

4.2 Level 2 sites

The following 52 sites were assessed as Level 2 sites (Table 7). These are listed in alphabetical order in Section 9, and described and mapped as follows.

TABLE 7: LIST OF LEVEL 2 SITES

| SITE NAME | SURVEY NO. | GRID REF. |
|--|------------|---------------------------------|
| Waihaupai Stream Shrubland and Forest | O07/012 | P07 655 027 |
| Ngakiriparauri Stream Shrubland and Wetland | O07/015 | O07 676 015 |
| Bruce Clear's Wetland | O07/017 | O07 659 999 |
| North Kai Iwi Stream Wetland and Forest | O07/025 | O07 680 972 |
| Lower Kai Iwi Stream Wetland, Shrubland and Forest | O07/026 | O07 685 966 |
| Kai Iwi Lakes South Shrubland | O07/027 | O07 696 974, 699 972 698 979 |
| Airstrip Road Wetland 1 | P07/120a | P07 730 982 |
| Airstrip Road Wetland 2 | P07/120b | P07 725 978 |
| Upper Te Kawa Stream Shrubland | P07/121 | P07 743 981 |
| Rehulai Road Wetland | P07/124a | P07 807 821 |
| Omamari Station North Shrubland and Wetland | P07/125 | P07 939 958 |
| Omamari Station Wetland and Shrubland | P07/132 | P07 760 5926 |
| Arnesen Farm Shrubland | P07/134 | P07 805 923 |
| Opanake Road Forest Fragments | P07/136a | P07 839 923, 834 922 |
| Peter Kelly's Lake and Wetland | P07/138 | P07 726 911 |
| Woodcock's Forest | P07/141a | P07 828 908 |
| Opanake Road Swamp Forest | P07/149 | P07 841 905 |
| Babylon Coast Roadside Shrubland | P07/154 | P07 796 879 |
| Woodcock's Wetland | P07/157 | P07 834 894 |
| Basin Road Shrubland 1 | P07/160 | P07 775 867 |
| Basin Road Shrubland 2 | P07/161 | P07 775 867 |
| Hokianga Road Forest | P07/164 | P07 867 868 |
| Hoanga Road Forest | P07/165 | P07 929 893 |
| Scotty's Camp Road Shrubland | P07/167 | P07 813 851 |
| Bayly's Coast Road Wetland and Shrubland | P07/171a | P07 812 843 |
| Bayly's Basin Road Wetland 1 | P07/171b | P07 801 846 |
| Bayly's Coast Road Wetland | P07/172 | P07 825 838 |
| Mangatara Flat Shrubland | P07/177 | P07 844 820 |
| Turiwiri Forest Remnants | P07/182 | P07 899 824 |
| Dargaville Domain Forest | P07/185 | P07 884 834 |
| Bayly's Basin Road Wetland 2 | P07/206 | P07 785 847 |
| Sills Road Forest Remnants | P08/060 | P08 964 757 |
| Upper Aratapu Creek Shrubland | P08/062 | P08 729 524 |
| Reed's Farm Forest | P08/063 | P08 950 730 |
| Glinks Gully Wetland and Grassland | P08/073 | P08 889 690 |
| Lucich Wetland | P08/080 | P08 914 652 |
| Kernot Farm Shrubland | P08/081 | P08 967 611 |

| | | |
|---|----------|----------------------|
| Pinaki Road South Wetland and Shrubland | P08/087 | P08 985 597 |
| Burgess Road South Shrubland | P08/088 | P08 000 602 |
| Barfoot's Shrubland | P08/092 | P08 009 567 |
| Barfoot's Gully Shrubland | P08/095 | P08 018 556 |
| Harrison Wetland | P08/096a | P07 655 027 |
| Mosquito Gully Wetland | P08/099 | P08 035 522 |
| Black Lake | P08/207 | P08 916 643 |
| Lake Parawanui and Wetland | P08/212 | P08 873 706 |
| Lower Lake Rototuna Wetland | P09/002 | P09 049 489 |
| Phoebe's Lake and Wetland | P09/011a | P09 074 438 |
| Pukemiro Wetland and Forest | P09/020 | P09 095 442 |
| The Spectacles Lakes and Wetland | Q09/202 | Q09 142 373, 146 373 |
| Swan Egg Pond and Wetland | Q09/203 | Q09 129 400 |
| Lake Waingata | Q09/204 | Q09 138 383 |

WAIHAUPAI STREAM SHRUBLAND AND FOREST

Survey no. O07/012
Survey date 28 November 2006
Grid reference P07 655 027
Area 59 ha
Altitude 20–85 m asl

Ecological units

- (a) Manuka shrubland on alluvium (61%)
- (b) Mingimingi-gorse shrubland on hillslope (39%)

Landform/geology

Holocene alluvial and swamp deposits, and hillslopes eroded in deeply weathered Miocene basalt flows, and early Pleistocene (Awhitu Group) cemented dune sands and associated facies.

Vegetation

The site comprises

- (a) a large tract of manuka shrubland on alluvium in the poorly drained lower reaches of the Waihaupai Stream. Manuka dominates over adventive grassland, and the site has been drained and is currently grazed. On neighbouring hillslopes there are several tracts of
- (b) mingimingi-gorse shrubland with frequent kanuka and totara, also grazed.

Significant flora

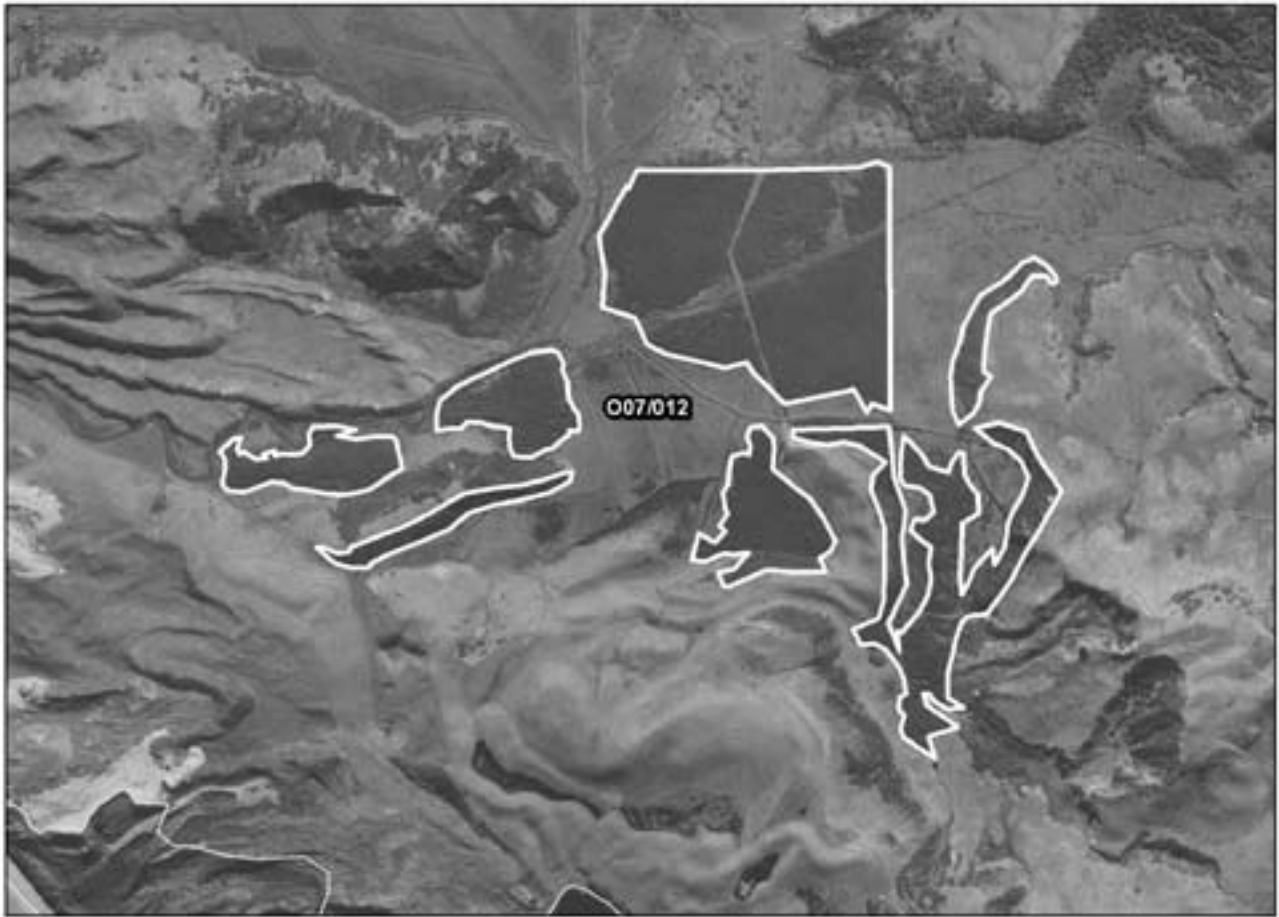
None noted.

Fauna

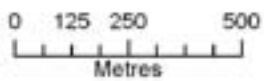
Banded kokopu (Regionally Significant), grey duck (Nationally Endangered), North Island fernbird (Sparse), grey warbler, silvereye, North Island fantail, New Zealand kingfisher, Pacific swallow, Australasian harrier, pukeko, paradise shelduck, Australasian pied stilt (SSBI O07/H004, 1978).

Significance






The site has suffered major degradation from drainage, grazing, and weed invasion (gorse, pampas) and as the threatened species records are historical (1978), this site remains at Level 2. Contains 46.4 ha of Acutely Threatened land environment A5.1b, 7 ha of Chronically Threatened environments A7.1a and A7.3a, and 25.2 ha of At Risk environments A6.1b and A6.1c. A very small proportion of it (0.8 ha) is already protected in Waihaupai Stream Marginal Strip, administered by DOC.

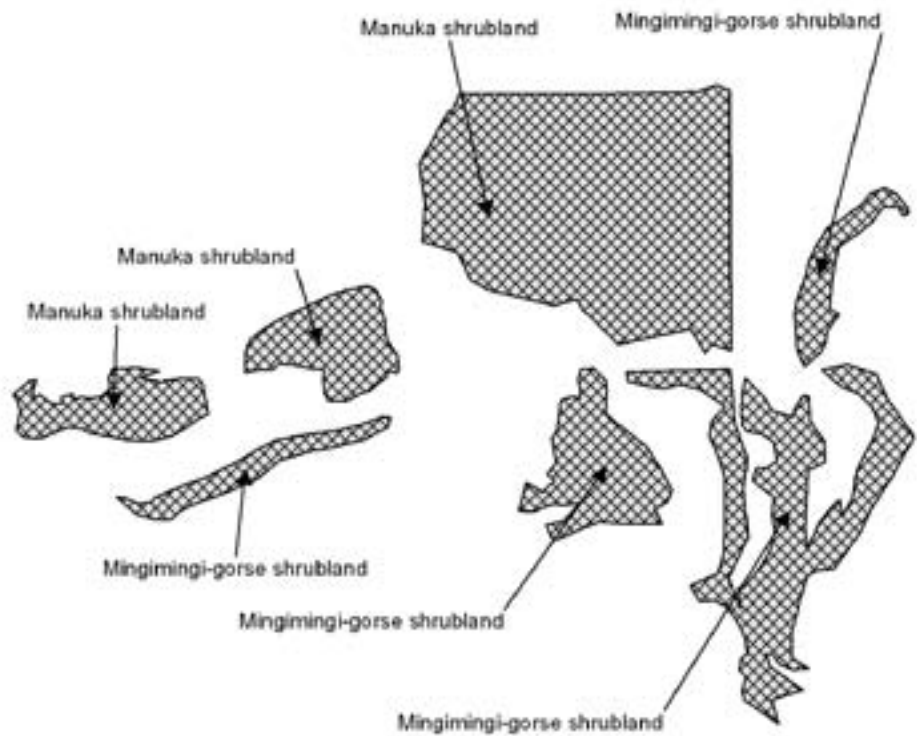


007/012 Waihaupai Stream Shrubland and Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

NGAKIRIPARAURI STREAM SHRUBLAND AND WETLAND

Survey no. O07/015
Survey date 14 December 2006
Grid reference O07 676 015
Area 18 ha
Altitude 20-120 m asl

Ecological units

- (a) Kanuka/manuka shrubland on hillslope (52%)
- (b) Manuka shrubland on alluvium (19%)
- (c) Raupo reedland on alluvium (29%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies, and Holocene alluvial and swamp deposits on valley floor.

Vegetation

The Ngakiriparauri Stream unit is entirely secondary. It is unfenced and in poor condition due to grazing by goats and sheep.

- (a) Kanuka/manuka shrubland consists of abundant kanuka and manuka, frequent mamaku, and occasional wheki, radiata pine, pohutukawa, kohekohe, totara and gorse.
- (b) Manuka shrubland on alluvium consists of abundant manuka, frequent raupo and occasional ti kouka, hangehange, kahikatea and pukatea.
- (c) Raupo reedland consists of abundant raupo, frequent *Baumea arthrophylla*, and occasional *Baumea juncea* and harakeke.

Significant flora

None noted.

Fauna

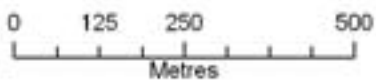
New Zealand kingfisher, grey warbler.

Significance






Widespread woody weed invasion of the kanuka/manuka shrubland and lack of fencing have substantially reduced the value of this site. Contains 2.2 ha of Acutely Threatened land environment A5.1b, 4.3 ha of Chronically Threatened environment A5.2a, and 10.9 ha of At Risk environments A6.1b and A6.1c.

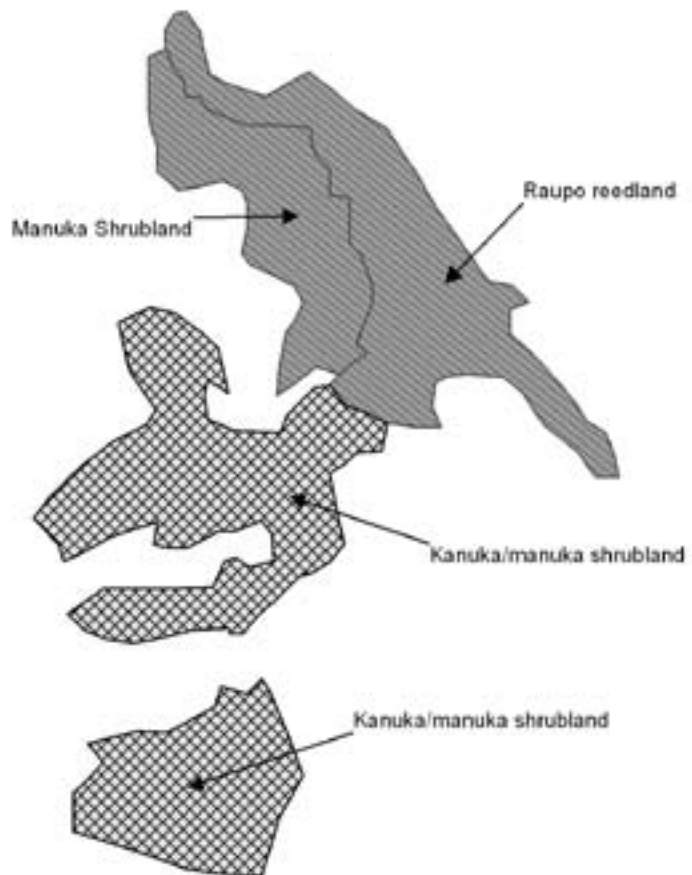


007/015 Ngakiripauri Stream Shrubland and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BRUCE CLEAR'S WETLAND

Survey no. O07/017
Survey date 14 December 2006
Grid reference O07 659 999
Area 2 ha
Altitude 60-85 m asl

Ecological unit

(a) *Eleocharis sphacelata* reedland on alluvium (100%)

Landform/geology

Holocene swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This is a previously drained wetland which has refilled; the owner reports numerous failed attempts at draining it. It is unfenced and completely surrounded by pasture; stock has access to the margin and major pugging is visible throughout. Over 10 pohutukawa logs lie at the western end; these have been recently cut. Introduced pasture grasses have invaded from surrounding paddocks. The unit is of poor quality due to the previous drainage attempts and its unfenced state.

(a) Reedland consists of abundant *Eleocharis sphacelata*, frequent rush species, and occasional raupo, water purslane, *Myriophyllum* species, *Leptinella nana*, *Utricularia* species. *Azolla pinnata*, *Isolepis prolifer*, *Centella uniflora*, *Myriophyllum propinquum*, pale rush, pohuehue, pohutukawa, duckweed, *Callitriche stagnalis*, lotus, wheki, and *E. acuta*.

Significant flora

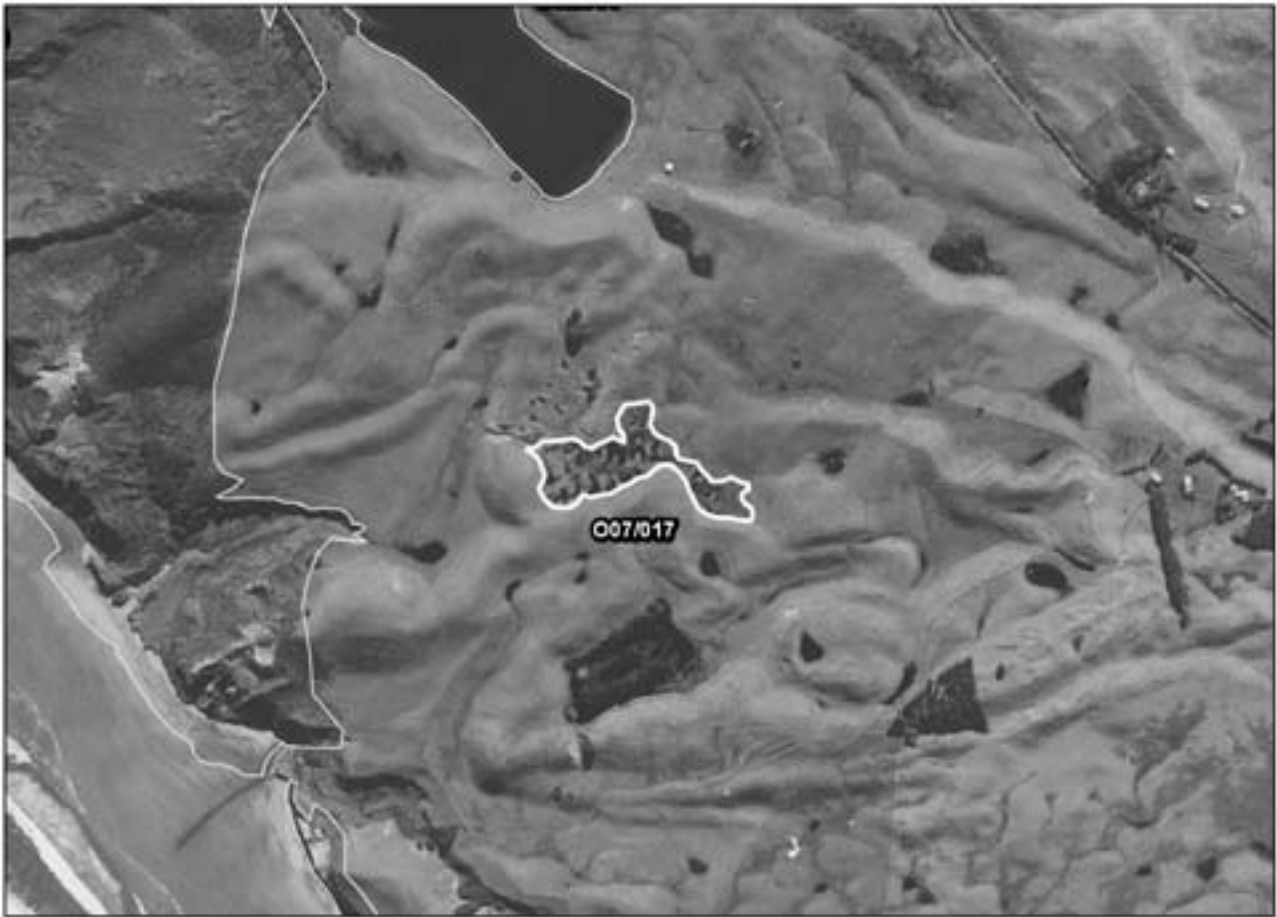
None noted.

Fauna

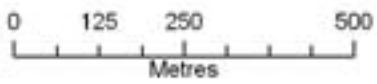
None noted.

Significance






Although wetlands are a threatened habitat type throughout Northland, grazing to the water's edge and substantial weed invasion have reduced the value of this site. Contains 2.3 ha of At Risk environments A6.1b and A6.1c.

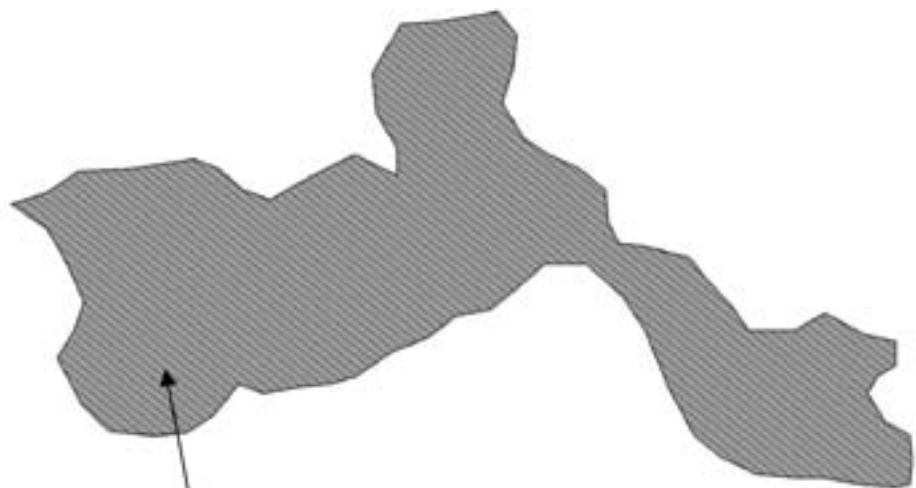


007/017 Bruce Clear's Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Eleocharis sphacelata reedland

Aerial photography flown 2002

NORTH KAI IWI STREAM WETLAND AND FOREST

| | |
|-----------------------|------------------|
| Survey no. | O07/025 |
| Survey date | 12 December 2006 |
| Grid reference | O07 680 972 |
| Area | 5 ha |
| Altitude | 0-40 m asl |

Ecological units

- (a) Pohutukawa forest on hillslope (30%)
- (b) Raupo reedland on alluvium (8%)
- (c) Hangehange-oioi shrub-rushland on coastal faces (60%)
- (d) Undescribed wetlands (2%)

Landform/geology

Holocene swamp deposits in depressions on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This gully is smaller than lower Kai Iwi Stream gully (O07/026) but has similar plant communities. The pohutukawa forest at the mouth is fenced at the seaward end only and is in good condition. Further inland, there is scattered pohutukawa amongst pasture and shrubland which is unfenced and in poor condition. Raupo wetland at the mouth of the gully is highly modified by grazing stock. The coastal cliff faces at mouth of the gully are in good condition with dense vegetation.

- (a) Pohutukawa forest consists of abundant pohutukawa. Ground cover consists of some New Zealand spinach.
- (b) Raupo reedland consists of abundant raupo.
- (c) Coastal cliff vegetation consists of common oioi, hangehange, frequent pohutukawa, harakeke, mingimingi, coastal toetoe, and sand coprosma, and occasional tauhinu, *Asplenium oblongifolium*, tree lupin, adventive iceplant, hairy birdsfoot trefoil, and native iceplant.
- (d) Two undescribed wetlands are included in this site.

Significant flora

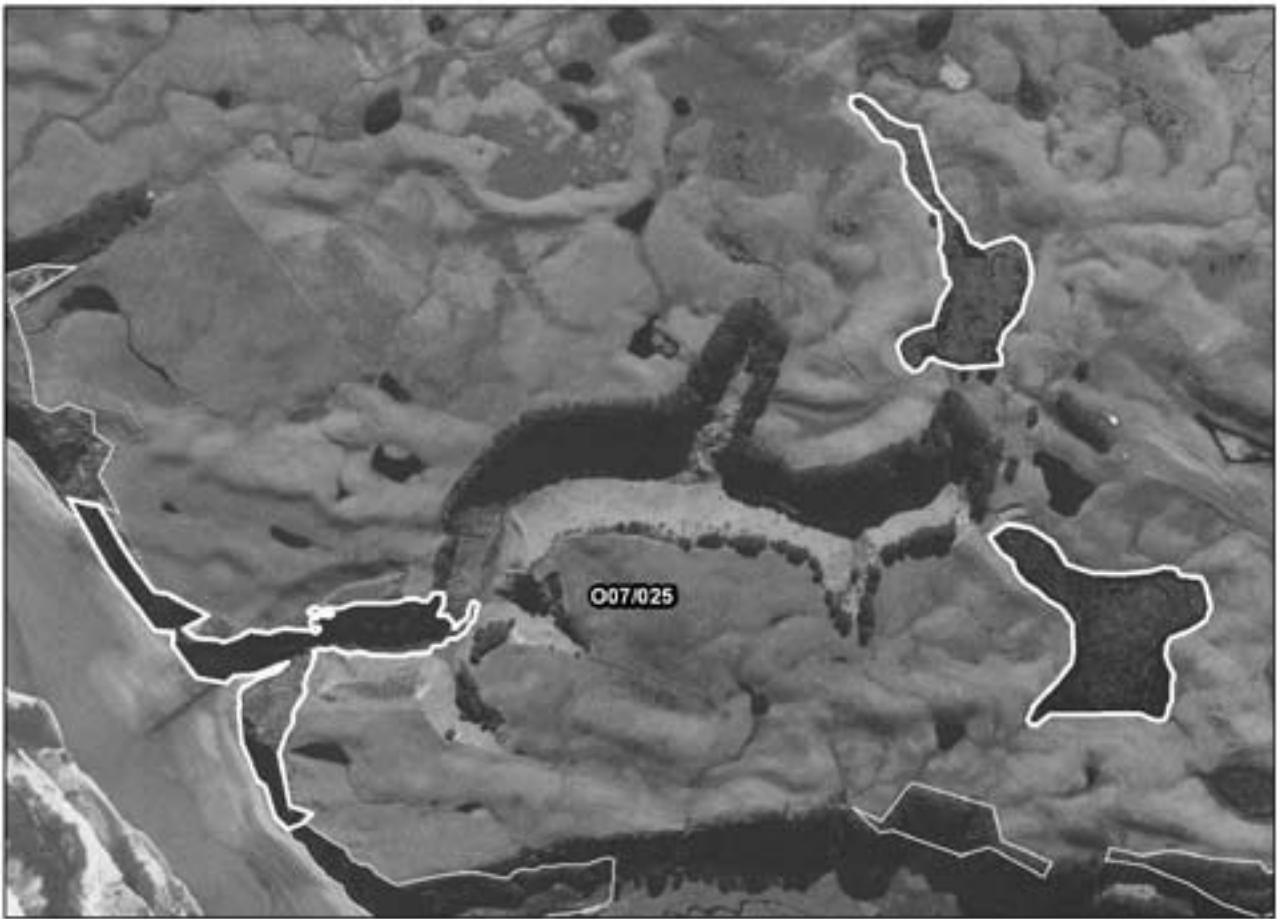
Sand coprosma (Regionally Significant), recorded during this survey.

