

Group), and a Miocene basaltic flow remnant and boulder colluvium (Waitakere Group).

### **Vegetation**

On the northern and southern slopes of Otuhianga hill, there are scattered remnants of indigenous forest and shrubland amongst pasture and residential housing. The site comprises a mosaic of secondary vegetation of different ages, from about 10-15 years to greater than 120 years. Most areas appear unfenced.

(a) Gullies on the southern side of the hill have forest dominated by kahikatea in association with puriri and totara. Kowhai is frequent; ti kouka and karaka are occasional. There are some houses at the edge of this forest, however all dwellings and gardens are excluded from this site.

(b) A compact area of totara and kahikatea forest occurs on the northern side of the hill. Puriri is a common associate with occasional mamaku, ponga, nikau, kanuka, ti kouka and false acacia.

(c) Mamaku-manuka forest is present below the summit on the southern side of the site. Mahoe and ti kouka are also frequent in the canopy.

(d) Manuka shrubland with occasional ti kouka occurs near the summit on the north-facing slope.

### **Fauna**

Australasian harrier.

### **Significance**

This is a representative site for ecological unit (c) mamaku-manuka forest on gentle slope, which is not found anywhere else in Otamatea ED Northland. This site comprises three small remnants, which appear to be regenerating. The condition of the understorey is not known, but is probably affected by livestock.

## **BRYNDERWYN FARM POND**

Survey no.	Q08/066
Survey date	14 November 2005
Grid reference	Q08 392 676
Area	1.2 ha
Altitude	127-139 m asl

### **Ecological units**

(a) Open water (constructed freshwater farm pond) (99%)

(b) *Juncus sarophorus* rushland on constructed pond fringe (1%)

### **Landform/geology**

Man-made pond/lake.

### **Vegetation**

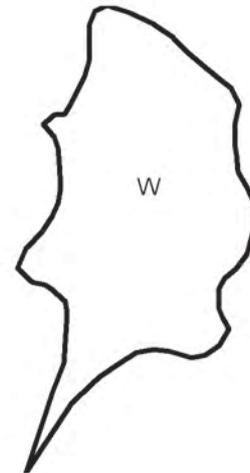
This site comprises a large constructed farm pond approximately 160 m long and 80 m wide lying in a north-south orientation. The paddock around this pond appears to be grazed down to the water's edge and consequently has little indigenous marginal freshwater vegetation. The fringes of the pond are vegetated with pasture (excluded), sparse indigenous rushes (*Juncus sarophorus* and *J. edgariae*) and a few overhanging poplars.



## Q08/066 Brynderwyn Farm Pond

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

0 250 500 1,000 Metres



### ***Fauna***

At the time of the survey it was being used by a black shag (Sparse), paradise shelducks, mallard ducks, welcome swallows, spur-winged plovers and black swans.

### ***Significance***

This is one of the largest farm ponds in Otamatea ED Northland and is an important habitat for both common and threatened indigenous water bird species. The presence of threatened species (black shag) elevates this site to Level 1. However, it is acknowledged that the site is artificially constructed and

is therefore not a true 'significant natural area' even though it is now habitat for a threatened species.

### **BRYNDERWYN ROAD FOREST REMNANTS**

Survey no.	Q08/067
Survey date	14 November 2005
Grid reference	Q08 389 670 (2 remnants)
Area	26.4 ha
Altitude	43-160 m asl

#### ***Ecological units***

- (a) Totara-kahikatea forest on moderate to steep hillslope (60%)
- (b) Totara-kanuka treeland on moderate to steep hillslope (35%)
- (c) Kauri forest on ridge top (5%)

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

Steep hillsides and gullies underlain by Miocene thick-bedded sandstone (Waitemata Group) and Miocene dacite (Waitakere Group).

#### ***Vegetation***

This site comprises indigenous forest remnants on the northern side of a small tributary in the upper Wairau River catchment, next to State Highway 1 and Brynderwyn Road. Dense forest covers the steepest parts of the mainly south-facing slope while treeland is present around the margins of the stream and in outlying remnants. Radiata pine and willows are commonly planted in the paddocks surrounding this site.

