

PIKIWAHINE RAILWAY BUSH REMNANT

Survey no.	Q07/095
Survey date	30 November 1999
Grid reference	1700273E 6024869N (AX29)
Area	7.6 ha
Altitude	20-136 m a.s.l.

Ecological unit

- (a) Kōwhai-tōtara forest on steep hillslope and ridge
- (b) Taraire-tōtara forest on steep hillslope
- (c) Karaka-kōwhai forest on steep hillslope
- (d) Karaka-kohekohe-taraire forest on steep hillslope

Landform/geology

Tangihua Complex basic volcanics (western side). Hillslope of Tangihua igneous rocks (eastern side).

Vegetation

- (a) Kōwhai is abundant with tōtara common on the upper slopes and ridge of the western end of the remnant. Karaka occurs frequently and rewarewa, kohekohe and pūriri are occasional.
- (b) South of this, taraire with tōtara are associated with frequent kohekohe. Rewarewa, kahikatea, karaka, tī kōuka and puka are occasional.
- (c) East of this towards the middle of the remnant, karaka and kōwhai are co-dominant with frequent taraire and kohekohe. Occasional species include rewarewa, tōtara, tī kōuka, nīkau and mamaku.
- (d) Karaka, kohekohe and taraire are associated in the canopy with frequent māpou. Rewarewa, tōtara, tītoki and nīkau are occasional.

Fauna

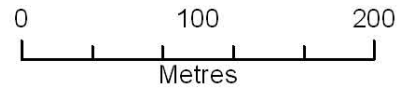
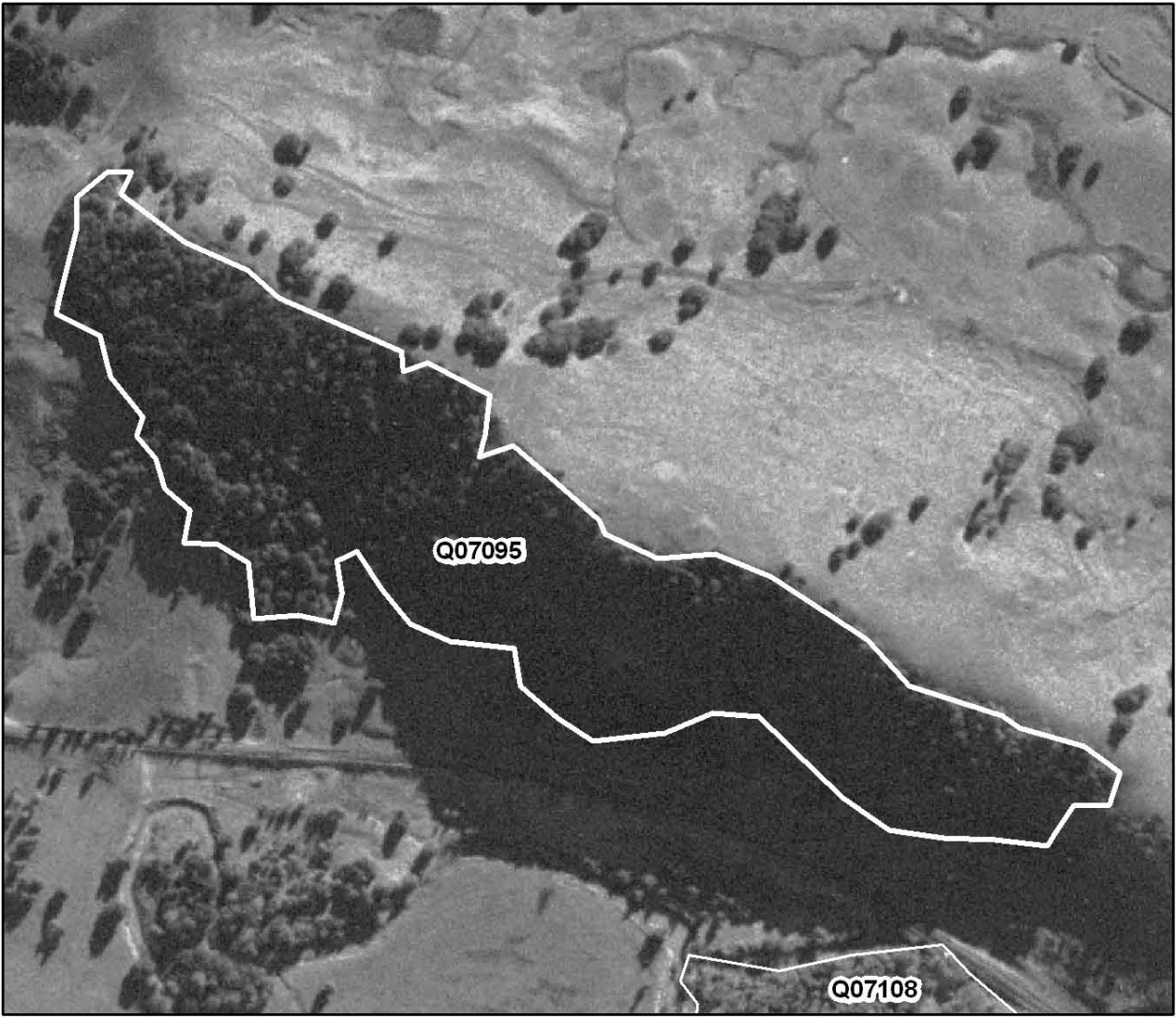
Kūkupa (regionally significant species) were recorded on the day of survey and several dead kauri snail (Gradual Decline) shells were found on the railway track approaching this site.

Significance

A steep hillslope habitat within close proximity to the Tauraroa River (part of the Manganui River Complex), supporting Regionally significant species and, possibly, the Threatened kauri snail. The assemblage of vegetation types is rare within the Tokatoka Ecological District and all vegetation types are representative.

Type (c) and (d) are solely recorded at this site in this District. Elsewhere in the District, type (a) kōwhai-tōtara forest is associated with riverine forest.

This site is covered by a 'Less reduced and better protected' land environment (D1.1a) (Walker et al. 2007).



Q07/095 Pikiwahine Railway Bush Remnant

Habitat type

-  Forest
-  Shrubland
-  Wetland



PIGHOUSE STREAM BUSH REMNANT

Survey no. Q07/097
Survey date 30 November 1999
Grid reference 1703752E 6024912N (AX29)
Area 15.1 ha
Altitude 30-80 m a.s.l.

Ecological unit

(a) Taraire forest on moderate hillslope

Landform/geology

Mangakahia Complex sandstone and mudstone.

Vegetation

Only an edge view of this habitat was obtained.

(a) Along the northwestern boundary, taraire is abundant with frequent rewarewa. Emergent kauri with pukatea, tōtara and kahikatea are occasional.