Fauna

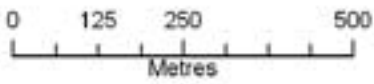
Pacific swallow, grey warbler, Australasian harrier, North Island fantail.

Significance

The highly modified nature of the wetland and the poor condition of it reduce the value of this site. Contains 2.9 ha of At Risk land environments A6.1b and G1.1c. A very small proportion of the site is already protected in Ureti Marginal Strip (0.1 ha), administered by DOC.

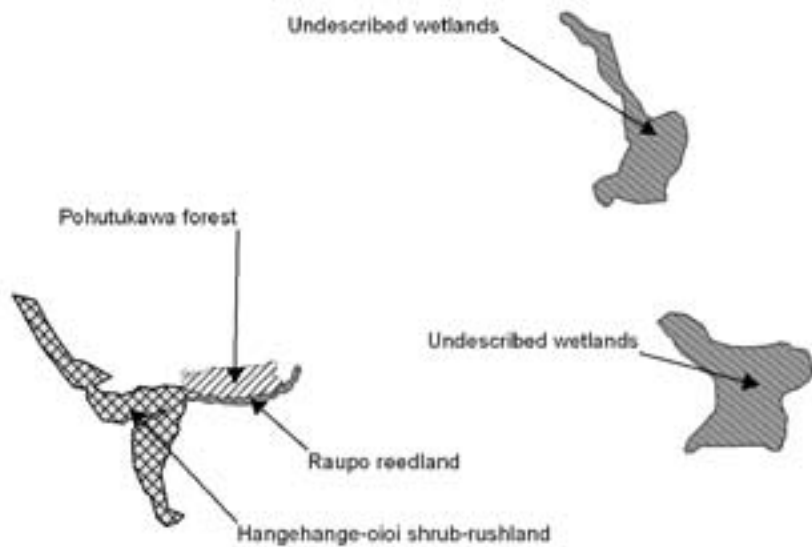


O07/025 North Kai Iwi Stream Wetland and Forest



Habitat Type

- Duneland
- Estuarine
- Forest
- Shrubland
- Wetland



Aerial photography flown 2002

LOWER KAI IWI STREAM WETLAND, GRASSLAND, SHRUBLAND AND FOREST

| | |
|-----------------------|------------------|
| Survey no. | O07/026 |
| Survey date | 12 December 2006 |
| Grid reference | O07 685 966 |
| Area | 12 ha |
| Altitude | 0-85 m asl |

Ecological units

- (a) Manuka shrub wetland on alluvium (O07 696 965) (6%)
- (b) Manuka shrubland on hillslope (O07 691 965 and O07 685 966) (23%)
- (c) Pohutukawa forest on hillslope (O07 678 966) (11%)
- (d) Tussockland on dunes (O07 679 966) (8%)
- (e) Sandfield community (O07 679 965) (3%)
- (f) Hangehange-oioi shrub rushland on coastal faces (O07 679 964 and O07 676 966) (49%)

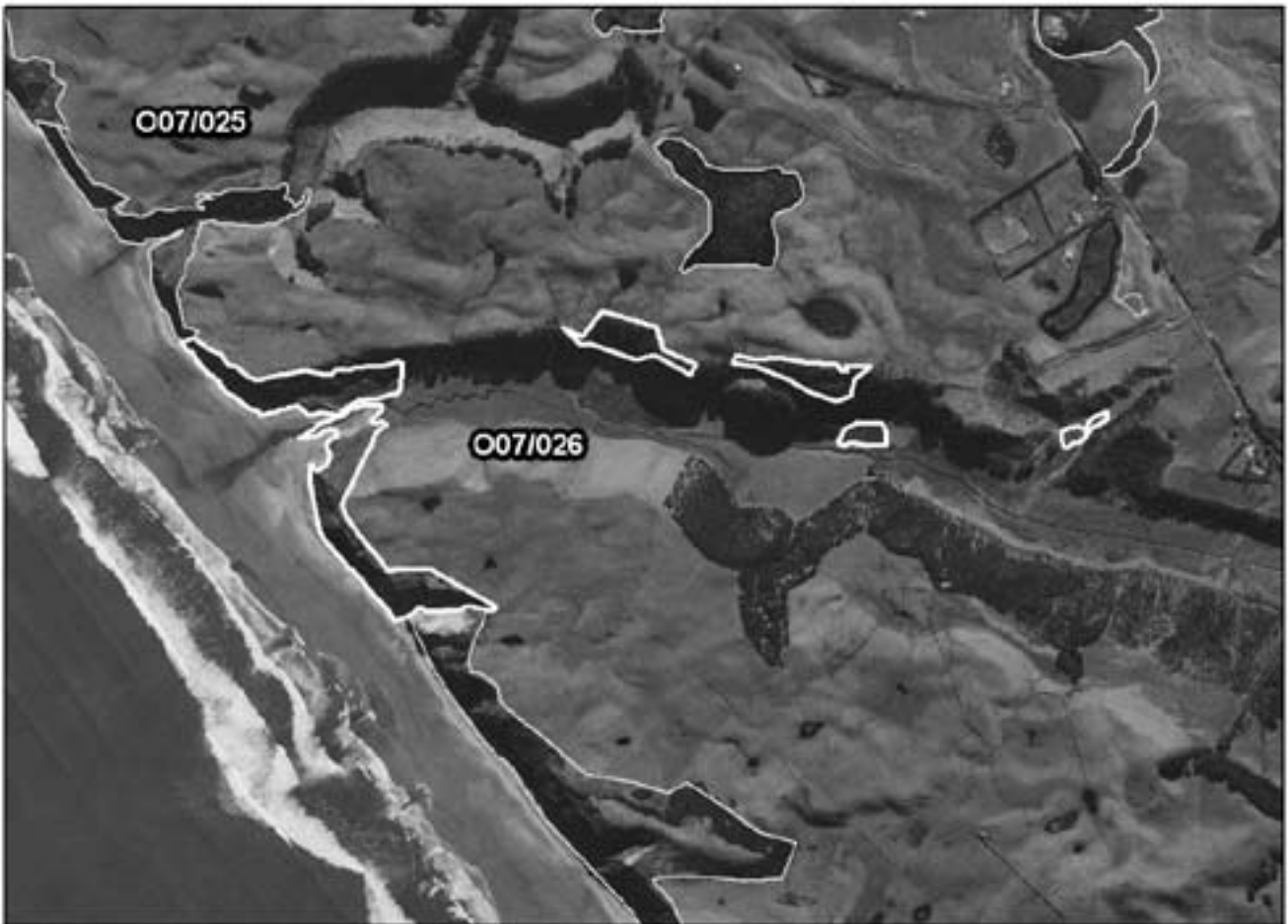
Landform/geology

Coastal cliffs and hillslopes in valley cut in mid-late Pleistocene (Karioitahi Group) consolidated dune sand. Holocene dunes at mouth of the Kai Iwi Stream.

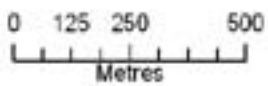
Vegetation

Lower Kai Iwi Stream gully has scattered pockets of native vegetation. Of these, the two wetland pockets at the eastern end are tiny unfenced fragments fringed with weeds but in reasonable condition. Both wetlands are pugged and grazed by cattle. Along the ridge and south-facing slope north of the gully are two pockets of manuka shrubland, both unfenced but in reasonable condition, with pine trees invading in places. The canopy of the manuka shrubland is 2-4 m tall. The pohutukawa forest pocket at the southern mouth of the gully, is fenced with a canopy 10-12 m high and has a fringe of bracken on the edge. Pohutukawa trees are also scattered east of the fenced forest. The gully mouth also encompasses a river mouth dune area which grades into coastal toetoe shrubland on the north, located below the pohutukawa forest. To the south of the river flat is a sandflat community. Coastal cliff face communities to the north and south of the gully mouth are in excellent condition with dense vegetation cover; pohutukawa trees are scattered across northern coastal face.

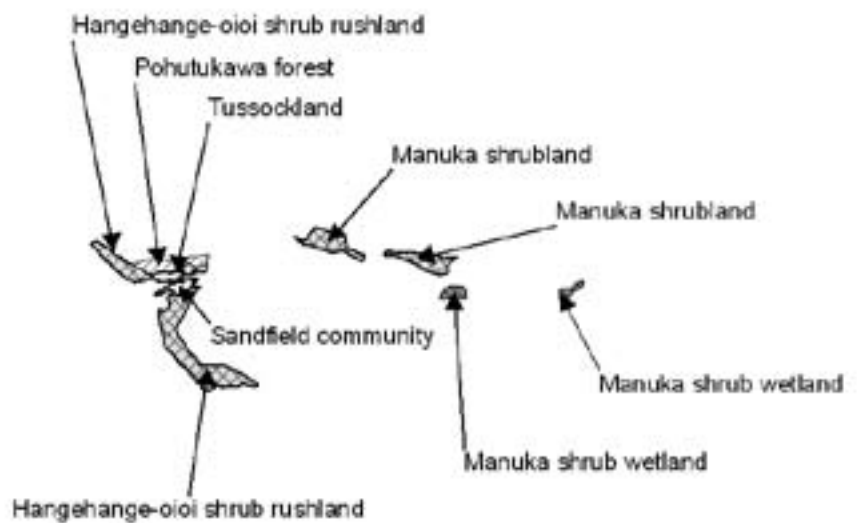
- (a) The manuka shrub wetland consists of abundant manuka with occasional raupo, wheki, ponga, *Baumea rubiginosa*, swamp kiokio, mingimingi, tangle fern, *Baumea teretifolia*, bracken and mistflower.
- (b) Manuka shrubland consists of abundant manuka, frequent Spanish heath and occasional mamaku, ponga, pampas, hangehange, harakeke, *Lepidosperma laterale*, bracken, and coastal karamu. Ground cover consists of rasp fern, ragwort, pasture grasses, *Nertera setulosa*,



O07/026 Lower Kai Iwi Stream Wetland, Grassland, Shrubland and Forest



Habitat Type



Aerial photography flown 2002

blackberry, *Adiantum hispidulum*, *Microlaena stipoides*, and pohuehue.

- (c) Pohutukawa forest consists of abundant pohutukawa, frequent karaka, and occasional boxthorn. The understorey consists of coastal toetoe, harakeke, rasp fern, hangehange, kowharawhara, *Asplenium oblongifolium* and bracken. Ground cover consists of New Zealand spinach.
- (d) Tussockland on dunes consists of common coastal toetoe, pingao, and spinifex, frequent harestail, oioi, knobby clubrush, mingimingi, and harakeke, and occasional bracken, pohuehue, shore bindweed, and tree lupin.
- (e) Sandfield consists of common *Lilium* species, shore bindweed, lotus, knobby clubrush, sand wind grass, water purslane and sand sedge, with frequent oioi.
- (f) The coastal cliff community consists of common oioi and hangehange, frequent pohutukawa, harakeke, mingimingi, coastal toetoe and sand coprosma, and occasional tauhinu, *Asplenium oblongifolium*, tree lupin, adventive iceplant, hairy birdsfoot trefoil, Yorkshire fog, remuremu, and native iceplant.

Significant flora

Pingao (Gradual Decline) and sand coprosma (Regionally Significant), both recorded during this survey.

Fauna

Pacific swallow, grey warbler, Australasian harrier, North Island fantail.

Significance

The very fragmented nature of the vegetation and weed invasion and stock intrusion in much of it reduce the value of this diverse and potentially valuable site. Contains 2.4 ha of Acutely Threatened land environments A5.1b, and 5.8 ha of At Risk environments A6.1b, A6.1c, and G1.1c.

KAI IWI LAKES SOUTH SHRUBLAND

Survey no. O07/027
Survey date 12 December 2006
Grid reference (a) O07 696 974, 699 972, (b) 698 979
Area 52 ha
Altitude 55-120 m asl

Ecological units

- (a) Kanuka/manuka shrubland on hillslope (60%)
- (b) Undescribed shrubland (40%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies, and in mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunes, with Holocene alluvial and swamp deposits in depressions.

Vegetation

This site supports

- (a) several patches of kanuka/manuka shrubland, the smaller ones not fenced and in poor condition, the larger ones fenced and in reasonable condition. There has been local maritime pine and Sydney golden wattle invasion. Kanuka or manuka are variously dominant. The understorey of kanuka-dominant areas consists of hangehange, mingimingi, and tangle fern.
- (b) There is an undescribed patch of shrubland to the east.

Significant flora

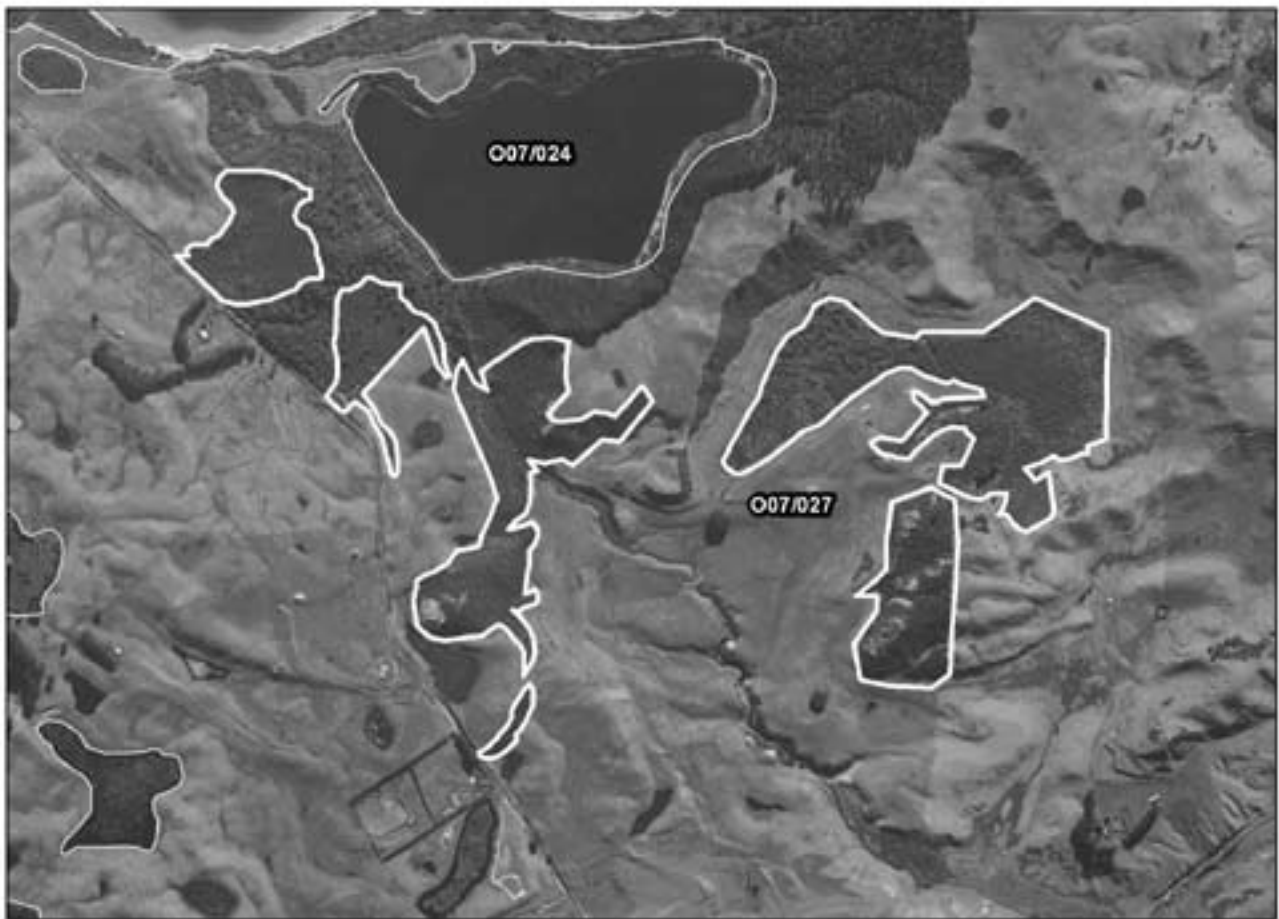
None noted.

Fauna

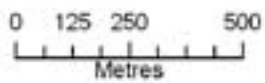
None noted.

Significance






The fragmented nature of the site and the degree of woody weed invasion reduce its value. Contains 36 ha of Chronically Threatened land environment A5.2a, and 15.5 ha of At Risk environments A6.1b and A6.1c.

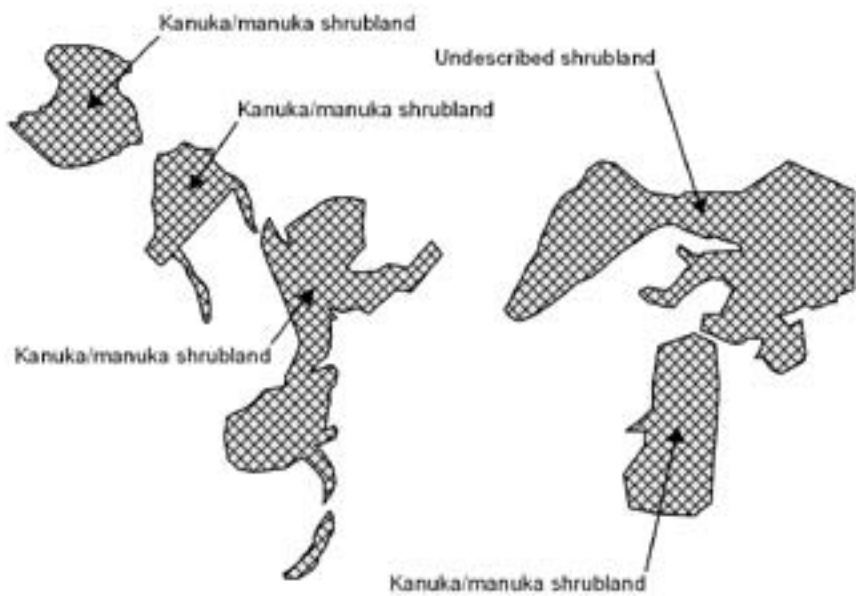


O07/027 Kai Iwi Lakes South Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

AIRSTRIP ROAD WETLAND 1

Survey no. P07/120a
Survey date 12 December 2006
Grid reference P07 730 982
Area 2.2 ha
Altitude 115-130 m asl

Ecological units

- (a) Raupo reedland on alluvium
- (b) *Eleocharis acuta* sedgeland on alluvium (both units together 100%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises

- (a) Raupo reedland with occasional manuka, harakeke, bracken, and mamaku, and
- (b) *Eleocharis acuta* sedgeland with swamp millet common, frequent lotus and occasional raupo and *Baumea* species. They are not mapped separately.

Significant flora

None noted.

Fauna

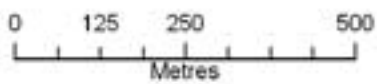
New Zealand kingfisher, paradise shelduck.

Significance






Although wetlands are a threatened habitat type throughout Northland, the site has been seriously degraded by grazing and trampling. Contains 2.1 ha of At Risk land environment A6.1c.

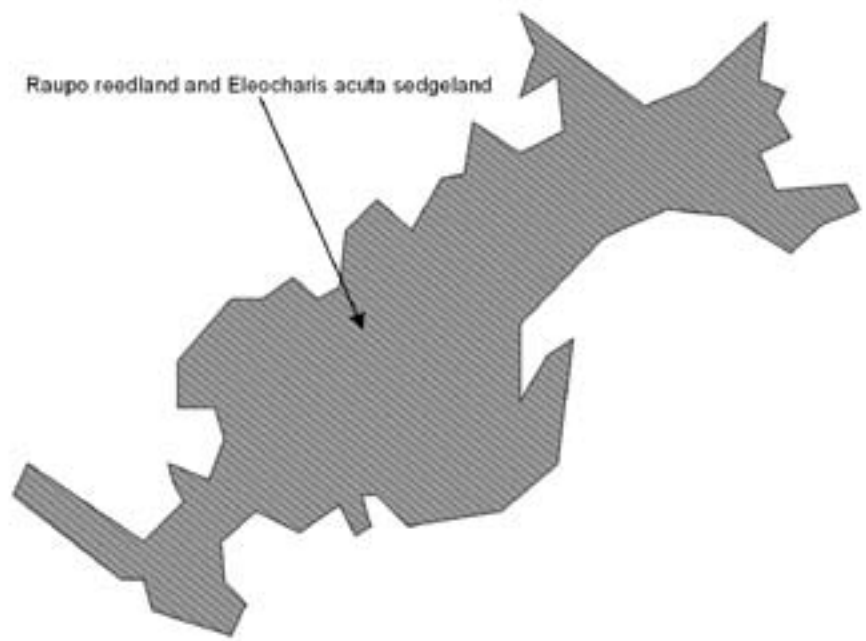


P07/120A Airstrip Road Wetland 1



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

AIRSTRIP ROAD WETLAND 2

Survey no. P07/120b
Survey date 12 December 2006
Grid reference P07 725 978
Area 2.3 ha
Altitude 50-70 m asl

Ecological units

- (a) Raupo reedland on alluvium (56%)
- (b) *Isolepis distigmata* sedgeland on alluvium (44%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises

- (a) raupo reedland with occasional manuka and
- (b) a small area of *Isolepis distigmata* sedgeland with common swamp millet and *I. reticularis* in a valley bottom. Lotus is common throughout.

Significant flora

None noted.

Fauna

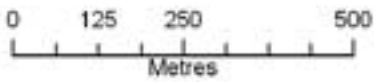
New Zealand kingfisher, paradise shelduck.

Significance






Although wetlands are a threatened habitat type in Northland, the site has been seriously degraded by grazing and trampling and the (drier) sedgeland in particular has been heavily invaded by adventives. Nevertheless, restoration by fencing should be considered. Contains 1 ha of At Risk land environment A5.2a.

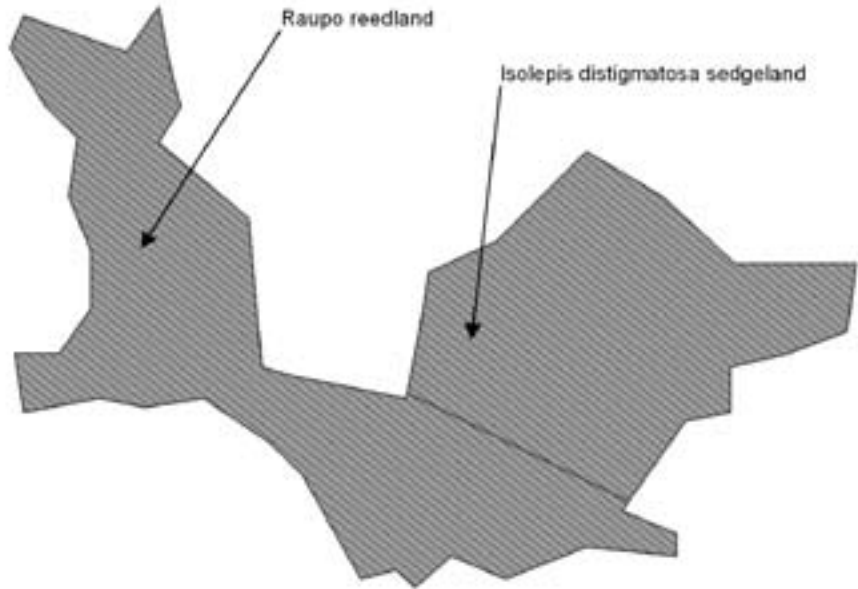


P07/120B Airstrip Road Wetland 2



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

UPPER TE KAWA STREAM SHRUBLAND

Survey no. P07/121
Survey date 12 December 2006
Grid reference P07 743 981
Area 1.3 ha
Altitude 110-140 m asl

Ecological unit

(a) Kanuka/manuka shrubland on hillslope (100%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises a narrow band of kanuka shrubland/forest on south-facing hillslopes above the Te Kawa Stream. Trees appear healthy and the canopy is dense. The site is unfenced.

(a) Shrubland consists of abundant kanuka and manuka with occasional totara, rewarewa, mingimingi, and mamaku.

Significant flora

None noted.

Fauna

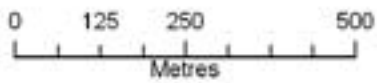
None noted.

Significance






Although this site provides riparian protection for Te Kawa Stream, it has been degraded to some extent by weed invasion (brush wattle) and appears to be grazed. Contains 1.4 ha of Chronically Threatened land environment A5.2a.