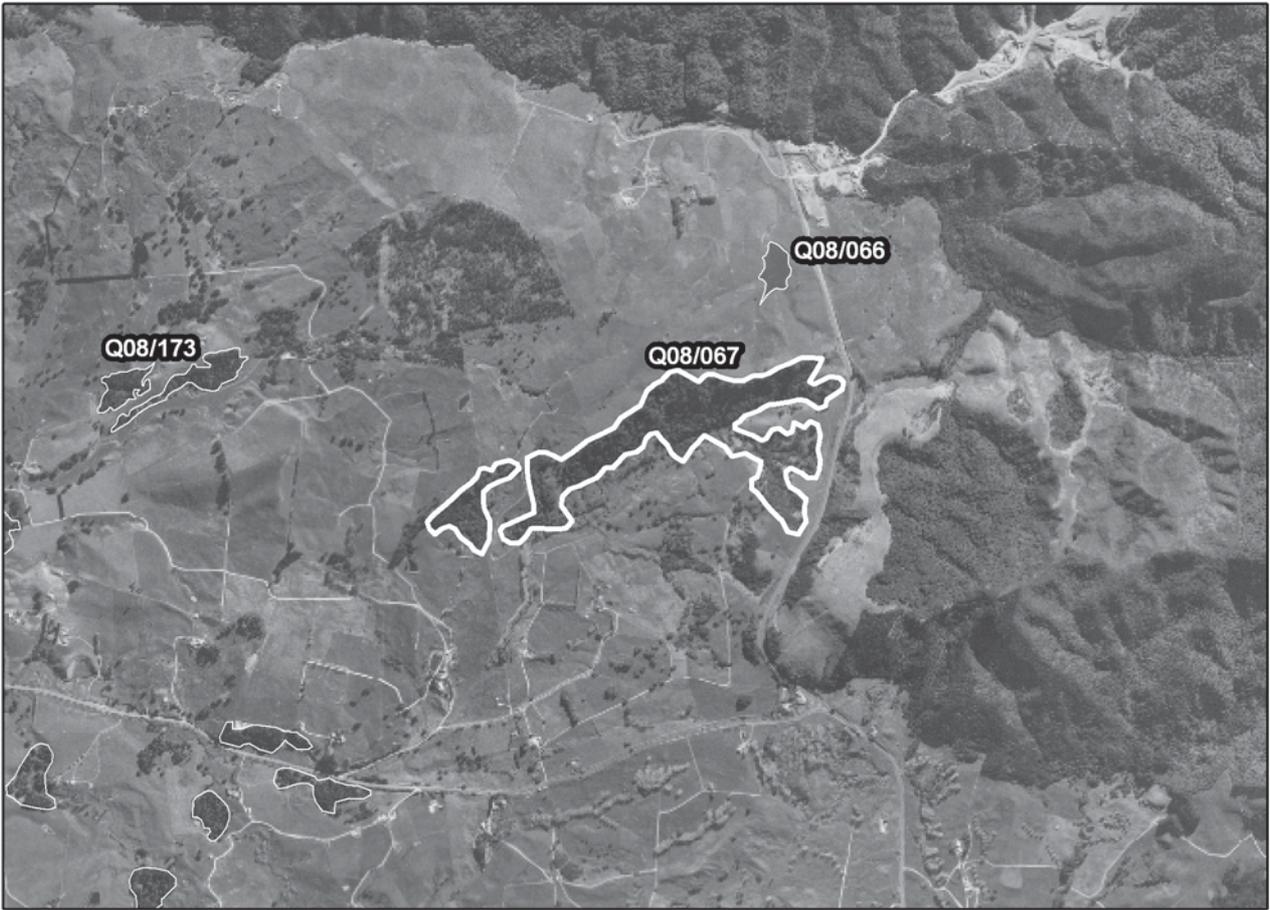
- (a) Totara and kahikatea are equally common in the canopy of the forest on the steep slope. Due to the moist nature of the site, nikau and mamaku are also frequent. Associated species at low abundance are rewarewa, puriri, titoki, karaka, ti kouka, kohekohe, pukatea, mahoe, five finger, tawa, tanekaha and macrocarpa.
- (b) Totara is abundant and kanuka is common in the grazed treeland areas. Also found here occasionally are manuka, kahikatea, mamaku and ponga.
- (c) Kauri ricker forest perches on the ridge with occasional radiata pine and macrocarpa. The frequency of exotic conifers increases towards the western end of the ridge where the indigenous forest merges with a small pine plantation. Totara is frequent in the ridge top forest, with occasional rimu, ti kouka and kanuka.