Pine, eucalypts and *Acacia* sp. were noted on the northwestern edge.

Fauna

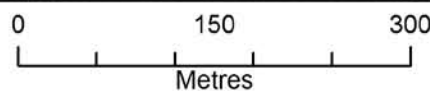
1978 historical records from SSBI Q07/R07/H065: NI brown kiwi (Nationally Vulnerable), kūkupa (regionally significant species), grey warbler, silvereye, NI fantail and white-faced heron.

Significance

The view into this site was very limited. Additional survey is required to establish the full ecological significance of this site.

A 1978 NZ Wildlife Service survey (in SSBI Q07/R07/H065), ranked this habitat highly because of the unmodified state of the podocarp/hardwood forest that contained large tōtara, rimu and kahikatea. This survey also commented that 'some tōtara so old that old kaka workings can still be seen on the bark (horizontal lines)'.

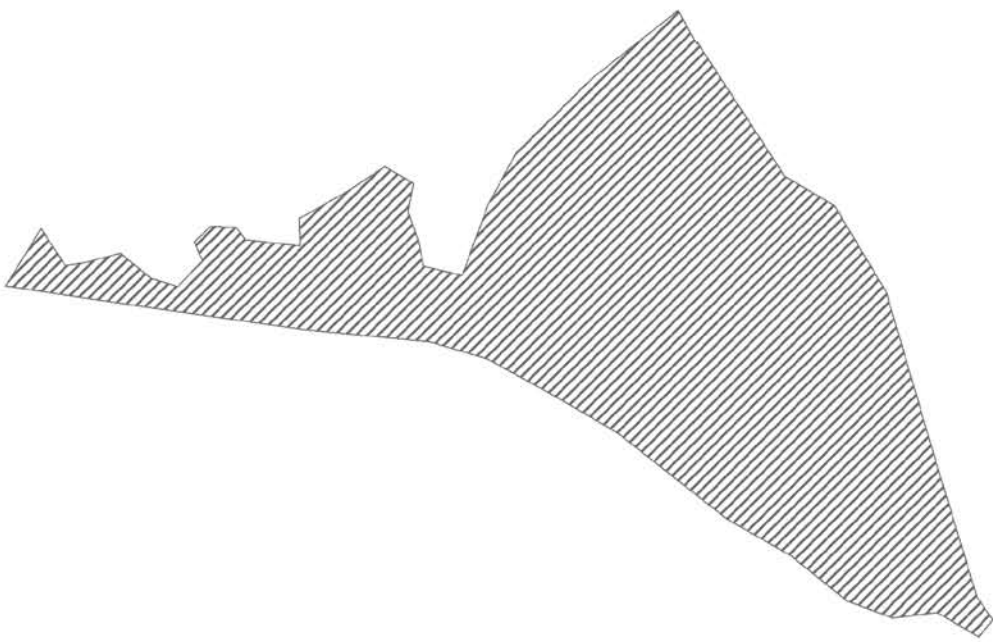
Historical records of NI brown kiwi (the 1992/1993 DOC Northland kiwi survey did not record kiwi) and kūkupa. The site is fenced (pers. comm. the owner 1999). Approximately 4.1 ha of this site occurs within a 'Chronically Threatened' land environment (G3.1b) and 11 ha within a 'Critically Underprotected' land environment (A6.1c) (Walker et al. 2007).



Q07/097 Pighthouse Stream Bush Remnant

Habitat type

-  Forest
-  Shrubland
-  Wetland



UPPER MITITAI ROAD BUSH

Survey no.	Q07/098
Survey date	1 May 1998
Grid reference	1705703E 6019912N (AX29)
Area	72.6 ha, 3 remnants
Altitude	40-140 m a.s.l.

Ecological unit

- (a) Taraire forest on hillslope
- (b) Kauri forest on hillslope
- (c) Kānuka/mānuka forest on hillslope
- (d) Rimu forest on hillslope
- (e) Rimu-taraire forest on hillslope

Landform/geology

Mangakahia Complex sandstone and mudstone.

Vegetation

(a) Taraire forest is abundant in the western end of the large remnant along with a range of occasional species including kahikatea, epiphytic puka, rimu, tōwai, nīkau, kohekohe and pukatea.

Type (a) abundant taraire is also found in the small northwestern remnant. Emergent rewarewa is frequent with occasional kahikatea, nīkau, mamaku and pukatea. Tōtara is apparent on the edges, particularly on the upper slopes.

(b) Dominant emergent kauri occurs with occasional rimu, rewarewa and tānekaha also in the western end of the main remnant.

(c) Kānuka/mānuka forest occurs east of this along with frequent tōtara and emergent rewarewa and some kohekohe, lancewood, nīkau and rimu.

(d) Abundant rimu is apparent in an area in the southeast with occasional taraire, rewarewa and tōtara.

(e) Adjacent to this, an association of rimu and taraire occurs with frequent rewarewa and tōtara. Pūriri, karaka, mamaku, tānekaha and kānuka/mānuka are occasional.