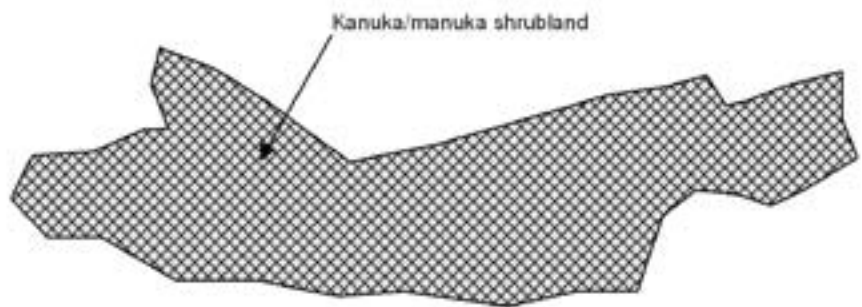


P07/121 Upper Te Kawa Stream Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

REHUTAI ROAD LAKE AND WETLAND

Survey no. P07/124a
Survey date 15 December 2006
Grid reference P07 807 821
Area 2 ha
Altitude 95-110 m asl

Ecological units

- (a) *Baumea articulata* reedland on alluvium
- (b) *Eleocharis sphacelata* reedland on alluvium (both units comprise 50%)
- (c) Open water (50%)

Landform/geology

Holocene swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This site comprises wetland communities dominated either by

- (a) *Baumea articulata* or
- (b) *Eleocharis sphacelata* (not mapped separately) around
- (c) an artificial lake.

Significant flora

None noted.

Fauna

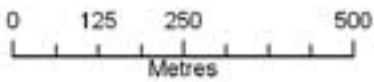
Paradise shelduck.

Significance






Although wetlands are a threatened habitat type throughout Northland, the site is grazed and heavily invaded by weeds around the margins. Contains 2 ha of Chronically Threatened land environment A 7.3a.

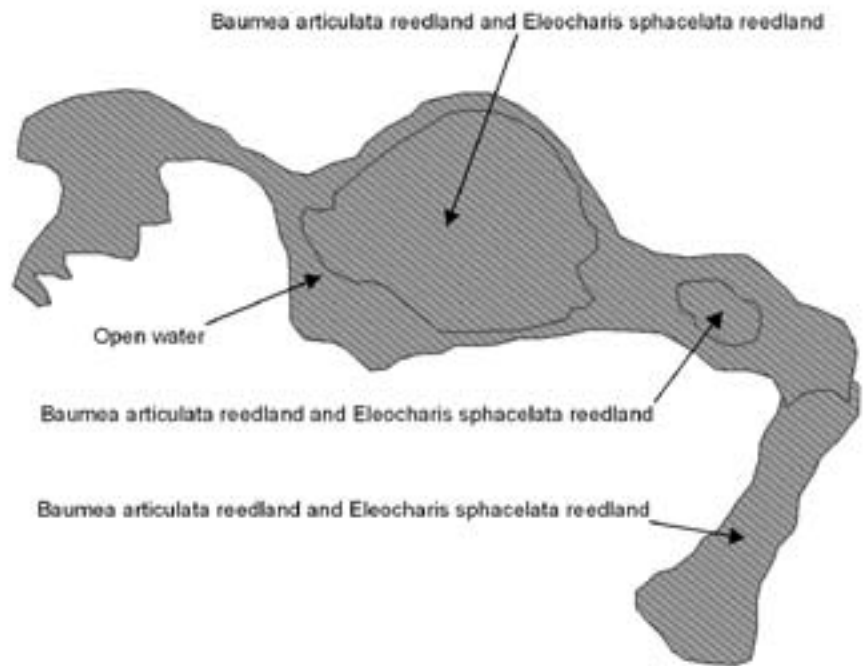


P07/124A Rehutai Road Lake and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

OMAMARI STATION NORTH SHRUBLAND AND WETLAND

Survey no. P07/125
Survey date 12 December 2006
Grid reference P07 939 958
Area 23 ha
Altitude 20-120 m asl

Ecological units

- (a) Kanuka/manuka treeland on hillslope (86%)
- (b) Raupo reedland on alluvium (14%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This modified site comprises two contiguous vegetation types.

- (a) Raupo reedland in finger valleys contains some harakeke.
- (b) Several patches of adjacent treeland on steep hillslopes support kanuka/manuka treeland with rewarewa and mapau, substantially invaded by pampas and brush wattle.

Significant flora

None noted.

Fauna

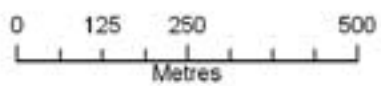
None noted.

Significance






A modified site, degraded by grazing and weed invasion. Contains 0.8 ha of Acutely Threatened land environment A5.1b and 20.3 ha of At Risk environments A6.1b and A6.1c.

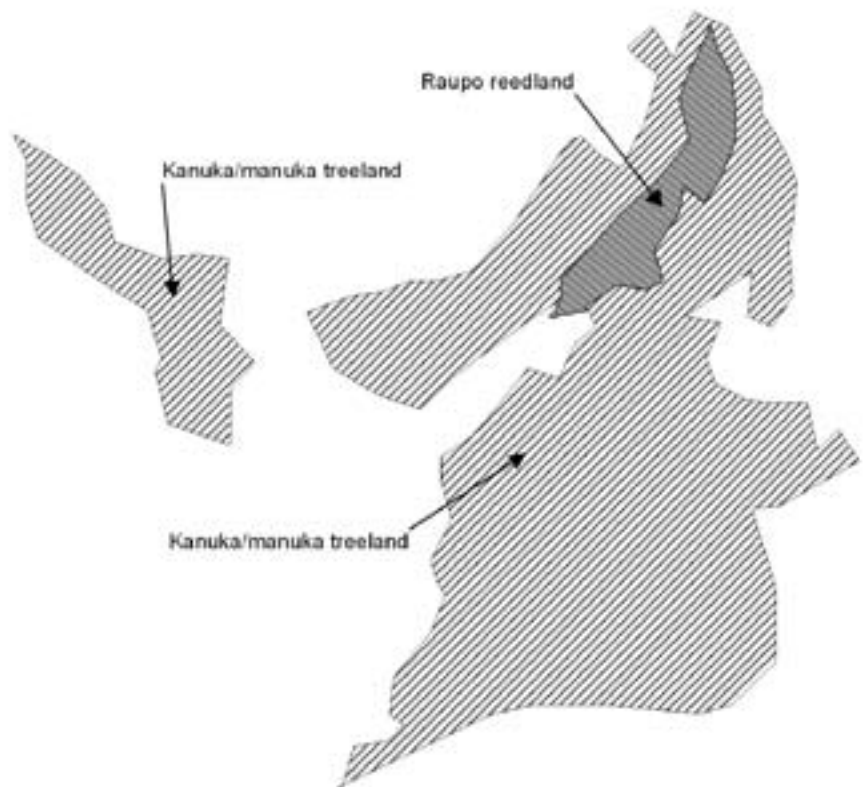


P07/125 Omamari Station North Shrubland and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

OMAMARI STATION WETLAND AND SHRUBLAND

Survey no. P07/132
Survey date 12 December 2006
Grid reference P07 760 5926
Area 15 ha
Altitude 20-40 m asl

Ecological units

- (a) Raupo reedland on alluvium (74%)
- (b) Manuka shrubland on colluvium (15%)
- (c) Kanuka/manuka shrubland on hillslope (11%)

Landform/geology

Holocene alluvial and swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This modified site comprises three contiguous vegetation types, fragmented by several roads.

- (a) Raupo reedland contains some manuka and ti kouka.
- (b) Manuka shrubland contains mamaku, harakeke, and *Dracophyllum lessonianum*.
- (c) Kanuka/manuka shrubland has some rewarewa and dally pine.

Significant flora

None noted.

Fauna

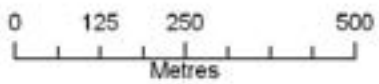
None noted.

Significance






Although wetlands are a threatened habitat type in Northland, this site is degraded by fragmentation, grazing, and weed invasion. Contains 5.3 ha of Acutely Threatened land environment A5.1b, 4.6 ha of Chronically Threatened environment A5.2a, and 5.6 ha of At Risk environment A6.1b.

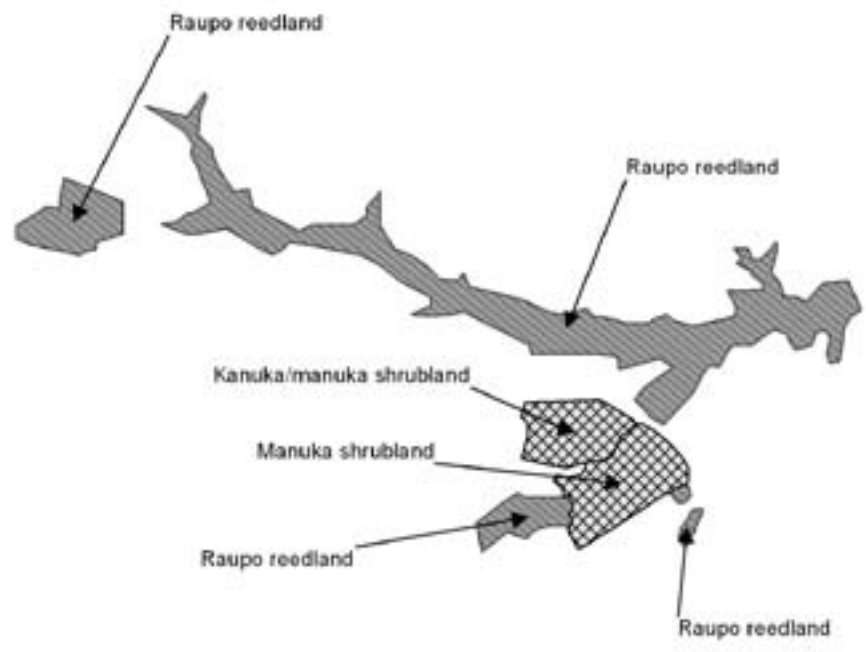


P07/132 Omamari Station Wetland and Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

ARNESEN FARM SHRUBLAND

Survey no. P07/134
Survey date 1 December 2006
Grid reference P07 805 923
Area 11 ha
Altitude 20 m asl

Ecological units

- (a) Ti kouka treeland on alluvium (15%)
- (b) Manuka shrubland on alluvium (85%)

Landform/geology

Holocene alluvial and swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site occupies poorly drained alluvium in the lower reaches of an un-named tributary of the Kaihu River. Beside SH12 there is

- (a) a stand of ti kouka treeland; other prominent species are harakeke, manuka, and pampas. Most of the site supports
- (b) manuka-harakeke-ti kouka shrubland in a mosaic of adventive grassland. The site has been drained by deep ditches which are periodically maintained. A number of widespread wetland species (e.g., raupo, *Coprosma propinqua*, *Baumea arthropphylla*), were recorded.

Significant flora

None noted.

Fauna

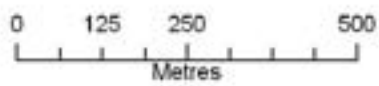
None noted.

Significance






Although alluvial habitats are a threatened habitat throughout Northland, this site has seriously degraded by drainage and grazing, which has led to major encroachment by adventive plants, including some serious weeds (blackberry, pampas). Contains 0.8 ha of Acutely Threatened land environment A5.1c and 10.8 ha of At Risk environment G3.1b.

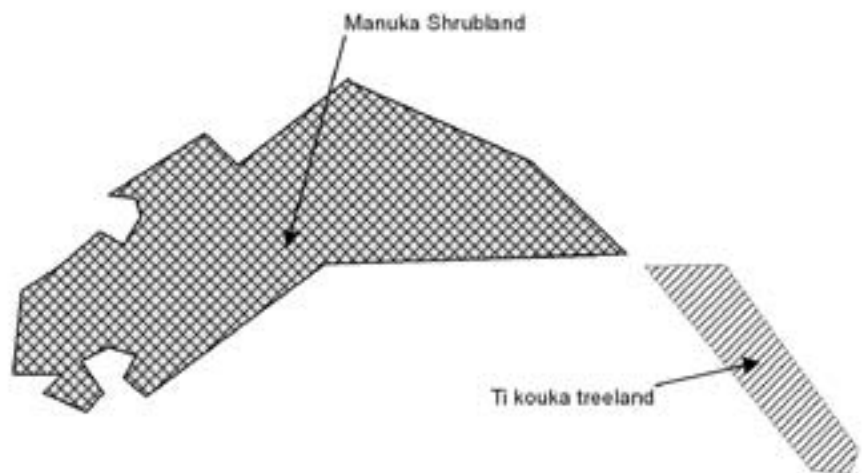


P07/134 Arnesen Farm Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

OPANAKE ROAD FOREST FRAGMENTS

Survey no. P07/136a
Survey date 28 November 2006
Grid reference P07 839923 (a), 834922 (b)
Area 7 ha
Altitude 20-70 m asl

Ecological units

- (a) Totara-kahikatea-kanuka forest on hillslope
- (b) Kanuka forest on hillslope (both units together comprise 100%)

Landform/geology

Hillslopes on undifferentiated Mangakahia Complex sediments, and overlying early Pleistocene (Awhitu Group) cemented dune sands and associated facies.

Vegetation

The site comprises two patches of secondary forest in the upper catchment of an un-named tributary of the Kaihu River. Patch (a), nearer Opanake Road, has more conifers emergent through the kanuka canopy than the more distant patch (b). Both are grazed, and there has been some weed invasion (gorse, radiata pine). The units are not mapped separately.

Significant flora

None noted.

Fauna

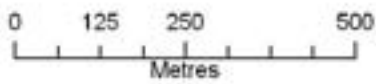
New Zealand kingfisher.

Significance






Weed invasion, fragmentation, and grazing have reduced the value of this site. Contains 6.8 ha of Chronically Threatened land environment A5.2a.

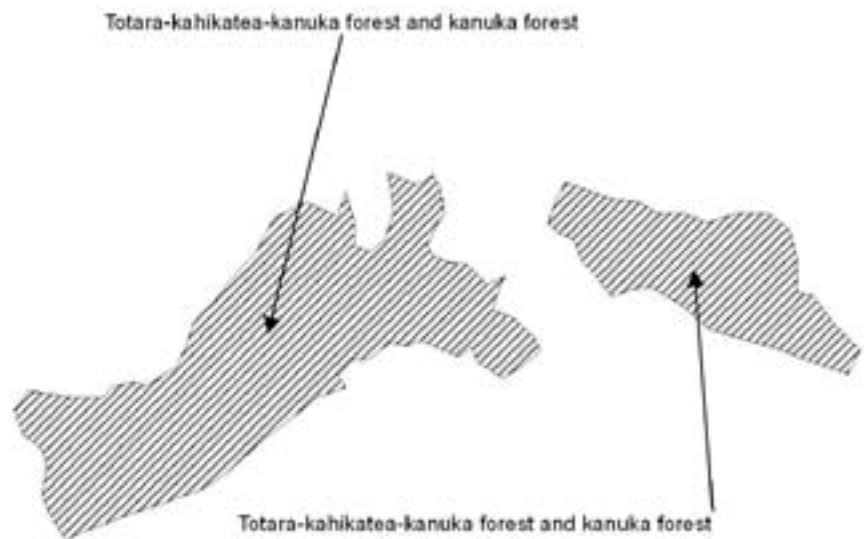


P07/136A Opanake Road Forest Fragments



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

PETER KELLY'S LAKE AND WETLAND

Survey no. P07/138
Survey date 14 December 2006
Grid reference P07 726 911
Area 2 ha
Altitude 80-100 m asl

Ecological units

- (a) Raupo-*Eleocharis sphacelata* reedland on alluvium (51%)
- (b) Open water (49%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This farm pond and wetland unit is unfenced and grazed with cattle pugging throughout. It is of poor quality and surrounded by pasture.

- (a) Wetland vegetation consists of abundant raupo, common *Eleocharis sphacelata* and occasional *Baumea articulata* and giant umbrella sedge, beside
- (b) an artificial pond.

Significant flora

None noted.

Fauna

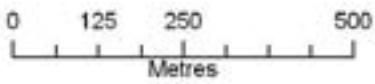
New Zealand scaup (Regionally Significant), paradise shelduck.

Significance






Wetlands are a threatened habitat type in Northland, and this site supports a regionally significant species. However, stock intrusion has reduced its value. Contains 0.9 ha of Chronically Threatened land environment A7.3a and 0.8 ha of At Risk environment G1.1c. A very small proportion of the site (0.1 ha) is already protected in Babylon Marginal Strip, administered by DOC.

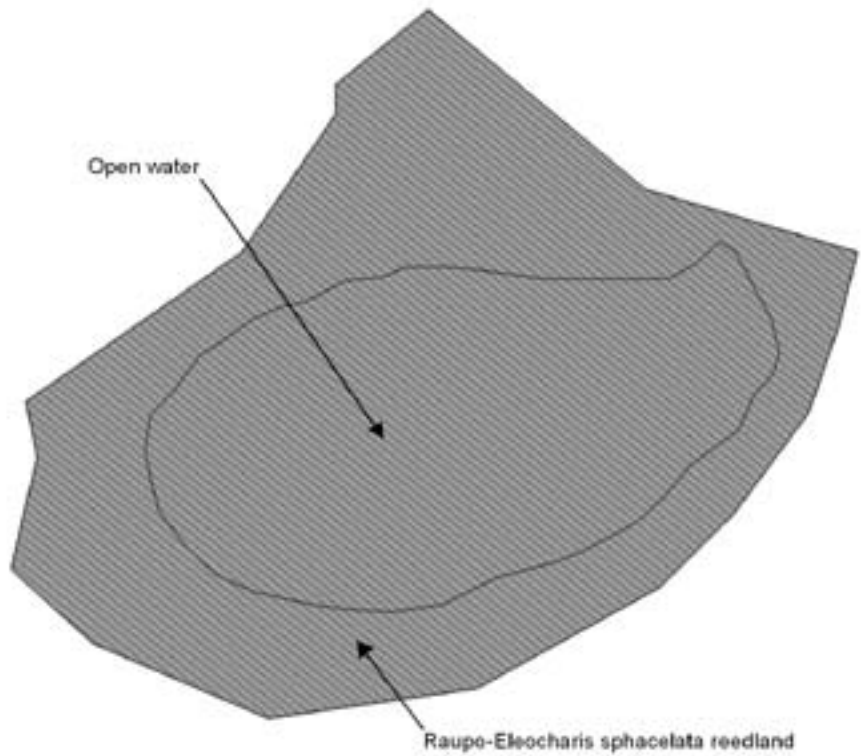


P07/138 Peter Kelly's Lake and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

WOODCOCK'S FOREST

Survey no. P07/141a
Survey date 29 November 2006
Grid reference P07 828 908
Area 0.6 ha
Altitude 20 m asl

Ecological unit

(a) Kahikatea forest on alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Kaihu River.

Vegetation

This is a small patch of indigenous forest in the middle of pasture on the southern side of Rotu Stream. It is lightly grazed with evidence of pugging. The understorey tier is virtually absent and ground cover consists of tradescantia and pasture plants.

Significant flora

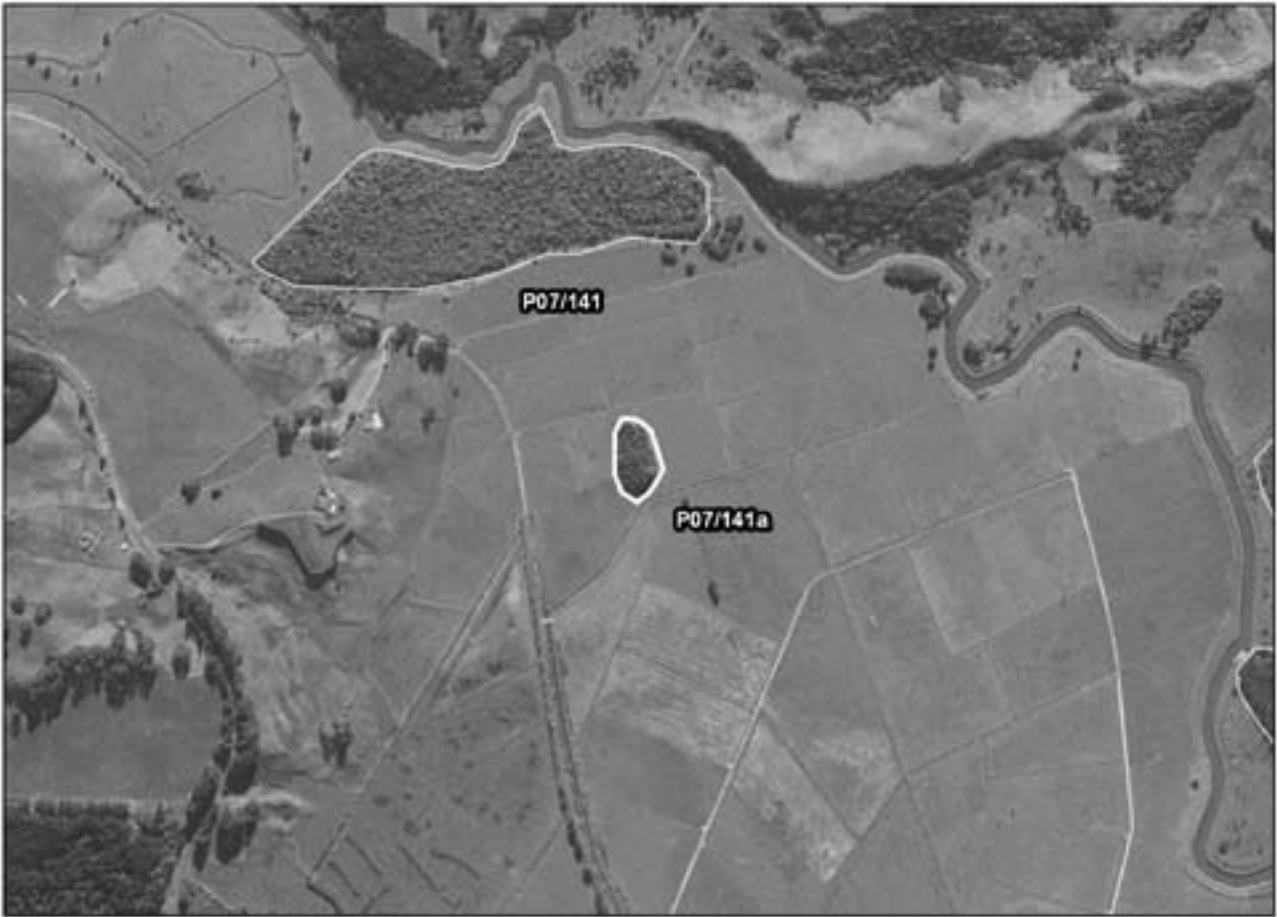
None noted.

Fauna

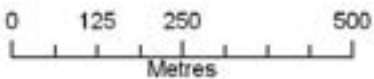
Grey warbler.

Significance






Alluvial forest is a threatened habitat type in Northland. However, small size, grazing, and weed invasion reduce the value of this site. Contains 0.6 ha of Acutely Threatened land environment A5.1b.

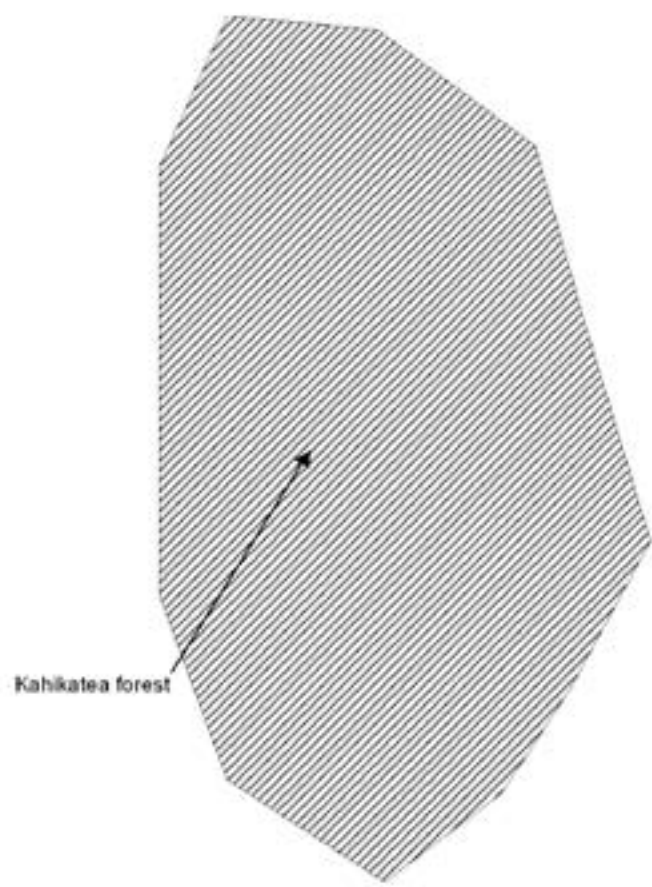


P07/141A Woodcock's Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

OPANAKE ROAD SWAMP FOREST

Survey no. P07/149
Survey date 30 November 2006
Grid reference P07 841 905
Area 4 ha
Altitude 20 m asl

Ecological unit

(a) Kahikatea swamp forest on alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Kaihu River.

Vegetation

This swamp forest lies between Opanake Road and the Kaihu River, close to other remnants (NRC Reserve and Davidson forest and shrubland). Although the area is fully fenced, fencing is in poor condition. Despite a small drain on the west, water tables remain relatively high.

(a) The swamp forest has two common canopy dominants, kahikatea and sweet grass. Kahikatea is dominant on the eastern side of the swamp and sweet grass on the west. Ti kouka and harakeke are frequent in the canopy, and *Carex virgata*, *Baumea arthropphylla*, raupo, alligator weed, soft rush, creeping buttercup, and water pepper occasional. *Carex secta*, Japanese honeysuckle, and *Coprosma propinqua* occur in the understorey. *Collospermum bastatum* occurs on some kahikatea.

