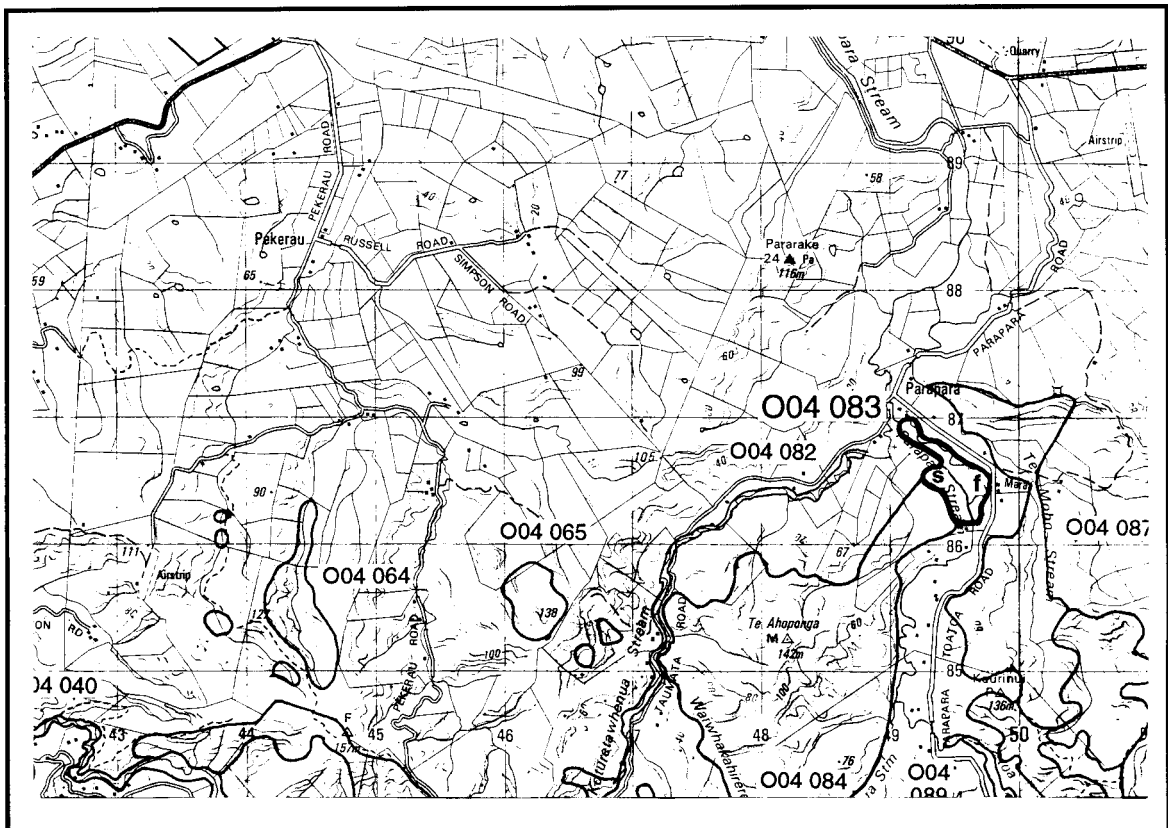


Figure 74. Parapara Stream, O04 083

Each grid is 1000 m × 1000 m and equals 100 ha. f = forest; s = shrubland.

TE AHOPONGA

Survey no.	O04/084
Survey date	8 August 1994
Grid reference	O04 480 850
Area	525.3 ha
Altitude	<20-140 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Manuka-kanuka-gorse shrubland on hillslope
- (c) Manuka-bracken-ringfern shrubland on hillslope
- (d) Taraire forest on hillslope
- (e) Rimu forest on hillslope
- (f) Totara-kanuka forest on hillslope
- (g) Puriri forest on toeslope

Landform/geology

Dissected hill country of Motatau Complex calcareous mudstone and sandstone lithofacies, with Holocene alluvial flats in the valleys of Koturetawhenua and Parapara Streams.

Vegetation

This is a large mosaic of shrubland and forest.

