

Fauna

Welcome swallow, kingfisher, kukupa (Gradual Decline).

Significance

This is the fifteenth largest forested site in Otamatea ED Northland. The site is representative for four ecological units: (a) taraire-puriri-totara forest on moderate hillslope, (b) kanuka forest on gentle hillslope, (c) kauri-totara forest on gentle coastal margin, and (d) kanuka-rimu forest on moderate to steep hillslope. It supports a high diversity of forest types and at least one threatened bird species (kukupa). Some of the puriri in the small separate remnant appear to be affected by dieback. Most of this natural area is within two separately owned QEII Open Space Covenants (43.2 ha in total, or 93% of the forest described here).

WAHIWAKA CREEK FOREST REMNANTS

Survey no.	Q08/146
Survey date	2 December 2005
Grid reference	Q08 357 595 (5 remnants)
Area	44.2 ha
Altitude	0-60 m asl

Ecological units

- (a) Totara-puriri-kahikatea forest on steep coastal margin (40%)
- (b) Totara forest on gentle coastal margin (23%)
- (c) Taraire-karaka forest on gentle coastal margin (15%)
- (d) Kauri-kahikatea-totara forest on ridge top (10%)
- (e) Totara-kahikatea forest on moderate hillslope (10%)
- (f) Kauri-kanuka forest on gentle coastal margin (2%)