Significant flora

None noted.

Fauna,

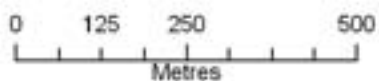
Common forest birds (SSBI P07/H036, 1978), including Australasian harrier and North Island fantail.

Significance






Although swamp forest is a threatened habitat type in Northland, this site has been seriously degraded by weed invasion. Contains 3.8 ha of At Risk land environment G3.1b.

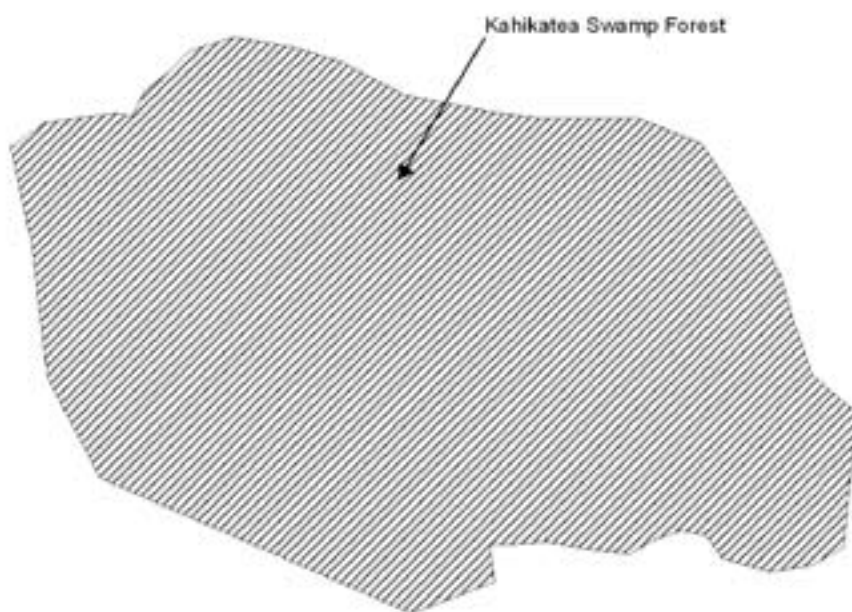


P07/149 Opanake Road Swamp Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BABYLON COAST ROADSIDE SHRUBLAND

Survey no. P07/154
Survey date 14 December 2006
Grid reference P07 796 879
Area 3 ha
Altitude 100-130 m asl

Ecological unit

(a) Manuka shrubland on hillslope (100%)

Landform/geology

Hillslope on consolidated (Karioitahi Group) parabolic dunefield.

Vegetation

This site comprises a fenced area of manuka shrubland on an east-facing hillslope, bisected by Babylon Coast Road. It has been extensively invaded by maritime pine, radiata pine, and Spanish heath.

Significant flora

None noted.

Fauna

None noted.

Significance

The small isolated site has been degraded by weed invasion and is of relatively low value. Contains 1.6 ha of Acutely Threatened land environment A5.2a and 1 ha of At Risk environments A6.1b and A6.1c.

WOODCOCK'S WETLAND

Survey no. P07/157
Survey date 29 November 2006
Grid reference P07 834 894
Area 1.5 ha
Altitude 20 m asl

Ecological unit

(a) Manuka shrubland on alluvium (100%)

Landform/geology

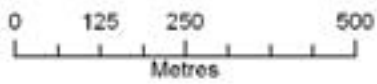
Holocene alluvial and swamp deposits on the Kaihu River flood plain.

Vegetation






This small wetland on the southern side of Kaihu River is bordered on the west by SH12. The margins have been extensively invaded by weeds (pampas, tree privet, and *Acacia* species). The canopy is formed by

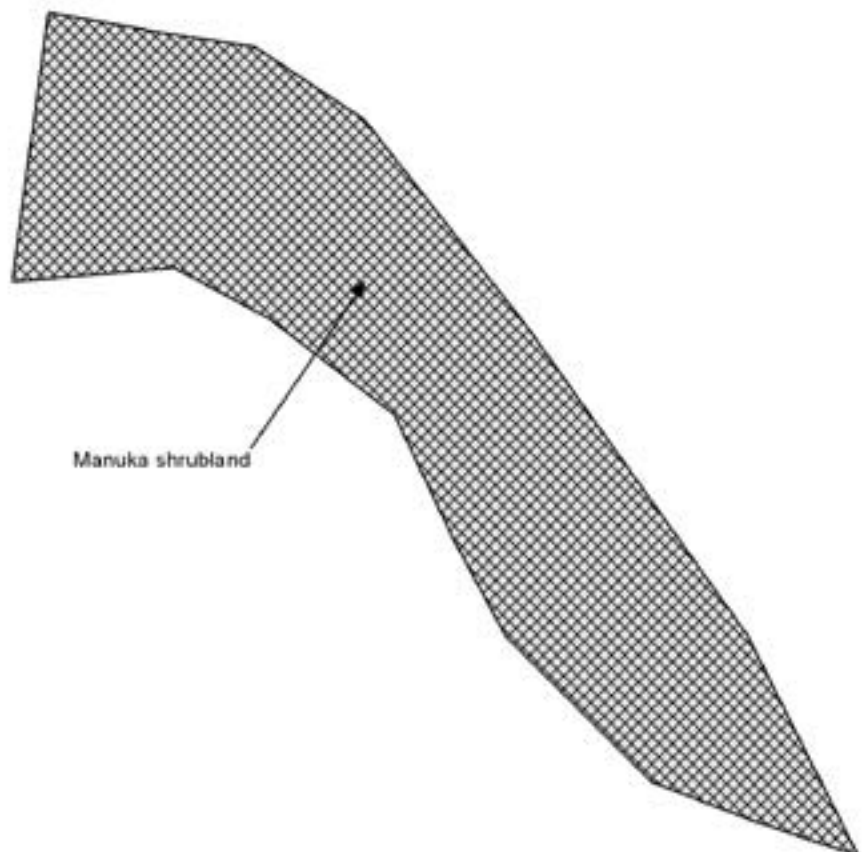


P07/154 Babylon Coast Roadside Shrubland



Habitat Type

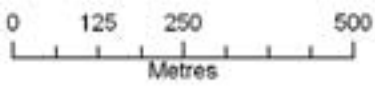
-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland








Aerial photography flown 2002

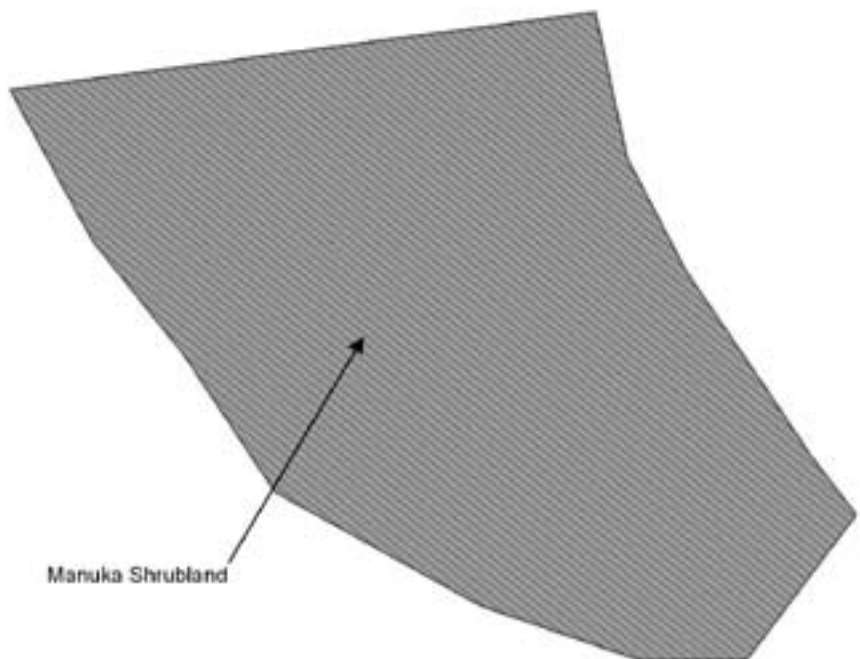


P07/157 Woodcock's Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

abundant manuka, common harakeke, frequent ti kouka, and occasional *Baumea rubiginosa*, *Coprosma rigida*, *C. propinqua*, swamp coprosma, and raupo. *Baumea rubiginosa* and raupo occur in wetter areas. There are some totara trees on the eastern margin.

Significant flora

Coprosma rigida and swamp coprosma (both Regionally Significant), recorded during this survey.

Fauna

None noted.

Significance

Wetlands are a threatened habitat type in Northland. Although this site supports two regionally significant species, small size and extensive weed invasion reduce its value. Contains 1.5 ha of Chronically Threatened land environment A5.2a.

BASIN ROAD SHRUBLAND 1

| | |
|-----------------------|------------------|
| Survey no. | P07/160 |
| Survey date | 14 December 2006 |
| Grid reference | P07 775 867 |
| Area | 10 ha |
| Altitude | 30-105 m asl |

Ecological unit

(a) Manuka shrubland on hillslope (100%)

Landform/geology

Steep hillslopes in gullies eroded into mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunes.

Vegetation

This site comprises several tracts of manuka shrubland on steep hillslopes of several aspects, with frequent akepiro and mingimingi. They have been extensively invaded by radiata pine and occasional other weed species.

Significant flora

None noted.

Fauna

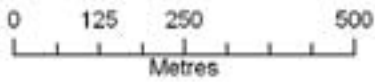
None noted.

Significance






The site has been degraded by weed invasion and is of relatively low value. Contains 10.2 ha of Chronically Threatened land environments A5.2a and A7.3a.

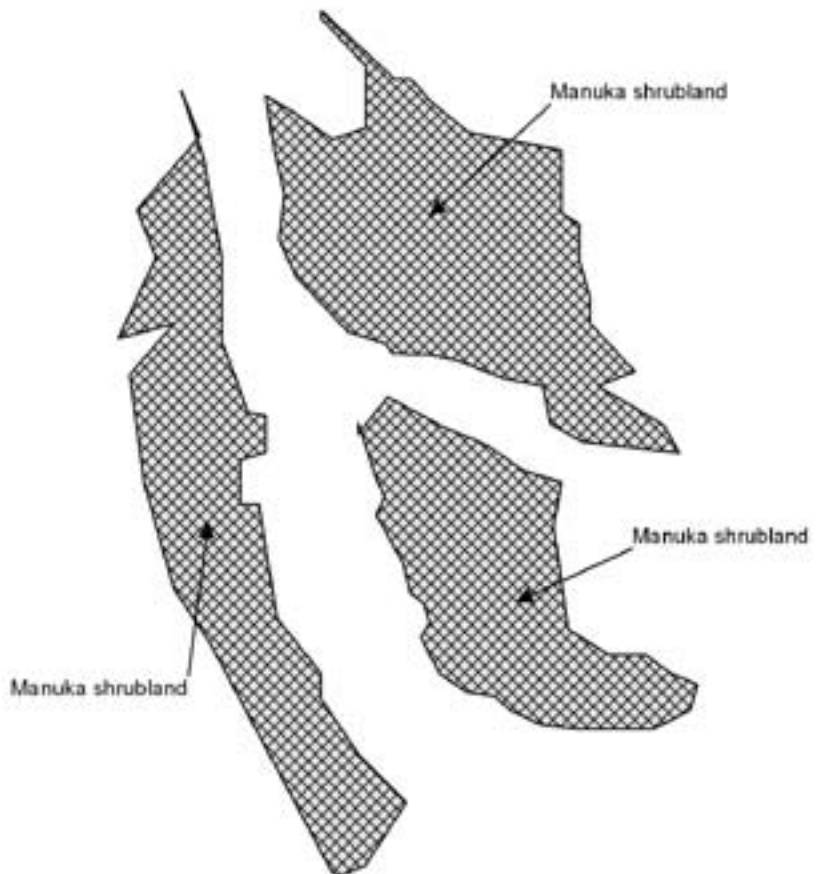


P07/160 Basin Road Shrubland 1



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BASIN ROAD SHRUBLAND 2

Survey no. P07/161
Survey date 29 November 2006
Grid reference P07 775 867
Area 12 ha
Altitude 95-105 m asl

Ecological unit

(a) Manuka shrubland in basin (100%)

Landform/geology

Lake and swamp deposits in depression on early Pleistocene (Awhitu Group) cemented dune sand, ponded behind landward edge of mid-late Pleistocene (Karioitahi Group) consolidated parabolic dune belt.

Vegetation

This site comprises two small blocks of shrubland, surrounded by pasture and unfenced, so is in poor condition. Although the general area has been drained, the site itself is still somewhat poorly drained. The canopy consists of abundant manuka, frequent emergent radiata pine, occasional mamaku, and gorse. The understorey comprises water fern.

Significant flora

None noted.

Fauna

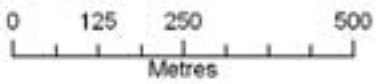
Australasian harrier.

Significance






This fragmented site is in poor condition owing to grazing and weed invasion. Contains 10.2 ha of Chronically Threatened land environment A5.2a, and 0.1 ha of At Risk environment A6.1b.

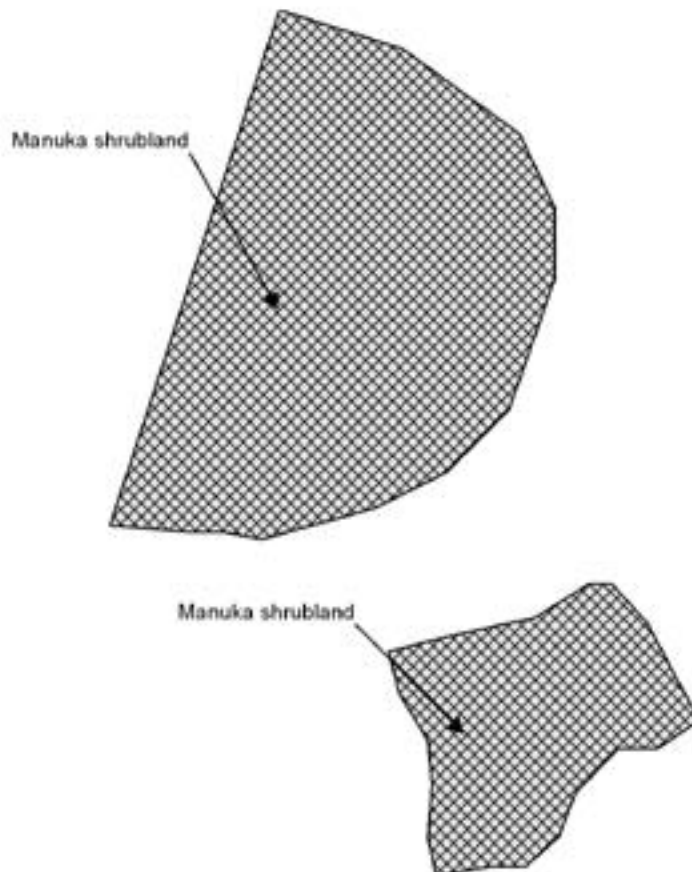


P07/161 Basin Road Shrubland 2



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

HOKIANGA ROAD FOREST

Survey no. P07/164
Survey date 28 November 2006
Grid reference P07 867 868
Area 0.9 ha
Altitude 20 m asl

Ecological units

- (a) Kahikatea forest on alluvium (70%)
- (b) Ti kouka treeland on alluvium (30%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Kaihu River.

Vegetation

This remnant on the northern side of Kaihu River is in a pastoral area and unfenced. Grazing of the forest and treeland has eliminated lower tiers and led to a ground layer dominated by pasture grasses.

- (a) The mixed forest consists of common kahikatea, frequent karaka, nikau and pukatea, and occasional ti kouka and totara.
- (b) The treeland on margins of the forest has abundant ti kouka and frequent nikau.

Significant flora

None noted.

Fauna

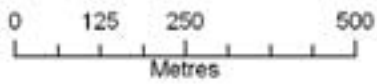
None noted.

Significance






Alluvial forest is a threatened habitat type in Northland. However, this small site is an unfenced, isolated fragment in a pastoral setting. Contains 0.9 ha of At Risk land environment A6.1b.

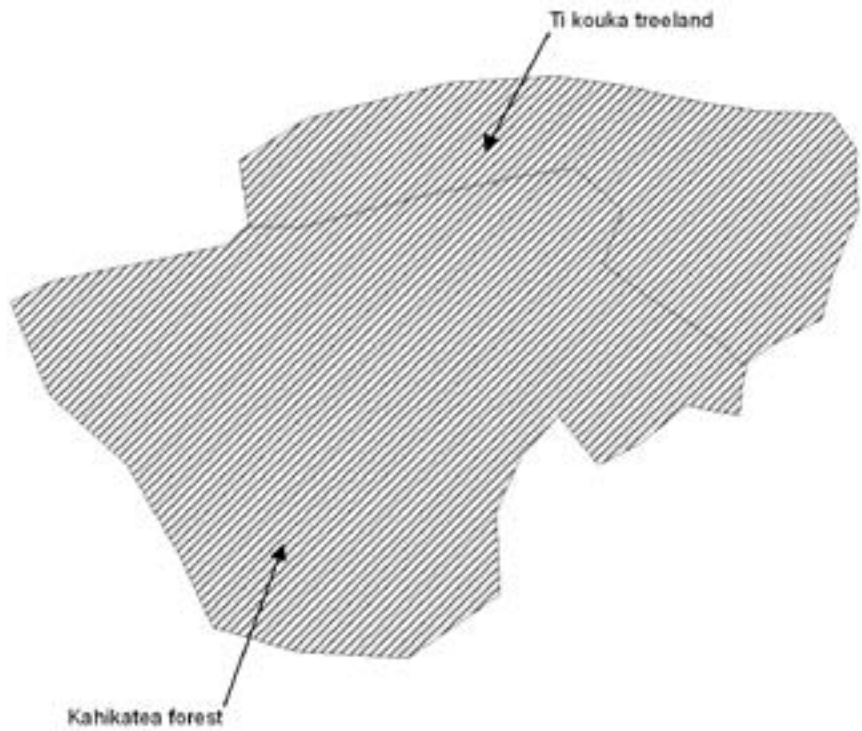


P07/164 Hokianga Road Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

HOANGA ROAD FOREST

Survey no. P07/165
Survey date 12 December 2006
Grid reference P07 929 893
Area 8 ha
Altitude 20-40 m asl

Ecological unit

(a) Totara forest on hillslope (100%)

Landform/geology

Hillslopes on undifferentiated Mangakahia Complex sediments, and overlying early Pleistocene (Awhitu Group) cemented dune sands and associated facies.

Vegetation

This site comprises a stand of secondary totara forest with kanuka and manuka and occasional kauri and puriri.

Significant flora

None noted.

Fauna

None noted.

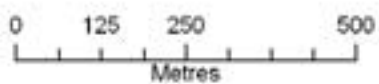
Significance

The site is being degraded by firewood harvesting, grazing, and weed invasion (black wattle).






Contains 2.2 ha of Acutely Threatened land environments A5.1b and A5.1c and 5.9 ha of At Risk environments A6.1b and A6.1c.

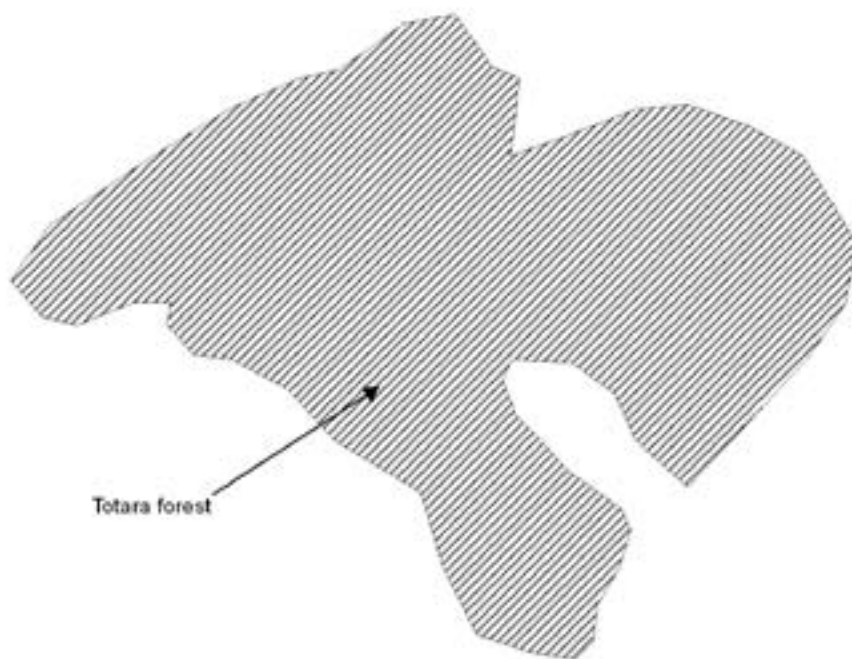


P07/165 Hoanga Road Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

SCOTTY'S CAMP ROAD SHRUBLAND

Survey no. P07/167
Survey date 14 December 2006
Grid reference P07 813 851
Area 26 ha
Altitude 20-30 m asl

Ecological units

- (a) Manuka shrubland on alluvium (83%)
- (b) Manuka shrubland on hillslope (17%)

Landform/geology

Holocene alluvial and swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises

- (a) manuka shrubland with frequent harakeke and bracken, widely invaded by pampas and gorse.
- (b) An adjacent south-facing hillslope supports a smaller area of manuka shrubland, widely invaded by maritime pine and Spanish heath.

Significant flora

None noted.

Fauna

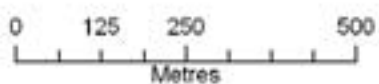
None noted.

Significance






The western and eastern ends of the wetland have been drained and converted to pasture. The remaining wetland has been partly drained and grazed, allowing extensive weed invasion. Contains 21.9 of Acutely Threatened land environment A5.1b, 2.1 ha of Chronically Threatened environment A5.2a, and 1.3 ha of At Risk environment A6.1b.

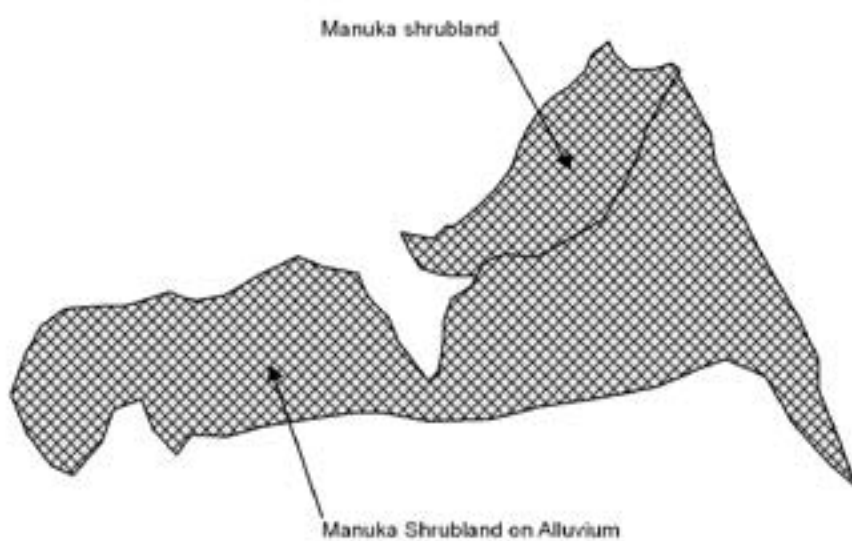


P07/167 Scotty's Camp Road Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BAYLY'S COAST ROAD WETLAND AND SHRUBLAND

Survey no. P07/171a
Survey date 14 December 2006
Grid reference P07 812 843
Area 12 ha
Altitude 20-30 m asl

Ecological units

- (a) Raupo reedland on alluvium (55%)
- (b) Manuka shrubland on hillslope (45%)

Landform/geology

Holocene swamp and alluvial deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises an area of

- (a) raupo reedland with occasional manuka, ti kouka, mamaku, and harakeke.
- (b) Adjacent hillslopes support contiguous manuka shrubland with frequent ti kouka, mamaku, and bracken, lightly invaded by maritime pine, large-leaved privet, Chinese privet, and pampas. The southern end of the gully system supports exotic forest. The site is accessible to stock.