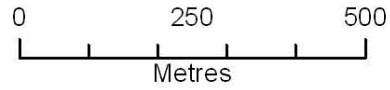
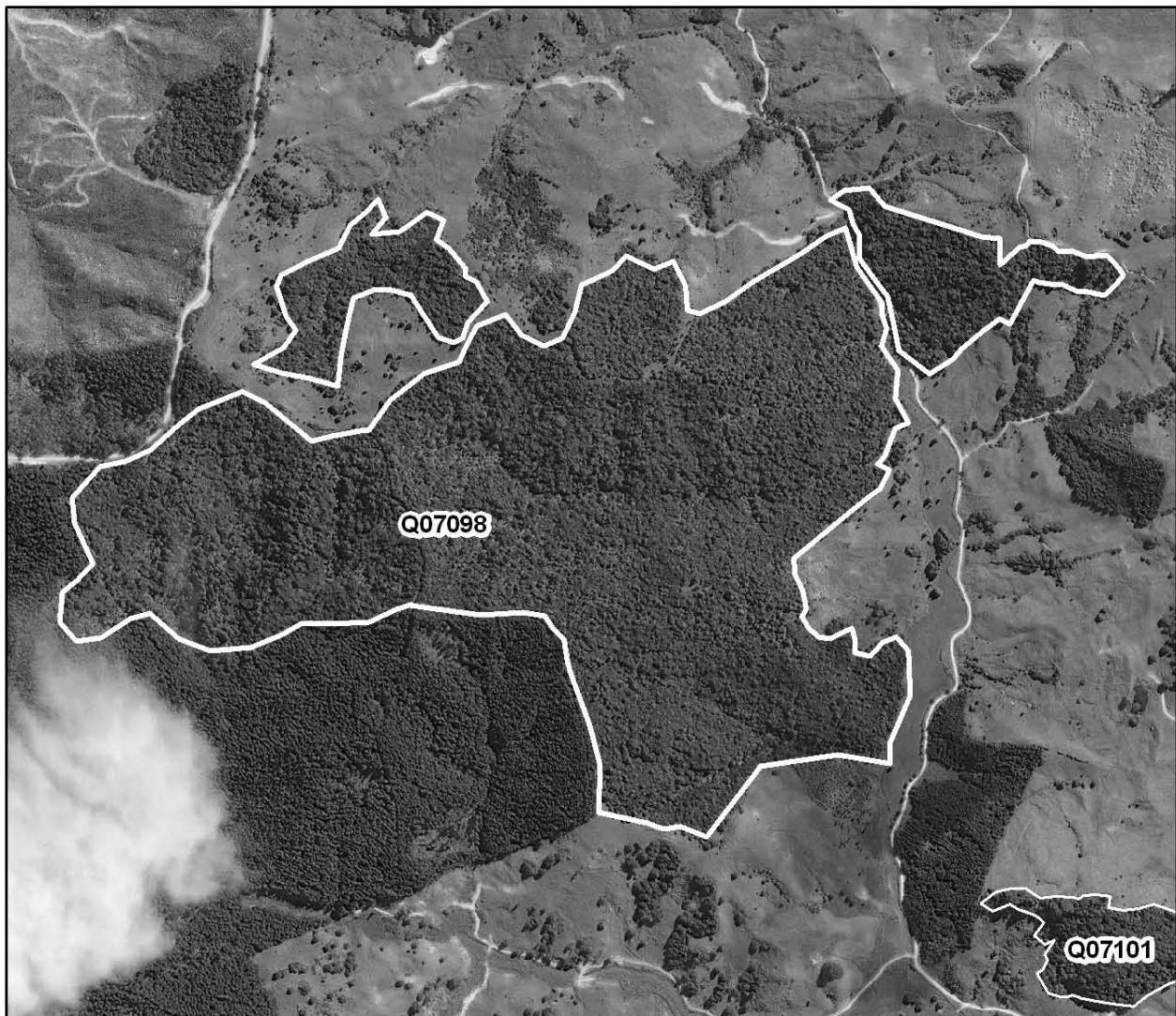
Fauna

A dead kauri snail (Gradual Decline) was found on the day of survey.

Significance

A relatively large forested site within a very modified Ecological District providing important stepping stone habitat.

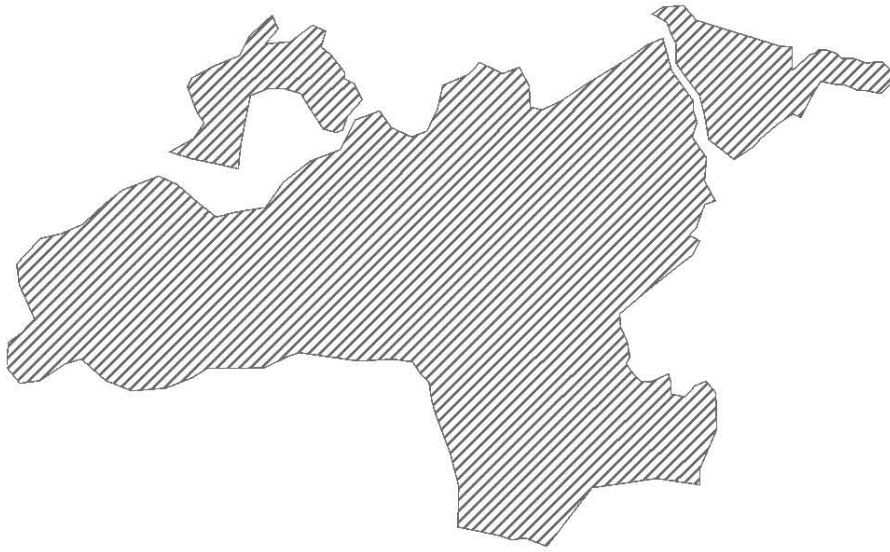
Type (e) rimu-taraire forest is unrecorded elsewhere in the Tokatoka Ecological District. Presence of a threatened species: kauri snail. Approximately 0.2 ha occurs within a 'Chronically Threatened' land environment (G3.1b), 27.3 ha within a 'Critically Underprotected' land environment (A6.1a and A6.1c) and 45.2 ha within a 'Less reduced and better protected' land environment (D1.1b) (Walker et al. 2007).



Q07/098 Upper Mititai Road Bush

Habitat type

-  Forest
-  Shrubland
-  Wetland



WAIKEIKEI BUSH REMNANT

Survey no.	Q07/100
Survey date	7 July 1998
Grid reference	1712227E 6023860N (AX30)
Area	17.9 ha
Altitude	80-120 m a.s.l.

Ecological unit

- (a) Kānuka/mānuka-tānekaha forest on hillslope
- (b) Taraire forest on gully
- (c) Kānuka/mānuka forest on gully and hillslope
- (d) Kauri forest on hillslope

Landform/geology

Holocene alluvium and hillslopes of Mangakahia Complex mudstone/sandstone.

Vegetation

In 1998 this site was mapped as being 22.5 ha with the habitat extending further north.

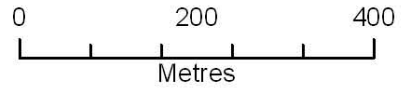
- (a) Kānuka/mānuka and tānekaha are co-dominant in a small area with frequent emergent kauri rickers and occasional rimu and tōtara.
- (c) Common taraire occurs in a gully (< 1% of site), with emergent kauri rickers, tānekaha, mamaku and nīkau in low amounts.
- (d) Adjacent to this, tall kānuka/mānuka is common with frequent kauri rickers. Rewarewa, tānekaha, rimu, nīkau and mamaku are also present.
- (e) In several patches in the southern end, emergent kauri rickers are dominant with occasional tānekaha and kānuka/mānuka.

Fauna

None noted.

Significance

Regenerating kauri-podocarp/broadleaf remnant within a very modified Ecological District providing important stepping stone habitat. Approximately 1.2 ha of this site occurs within an 'At Risk' land environment (A6.1b) and 16.6 ha within a 'Critically Underprotected' land environment (A6.1c) (Walker et al. 2007).



Q07/100 Waikeikei Bush Remnant

- Habitat type**
- Forest
 - Shrubland
 - Wetland



MITITAI ROAD FOREST (PART OF MANGANUI RIVER COMPLEX)

Survey no.	Q07/103
Survey date	24 May 1999
Grid reference	1700716E 6018528N (AX29)
Area	112.8 ha (28.8 ha forest, 84 ha wetland (includes riverine flood forest))
Altitude	< 20–60 m a.s.l.