#### ***Fauna***

Grey warbler.

#### ***Significance***

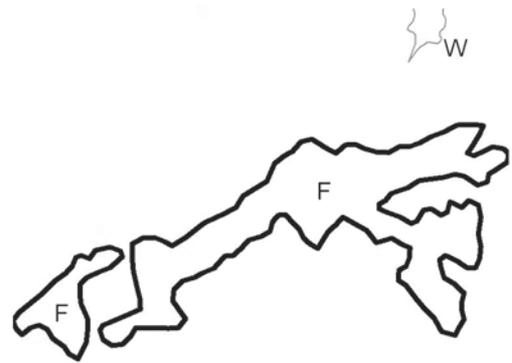
This is a representative site for ecological unit (a) totara-kahikatea forest on moderate to steep hillslope, which is particularly diverse in its canopy composition.



## Q08/067 Brynderwyn Road Forest Remnants

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

0 250 500 1,000 Metres

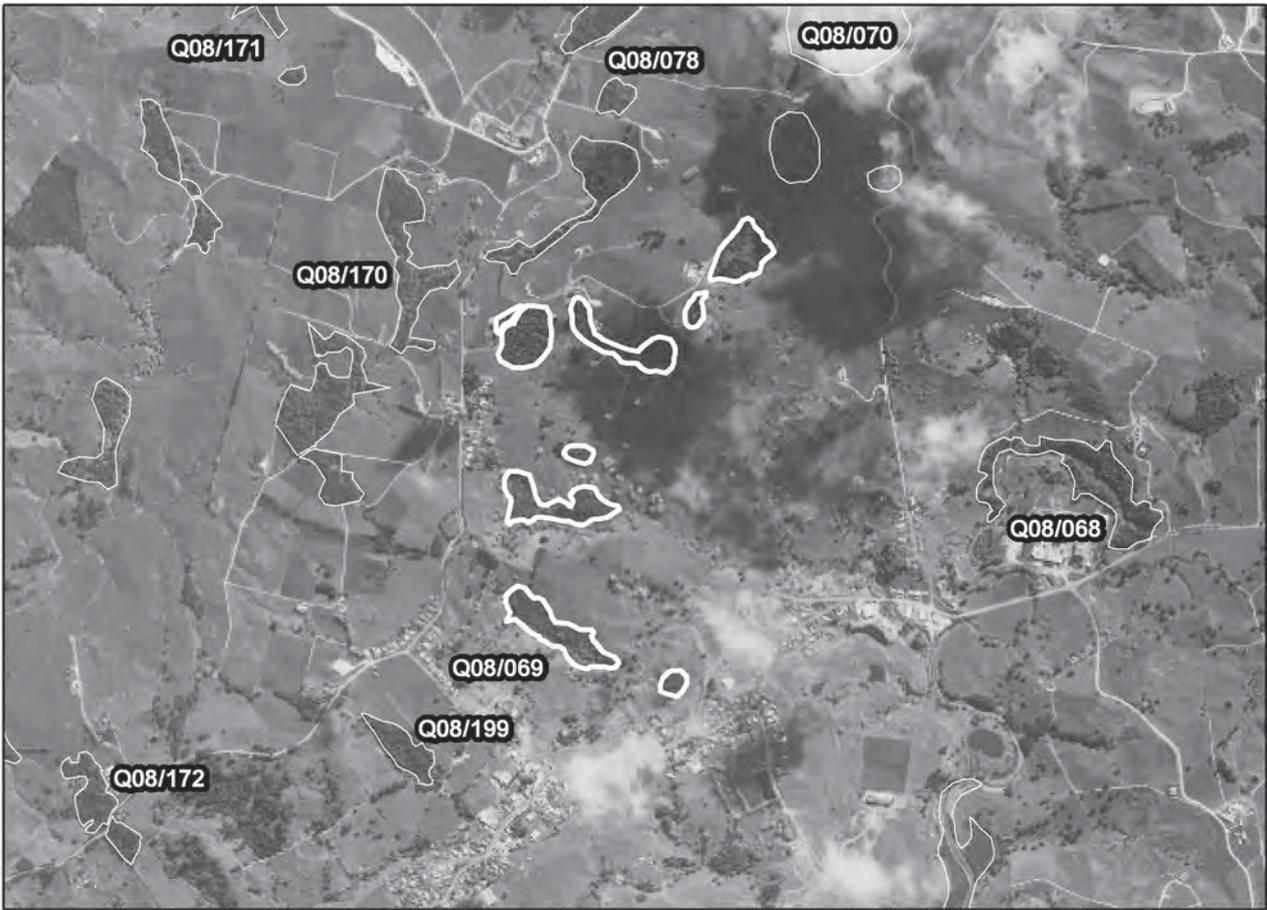


### NORTH MAUNGATUROTO FOREST REMNANTS

Survey no.	Q08/069
Survey date	16 December 2005
Grid reference	Q08 327 659 (9 remnants)
Area	16.6 ha
Altitude	20-80 m asl

#### ***Ecological units***

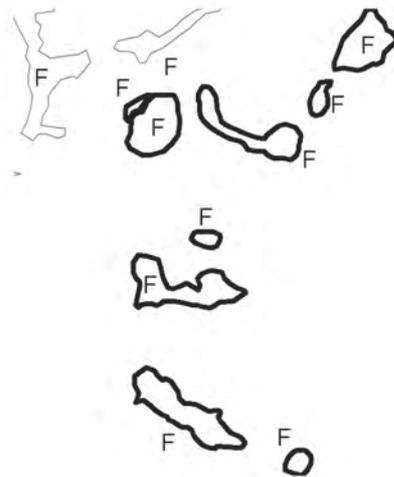
- (a) Totara-karaka forest in gully (25%)
- (b) Taraire-totara forest in gully (20%)



## Q08/069 North Maungaturoto Forest Remnants

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

0 250 500 1,000 Metres



- (c) Totara-kahikatea forest on moderate hillslope (20%)
- (d) Kahikatea-totara forest on moderate hillslope (20%)
- (e) Totara forest in gully (15%)

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

Hillslopes and gullies underlain by melange (undifferentiated Mangakahia & Motatau Complex lithologies).

### ***Vegetation***

These forest remnants are in the western catchment of the Wairau River, just north of the town of Maungaturoto in a landscape of rural residential and pastoral farming use, with an abundance of exotic trees such as macrocarpa, willow, tree privet, hawthorn and poplar dotted around the paddocks. Some of the latter are cultural plantings and others appear to be naturalised.