Significant flora

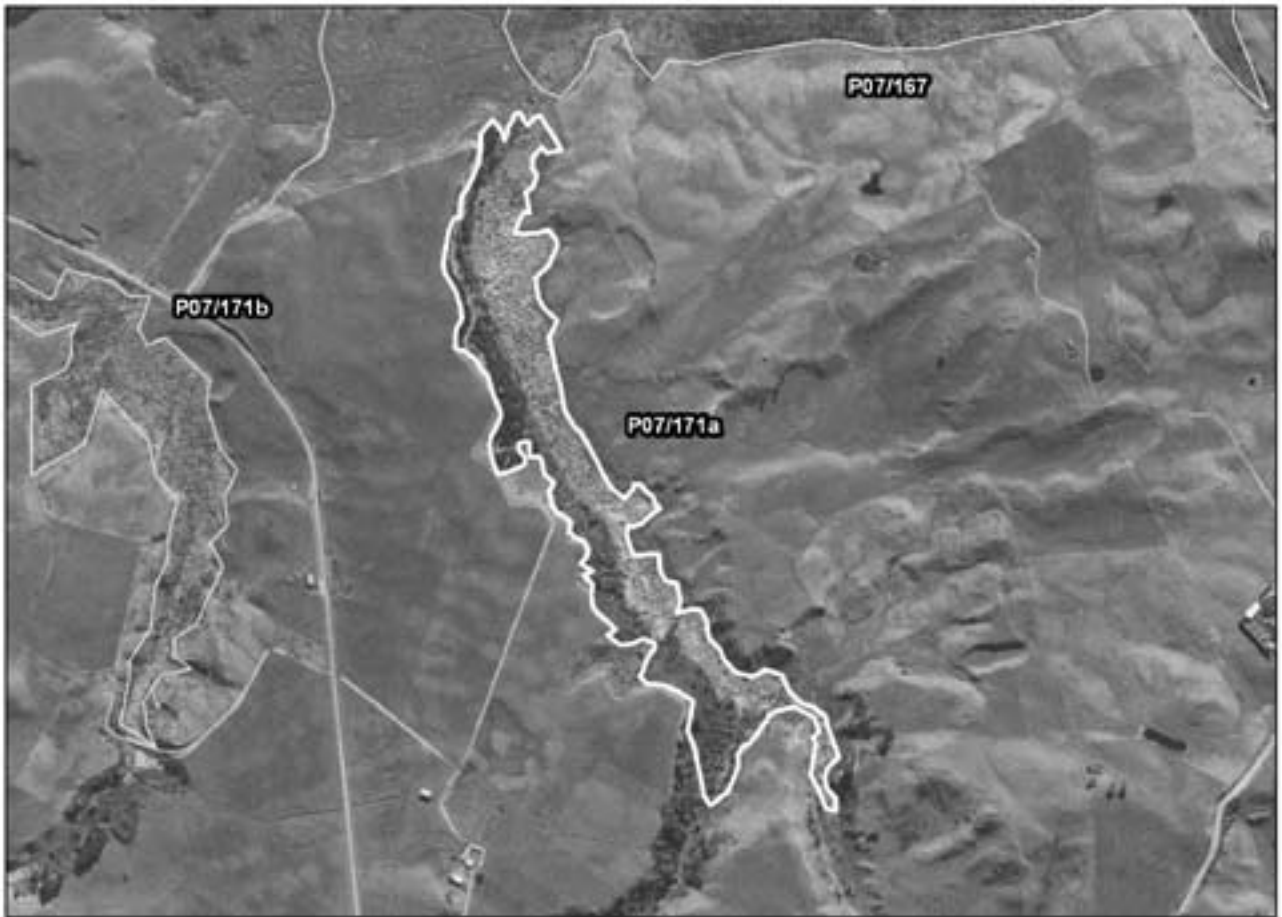
None noted.

Fauna

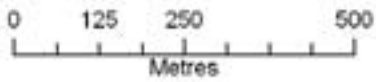
None noted.

Significance






Although wetlands are a threatened habitat type in Northland, this site has been degraded by weed invasion and is of relatively low value. Contains 2.1 ha of Acutely Threatened land environment A5.1b, 6.8 ha of Chronically Threatened environment A5.2a, and 2.6 ha of At Risk environment A6.1b.

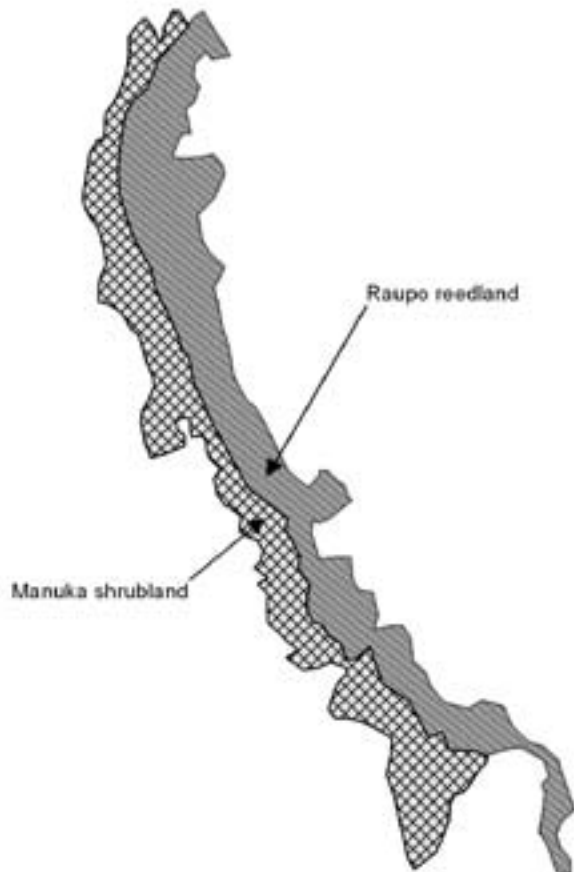


P07/171A Bayly's Coast Road Wetland and Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BAYLY'S BASIN ROAD WETLAND 1

Survey no. P07/171b
Survey date 14 December 2006
Grid reference P07 801 846
Area 8 ha
Altitude 20-40 m asl

Ecological unit

(a) Raupo reedland on alluvium (100%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises raupo reedland with frequent harakeke in several arms of a small stream on the western side of Bayly's Basin Road. It has been extensively invaded by pampas.

Significant flora

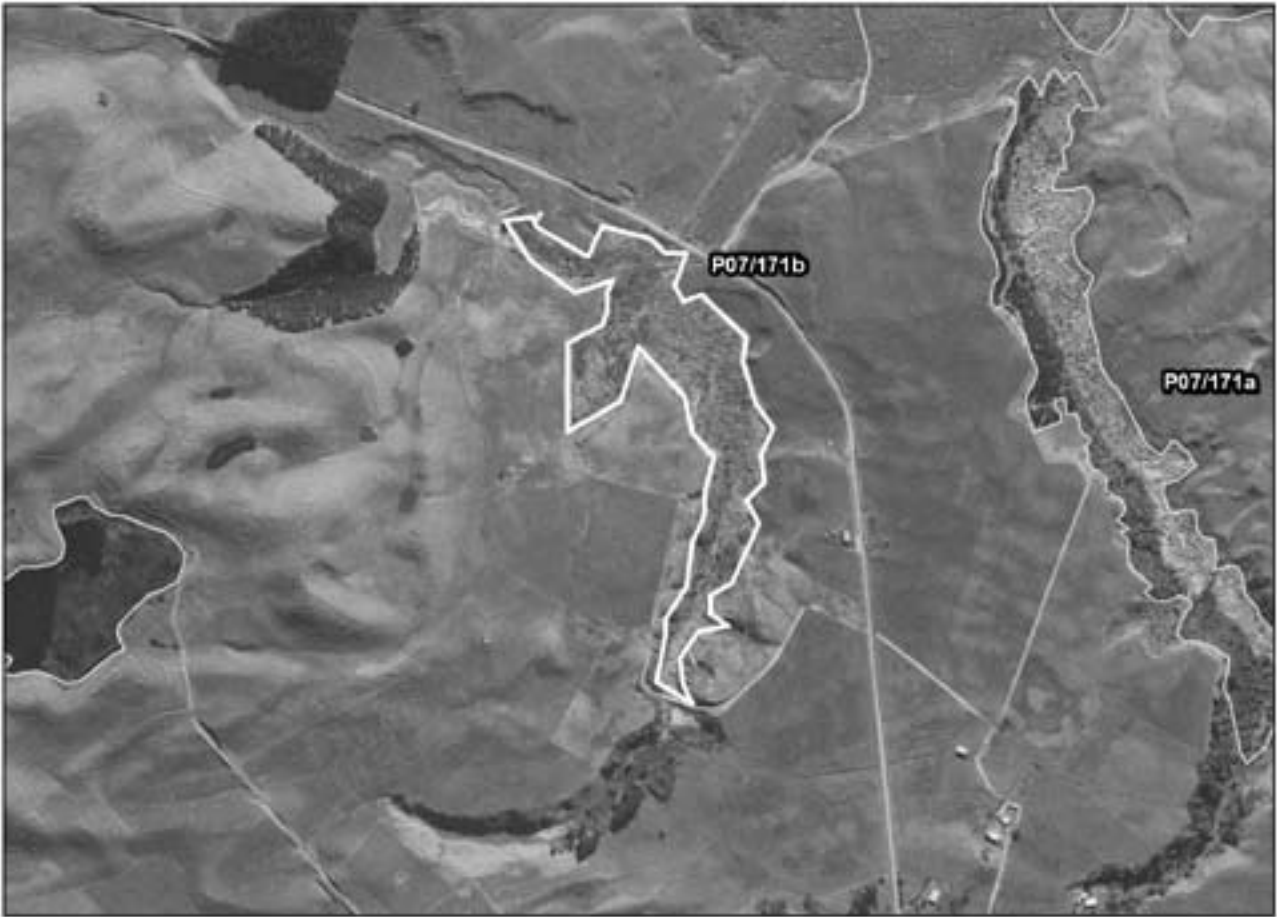
None noted.

Fauna

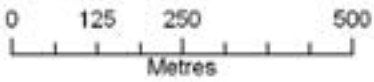
North Island fernbird (Sparse), spotless crane (Sparse), grey warbler, silvereye, North Island fantail, New Zealand kingfisher, Pacific swallow, Australasian pied stilt (SSBI P07/H032, 1978).

Significance






Wetlands are a threatened habitat type in Northland. However, this site is has been degraded by marginal grazing and weed invasion. There are historical records of threatened bird species. Contains 1.3 ha of Acutely Threatened land environment A5.1b and 6.7 ha of Chronically Threatened environment A7.3a.

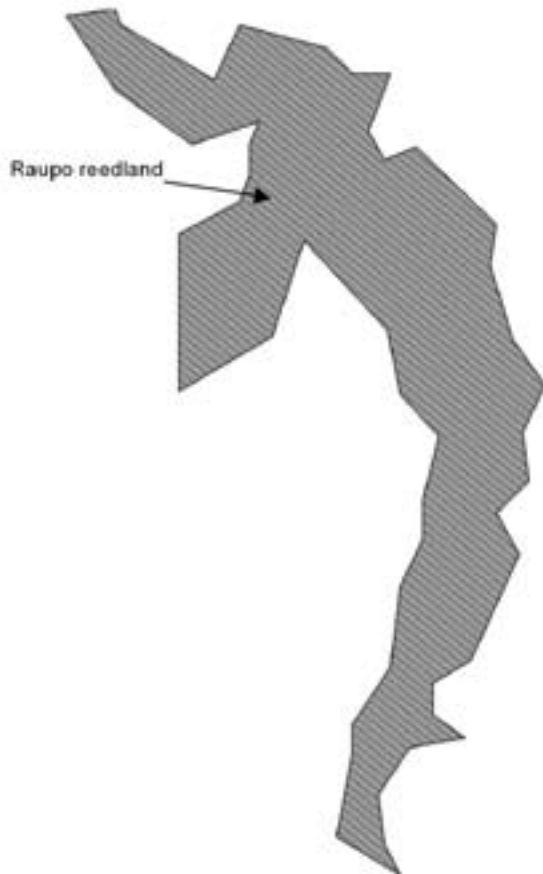


P07/171b Bayly's Basin Road Wetland 1



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BAYLY'S COAST ROAD WETLAND

Survey no. P07/172
Survey date 14 December 2006
Grid reference P07 825 838
Area 4 ha
Altitude 20-25 m asl

Ecological unit

(a) Raupo reedland on alluvium (100%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises raupo reedland with occasional manuka, ti kouka, and harakeke. The site is accessible to stock.

Significant flora

None noted.

Fauna

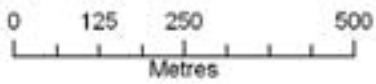
None noted.

Significance






Wetlands are a threatened habitat type in Northland and although significant in size, grazing and pugging by domestic stock reduced the value of this site. Contains 2.1 ha of Acutely Threatened land environment A5.1b, 0.3 ha of Chronically Threatened environment A5.2a, and 0.8 ha of At Risk environment A6.1b.

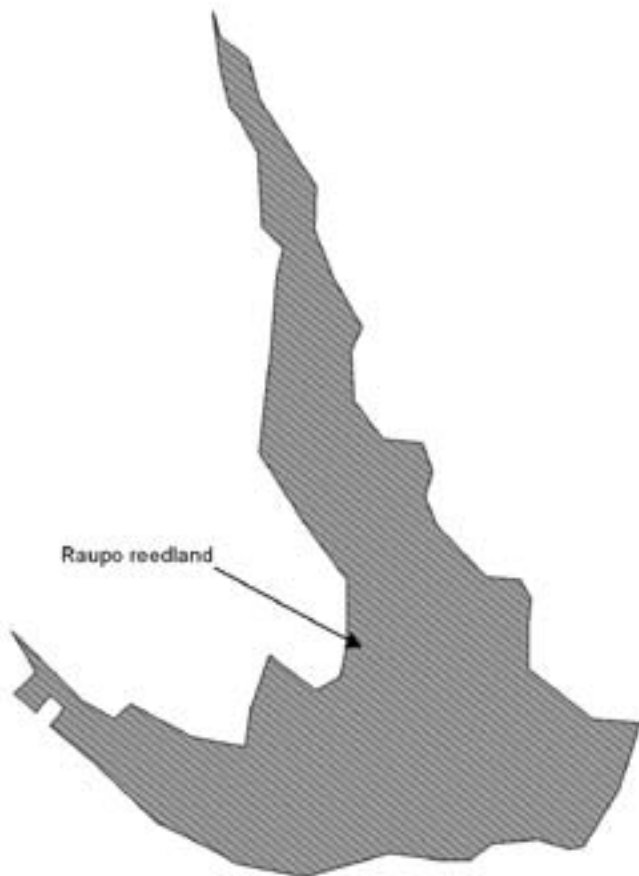


P07/172 Bayly's Coast Road Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

TURIWIRI FOREST FRAGMENTS

Survey no. P07/182
Survey date 29 November 2006
Grid reference P07 899 824
Area 3 ha
Altitude 5 m asl

Ecological unit

(a) Kahikatea forest on alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Northern Wairoa River.

Vegetation

This site comprises two small patches of secondary kahikatea forest, degraded by grazing. Ti kouka is also frequent in the canopy. The southern stand has kahikatea treeland in neighbouring pasture.

Significant flora

None noted.

Fauna

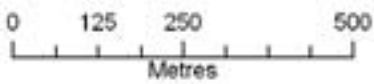
North Island kaka (Nationally Endangered) have been recorded as temporary residents (SSBI P07/H067, 2003). Cattle egrets were present in the ED in 1975 (OSNZ CSN 1976).

Significance






Although alluvial forest is a rare habitat type in this ED and throughout Northland, fragmentation and grazing reduce the value of this site. Contains 2.9 ha of Acutely Threatened land environment A5.1b.

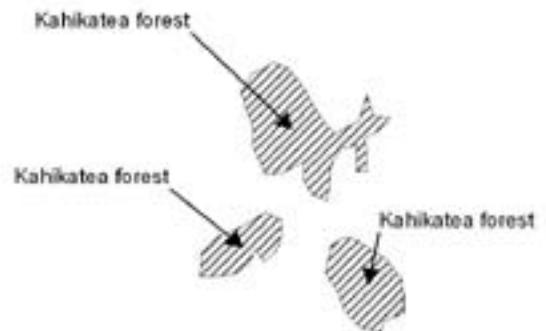


P07/182 Turiwiri Forest Fragments



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

MANGATARA FLAT SHRUBLAND

Survey no. P07/177
Survey date 15 December 2006
Grid reference P07 844 820
Area 3 ha
Altitude 20 m asl

Ecological unit

(a) Manuka shrubland on alluvium (100%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site comprises manuka shrubland on alluvium. It has been extensively invaded by pampas.

Significant flora

None noted.

Fauna

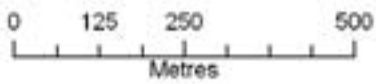
None noted.

Significance






Although alluvial forest and shrubland are a rare habitat type in Northland, this small site has been seriously degraded by grazing, partial drainage, and weed invasion. Contains 2.9 ha of Acutely Threatened land environment A5.1b.

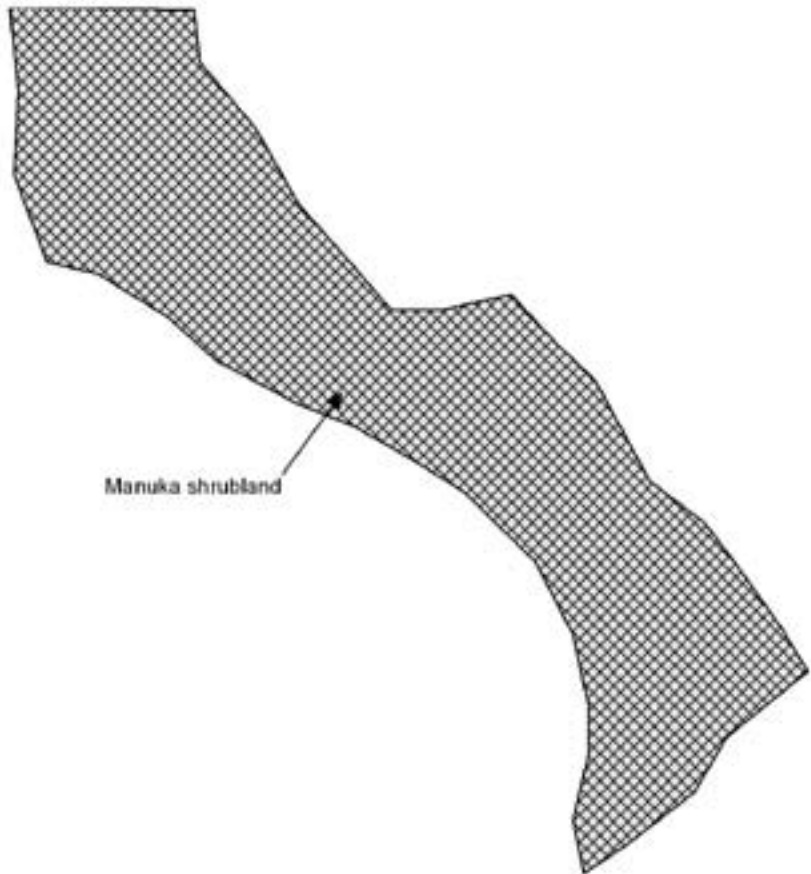


P07/177 Mangatara Flat Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

DARGAVILLE DOMAIN FOREST

Survey no. P07/185
Survey date 30 November 2006
Grid reference P07 884 834
Area 2.2 ha
Altitude 15 m asl

Ecological unit

(a) Kahikatea forest on an alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Northern Wairoa and Kaihu Rivers.

Vegetation

Dargaville Domain is a small urban remnant of secondary indigenous forest in Mangawhare on the southern side of the Kaihu River. The canopy comprises abundant kahikatea, common kanuka and mahoe, and frequent karaka and karo, while the subcanopy comprises scattered mamangi, Chinese privet, and karo. The understorey comprises scattered hangehange, small-leaved mahoe, and shining karamu. There are many weeds and garden escapes such as Chinese privet, Japanese honeysuckle, wild ginger, montbretia, and climbing asparagus.

Significant flora

None noted.

Fauna

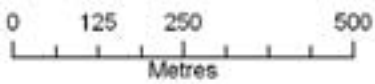
None noted.

Significance





Although alluvial forest is a rare habitat type in this ED and throughout Northland, this is a small, isolated urban forest remnant that has been significantly degraded by weed invasion. Contains 2.2 ha of Acutely Threatened land environment A5.1b.

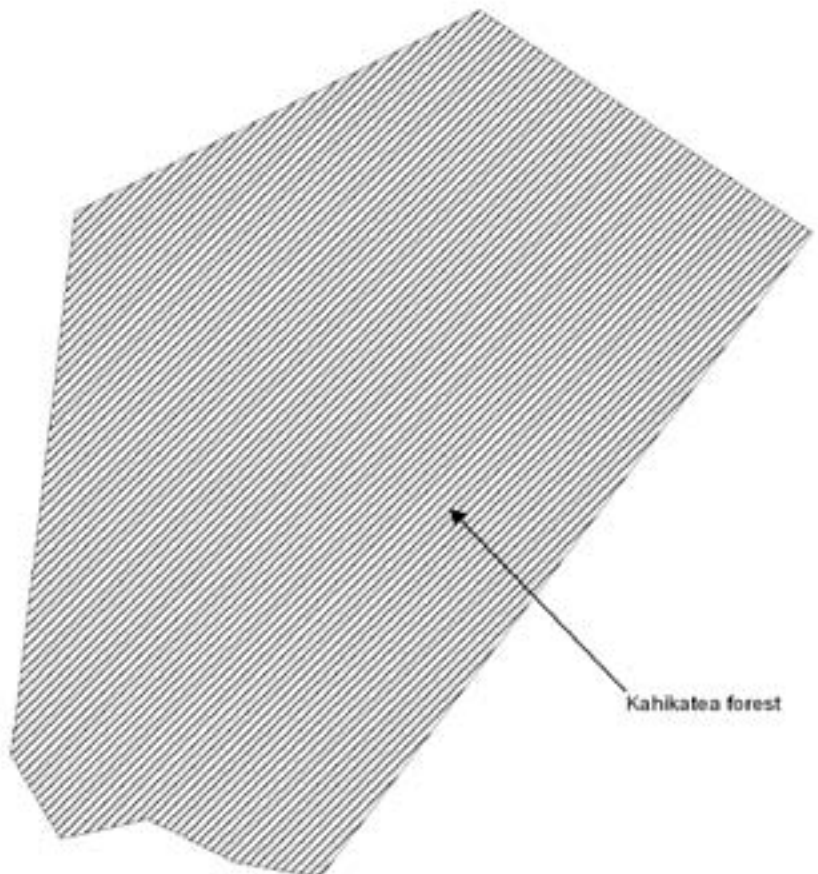


P07/185 Dargaville Domain Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BAYLY'S BASIN ROAD WETLAND 2

Survey no. P07/206
Survey date Not visited during this survey. Information from SSBI P07/H033.
Grid reference P07 785 847
Area 1.2 ha
Altitude m asl

Ecological units

- (a) Raupo reedland on alluvium (83%)
- (b) Open water (17%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

The vegetation consists of two types.

- (a) Raupo reedland on alluvium
- (b) Open water

Significant flora

None noted.

Fauna

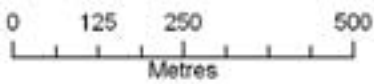
Australasian bittern (Nationally Endangered) (SSBI P07/H033, 1978). Grey duck (Nationally Endangered), black shag (Sparse) (OSNZ surveys 1979-1982). Pacific swallow, Australasian pied stilt, pukeko, paradise shelduck (SSBI P07/H033, 1978). Australasian harrier (OSNZ surveys 1979-1982).

Significance






Although threatened species have been recorded from this wetland in the past, follow-up survey is required and it remains at Level 2 in the interim. Contains 0.9 ha of Chronically Threatened land environment A7.3a.

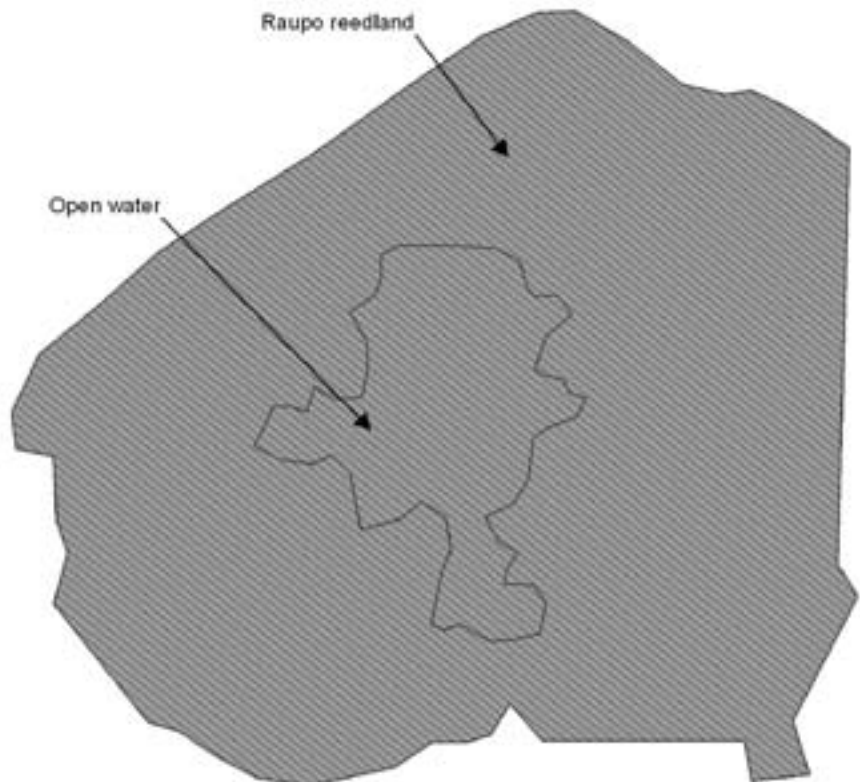


P07/206 Bayly's Basin Road Wetland 2



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

SILLS ROAD FOREST FRAGMENTS

Survey no. P08/060
Survey date 28 November 2006
Grid reference P08 964 757
Area 8 ha
Altitude 20 m asl

Ecological units

(a) Kahikatea forest on alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Northern Wairoa River.

Vegetation

There are four separate patches of secondary kahikatea-dominant forest on alluvium below Sills Road. The two northern patches are less than 1 ha, the southern patch is around 2 ha, and the middle patch is around 5 ha. All patches comprise young secondary forest and are unfenced. The middle patch has frequent ti kouka, while the southern patch has occasional karaka and nikau.

Significant flora

None noted.

Fauna

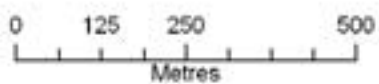
None noted.

Significance






Although their combined area is significant and alluvial forest is rare in Northland, a high level of fragmentation and grazing reduce the conservation value of this site. Contains 7.6 ha of Acutely Threatened land environment A5.1b.