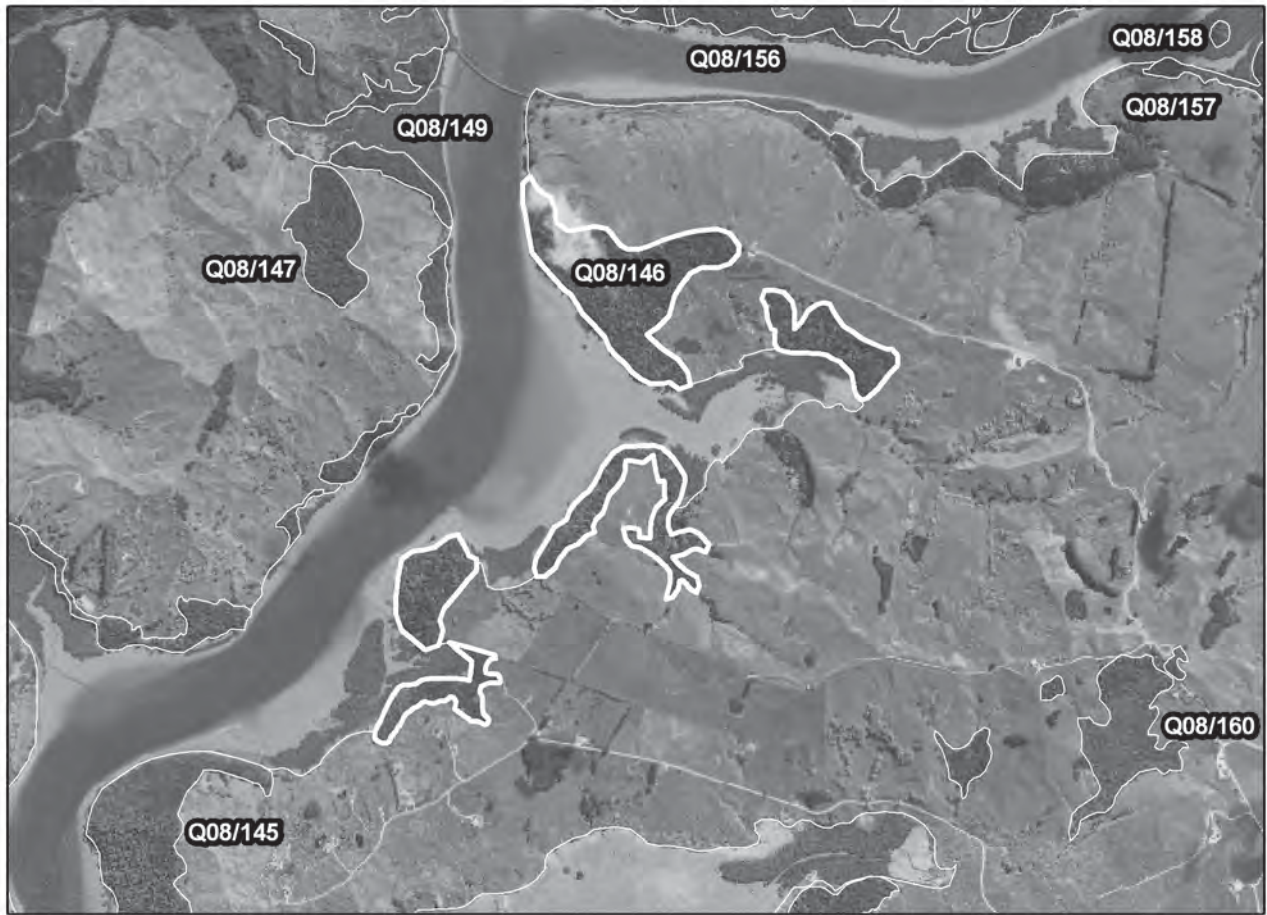
Landform/geology

Coastal hillsides underlain by melange (undifferentiated Mangakahia Complex, Motatau Complex and Waitemata Group lithologies).

Vegetation

This site comprises five coastal forest remnants on the east coast of the Otamatea River (Q08/062) centred on the Wahiwaka Creek, which is a small mangrove-filled tidal inlet. Pasture dominates the surrounding landscape, and some small pine plantations and occasional willow plantations also occur. The site contains several forest types, most of which have totara as a main component. The easternmost forest remnant was fenced off from neighbouring paddocks in 2002 (David Hargreaves, pers. comm.), but there is no fence along the coastal margin, hence stock can still gain access from time to time by walking around the mudflats. None of the other remnants are effectively protected from stock access either.

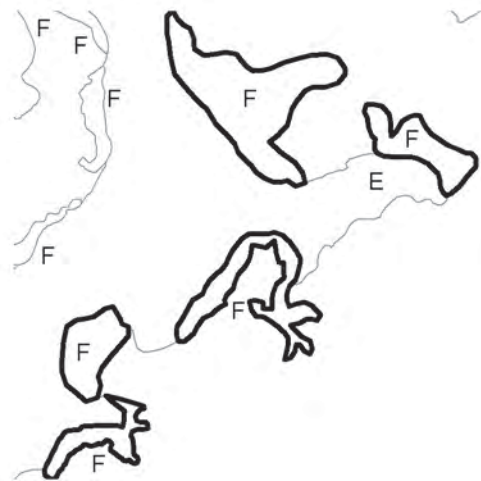
- (a) The most common forest type at this site, which generally occurs on steep parts of the coastline, has abundant totara with subdominant puriri and kahikatea. Frequent associates are karaka, kanuka, rewarewa, kauri and nikau, and there is occasional tarata and ti kouka.



Q08/146 Wahiwaka Creek Forest Remnants

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

0 250 500 1,000 Metres



(b) A more heavily totara-dominant forest is present on the gentle slopes of the upper Wahiwaka Creek and in the very south of the site. Kowhai, kanuka and kahikatea are frequent. Karaka, nikau, kauri, rimu, ti kouka and tanekaha are occasional.

(c) The long strip just south of the creek mouth comprises taraire and karaka with frequent kohekohe, kahikatea and puriri, and occasional titoki.

(d) At the end of a private road, towards the top of the ridge, there is a patch of tall forest comprising kauri rickers, kahikatea spars and totara. Kanuka and

puriri are frequent, and there are occasional emergent macrocarpa and eucalyptus trees which appear to have been planted at an earlier time.

(e) In the middle of the largest remnant, as well as in the southern portion of the site, small areas of totara-kahikatea forest with occasional kowhai and kanuka are present.

(f) At a point on the coast just north of the Wahiwaka Creek mouth there is a stand of kauri rickers mixed with kanuka on a coastal terrace. Another stand of kauri occurs in the southernmost remnant.

Fauna

Australasian harrier, kingfisher, kukupa (Gradual Decline).