Type (a) Manuka-kanuka shrubland. The shrubland is primarily manuka-kanuka, half of which is below 4 m and half about 6 m tall. Scattered within the shrubland are totara, towai, cabbage tree and mamaku.

Type (b) Manuka-kanuka-gorse shrubland. About 10% of the area is mixed manuka and gorse

Type (c) Manuka-bracken-ringfern shrubland. Occurs in a small area.

Type (d) Taraire forest. About half of the forest is taraire-dominant with kahikatea, totara, puriri and kauri frequent. Rimu, tanekaha, rewarewa and northern rata also occur.

Type (e) Rimu forest. There is a small area of rimu dominance within Type (d). The understorey is mainly intact in Types (d) and (e).

Type (f) Totara-kanuka forest. The remaining forest is totara-kanuka with taraire and puriri, and sometimes kauri on the ridges. Tanekaha, rimu and rewarewa also occur within this forest type.

Type (g) Puriri forest. Behind the truck wreckers is a tiny area of puriri with pukatea.

Fauna

NI brown kiwi (Category A threatened species) and kauri snail (Category C threatened species).

Significance

A large habitat capable of supporting viable populations of kiwi and NZ pigeon, almost contiguous with several other habitats (O04/080 Dawson Rd, O04/086 Tuanaki).

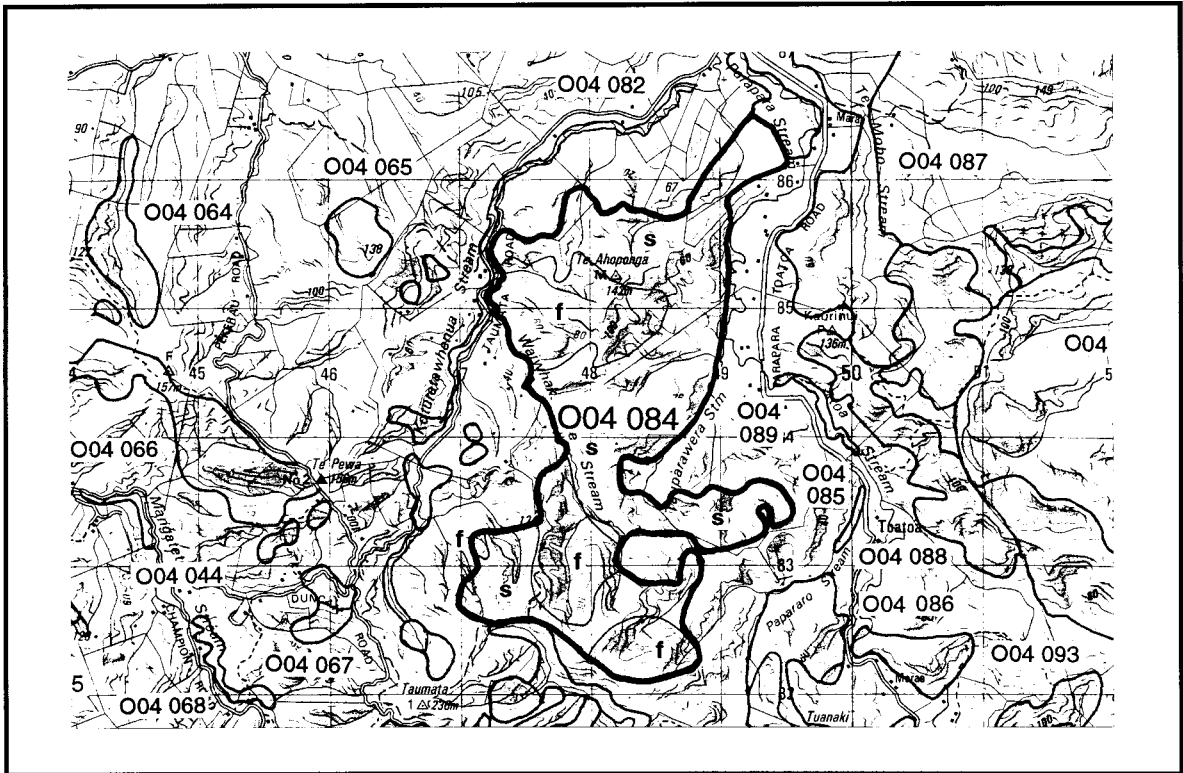
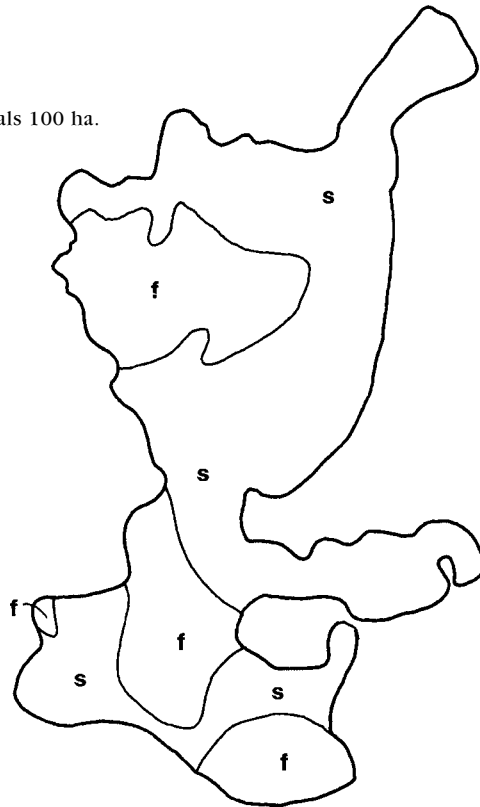