Ecological unit

- (a) Kōwhai riverine flood forest on alluvium
- (b) Taraire forest on moderate hillslope
- (c) Tōtara forest on moderate hillslope

Landform/geology

Quaternary alluvial and swamp deposits within Manganui River valley and adjoining hills of Mangakahia Complex mudstone.

Vegetation

Only a limited survey of this site was achieved due to the limited view from Mititai Road. Further survey is warranted to establish additional values.

As depicted in 2002 aerial photography, the floodplain has been included although this is largely unvegetated.

(a) Alongside Mititai Road, the riverine flood forest is abundant kōwhai within an open canopy. Several species occur frequently including tī kōuka, mānatu, kahikatea, mānuka, divaricating shrubs, and *Muehlenbeckia australis*. Tōtara and tītoki are occasional.

(b) Taraire forest with frequent rewarewa occurs in the hillslope area in the east. Other species present include rimu, pūriri, kauri, kahikatea, pukatea, mataī, tōtara and nīkau.

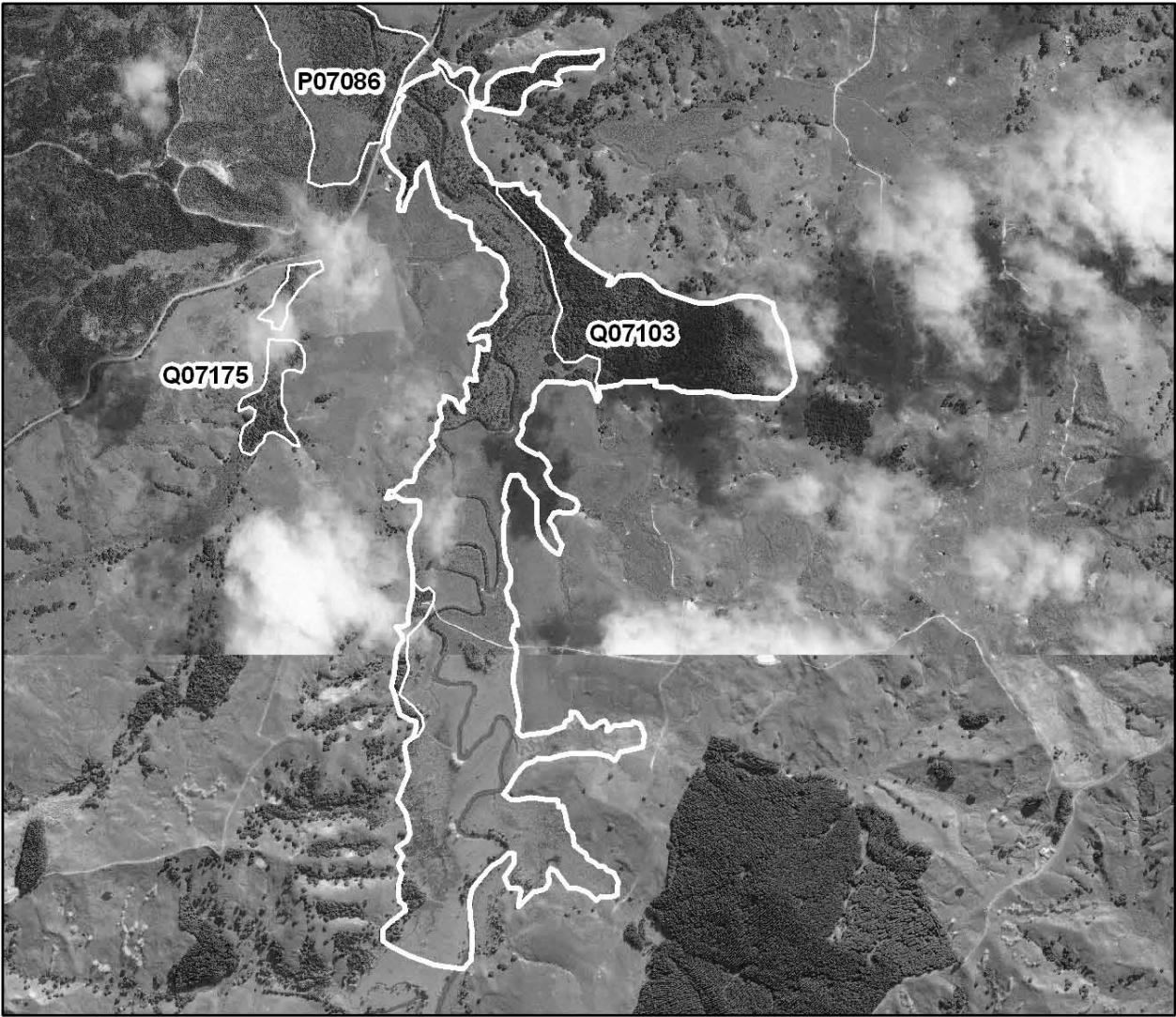
(c) Tōtara is common on the eastern end of this hillslope, with kahikatea, rewarewa and taraire occurring frequently. Kauri, pūriri, pukatea, rimu, nīkau and kānuka/mānuka are occasional.

Significant flora

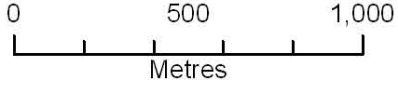
Mānatu (regionally significant species) recorded during this survey. Further survey work may reveal additional significant species.

Fauna

This site is part of the Manganui River Complex and thus shares in the values of the ecosystem (see P07/086 for a full list of species). There has been no specific survey within this site.



**Q07/103 Mititai Road Forest
(Part of Manganui River Complex)**



Habitat type

-  Forest
-  Shrubland
-  Wetland



Significance

This site is part of the nationally and regionally significant Manganui River complex (see P07/086) and thus shares in the values of this ecosystem. Potentially this site provides habitat for several Threatened, At Risk and Regionally significant species associated with the Manganui River such as Australasian bittern, Australasian shoveler, grey teal, black shag and *Hoheria angustifolia*. Further survey work is required. Approximately 82.7 ha of this site occurs within a 'Chronically Threatened' land environment (G3.1b), 25.7 ha within an 'At Risk' land environment (A6.1b) and 2.1 ha within a 'Critically Underprotected' land environment (A6.1a) (Walker et al. 2007).

TAURAROA RIVERINE REMNANTS

Survey no.	Q07/108
Survey date	30 November 1999
Grid reference	1701403E 6024610N (AX29)
Area	25.3 ha, 5 remnants
Altitude	< 20–40 m a.s.l.

Ecological unit

- (a) Kōwhai-mānatu-tōtara forest on alluvium
- (b) Kahikatea-tōtara forest on gentle hillslope
- (c) Tōtara riverine forest on alluvium
- (d) Kahikatea riverine forest on alluvium
- (e) Tōtara-kōwhai forest on alluvium

Landform/geology

Floodplain of Holocene alluvium, and hillslope of Mangakahia Complex sandstone and mudstone (southern side).