Significance

This site has a high diversity of habitat types relative to other sites in Otamatea ED Northland, but they are all separated into small remnants, without good continuity between patches. The site is representative for (a) totara-puriri-kahikatea forest on steep coastal margin and (c) taraire-karaka forest on gentle coastal margin, which are the best examples of their type in Otamatea ED Northland. It also supports a threatened bird species (kukupa). David Hargreaves (landowner) reports that a pa site is present within this natural area. At the southern end of the site, parts of (b) totara forest on gentle coastal margin, and (e) totara-kahikatea forest on moderate hillslope are within a QEII Open Space Covenant (2.2 ha).

JAMES ROAD FOREST

Survey no.	Q08/147
Survey date	2 December 2005
Grid reference	Q08 347 597 (6 remnants)
Area	22.0 ha
Altitude	0-71 m asl

Ecological units

- (a) Totara-kahikatea forest on gentle coastal margin (33%)
- (b) Kauri-kanuka-rimu forest on moderate hillslope (33%)
- (c) Totara forest on gentle coastal margin (17%)
- (d) Taraire-kahikatea forest on gentle coastal margin (8%)
- (e) Kauri-kanuka-tanekaha forest on gentle coastal margin (7%)
- (f) Kanuka forest on moderate hillslope (2%)

Landform/geology

Coastal hillsides and gullies underlain by Cretaceous sandstone and mudstone (Mangakahia Complex).

Vegetation

This site comprises six indigenous forest remnants extending along approximately 2.5 km of the western coastline of the upper Otamatea River (Q08/062). Pastoral farmland and occasional willow/poplar plantations surround these remnants.

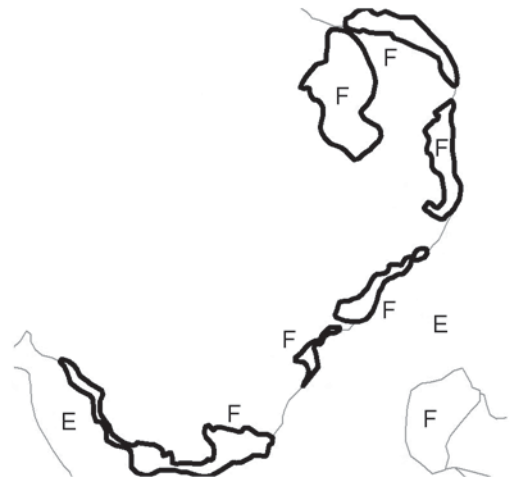
(a) In the southern half of the site the main forest type is totara-kahikatea forest with frequent kauri and kanuka, and occasional karaka, matai, lancewood, kowhai and puriri.



Q08/147 James Road Forest

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

0 250 500 1,000 Metres



(b) In the north, the main forest type comprises kauri, kanuka and rimu with frequent tanekaha and rewarewa.

(c) The northern coastline is covered by a diverse form of totara-dominant forest. Totara comprises just over 20% of the canopy, while several species are frequent in the canopy, including puriri, kahikatea, kauri, kowhai, rewarewa, kanuka and karaka. Occasional species include white maire, matai, rimu and nikau.

(d) At the mid-point of the site there is a coastal remnant with taraire dominant and kahikatea abundant in the canopy. A diverse range of associated species is present including frequent totara and occasional kanuka, karaka, nikau, mamangi, puka, tanekaha, pukatea and kauri.

(e) A small patch of coastal forest comprises kauri, tanekaha and kanuka with frequent totara and occasional rewarewa, ti kouka, rimu and kahikatea.

(f) In the northwestern remnant, there is one small patch of pure kanuka forest. This appears more recently disturbed than adjacent type (b).

Fauna

Kingfisher, Australasian harrier, kukupa (Gradual Decline). There are some anecdotal reports of NI brown kiwi (Serious Decline) from 1977 at this site, however none have been reported since then (NZ Wildlife Service 1977; SSBI Q08/H032).

Significance

This is another site with diverse coastal forest types in separate remnants, comparable to Wahiwaka Creek Forest Remnants (Q08/146) on the opposite shore. A threatened bird species was observed using these remnants (kukupu). Ecological unit (b), kauri-kanuka-rimu forest on moderate hillslope, is the only example of its type in Otamatea ED Northland, and as it covers approximately 7 ha, it is considered to be a representative example.