Figure 75. Te Ahoponga, O04 084

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

f = forest; s = shrubland.



A representative site for taraire forest, totara-kanuka forest, and the only site of rimu forest recorded in the Ecological District.

TOATOA SWAMP

Survey no. O04/085
Survey date 8 August 1994
Grid reference O04 500 835
Area 4.3 ha
Altitude 0-20 m asl

Ecological unit

(a) Raupo reedland on alluvium

Landform/geology

Freshwater wetland along the stream valley, in an area of Motatau Complex calcareous mudstone and sandstone hill country.

Vegetation

Primarily raupo with some cabbage tree and occasional manuka, kahikatea and *Carex*.

Fauna

Australasian bittern (Category O threatened species); spotless crane (regionally significant species).

Significance

A representative example of a raupo wetland, a habitat type much reduced from its former extent in the Ecological District.

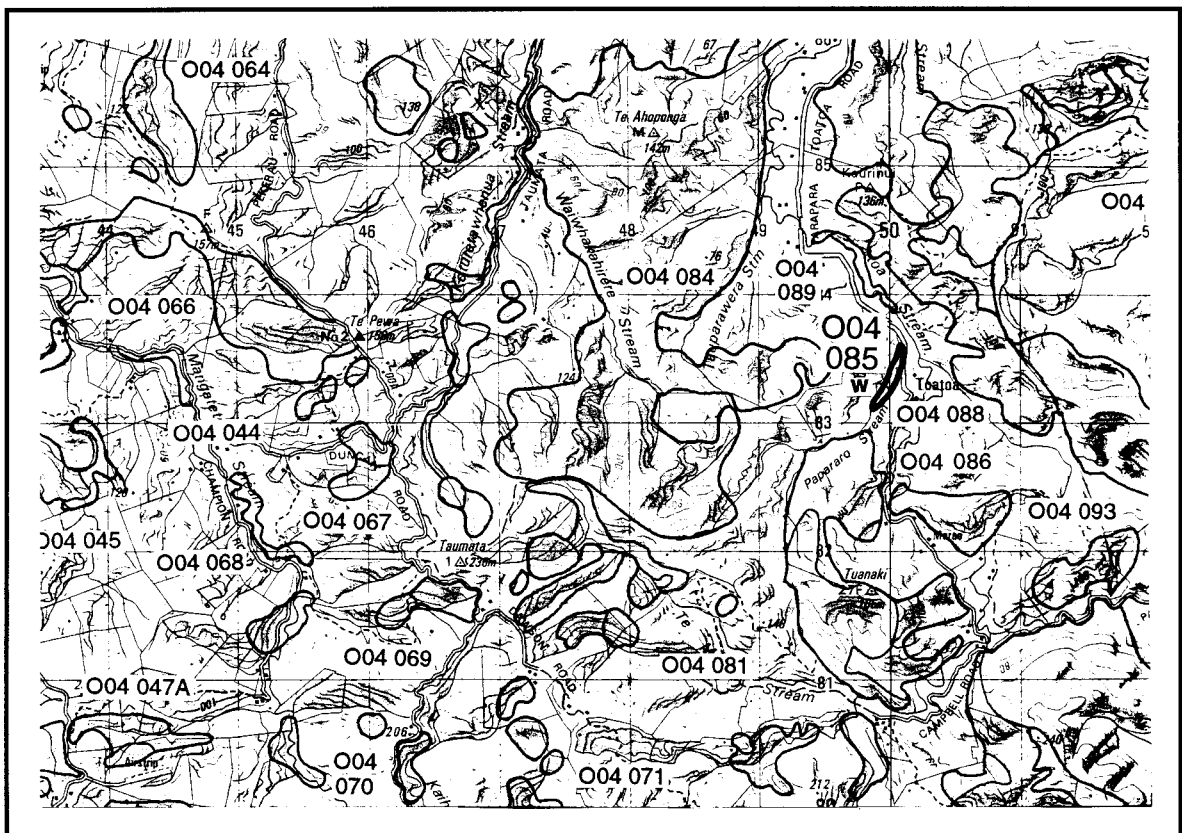


Figure 76. Toatoa Swamp, O04 085

Each grid is 1000 m x 1000 m and equals 100 ha. w = wetland.

TUANAKI

Survey no.	O04/086
Survey date	8 August, 19 September 1994
Grid reference	O04 498 814
Area	165.8 ha
Altitude	20-185 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Kanuka-taraire forest on hillslope
- (c) Secondary kanuka forest on hillslope
- (d) Secondary totara-kahikatea forest on alluvium
- (e) Secondary kanuka-totara forest on hillslope