Vegetation

The following ecological unit descriptions have been labelled (1), (2) and (3) with the site map accordingly labelled to show where the ecological unit description occurs.

(1)

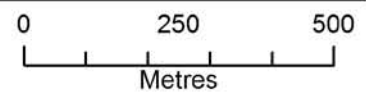
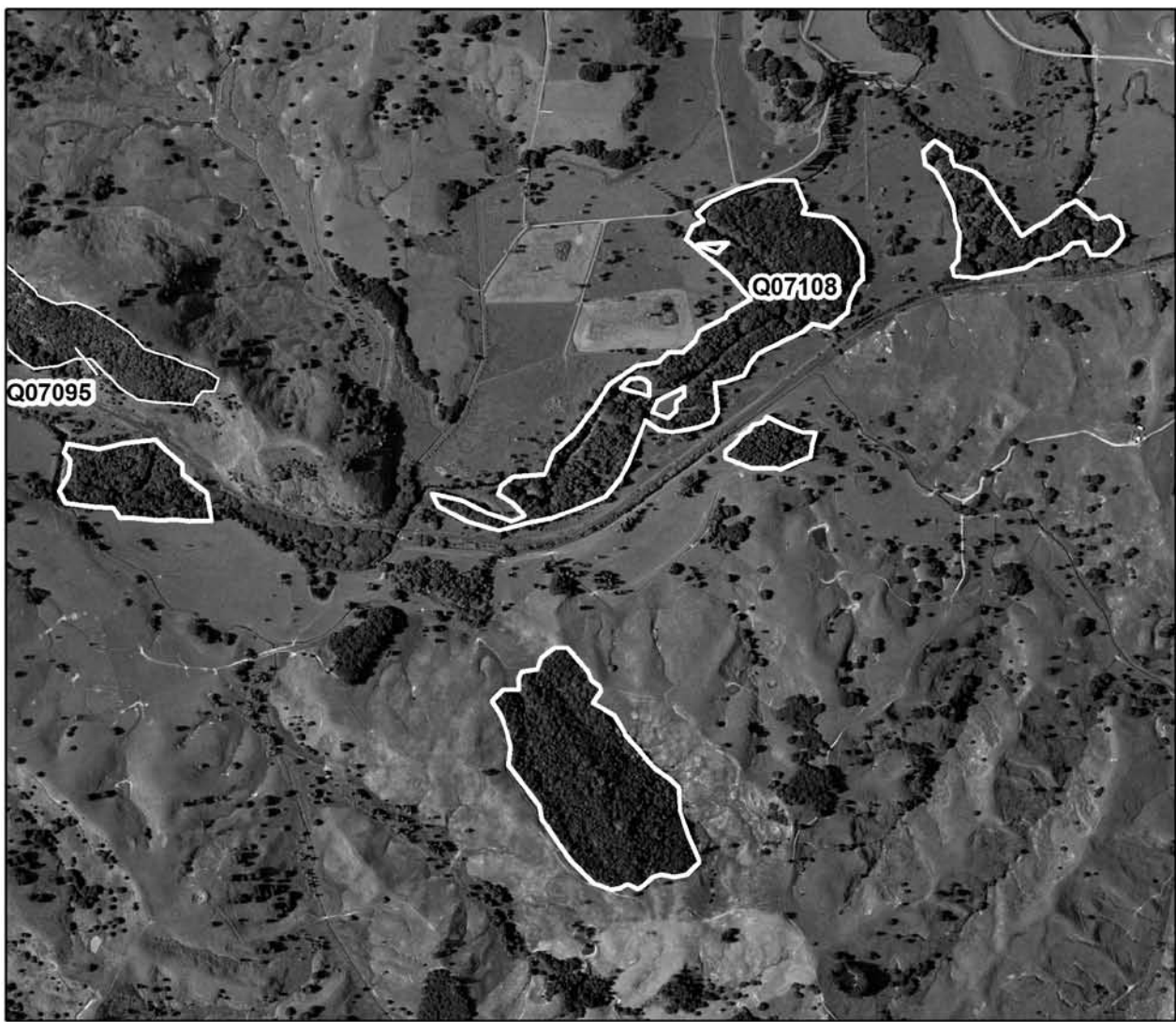
(a) The riverine remnant in the far west contains common kōwhai, mānatu and tōtara in the canopy. Kahikatea is frequent and tī kōuka, tītoki, nīkau and willow are occasional.

(2)

(b) The larger remnant south of the railway line contains co-dominant kahikatea and tōtara. Rimu and rewarewa occur frequently and taraire and kānuka/mānuka are occasional. This remnant is fenced (pers. comm. local farmer 1999).

(3)

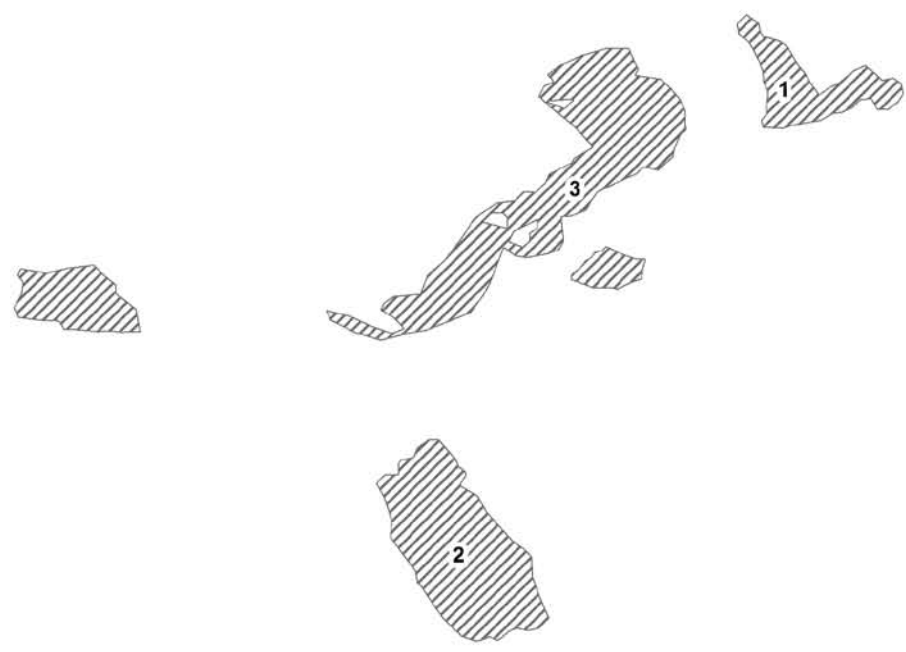
(c) In the main riverine remnant along the Tauraroa River, tōtara is common with kahikatea, pukatea and tītoki frequent. Karaka, kōwhai and taraire are occasional.