BICKERSTAFFE ROAD FOREST 2

Survey no.	Q08/148
Survey date	29 November 2005
Grid reference	Q08 323 600 (6 remnants)
Area	23.7 ha
Altitude	36-110 m asl

Ecological units

(a) Taraire forest on moderate to steep hillslope (55%)

(b) Totara forest on moderate to steep hillslope (45%)

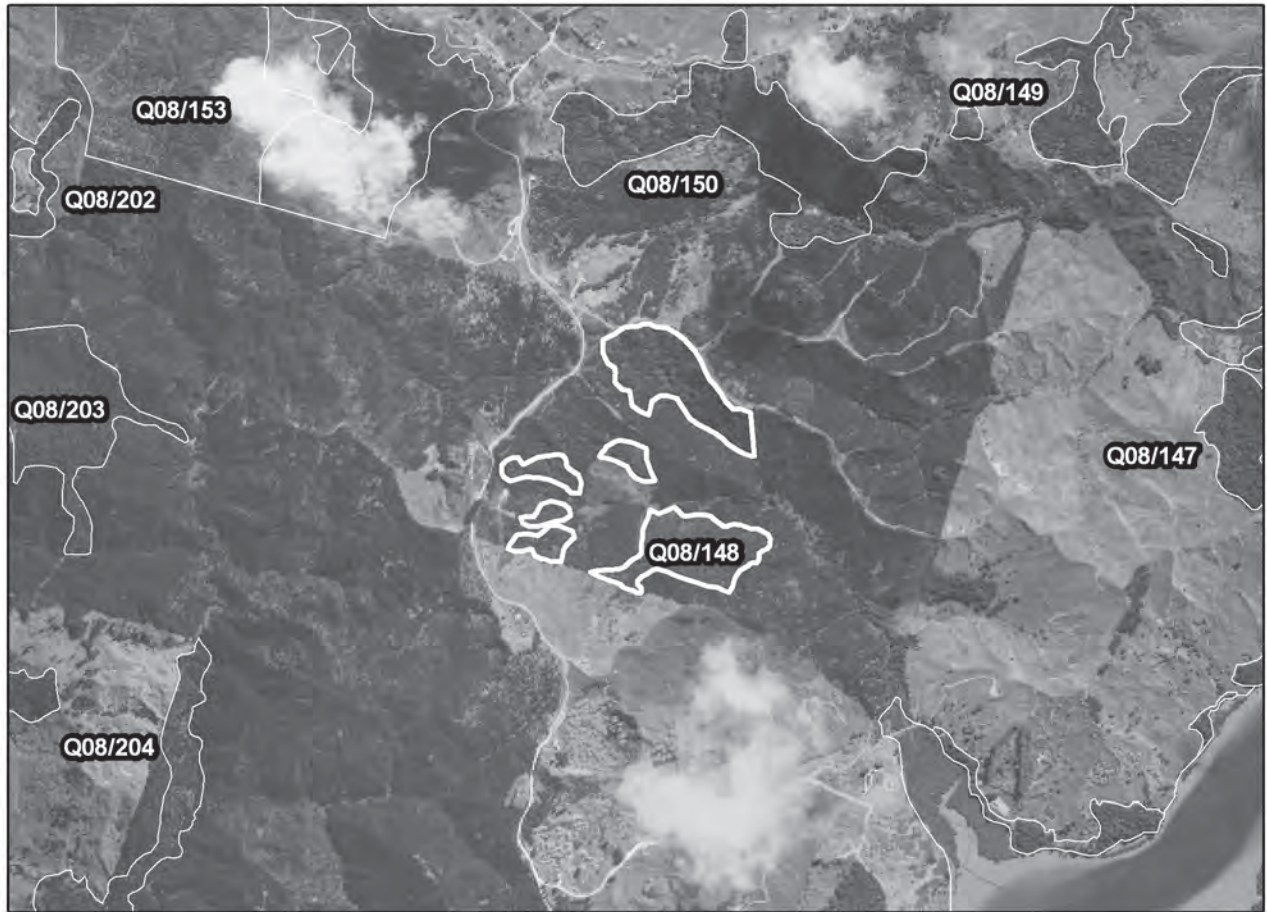
Landform/geology

Steep hillslopes and gullies underlain by Cretaceous sandstone and mudstone (Mangakahia Complex).