- (f) Taraire-towai forest on hillslope
- (g) Manuka-kanuka shrubland on hillslope

Landform/geology

Hill country of Motatau Complex calcareous mudstone and sandstone lithofacies.

Vegetation

Type (a) Taraire forest. The main type, with puriri and totara. Other species present are kohekohe, kahikatea, titoki, rewarewa, northern rata, kauri and pukatea.

Type (b) Taraire-kanuka forest. A small area on the north-eastern side similar to Type (a).

Type (c) Kanuka forest. With occasional rimu, totara, towai, rata, rewarewa and cabbage tree. Also on the northeastern side.

Near Parapara-Toatoa Rd is a small pocket with totara.

Type (d) Totara-kahikatea forest. Occurs along the flats above the Maire Stream with frequent taraire and cabbage tree. Other species are titoki, rimu, puriri and rewarewa.

Type (e) Kanuka-totara forest. A very small pocket with taraire and puriri and occasional kahikatea, on the flats above the Maire Stream.

Type (f) Taraire-towai forest. A small pocket with totara near Parapara-Toatoa Rd.

Type (g) Manuka-kanuka shrubland. Between 4 and 6 m tall with occasional cabbage tree, puriri and mamaku, forms the majority of the area.

Fauna

NZ pigeon (Category B threatened species), NI brown kiwi (Category A threatened species).

Significance

A large area, with a range of vegetation types and a representative site for kahikatea-totara forest.

Habitat for threatened species.