Q07/108 Tauraroa Riverine Remnants

Habitat type

- Forest (diagonal hatching)
- Shrubland (cross-hatching)
- Wetland (horizontal hatching)



(d) Abundant kahikatea also occurs in this remnant with occasional pukatea, kōwhai, mataī and tōtara.

(e) At the eastern end of this remnant, tōtara is abundant over common kōwhai. Kahikatea is frequent and mānatu, tītoki, *Muehlenbeckia australis*, tī kōuka and kākūka/mānuka are occasional.

The remaining two remnants were not surveyed.

Significant flora

Mānatu (regionally significant species) recorded during this survey.

Fauna

Historical 1978 survey of the separate remnant south of the railway line (2) in SSBI Q07/R07/H066: NI brown kiwi (Nationally Vulnerable), Australasian harrier, grey warbler, silvereve, tūī and NI fantail.

Significance

This site included forest on alluvium, which is an under-represented habitat type within the Tokatoka Ecological District and throughout Northland.

Representative site for type (b) kahikatea-tōtara and type (e) tōtara-kōwhai forest. Type (a) and type (e) have not been recorded elsewhere in the District.

A Marginal Strip, administered by DOC, forms 2.3 ha of this site. Approximately 14.8 ha of this site occurs within a 'Chronically Threatened' land environment (G3.1b) and 10.4 ha within a 'Critically Underprotected' land environment (A6.1a and A6.1c) (Walker et al. 2007).

HILFORD ROAD REMNANTS

Survey no.	Q07/179
Survey date	17 December 2009
Grid reference	1707336E 6025156N (AX29)
Area	7.7 ha, 3 remnants
Altitude	60-100 m a.s.l.

Ecological unit

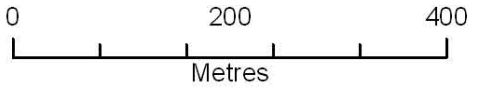
- (a) Kahikatea forest on hillslope
- (b) Taraire forest on hillslope

Landform/geology

Mangakahia Complex sandstone and mudstone.

Vegetation

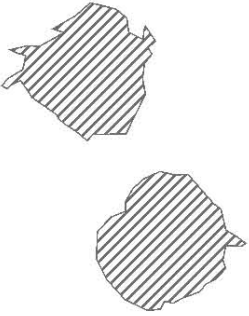
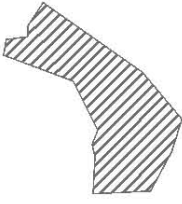
(a) The southern remnant alongside Hilford Road is dominated by pole kahikatea. Rewarewa is frequent and a range of species are occasional including pukatea, pūriri, rimu, taraire and tānekaha. (Only a limited view of this remnant was obtained)



Q07/179 Hilford Road Remnants

Habitat type

-  Forest
-  Shrubland
-  Wetland



The middle remnant looks to contain a similar range of species as type (a) kahikatea forest.

(b) The southern part of the northern remnant contains common taraire with frequent emergent pole kahikatea. Emergent pole rimu and emergent rewarewa are occasional along with pukatea, tōwai and tōtara (especially on edges). The tōtara, in particular, looks possum-browsed.

Fauna

None noted.

Significance

These remnants are small; however, they have been attributed Level 1 status because they contain mature forest types and are located within a very modified Ecological District. This site occurs within a 'Critically Underprotected' land environment (A6.1a and A6.1c) (Walker et al. 2007).

PAIAWA ROAD FOREST (PART OF MANGANUI RIVER COMPLEX)

Survey no.	Q08/002
Survey date	19 June 1998, 6 December 1994
Grid reference	1700936E 6015641N (AY29)
Area	42.5 ha
Altitude	10-40 m a.s.l.

Ecological unit

- (a) Kōwhai forest on alluvium
- (b) Rimu-kānuka/mānuka forest on a gentle hillslope
- (c) Kahikatea forest on alluvium
- (d) Mānuka-tōtara forest on alluvium
- (e) Mānatu-tītoki forest on alluvium

Landform/geology

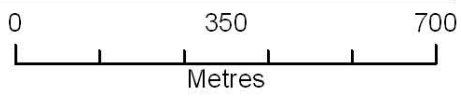
Floodplain of Holocene alluvium and adjoining lower hillslopes of Mangakahia Complex sandstone and mudstone.

Vegetation

- (a) In the northeastern end on the floodplain, kōwhai is common with frequently occurring mataī, mānatu and tōtara. Kahikatea, tītoki, and tī kōuka are also present.
- (b) On the gentle hillslope east of this, emergent rimu is dominant over common kānuka/mānuka. Emergent kauri occurs frequently and rewarewa and tōtara (edges) are occasional.
- (c) Kahikatea is common just south of this with frequent tōtara. Black maire, pukatea, *Hoberia angustifolia*, kaikōmako, small-leaved milktree and tī kōuka are also present.



**Q08/002 Paiawa Road Forest
(Part of Manganui River Complex)**



Habitat type

-  Forest
-  Shrubland
-  Wetland



Abundant kahikatea also occurs with occasional tī kōuka.

(d) Within this vicinity, mānuka and tōtara are co-dominant with mataī distributed frequently. White maire, kauri and rimu are occasional.

(e) Co-dominant tītoki and mānatu occur with frequent kōwhai, tī kōuka and tōtara. Black maire and white maire occur occasionally.

Southwards, along the river, type (a) kōwhai is locally dominant in areas. Tōtara occurs frequently with a range of occasional species including, tītoki, karaka, mataī, kahikatea, pukatea, mānatu, and tī kōuka.

Significant flora

Black maire, *Hoberia angustifolia*, kaikōmako, mānatu (all regionally significant species) recorded during this survey and 1994 records of *Lobelia angulata* (AK 294662) and *Coprosma rotundifolia* (AK 294665) (both regionally significant species).

Fauna

This site is part of the Manganui River Complex and thus shares in the values of the ecosystem (see P07/086 for a full list of species). There has been no specific survey of this site.

Significance

This site is part of the nationally and regionally significant Manganui River Complex (see P07/086) and thus shares in the values of this ecosystem. Potentially, this site provides habitat for several Threatened, At Risk and Regionally significant fauna (such as Australasian bittern, Australasian shoveler, grey teal and black shag) associated with the Manganui River. Six regionally significant plants have been recorded from this site. Further survey work is required to determine this site's full ecological values. Representative site for vegetation types (a), (b), (c) and (e). Presence of three ecological units solely recorded from this site: types (b), (d) and (e).

A marginal strip, 1.4 ha, administered by DOC, is contained within the site. Approximately 38 ha of the site occurs within a 'Chronically Threatened' land environment (G3.1b), 0.9 ha within an 'At Risk' land environment (A6.1b) and 3.6 ha within a 'Critically Underprotected' land environment (A6.1a) (Walker et al. 2007).