Vegetation

These indigenous forest remnants are set within a matrix of radiata pine plantations on the east-facing slopes falling away from Bickerstaffe Road towards the Otamatea River (Q08/062). Visibility of all the remnants is restricted (due to the pines), however two main forest types could be determined from a combination of field observation and interpretation of recent aerial photography (flown in 2002).

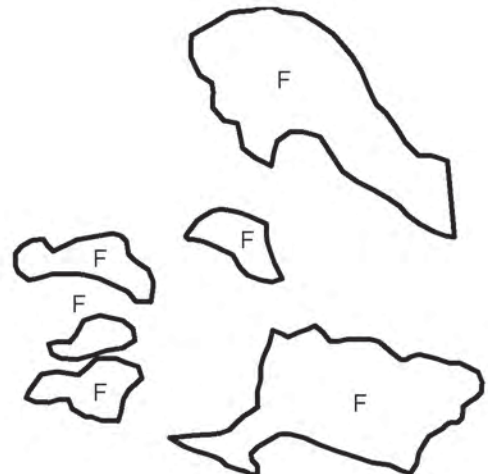
(a) The central areas of the two largest remnants are composed principally of taraire. Emergent kahikatea and rimu are present, a few of which appear quite mature, and are possibly older than the surrounding taraire forest. Also present are frequent totara and puriri, and occasional rewarewa, pukatea and puka.



Q08/148 Bickerstaffe Road Forest 2

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

0 250 500 1,000 Metres



(b) The four smaller remnants and the edges of the large remnants have totara-dominant forest with frequent mamaku, kanuka and mahoe, and occasional kahikatea and puriri. These are obviously more recently established and less intact than the taraire forest.

Fauna

Not surveyed.

Significance

Several puriri were observed with canopy dieback. Taraire forest on moderate to steep hillslope (a) is a representative unit due to the presence of some older emergent kahikatea and rimu, which are now very uncommon in Otamatea ED Northland.

BICKERSTAFFE RAILBRIDGE FOREST REMNANTS

Survey no.	Q08/149
Survey date	13 January 2006
Grid reference	Q08 345 614 (6 remnants)
Area	31.8 ha (25.1 ha forest, 6.6 ha shrubland)
Altitude	0–80 m asl

Ecological units

- (a) Totara-taraire-puriri forest on moderate to steep hillslope (45%)
- (b) Totara forest on gentle coastal margin (30%)
- (c) Kanuka shrubland on gentle coastal margin (21%)
- (d) Kanuka-totara-kauri forest on gentle coastal margin (4%)

Landform/geology

Hillslopes and gullies underlain by Cretaceous–Paleocene sandstone and mudstone (Mangakahia Complex).

Vegetation

This site comprises scattered indigenous forest and shrubland remnants spread over paddocks colonised by gorse and woolly nightshade on the edge of the lower Wairau River. A railway line skirts around the coast forming the eastern and northern boundaries of the site. Grazing pressure underneath the indigenous forest and shrublands in this site appears to be low, as evidenced by the strong growth of indigenous and exotic shrublands in the paddocks between the remnants.

- (a) In the inland parts of the site there are remnants of totara-taraire-puriri forest with frequent emergent kahikatea. There was some difficulty viewing all of the remnants from a boat on the river, therefore the percentage cover of this type was interpreted from aerial photography (flown in 2002).
- (b) Along the southern coastal margin, adjacent to tall mangrove forest in the Otamatea River (Q08/062), and in a few places along the Wairau River coast, there are remnants of totara-dominant forest with frequent tanekaha, kanuka and kahikatea, and occasional mamaku.
- (c) Next to the railway line, a shrubland of kanuka with frequent young totara is present. Also recorded here were mamaku, ti kouka, tarata, karamu, mamangi and occasional emergent radiata pine.
- (d) Two small areas of kanuka-totara forest with clumps of kauri rickers occur near the Wairau River coast, next to the shrubland and railway line.