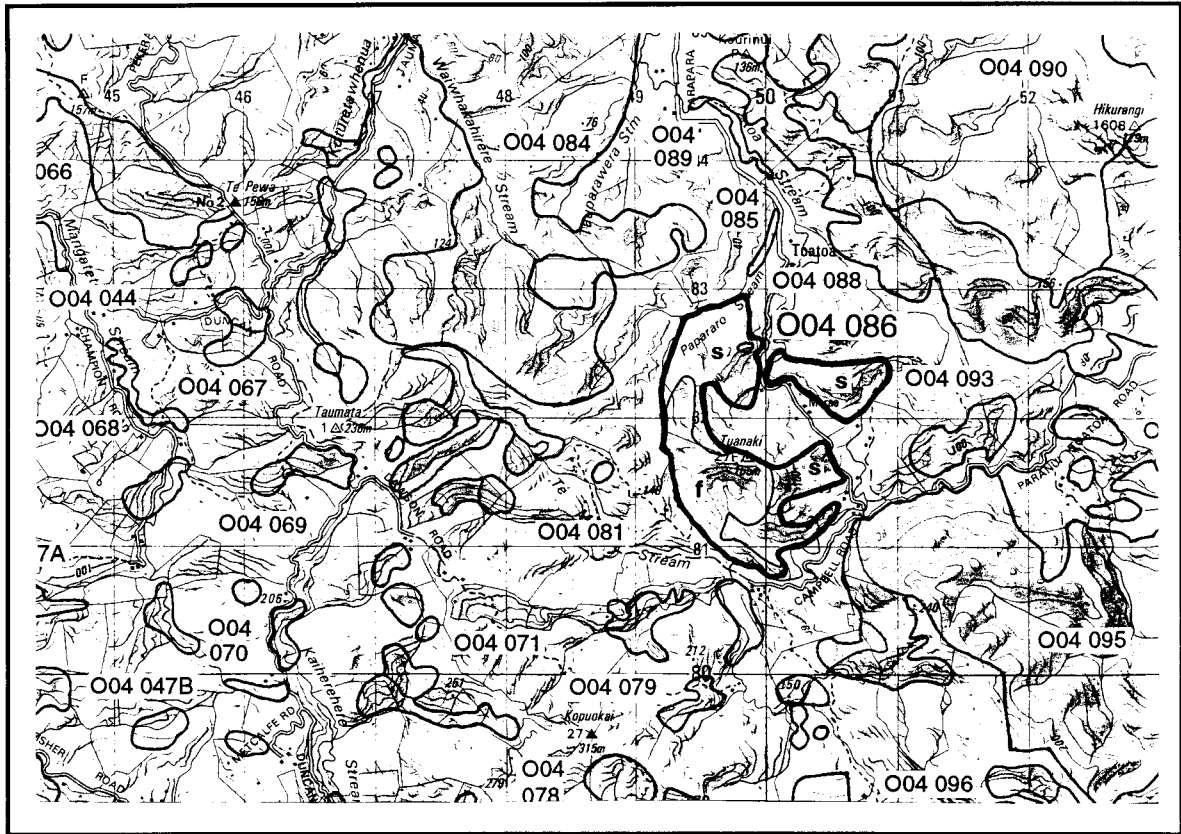
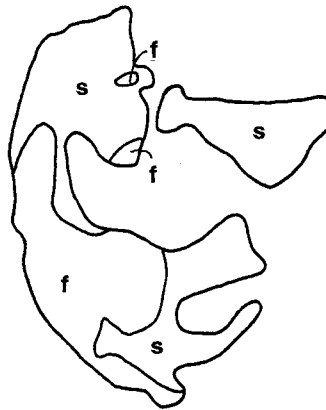


Figure 77. Tuanaki, O04 086

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

f = forest; s = shrubland.



TE MOHO STREAM

Survey no.	O04/087
Survey date	8 August 1994
Grid reference	O04 500 860
Area	136.9 ha
Altitude	20-60 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on gentle to moderate hillslope
- (b) Secondary totara-tanekaha forest on hillslope
- (c) Cabbage tree shrubland on alluvium

Landform/geology

Hill country of Motatau Complex calcareous mudstone and sandstone, with Holocene alluvial flats in the valley of Te Moho stream.