PAIAWA HILL FOREST REMNANT

Survey no. Q08/003
Survey date 1 May 1998
Grid reference 1701464E 6015475N (AY29)
Area 10.9 ha
Altitude 40-133 m a.s.l.

Ecological unit

- (a) Tōtara forest on ridge and moderate hillslope
- (b) Taraire forest on moderate hillslope

Landform/geology

Tangihua Complex—basalt.

Vegetation

(a) Abundant tōtara occurs on the northern face of Paiawa Hill with occasional kohekohe, taraire, tōwai and pūriri.

On the western side, type (a) tōtara forest also occurs, along with frequent kōwhai. Other species present include, rewarewa, karaka, taraire, kahikatea, nīkau and tī kōuka.

Type (a) tōtara forest is also present on the southern face with occasional tī kōuka, kahikatea and pūriri.

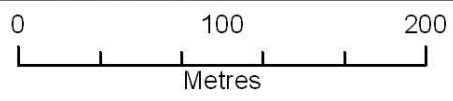
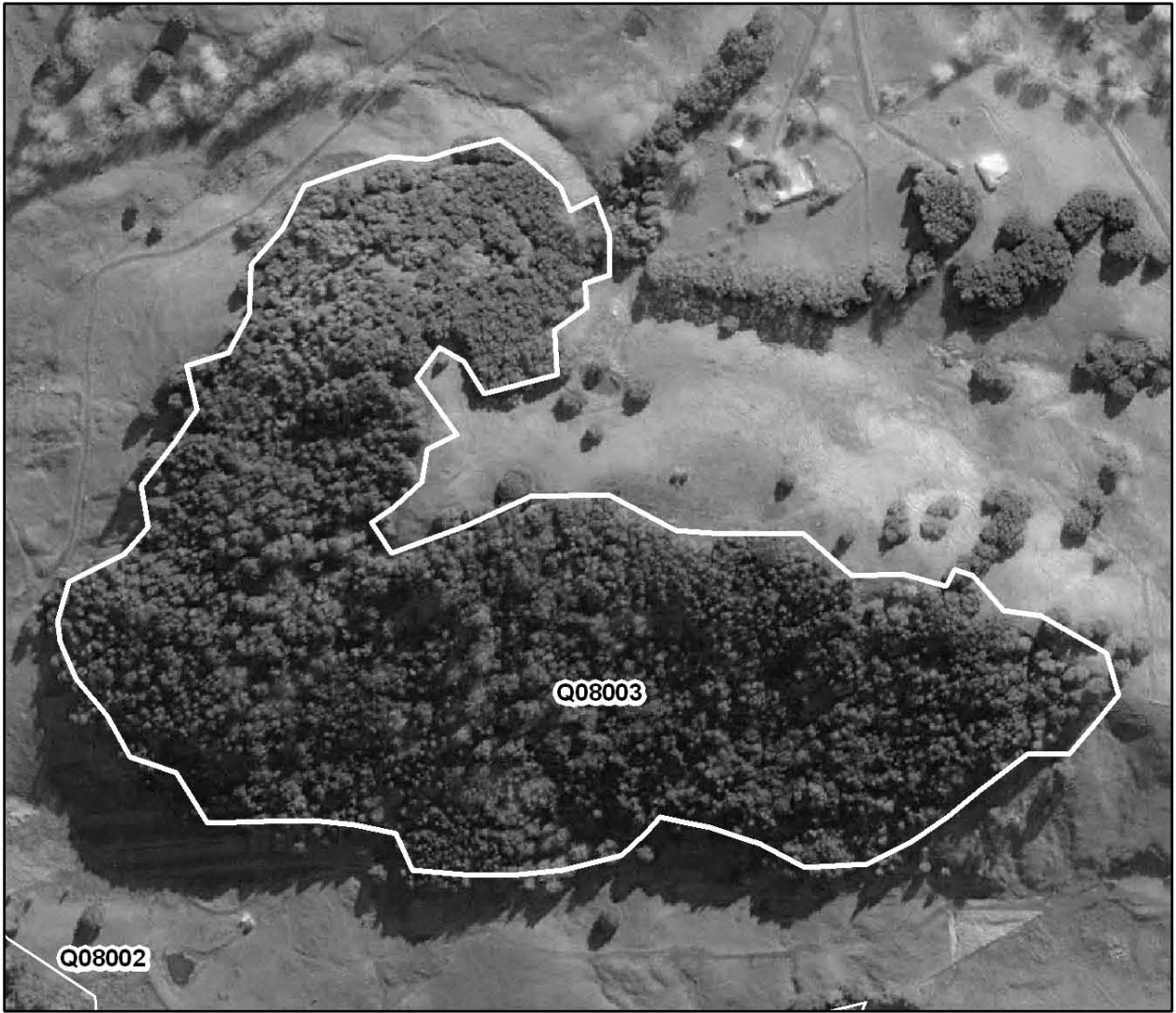
(b) Abundant taraire also occurs on the southern face with occasional nīkau, tōtara, kohekohe, rewarewa, kahikatea and mamaku. This was viewed from a distance.

Fauna

None noted.

Significance

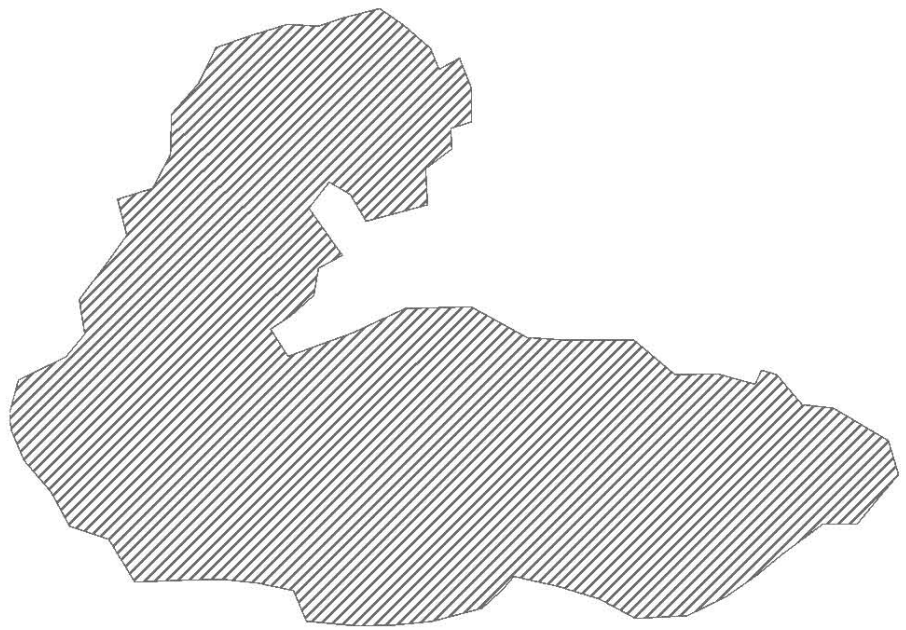
A prominent hillslope situated in close proximity to the Manganui River providing complimentary and important stepping stone habitat within a very modified Ecological District. A representative site for type (a) tōtara forest. The site occurs within a 'Less reduced and better protected' land environment (D1.1a) (Walker et al. 2007).