Fauna

Not surveyed.



Q08/149 Bickerstaffe Railbridge Forest Remnants

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

0 250 500 1,000 Metres



Significance

This site is representative for (a) totara-taraire-puriri forest on moderate to steep hillslope. This site also has a significant area of indigenous shrubland, being one of only fourteen sites in Otamatea ED Northland with over 5 ha of indigenous shrubland. The intervening gorse and woolly nightshade scrub (not within the site) is dominated by shade-intolerant species which could be superseded by regenerating indigenous species in future, as they are surrounded by indigenous seed sources on all sides. However, radiata pine will be more persistent, and wilding pines could be a part of the future mix in the medium term.

UPPER WAIRAU RIVER COASTAL FOREST REMNANTS

Survey no.	Q08/151
Survey date	29 November 2005
Grid reference	Q08 341 629 (8 remnants)
Area	29.0 ha
Altitude	0–40 m asl

Ecological units

- (a) Totara–kahikatea forest on gentle coastal margin (35%)
- (b) Totara–kowhai forest on gentle coastal margin (25%)
- (c) Totara forest on gentle coastal margin (25%)
- (d) Kanuka–totara forest on gentle coastal margin (15%)

Landform/geology

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

Vegetation

This site comprises eight separate remnants of coastal forest on the upper Wairau River, four on the west bank, and four on the east. Adjacent habitat in the river generally comprises either mangrove forest or open mudflat (wading bird habitat). Pastoral farmland borders the landward margins of the remnants. It appears that none of the sites are adequately fenced to exclude stock. Four main vegetation types are present, and almost all of the remnants are homogenous in their type (one is not). The differing dominance of totara relative to other species in the canopy is important in describing these remnants, because, in general, the progression from type (a) to (d) represents a scale of increasing disturbance (species diversity decreases with increased grazing).