(a) The northernmost remnant (next to Doctor Hill Road) has totara and karaka equally dominant in the canopy, in striking contrast to most of the other nearby forest remnants. Kowhai, nikau and kanuka are frequent canopy components, while puriri, tarata, ti kouka, titoki, kahikatea and tawa are all occasional.

(b) The gully remnant north of Hurndall Street East comprises abundant taraire and common totara. Frequent species include pukatea, nikau, kowhai and kahikatea. Other species comprising under 5% canopy cover include kohekohe, karaka, puriri, titoki and kanuka.

(c) Forest with abundant totara mixed with kahikatea is found on hillslopes above the gullies.

(d) On gentle slopes kahikatea is much more abundant than totara, although they still share dominance in the canopy to the exclusion of other species. Types (c) and (d) share similar associates such as matai, rewarewa, kanuka and ti kouka.

(e) Gully forest that is limited to smaller or more disturbed remnants tends to have a canopy of predominantly totara, with frequent kanuka and occasional kahikatea and matai.

### **Significant flora**

Tawa (locally uncommon)

### ***Fauna***

Not surveyed.

### ***Significance***

This is a representative site for ecological unit (a) totara-karaka gully forest, as well as having a high diversity of habitat types within a small area. It contains a locally uncommon tree species (tawa).