Vegetation

Type (a) Manuka-kanuka shrubland. Mostly about 4 m tall, but varying from 1 to 6 m. Other species present are totara, cabbage tree, mamaku, tutu, kohuhu, towai, pate, *Cassytha*. Gorse is frequent through about half of the area.

Type (b) Secondary totara-tanekaha forest. Less than 1% of the area (not mapped), and of low height.

Type (c) Cabbage tree shrubland. Also a small area, with mamaku.

Fauna

NI brown kiwi (Category A threatened species) likely as present in adjacent area.

Significance

Contiguous with Kaurinui (O04/088) and Hikurangi (O04/090). A representative example of cabbage tree shrubland which is uncommon in the Ecological District, and is likely to be habitat for kiwi.

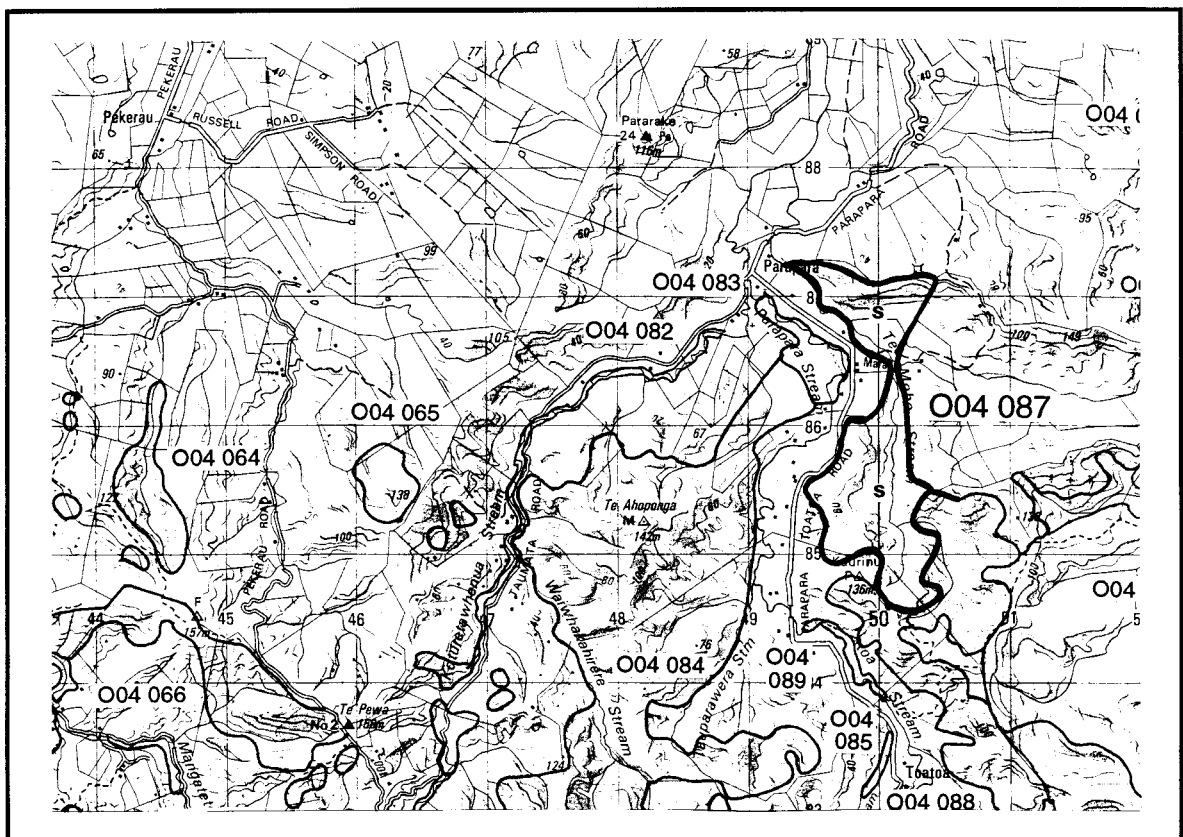


Figure 78. Te Moho Stream, O04 087

Each grid is 1000 m x 1000 m and equals 100 ha. s = shrubland.