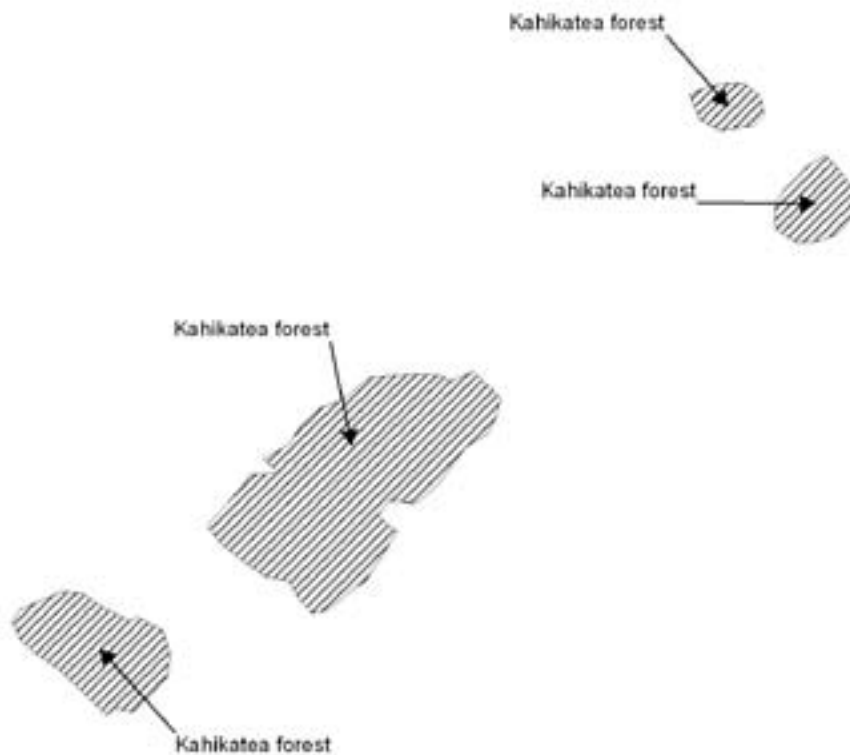


P08/060 Sills Road Forest Fragments



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

UPPER ARATAPU CREEK SHRUBLAND

Survey no. P08/062
Survey date Not surveyed
Grid reference P08 729 524
Area 44 ha
Altitude 90-100 m asl

Ecological units

(a) Undescribed shrubland on hillslopes (100%)

Landform/geology

Hillslopes and gullies eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies, and in mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunes, with Holocene alluvial and swamp deposits on valley floor.

Vegetation

The site comprises an extensive tract of

(a) undescribed shrubland, probably dominated by manuka.

Significant flora

None noted.

Fauna

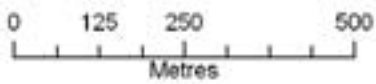
None noted.

Significance






This site was not surveyed and until further information is available, remains at Level 2. Contains 2 ha of Acutely Threatened land environment A5.1b, 7.5 ha of Chronically Threatened environment A7.3a, and 33.9 ha of At Risk environment A6.1b.

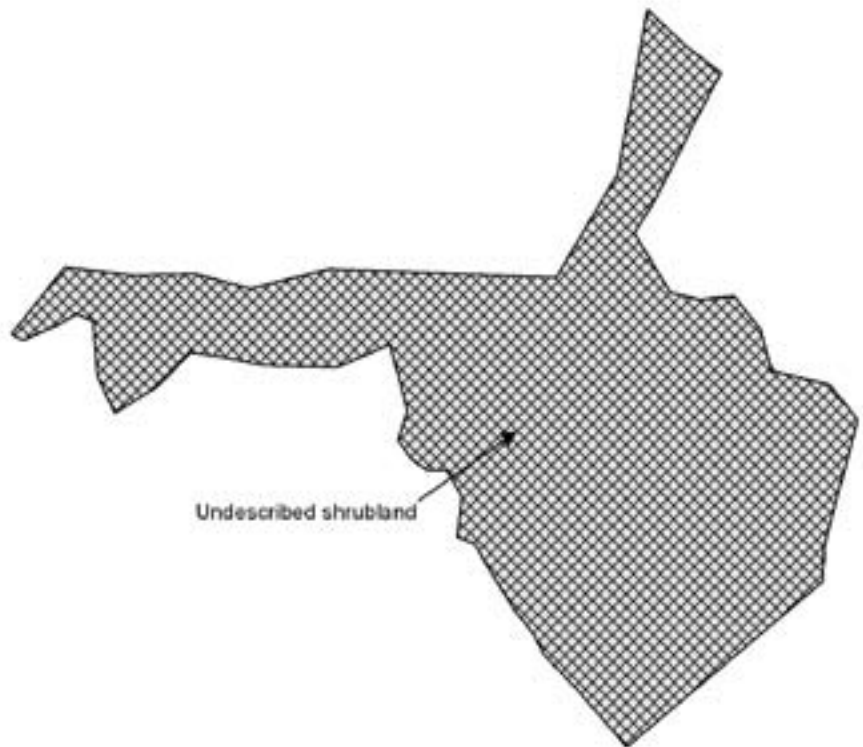


P08/062 Upper Aratapu Creek Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

REED'S FARM FOREST

Survey no. P08/063
Survey date 18 December 2006
Grid reference P08 950 730
Area 2 ha
Altitude 15 m asl

Ecological unit

(a) Kahikatea forest on alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits on the flood plain of the Northern Wairoa River.

Vegetation

(a) Forest consists of abundant kahikatea.

Significant flora

None noted.

Fauna

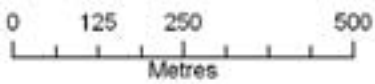
None noted.

Significance






This forest unit is unfenced, with cattle having free access and although alluvial forest is a rare habitat type in Northland, there are substantially larger examples of the same vegetation type on the same landform in better condition in the ED. The current owner did not express an interest in protecting the area. Contains 2 ha of Acutely Threatened land environment A5.1b.

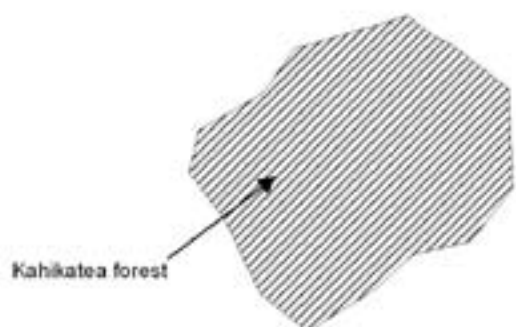
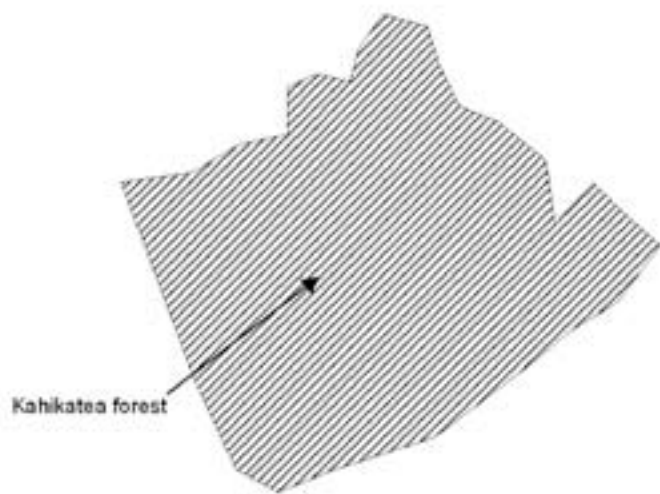


P08/063 Reed's Farm Forest



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

GLINKS GULLY WETLAND AND GRASSLAND

Survey no. P08/073
Survey date 16 December 2006
Grid reference P08 889 690
Area 7 ha
Altitude 45-80 m asl

Ecological units

- (a) *Eleocharis sphacelata* reedland on alluvium (12%)
- (b) Raupo reedland on alluvium (11%)
- (c) Mamaku fernland on hillslope (77%)

Landform/geology

Holocene swamp deposits within gully eroded in mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunes, ponded at landward edge of Holocene unconsolidated parabolic dunefield.

Vegetation

This gully system is bordered by the road on the northern side. It is weed-infested and of poor quality, and used as a dumping ground.

- (a) Lacustrine vegetation consists of abundant *Eleocharis sphacelata* and occasional *Azolla sp.*
- (b) Freshwater wetland consists of abundant raupo with occasional pampas, manuka, and harakeke.
- (c) Hillslope shrubland consists of abundant mamaku, frequent radiata pine, brush wattle, and pampas, and occasional nikau, manuka, Spanish heath, bracken, and mangeao.

Significant flora

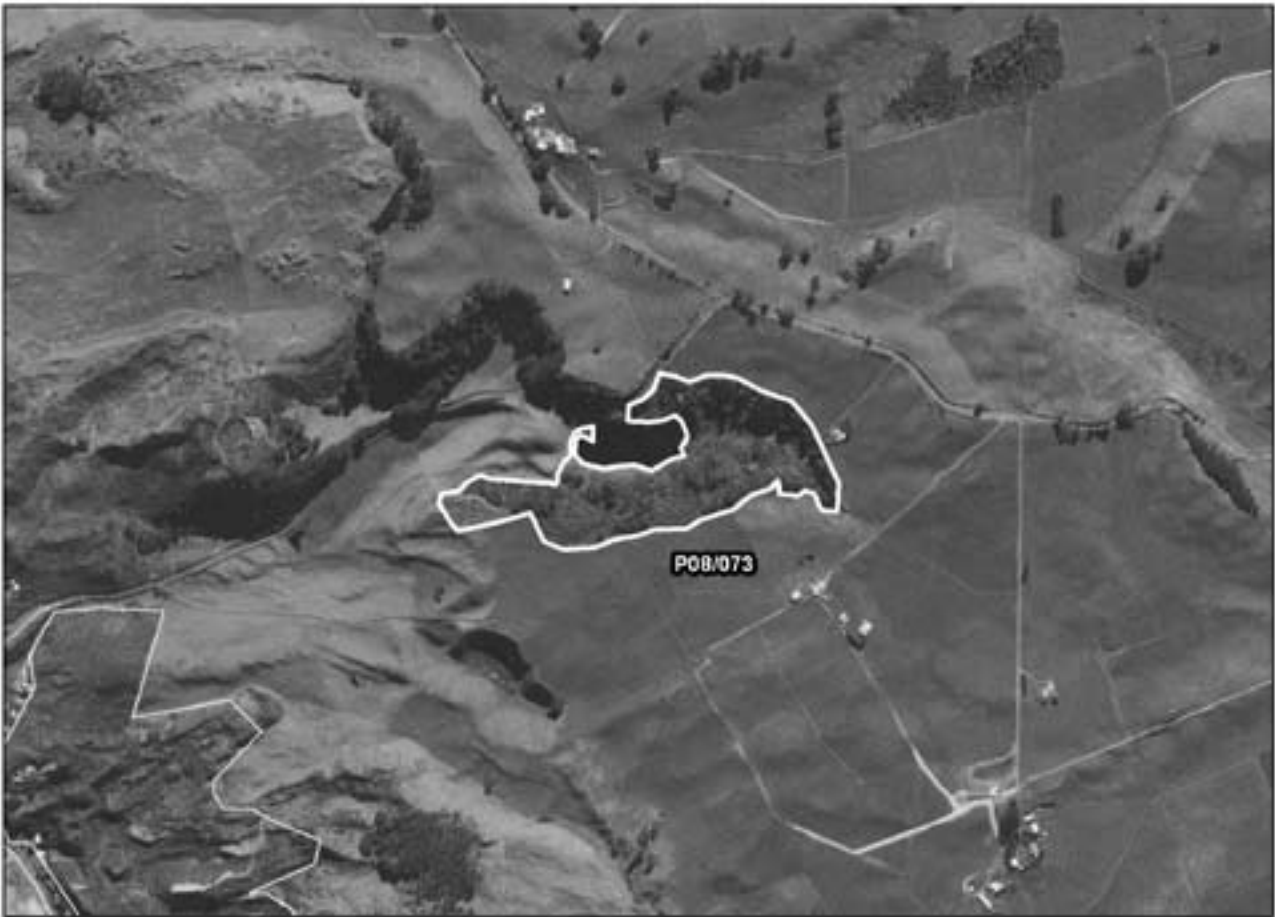
None noted.

Fauna

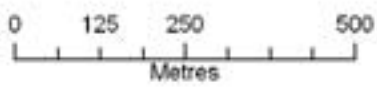
Australasian bittern (Nationally Endangered) reported in 1980 (SSBI P08/H014, 1989). Grey duck (Nationally Endangered), paradise shelduck, spur-winged plover, Pacific swallow (OSNZ surveys 1977-1992).

Significance






Although wetlands are a threatened habitat type throughout Northland, this is a poor-quality site that has been degraded by weed invasion and rubbish dumping and the threatened species records are not current. Contains 0.1 ha of Chronically Threatened land environment A7.3a and 7.3 ha of At Risk environment G1.1c.

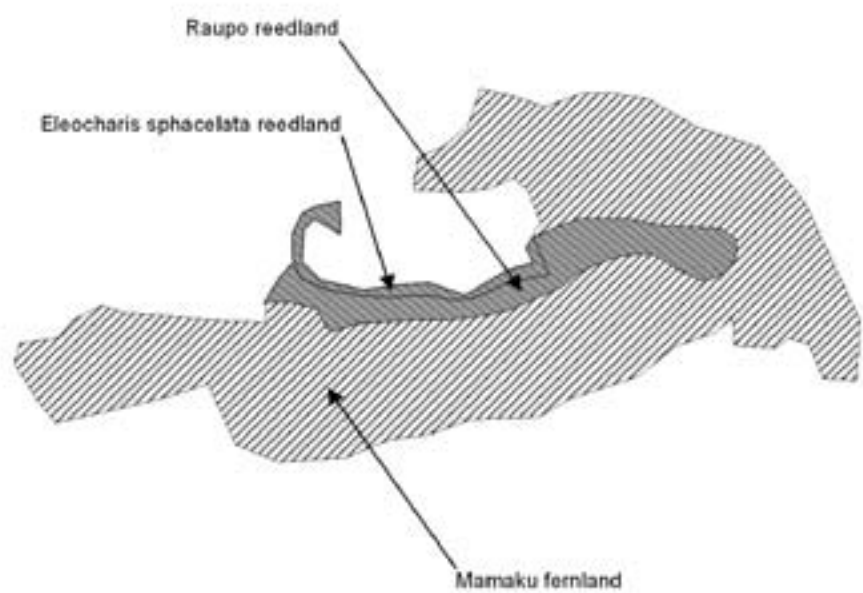


P08/073 Glinks Gully Wetland and Grassland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

LUCICH WETLAND

Survey no. P08/080
Survey date 16 December 2006
Grid reference P08 914 652
Area 1 ha
Altitude 100 m asl

Ecological unit

- (a) *Eleocharis sphacelata* reedland on alluvium
- (b) Open water of farm pond (both units together comprise 100%)

Landform/geology

Holocene swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunes, ponded at landward edge of Holocene unconsolidated parabolic dunefield.

Vegetation

This site comprises a lacustrine fringe of abundant *Eleocharis sphacelata* with frequent *Baumea articulata* and occasional raupo around a farm pond.

Significant flora

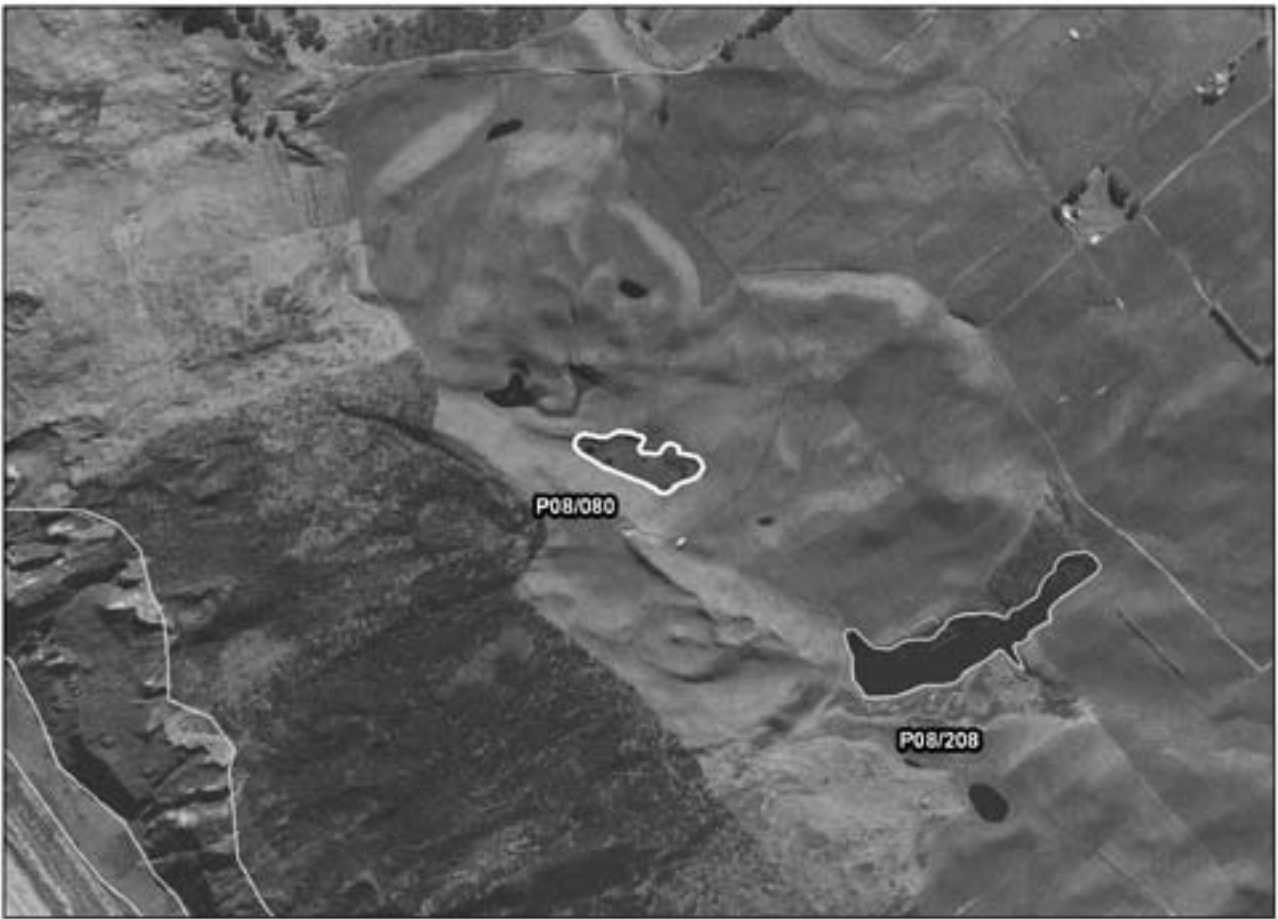
None noted.

Fauna

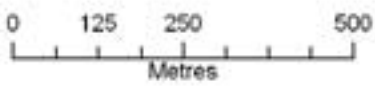
Pacific swallow. An unusual tern present at the time of the visit was tentatively identified by MCS as a Gull-billed tern (*Sterna nilotica*), which would be the first record for the ED.

Significance






An artificial wetland, grazed to its margins by domestic stock. Contains 1 ha of Acutely Threatened land environment A5.1b.

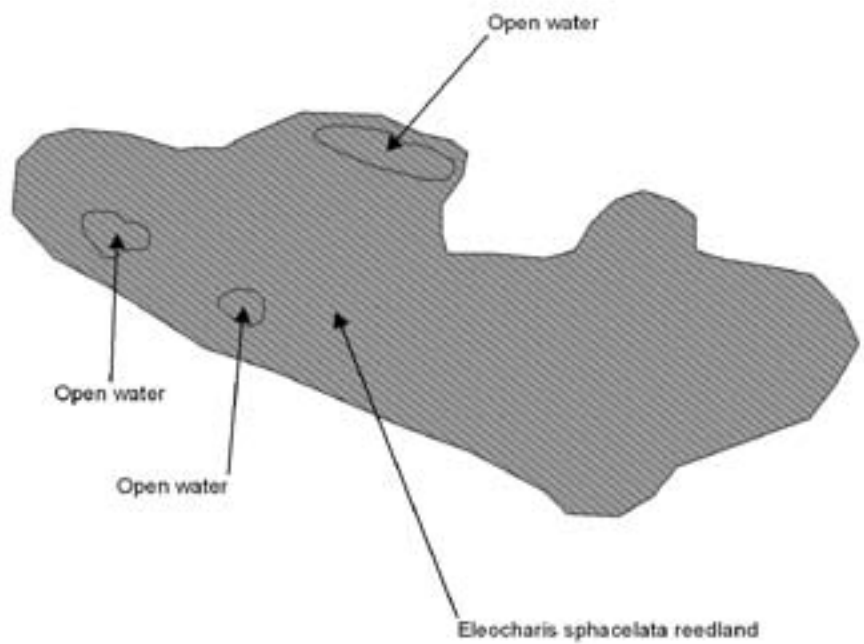


P08/080 Lucich Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

KERNOT FARM SHRUBLAND

Survey no. P08/081
Survey date 16 December 2006
Grid reference P08 967 611
Area 1 ha
Altitude 20-80 m asl

Ecological units

- (a) Manuka shrubland on alluvium (1%)
- (b) Undescribed shrubland on hillslopes and alluvium (99%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies, and Holocene alluvial and swamp deposits on valley floors.

Vegetation

This peat freshwater wetland unit is around 0.5 ha in size. Although surrounding pasture has been completely drained, the farm race on the eastern side holds the water in this unit. Arrow grass is located in pasture east of this unit. An area of wetland and forest east of the site was not visited.

- (a) Wetland vegetation consists of abundant manuka, frequent sweet vernal and pampas, and occasional mamaku, ti kouka, water fern, giant umbrella sedge, raupo, radiata pine, bracken, ring fern, *Baumea rubiginosa*, rush species, *Carex virgata*, and *Isolepis distigmatosa*.
- (b) A much larger tract of undescribed shrubland occupying a gully system to the east was not surveyed.

Significant flora

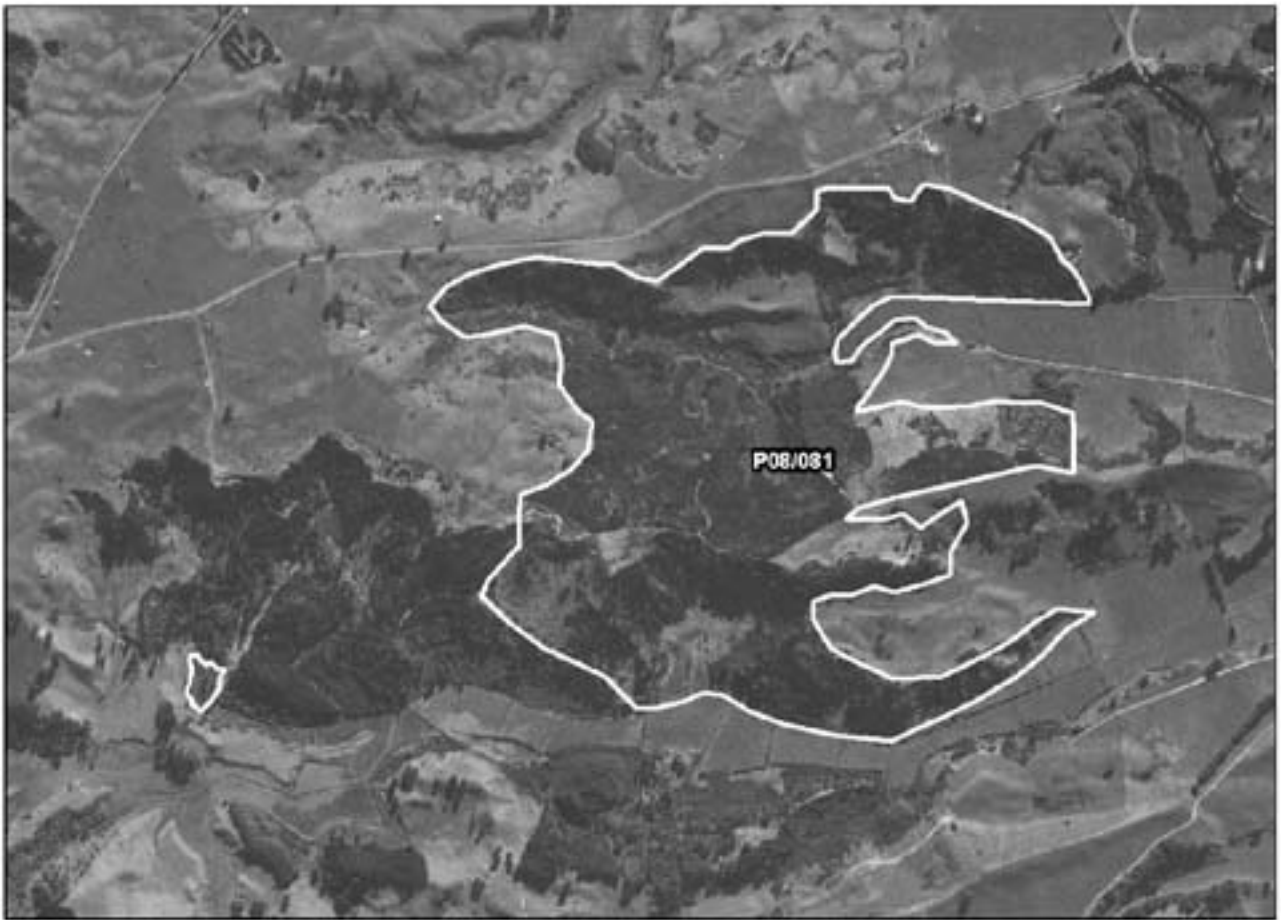
Arrow grass (Regionally Significant), recorded during this survey.

Fauna

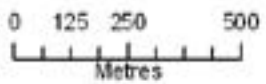
Australasian bittern (Nationally Endangered), grey warbler, tui (SSBI P08/H049, 2006).

Significance






Peat wetlands in any sort of condition approaching natural are now very rare in this ED. However, this wetland is in poor condition due to extensive weed invasion. Although threatened species are present, the poor quality of the site precludes it being ranked at Level 1. Contains 0.3 ha of Acutely Threatened land environment A5.1b and 9.3 ha of At Risk environment A6.1b.