## **PIROA ROAD FOREST REMNANTS 2**

Survey no.	Q08/072
Survey date	14 November 2005
Grid reference	Q08 345 671 (6 remnants)
Area	15.4 ha
Altitude	20-104 m asl

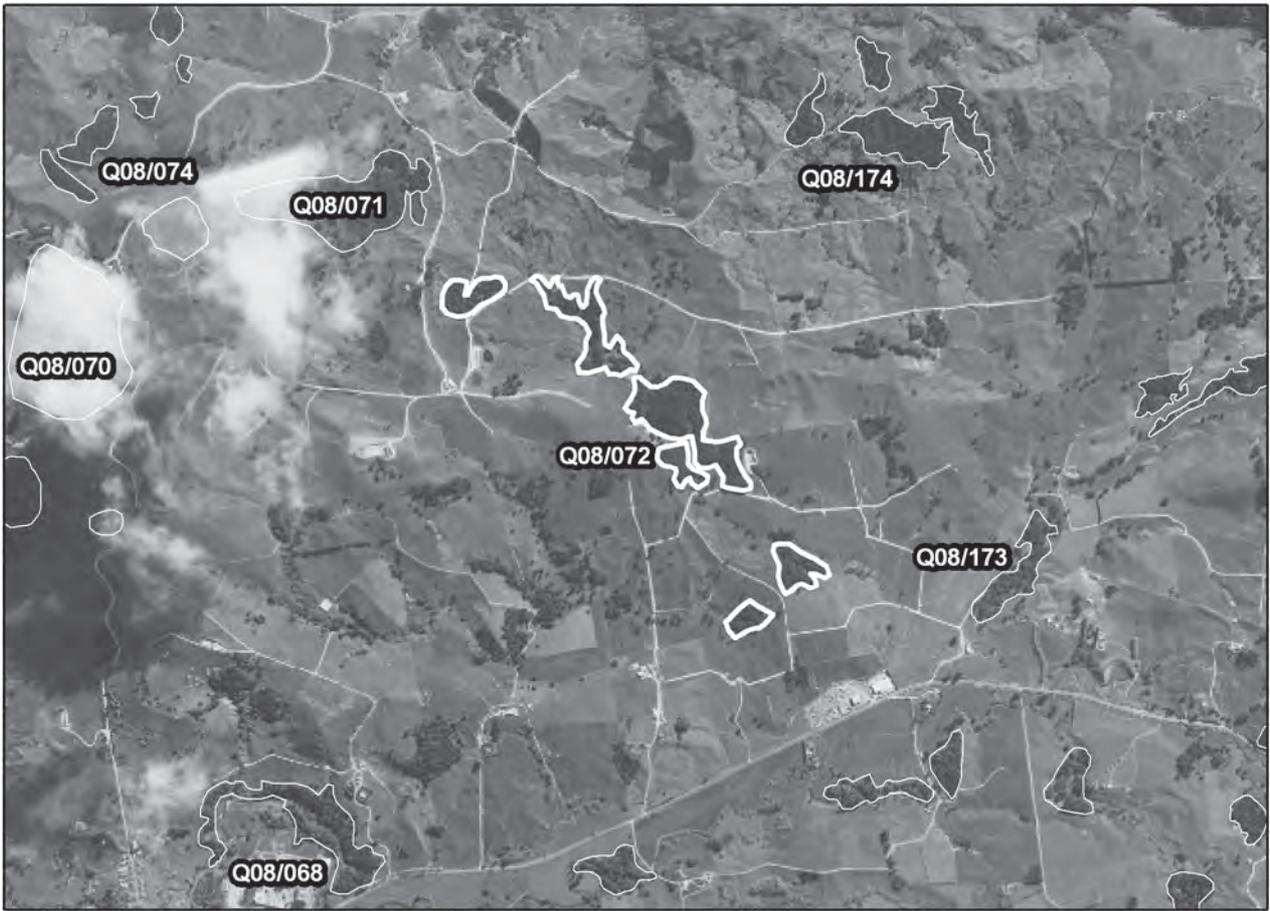
### ***Ecological units***

(a) Totara-kahikatea forest in gully (90%)

(b) Kahikatea forest on alluvium (10%)

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

Hillslopes and gullies underlain by melange (undifferentiated Mangakahia & Motatau Complex lithologies), and river flats on Holocene alluvium.