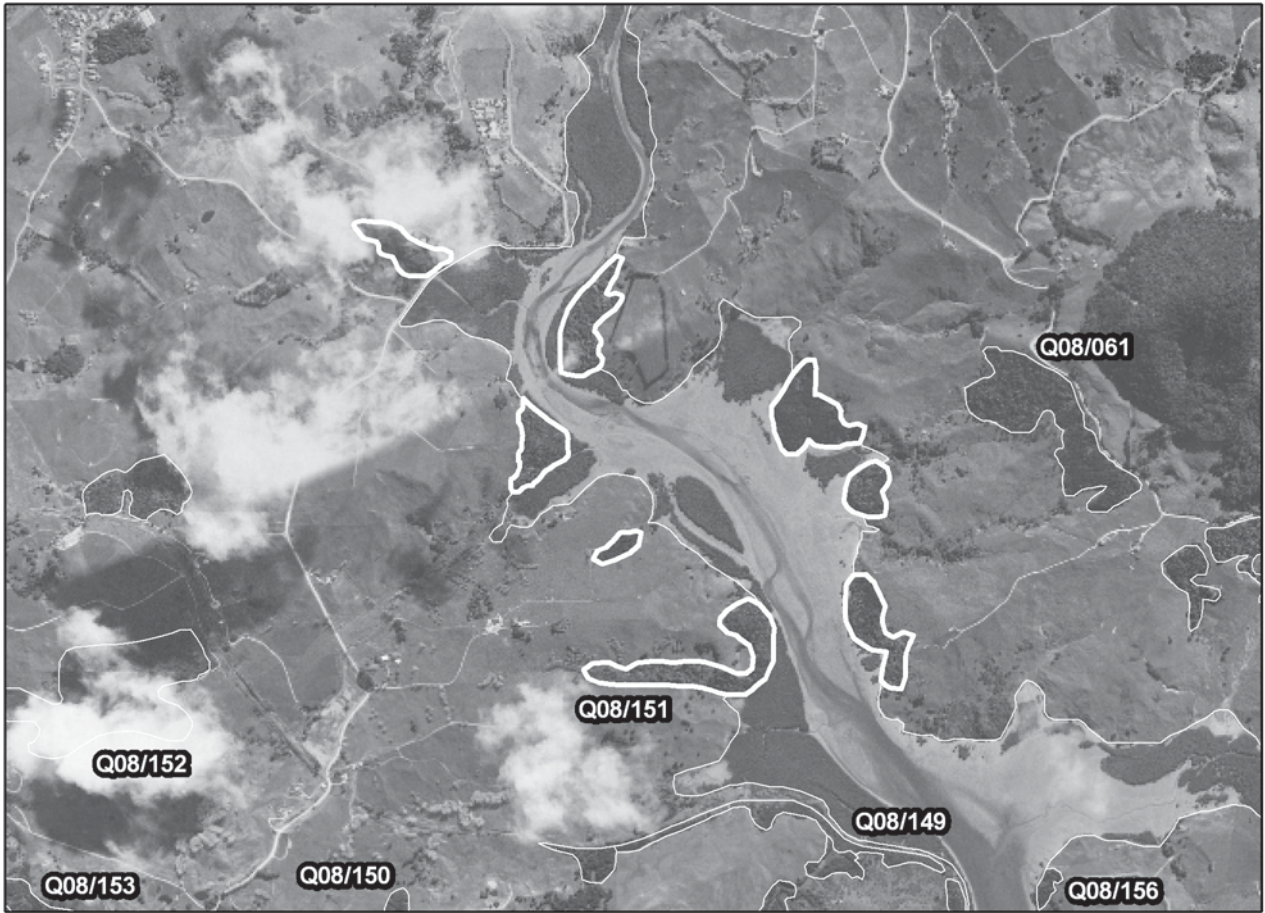
- (a) The most diverse and intact remnants comprise totara and kahikatea with frequent kowhai and matai, and occasional titoki, karaka, kauri, ti kouka, nikau and tree privet. Three remnants have this type.
- (b) The southwestern remnant comprises primarily totara and kowhai, with frequent emergent kahikatea, and occasional mamangi, ti kouka, karaka, tarata, kanuka and titoki. A small part of the remnant opposite is like this too.
- (c) Totara forest is present in the two northernmost remnants, and the third remnant down on the west bank (very small). Associated species include frequent kowhai, kanuka, tanekaha, kauri rickers, kahikatea and puriri, and occasional ti kouka, rimu and matai.
- (d) Kanuka in association with totara is present in the second remnant down on the east bank. Associated species include occasional kowhai, karaka and lancewood.

Fauna

Silvereye, kingfisher, kukupa (Gradual Decline).

Significance

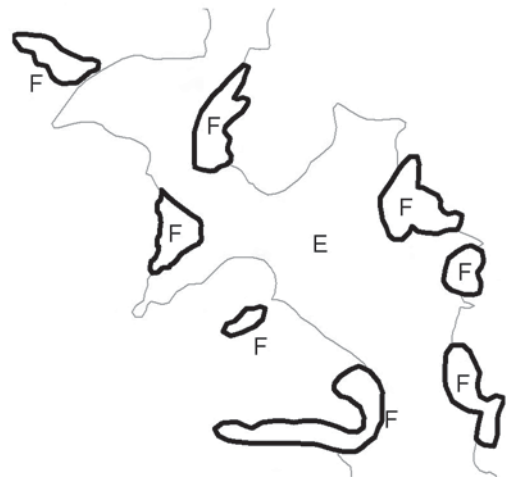
There are some very good quality and diverse coastal forest remnants at this site. The remnants are known to support a threatened bird species (kukupa). All of the ecological units present are considered to be the best representative



Q08/151 Upper Wairau River Coastal Forest Remnants

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

0 250 500 1,000 Metres



examples of their respective types. Tree privet is a problem in some of the remnants, and Japanese honeysuckle threatens to invade from the surrounding roadsides and paddocks. Grazing is also a negative pressure in many parts of the site. Part of the Wairau River Marginal Strip (0.7 ha), administered by DOC, covers part of ecological unit (b) in the southwest of the site.