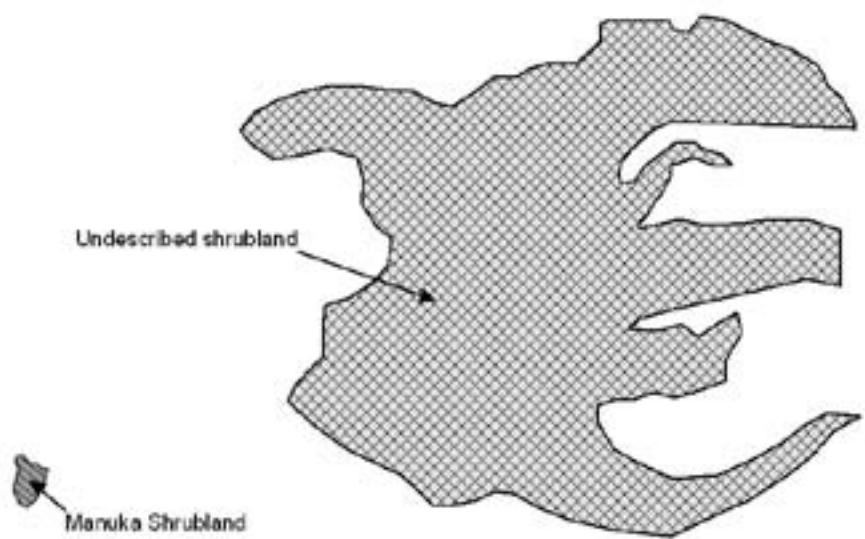


P08/081 Kernot Farm Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

PINAKI ROAD SOUTH WETLAND AND SHRUBLAND

| | |
|-----------------------|------------------|
| Survey no. | P08/087 |
| Survey date | 30 November 2006 |
| Grid reference | P08 985 597 |
| Area | 13 ha |
| Altitude | 20-40 m asl |

Ecological units

- (a) Kanuka/manuka shrubland on hillslope (45%)
- (b) Raupo reedland on alluvium (45%)
- (c) Manuka shrubland on alluvium (10%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies, with Holocene alluvial and swamp deposits on valley floor.

Vegetation

The site comprises a sizeable wetland in the headwaters of the Owairangi Stream, with nearly contiguous kanuka/manuka shrubland on adjacent hillslopes.

- (a) Kanuka dominates the shrubland areas, which are grazed and have been substantially invaded by weeds (e.g., *Hakea* species, berry heath, pampas). The wetland, also grazed, supports
- (b) areas of raupo reedland and
- (c) manuka shrubland with a variety of other native wetland species (e.g., *Baumea articulata*, *Isolepis prolifer*) present.

Significant flora

None noted.

Fauna

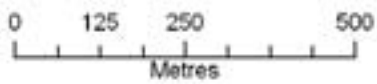
Black shag (Sparse), Australasian harrier, mallard, paradise shelduck.

Significance






Wetlands are a threatened habitat type in Northland, and a threatened species is present. However, the site is unfenced and there is substantial weed invasion,. If managed and fenced, this site could be elevated to Level 1. Contains 4.4 ha of Acutely Threatened land environment A5.1b and 8.8 ha of At Risk environment A6.1b.

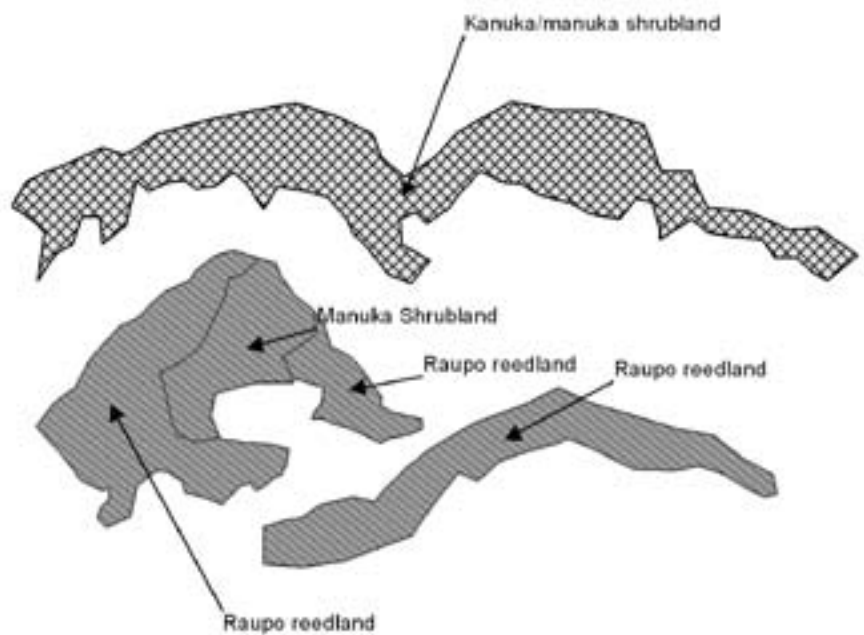


P08/087 Pinaki Road South Wetland and Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BURGESS ROAD SOUTH SHRUBLAND

Survey no. P08/088
Survey date 30 November 2006
Grid reference P08 000 602
Area 9 ha
Altitude 20-40 m asl

Ecological unit

(a) Kanuka/manuka shrubland on hillslope (100%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

The site comprises a patch of secondary shrubland in the catchment of the Owairangi Stream. The upper slopes support the larger area dominated by kanuka, the lower slopes a smaller area of manuka. A small range of other native trees and shrubs are present, along with some radiata pines. The site is grazed and the canopy is collapsing in places.

Significant flora

None noted.

Fauna

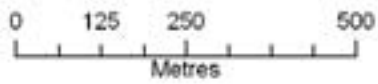
None noted.

Significance






Weed invasion and grazing have diminished the value of this site, and the canopy is collapsing in places. Contains 0.3 ha of Acutely Threatened land environment A5.1b and 9.3 ha of At Risk environment A6.1b.

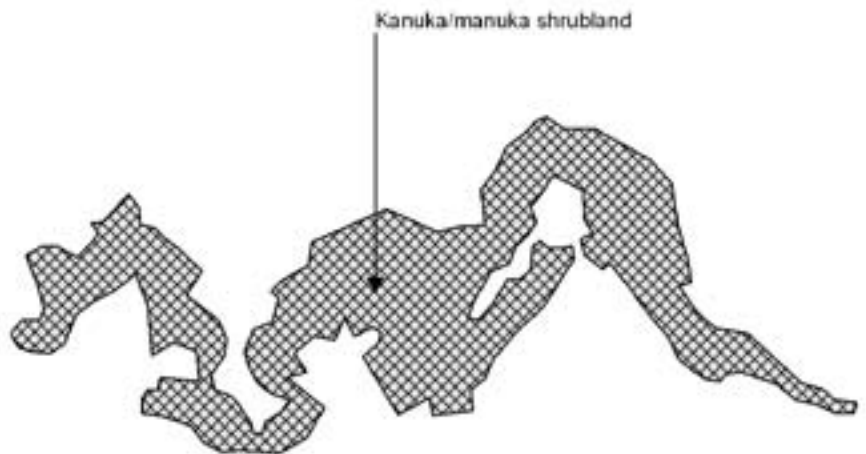


P08/088 Burgess Road South Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BARFOOT'S SHRUBLAND

Survey no. P08/092
Survey date 17 December 2006
Grid reference P08 009 567
Area 9 ha
Altitude 20-25 m asl

Ecological units

- (a) Manuka-pampas shrub grassland on alluvium (77%)
- (b) Kanuka/manuka shrubland on hillslope (23%)

Landform/geology

Holocene swamp and alluvial deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site consists of a wetland with adjoining shrubland. Neither of these units appears to be fenced.

- (a) Freshwater wetland consists of abundant manuka, common pampas, and occasional mamaku.
- (b) Kanuka/manuka shrubland on hillslopes has frequent mamaku and occasional radiata pine and ti kouka.

Significant flora

None noted.

Fauna

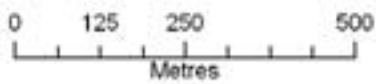
None noted.

Significance






The site has been seriously degraded by pampas invasion and locally by rubbish dumping. Contains 8.4 ha of Acutely Threatened land environment A5.1b, 0.1 ha of Chronically Threatened land environment A7.3a, and 0.8 ha of At Risk environment A6.1b.

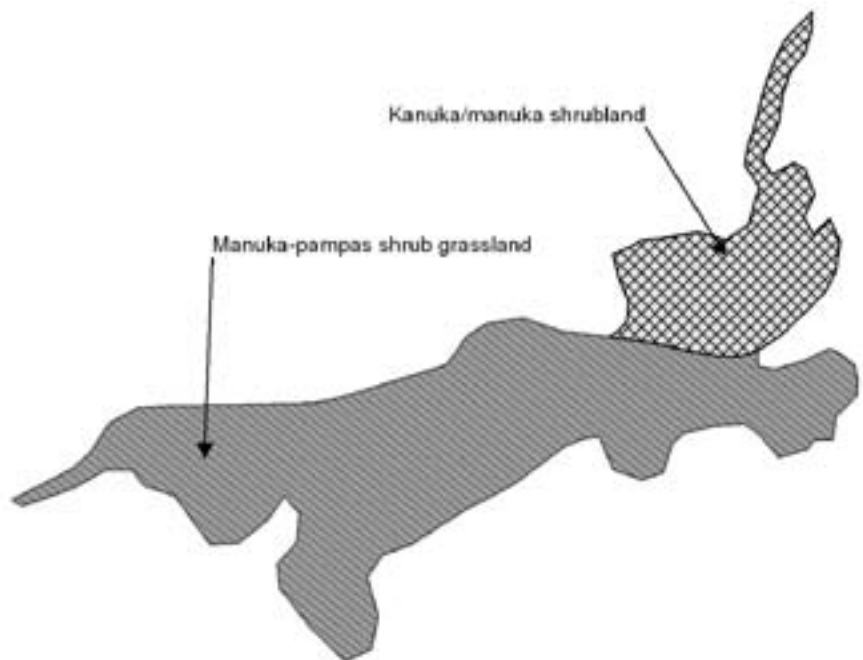


P08/092 Barfoot's Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BARFOOT'S GULLY SHRUBLAND

Survey no. P08/095
Survey date 17 December 2006
Grid reference P08 018 556
Area 13 ha
Altitude 20-65 m asl

Ecological units

- (a) Manuka-pampas shrub grassland on alluvium (78%)
- (b) Manuka shrubland on hillslope (22%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This gully is completely fringed by plantation forest on surrounding ridges, making it inaccessible to stock at present.

- (a) Manuka freshwater wetland consists of abundant manuka, common pampas and frequent pasture grasses, and occasional mamaku, ti kouka, and raupo.
- (b) Hillslope manuka shrubland consists of abundant manuka, frequent prickly hakea and mingimingi, and occasional downy hakea, kanuka, ring fern, hangehange, mapau, *Coprosma rhamnoides*, and prickly heath.

Significant flora

None noted.

Fauna

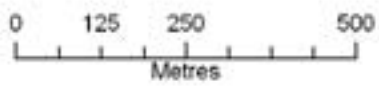
None noted.

Significance






Both vegetation types of this relatively large site have been extensively invaded by weeds, limiting its integrity and value. Contains 5.5 ha of Acutely Threatened land environment A5.1b.

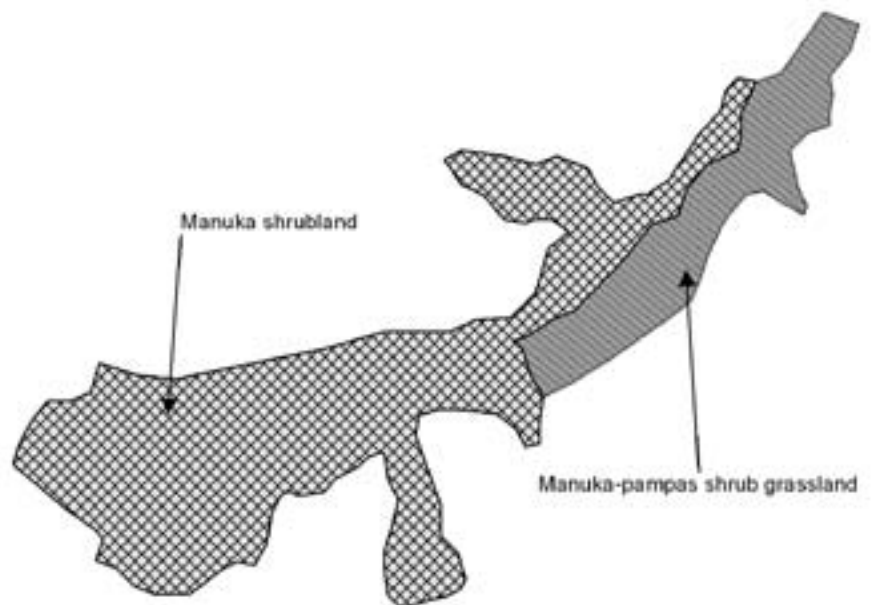


P08/095 Barfoot's Gully Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

HARRISON WETLAND

Survey no. P08/096a
Survey date 17 December 2006
Grid reference P08 042 544
Area 14 ha
Altitude 20 m asl

Ecological unit

(a) Pampas tussockland on alluvium (100%)

Landform/geology

Holocene alluvial and swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This long linear wetland adjoining Pouto Road was scoured out during a severe flooding event. The wetland is severely infested with pampas but still has pockets dominated by manuka, raupo, and ti kouka.

(a) Wetland consists of abundant pampas, frequent raupo and manuka and occasional mamaku, harakeke, and bracken.

Significant flora

None noted.

Fauna

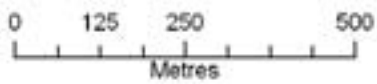
None noted.

Significance






Although wetlands are a threatened habitat type throughout Northland, this site is now dominated by weeds (pampas) which seriously reduces its value. Contains 11.9 ha of Acutely Threatened land environment A5.1b and 2.2 ha of At Risk environment A6.1b.

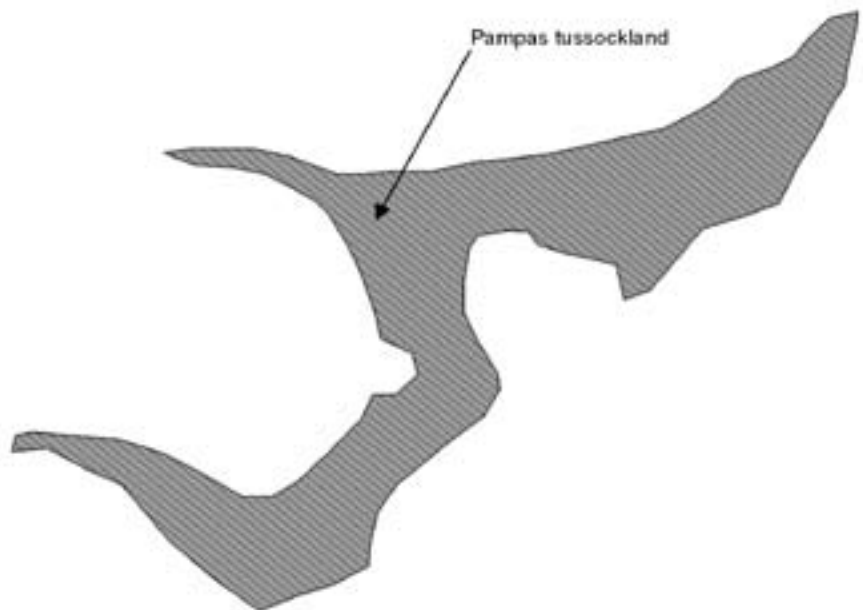


P08/096A Harrison Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

MOSQUITO GULLY WETLAND

Survey no. P08/099
Survey date 17 December 2006
Grid reference P08 035 522
Area 18 ha
Altitude 20-60 m asl

Ecological unit

(a) Manuka-pampas shrub tussockland on alluvium (100%)

Landform/geology

Holocene swamp deposits within valley eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies.

Vegetation

This site, comprising a valley in the middle reaches of Waimamaku Creek, is surrounded by pine plantation on the northern, western, and southern sides, and Pouto Road on the east. Its original connection with the estuary has been severed by land development. No stock has access to the site.

(a) Wetland consists of common pampas and manuka, frequent raupo and *Baumea articulata*, and occasional bracken, mamaku, ti kouka, *Hebe stricta*, karamu, mistflower, *Baumea rubiginosa*, harakeke, *Calystegia sepium*, wheki and *Coprosma x cunninghamii*.

Significant flora

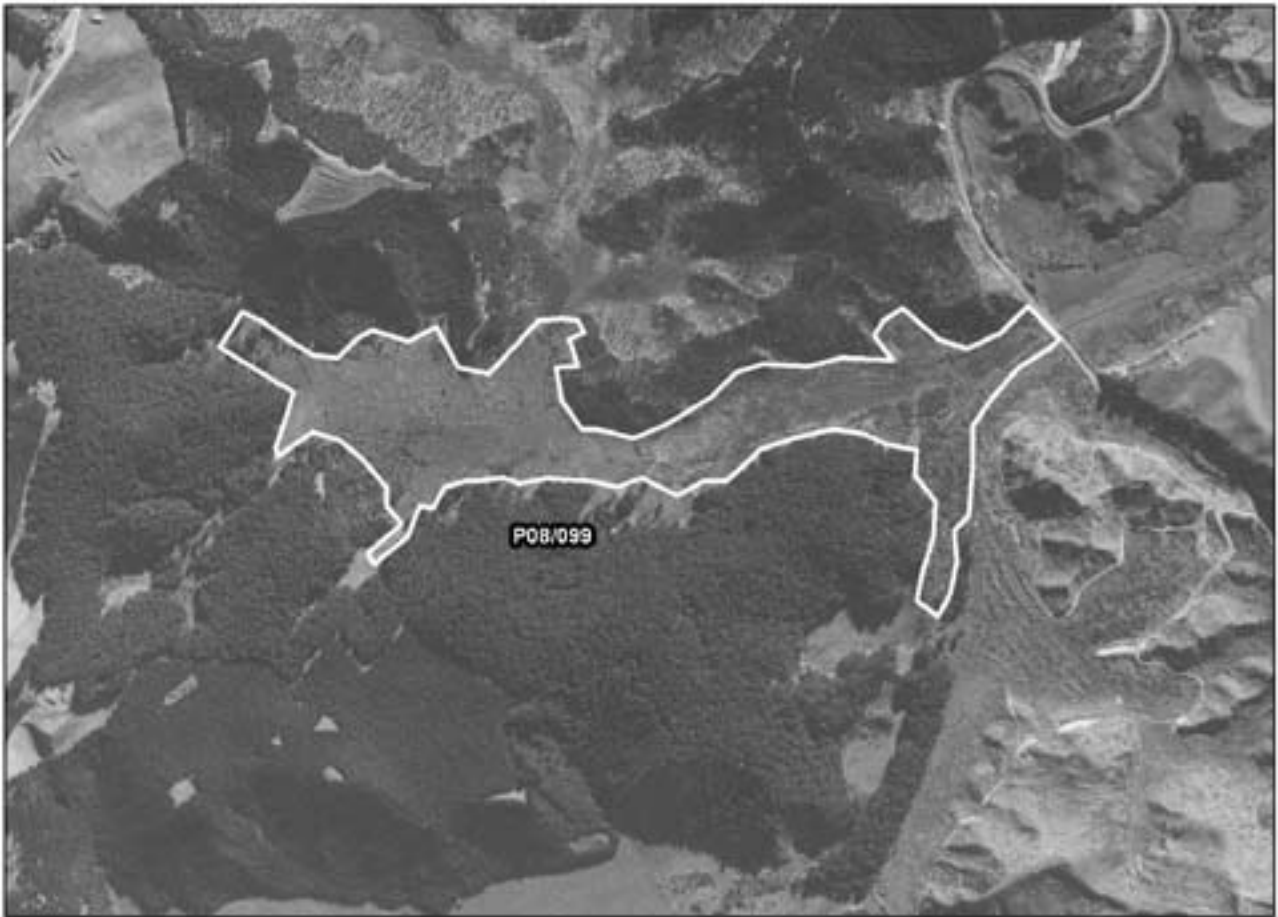
Marsh fern (Gradual Decline) (1996, SSBI P08/H021).

Fauna

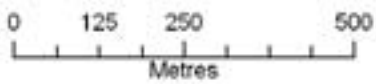
North Island fernbird (Sparse), spotless crane (Sparse), Australasian harrier, New Zealand kingfisher, Pacific swallow, North Island fantail (SSBI P08/H021, 1977, 1989).

Significance






Although wetlands are a threatened habitat type throughout Northland and threatened bird species have been recorded in the recent past and a threatened plant in 1996, this site has been widely invaded by pampas. This site was once contiguous with Waimamaku Estuary, but the sequence of native plant communities from shoreline inland no longer exists. Contains 14.7 ha of Acutely Threatened land environment A5.1b and 3 ha of At Risk environment A6.1b.

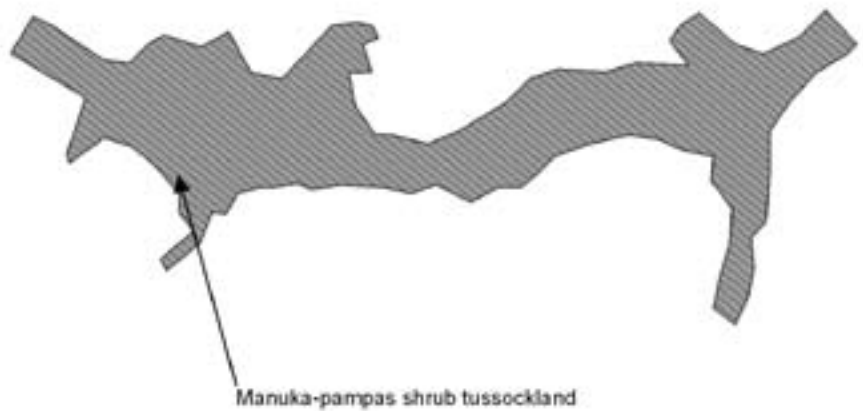


P08/099 Mosquito Gully Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

BLACK LAKE AND SHRUBLAND

Survey no. P08/207
Survey date Not visited during this survey.
Grid reference P08 916 643
Area 0.9 ha
Altitude 65 m asl

Ecological units

- (a) Undescribed shrubland (37%)
- (b) Open water in dune lake (63%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield, ponded at landward edge of Holocene parabolic dunefield.

Vegetation

- (a) Undescribed shrubland is likely to be dominated by manuka.
- (b) Open water in dune lake.

Significant flora

None noted.

Fauna

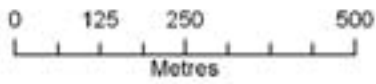
None noted.

Significance





This site was not visited during this survey and so until further survey, it remains at Level 2. The site is already wholly protected in Black Lake CA, administered by DOC. Contains 0.8 ha of At Risk land environment G1.1c.

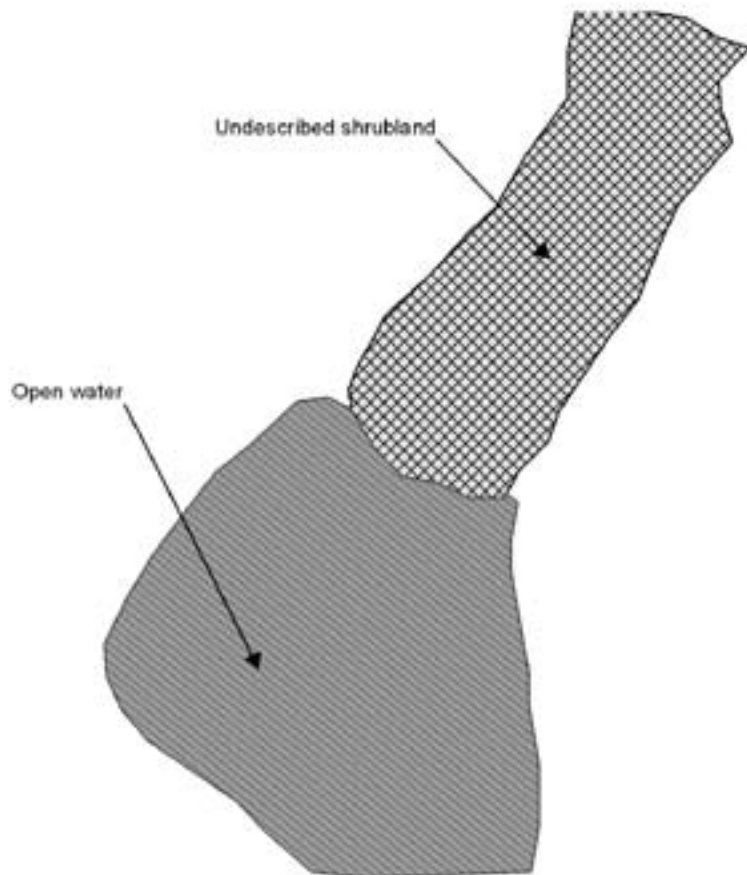


P08/207 Black Lake and Shrubland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

LAKE PARAWANUI AND WETLAND

| | |
|-----------------------|---|
| Survey no. | P08/212 |
| Survey date | Not visited during this survey. Information from Wells et al. (2007). |
| Grid reference | P08 873 706 |
| Area | 7.7 ha |
| Altitude | 65 m asl |

Ecological units

- (a) *Eleocharis sphacelata*-raupo-*Baumea articulata* reedland on alluvium
- (b) Open water in dune lake (both units together comprise 100%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield, ponded at landward edge of Holocene parabolic dunefield.

Vegetation

- (a) *Eleocharis sphacelata*-raupo-*Baumea articulata* reedland on alluvium.
- (b) Open water in dune lake (both units together comprise 100%).

Significant flora

Fimbristylis velata (Sparse) (Wells et al. 2007).