## Q08/072 Piroa Road Forest Remnants 2

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

0 250 500 1,000 Metres



### ***Vegetation***

This site comprises six indigenous forest remnants linked by tributaries in the upper Wairau River catchment. The surrounding landscape comprises pasture with scattered, isolated totara trees, dissected by several farm tracks.

(a) Totara is dominant to kahikatea in the canopy of the majority of the forest remnants. Rimu and kanuka are frequent, while kauri, radiata pine and hawthorn are scattered around dry edges.

(b) A small, dense remnant of kahikatea is present on alluvium in the lower valley near State Highway 12.

### ***Fauna***

Australasian harrier.

### ***Significance***

Although very small (approximately 1.5 ha), the best representative example of ecological unit (b), kahikatea forest on alluvium, remaining in Otamatea ED Northland occurs at this site. These remnants also provide a riparian protection function for the Wairau River.

## **COLLINS SCENIC RESERVE AND SURROUNDS**

Survey no.	Q08/078
Survey date	14 November 2005
Grid reference	Q08 327 673
Area	2.7 ha
Altitude	80-93 m asl

### ***Ecological unit***

(a) Kauri-rimu forest on gentle hillslope (100%)

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

Low terrace underlain by Pleistocene alluvium.

### ***Vegetation***

Collins Scenic Reserve is a tiny remnant of indigenous forest next to Gorge Road in the upper Waipikopiko Stream catchment. The canopy is formed of semi-mature kauri and rimu with frequent totara, kanuka and taraire, and occasional rewarewa. During a short walk-through survey, the following plant species were recorded in the understorey:

Subcanopy: Manuka, nikau, pigeonwood, mahoe, karaka, tarata, puriri, tawa, small-leaved milk tree, mamangi

Shrub tier: Hangehange, *Coprosma spathulata*, *C. areolata*, *C. rhamnoides*, elaeagnus, *Alseuosmia quercifolia*, kawakawa, mapou

Ground cover: Tradescantia, parataniwha, hooked sedge, hound's tongue fern, mokimoki, *Blechnum chambersii*, thread fern, wheki, ponga, mamaku, hanging spleenwort, gully fern, shining spleenwort, leather-leaf fern, sickle spleenwort

Vines (throughout): NZ jasmine, NZ passionfruit, supplejack, *Metrosideros perforata*, *M. diffusa*

### ***Significant flora***

*Alseuosmia quercifolia* and tawa are both considered locally uncommon in Otamatea ED Northland.

### ***Fauna***

Fantail, grey warbler, shining cuckoo, tui.

### ***Significance***

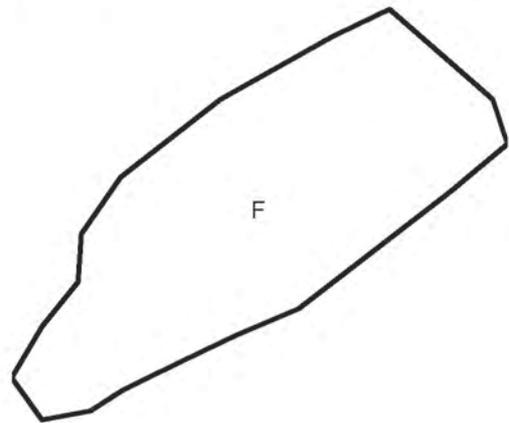
The Scenic Reserve, which is administered by the Department of Conservation, encompasses 1.4 ha (52%) of the identified natural area. The rest of the site is



## Q08/078 Collins Scenic Reserve and Surrounds

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

0 250 500 1,000 Metres



on private land. The vegetation of this site is significant owing to the presence of a unique, therefore representative, forest type which, being fully fenced from stock, possesses a diverse understorey of indigenous trees, shrubs, ferns and herbs. Two locally uncommon plants in Otamatea ED Northland are present (*Alseuosmia quercifolia* and tawa). The most problematic environmental weeds in the reserve are elaeagnus and tradescantia, however both of these are relatively limited in their extent.