Q08/003 Paiawa Hill Forest Remnant

Habitat type

-  Forest
-  Shrubland
-  Wetland



ARARUA NORTH FOREST REMNANTS (PART OF MANGANUI RIVER COMPLEX)

Survey no.	Q08/004
Survey date	19 June 1998
Grid reference	1703504E 6016453N (AY29)
Area	56 ha, 3 remnants
Altitude	10–40 m a.s.l.

Ecological unit

- (a) Rimu forest on gentle hillslope
- (b) Tōtara forest on alluvium
- (c) Kahikatea forest on alluvium

Landform/geology

Holocene alluvium on floodplain and hillslopes of Mangakahia Complex mudstone/sandstone.

Vegetation

A collection of three remnants associated with the Manganui River Complex.

(a) The north-to-south-lying elongated area of forest in the eastern remnant (Grid ref: 6016460N 1703565E (AY29)) is rimu dominant with small amounts of kahikatea, tōwai, tōtara, emergent kauri and kānuka/mānuka (edges).

(b) Tōtara appears to dominate the riverine forest ribbons to the east and west of this, often with frequent kōwhai and occasional mataī, pukatea, kahikatea and kānuka/mānuka.

(c) In the west, the northern remnant is kahikatea dominant, forming an open canopy. Tī kōuka frequently occurs and mānuka and tōtara (edges) are occasional.

Kahikatea forest, type (c), is abundant in the small remnant south of this, while tōtara, mataī and kānuka/mānuka are occasional.

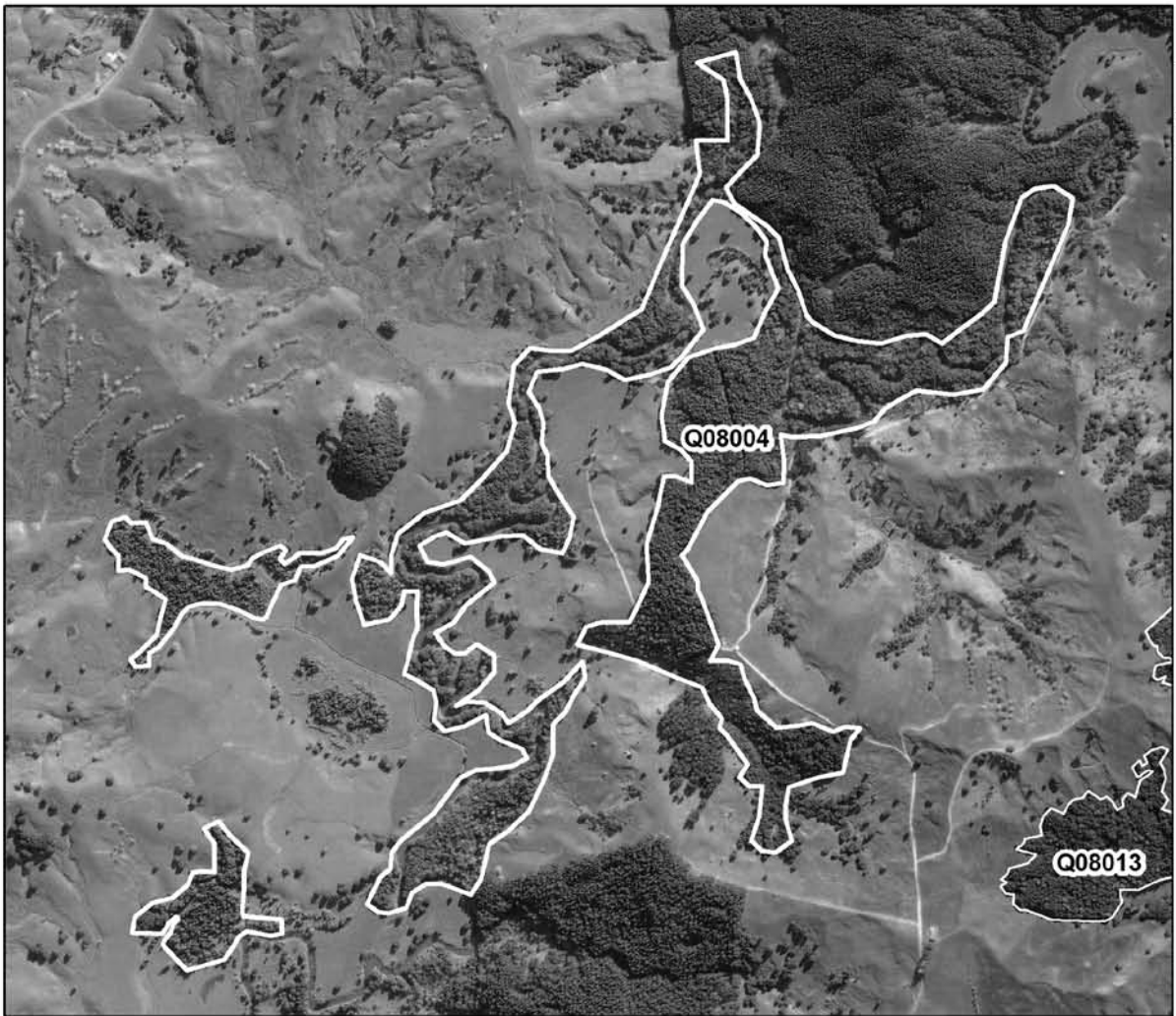
Fauna

This site is part of the Manganui River Complex and thus shares in the values of the ecosystem (see P07/086 for a full list of species). A specific survey of this site has not been conducted.

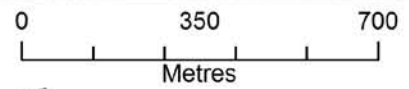
Significance

A collection of remnants contributing to the outstanding Manganui River Complex which supports a diversity of flora and fauna, several of which are Threatened, At Risk and Regionally significant.




Representative site for type (a) rimu forest. Approximately 1.7 ha of this site occurs within an 'Acutely Threatened' land environment (A7.2a), 36.3 ha within a 'Chronically Threatened' land environment (A6.1d and G3.1b) and 18 ha within a 'Critically Underprotected' land environment (A6.1a and A6.1c) (Walker et al. 2007).



**Q08/004 Ararua North Forest Remnants
(Part of Manganui River Complex)**



Habitat type

-  Forest
-  Shrubland
-  Wetland