Fauna

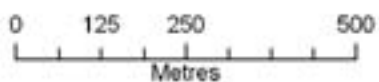
Freshwater mussel (Gradual Decline) (Wells et al. 2007). Shortfin eel, common bully (NIWA 2007). Grey duck (Nationally Endangered) (SSBI P08/H008, 1989). Australasian bittern (Nationally Endangered), little black shag (Sparse) (OSNZ surveys 1977-1994). Black shag (Sparse), little shag (Sparse), New Zealand dabchick (Sparse) (SSBI P08/H008, 1989). Australasian little grebe (Regionally Significant), New Zealand scaup (Regionally Significant) (SSBI P08/H008, 1989). Pied shag, paradise shelduck, black-backed gull, Pacific swallow, grey warbler, Australasian shoveler (Regionally Significant) (SSBI P08/H008, 1989). White-faced heron, Australasian harrier, New Zealand kingfisher, Pacific swallow (OSNZ surveys 1977-1994).

Significance






Lake Parawanui lies in a steep-sided catchment, with shrubland on the western (seaward) side. Domestic stock has access to it, and it appears that pest fish species (rudd, koi carp, and orfe) were deliberately introduced into it (Wells et al. 2007). Although seriously degraded and ranked Low by Wells et al. (2007), a variety of threatened species has been recorded. However, the large numbers of waterbirds (including rare species) were reported before the collapse of the submerged vegetation (Wells et al. 2007) and therefore remains at Level 2. Contains 3.7 ha of At Risk land environment G1.1c.

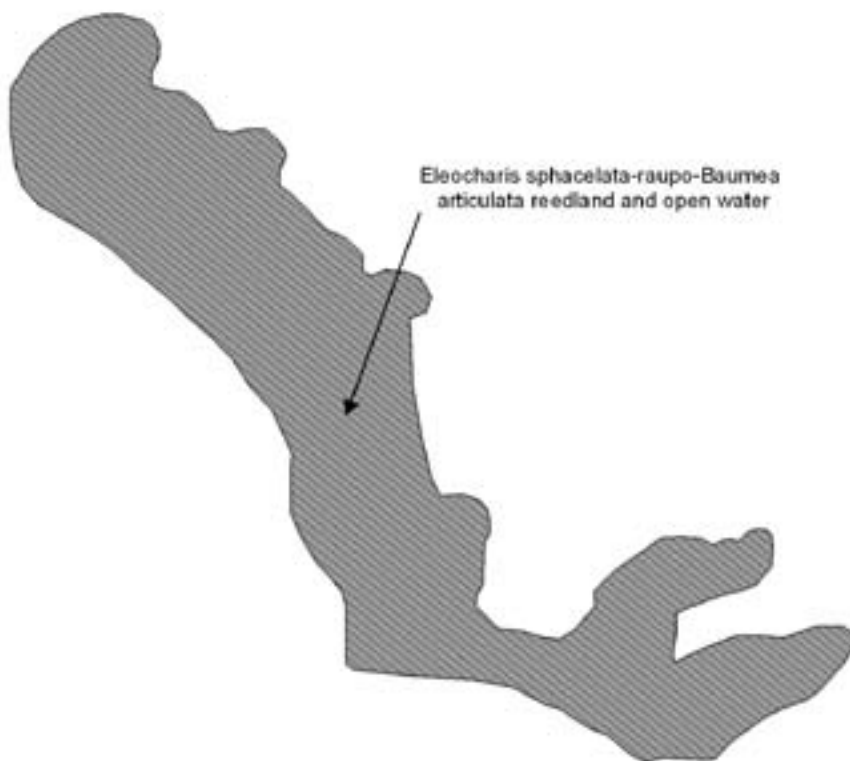


P08/212 Lake Parawanui and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

LOWER LAKE ROTOTUNA WETLAND

Survey no. P09/002
Survey date 18 December 2006
Grid reference P09 049 489
Area 9 ha
Altitude 100-115 m asl

Ecological unit

(a) *Baumea articulata*-pampas reed tussockland in old lake bed (100%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This wetland has formed in an old lake bed (lower Lake Rototuna). Manuka is relatively uncommon in comparison with other wetland sites in the ED. Pine plantations surround the site on the western and southern margins with pasture on the northern and eastern margins. It is fenced from domestic stock.

(a) Vegetation consists of common *Baumea articulata* and pampas, frequent ti kouka, raupo and harakeke and occasional kanuka, bracken and manuka.

Significant flora

None noted.

Fauna

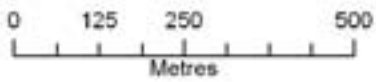
Black shag (Sparse), New Zealand dabchick (Sparse), North Island fernbird (Sparse), New Zealand scaup (Regionally Significant), Australasian harrier, pukeko, New Zealand kingfisher, Pacific swallow, silvereye (SSBI P09/H003, 1977, 1989).

Significance






The wetland was formed in 1980 after a drainage barrier was washed out (SSBI P09/H003). The site has been heavily invaded by weeds (especially pampas), but has supported threatened and regionally significant bird species in the past. Contains 4.3 ha of At Risk A6.1b and G1.1c. It is already wholly protected (9.6 ha) in Rototuna Lake CA, administered by DOC.

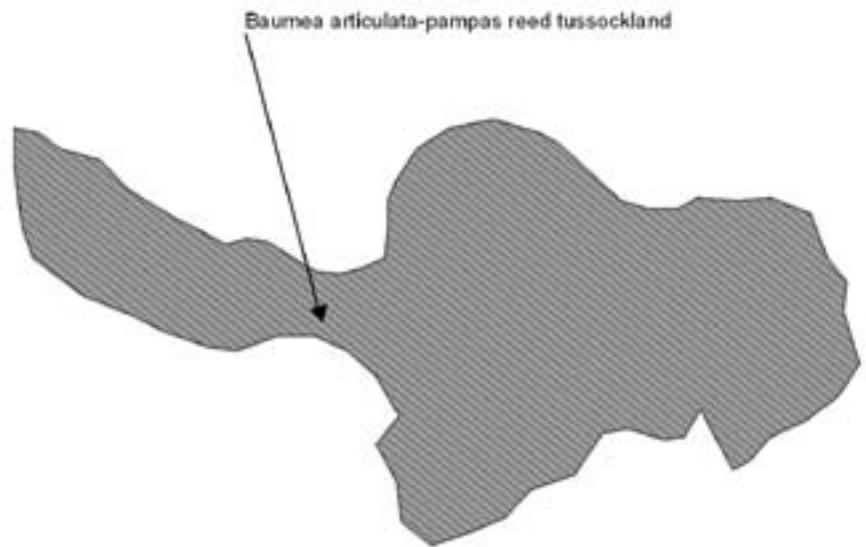


P09/002 Lower Lake Rototuna Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

PHOEBE'S LAKE AND WETLAND

Survey no. P09/011a
Survey date 24 January 2007
Grid reference P09 074 438
Area 1.8 ha
Altitude 135-140 m asl

Ecological units

- (a) Raupo reedland on alluvium
- (b) *Eleocharis sphacelata* reedland on alluvium (both wetland units together comprise 35%)
- (c) Open water in dune lake (65%)

Landform/geology

Lake in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield, ponded at landward edge of Holocene parabolic dunefield.

Vegetation

This small lake supports very narrow fringing reedland communities, not mapped separately, dominated either by

- (a) raupo or
- (b) *Eleocharis sphacelata*
- (c) Open water in dune lake

Significant flora

None noted.

Fauna

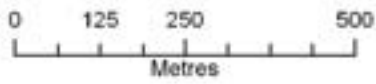
Grey duck (Nationally Endangered), black shag (Sparse), little shag (Sparse) (OSNZ surveys 1973-1995). New Zealand dabchick (Sparse), Pacific swallow (SSBI P09/H008, 1989). Australasian harrier, pied shag, paradise shelduck, pukeko (OSNZ surveys 1973-1995).

Significance






Ranked Low by Wells et al. (2007). Although dune lakes are a threatened habitat type throughout New Zealand, this site is being degraded by grazing and weed invasion (Manchurian wild rice has established around some of the fringe and oxygen weed is also present; Wells et al., 2007), and currently has little ecological significance. Threatened species have been recorded in past surveys. Contains 1 ha of At Risk land environment G1.1c.

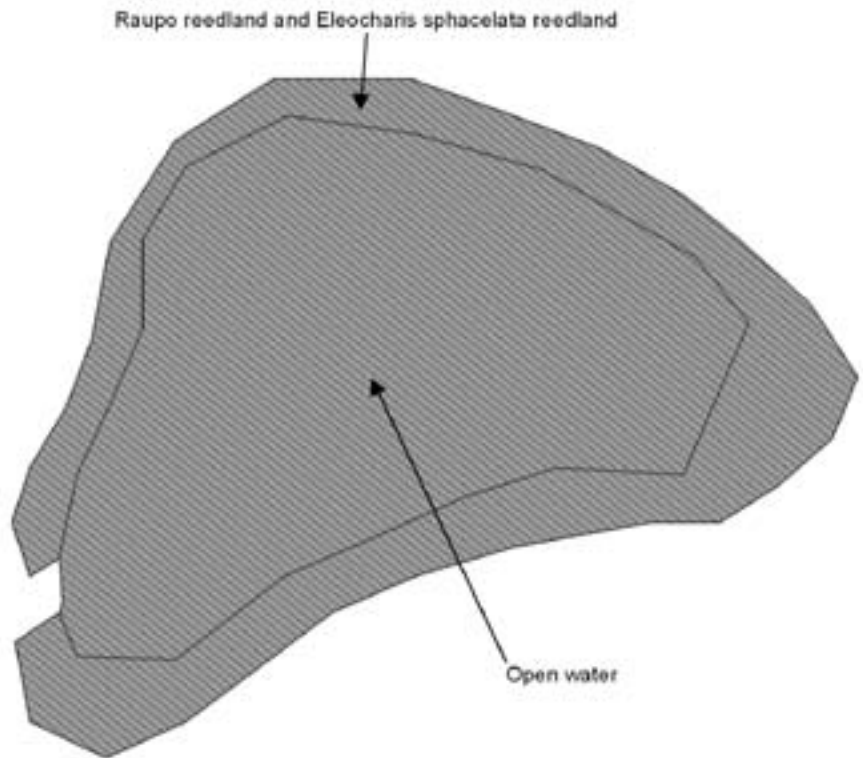


P09/011A Phoebe's Lake and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

PUKEMIRO WETLAND AND FOREST

Survey no. P09/020
Survey date 18 December 2006
Grid reference P09 095 442
Area 39 ha
Altitude 20-80 m asl

Ecological units

- (a) Kanuka forest on hillslope (89%)
- (b) Manuka-raupo shrub reedland on alluvium (11%)

Landform/geology

Hillslopes eroded in early Pleistocene (Awhitu Group) cemented dune sand and associated facies, and in mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunes, with Holocene alluvial and swamp deposits on valley floor.

Vegetation

The Pukemiro swamp and forest unit lies east of Tapu Bush. The kanuka forest understorey consists of pasture as the unit is unfenced. Surrounding the main site are various pockets of similar kanuka forest and wetlands, all of which are unfenced and less than 1 ha in size.

- (a) Kanuka forest canopy consists solely of kanuka.
- (b) Wetland vegetation consists of abundant manuka, frequent raupo and occasional harakeke, ti kouka, and pampas.

Significant flora

None noted.

Fauna

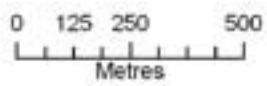
North Island fernbird (Sparse), spotless crane (Sparse), grey warbler, North Island fantail, (SSBI P09/H009, 1989).

Significance

Although partly buffered by plantation, there are better examples of similar vegetation in the ED. Threatened bird species have been recorded in the past. Contains 13.4 ha of Acutely Threatened land environment A7.3a and 25.4 ha of At Risk A5.1b.

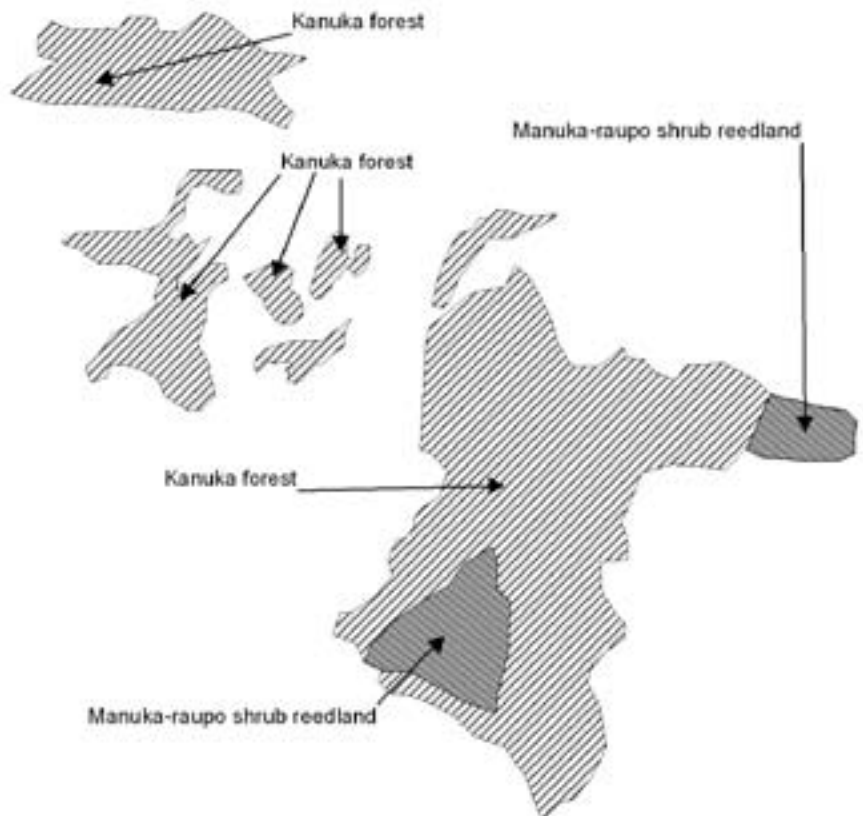


P09/020 Pukemiro Wetland and Forest



Habitat Type

- Duneland
- Estuarine
- Forest
- Shrubland
- Wetland



Aerial photography flown 2002

THE SPECTACLES LAKES AND WETLAND

| | |
|-----------------------|---|
| Survey no. | Q09/202 |
| Survey date | Not visited during this survey. Information from Wells et al. (2007). |
| Grid reference | Q09 142 373, 146 373 |
| Area | 4.9 ha |
| Altitude | 55-60 m asl |

Ecological units

- (a) Raupo-reedland on alluvium (53%)
- (b) Open water in dune lake (47%)

Landform/geology

Lakes and swamp deposits in depressions on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This site comprises a pair of small lakes.

- (a) Both lakes have a fringe of lacustrine reedland, one dominated by raupo, the other by *Baumea articulata*.
- (b) Open water.

Significant flora

None noted.

Fauna

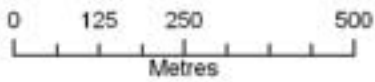
Australasian bittern (Nationally Endangered), grey duck (Nationally Endangered) (SSBI Q09/H013, 1981, 1989). Red-billed gull (Gradual Decline) (OSNZ surveys 1973-1995). New Zealand dabchick (Sparse), little black shag (Sparse), little shag (Sparse) (SSBI Q09/H013, 1981, 1989). Black shag (Sparse), grey teal (Regionally Significant), New Zealand scaup (Regionally Significant) (OSNZ surveys 1973-1995). Australasian harrier, pukeko, black-backed gull, Pacific swallow (SSBI Q09/H013, 1981, 1989). Pied shag, white-faced heron, paradise shelduck, Australasian shoveler (Regionally Significant), pukeko, spur-winged plover, Australasian pied stilt, New Zealand kingfisher, Pacific swallow (OSNZ surveys 1973-1995).

Significance






At least one of the lakes was fenced in 1989 (SSBI Q09/H013). Threatened and regionally significant species have been recorded and this site is part of the eastern Pouto chain of lakes; until further survey, however, it remains at Level 2. Contains 4.3 ha of Chronically Threatened land environment A7.3a. A small proportion of it (0.9 ha) is already protected in Pouto Lakes Marginal Strip, administered by DOC.

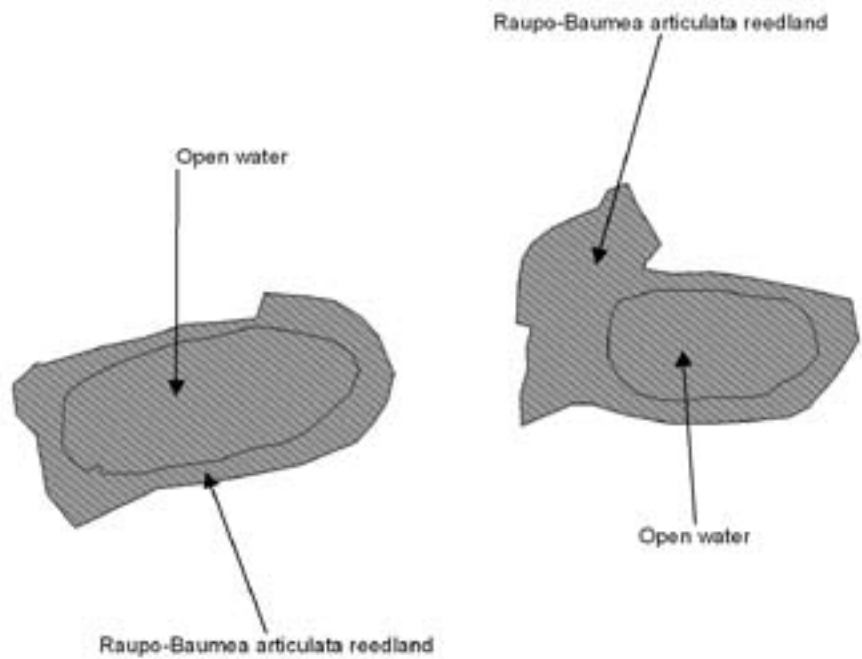


Q09/202 The Spectacles Lakes and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

SWAN EGG POND AND WETLAND

| | |
|-----------------------|---|
| Survey no. | Q09/203 |
| Survey date | Not visited during this survey. Information from Wells et al. (2007). |
| Grid reference | Q09 129 400 |
| Area | 2 ha |
| Altitude | 55 m asl |

Ecological units

- (a) Raupo reedland on alluvium (70%)
- (b) Open water in dune lake (30%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This small lake comprises

- (a) Raupo reedland on alluvium
- (b) Open water.

Significant flora

None noted.

Fauna

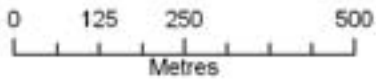
Dwarf inanga (Serious Decline), shortfin eel, common bully (NIWA 2007). Australasian bittern (Nationally Endangered), grey duck (Nationally Endangered), New Zealand dabchick (Sparse), black shag (Sparse), little shag (Sparse), grey teal (Regionally Significant) (OSNZ surveys 1977-1994). Australasian harrier, pukeko, Pacific swallow, grey warbler, North Island fantail (SSBI Q09/H006, 1981, 1984). White-faced heron, paradise shelduck, Australasian shoveler (Regionally Significant), Australasian harrier, pukeko, spur-winged plover, Australasian pied stilt, Pacific swallow (OSNZ surveys 1977-1994).

Significance






In 1989, this site was grazed to the water's edge, diminishing its value. Nevertheless, dune lakes are a threatened habitat type in Northland and this lake, which has supported threatened and regionally significant species in the past, is part of the eastern Pouto chain of dune lakes. Until updated by further survey, this site remains at Level 2. Contains 1.9 ha of Chronically Threatened land environment A7.3a.

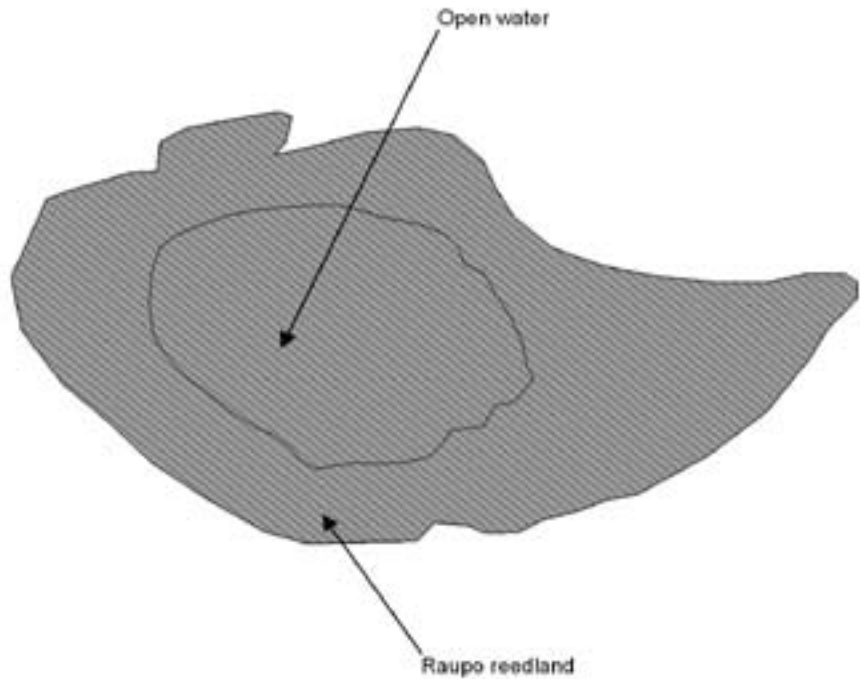


Q09/203 Swan Egg Pond and Wetland



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002

LAKE WAINGATA

| | |
|-----------------------|-----------------|
| Survey no. | Q09/204 |
| Survey date | 26 January 2007 |
| Grid reference | Q09 138 383 |
| Area | 13 ha |
| Altitude | 60 m asl |

Ecological units

- (a) Herbfield on alluvium (15%)
- (b) Open water in dune lake (85%)

Landform/geology

Lake and swamp deposits in depression on mid-late Pleistocene (Karioitahi Group) consolidated parabolic dunefield.

Vegetation

This small lake supports

- (a) Herbfield on alluvium comprising *Lilaeopsis novae-zelandiae*, *Elatine gratioloides*, and *Glossostigma elatinoides*.
- (b) Open water in dune lake.

Significant flora

Hydatella inconspicua (Serious Decline) was formerly present (Wells et al. (2007)). *Elatine gratioloides* and *Glossostigma elatinoides*, recorded during this survey, are Regionally Significant.

Fauna

Dwarf inanga (Serious Decline), common bully (NIWA 2007). Grey duck (Nationally Endangered), red-billed gull (Gradual Decline), New Zealand dabchick (Sparse), little black shag (Sparse), little shag (Sparse), New Zealand scaup (Regionally Significant) (SSBI Q09/H010, 1977, 1981, 1984), grey teal (Regionally Significant) (OSNZ surveys 1973-1995), black shag (Sparse) (R. Parrish, pers. comm.), white-faced heron, pukeko, spur-winged plover, Australasian shoveler (Regionally Significant), New Zealand kingfisher, Pacific swallow (SSBI Q09/H010, 1977, 1981, 1984). Pied shag, Australasian harrier, Australasian pied stilt (OSNZ surveys 1973-1995). Paradise shelduck (R. Parrish, pers. comm.).

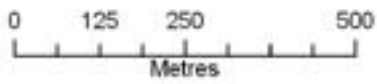
Significance

Ranked Low by Wells et al. (2007). The introduction of grass carp in 1995 to eradicate the pest plant oxygen weed has also eliminated the formerly extensive lacustrine fringe of *Eleocharis sphacelata* reedland and almost all submerged native vegetation as well, including the nationally threatened *Hydatella inconspicua*. Domestic stock grazing to the water's edge has also reduced the quality of the site. Nevertheless, threatened animal and plant species have been recorded, and Wells et al. (2007) suggest that the nationally threatened fish, dunelakes galaxias, may still






be common. Further survey is recommended to assess the impact of recent modifications. Until then, the site remains at Level 2. Contains 4.1 ha of Chronically Threatened land environment A7.3a.

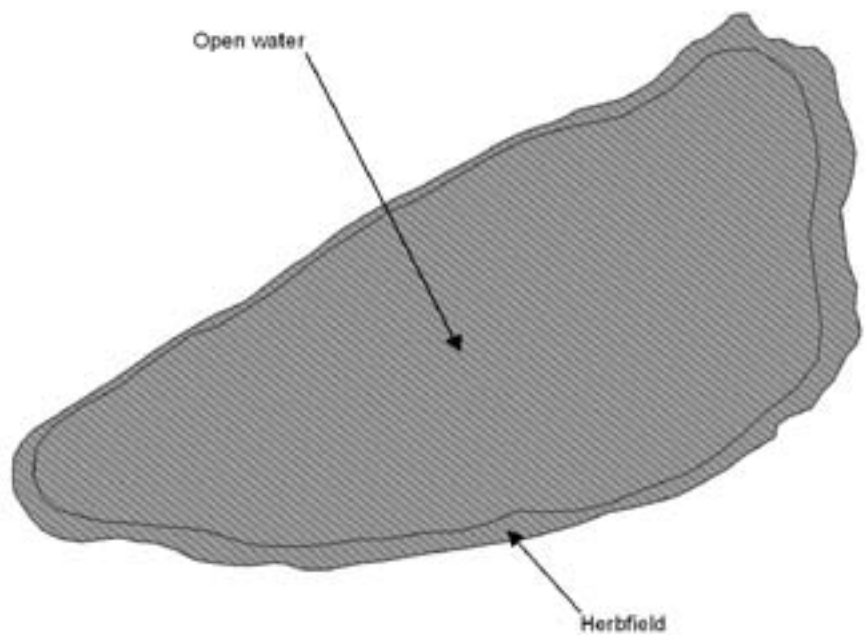


Q09/204 Lake Waingata



Habitat Type

-  Duneland
-  Estuarine
-  Forest
-  Shrubland
-  Wetland



Aerial photography flown 2002