Bay of Plenty Conservancy

### DRAFT

Schedule of Sites of Significant Conservation Value

### WESTERN BAY OF PLENTY

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Rotorua.



### DRAFT

### SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE WESTERN BAY OF PLENTY

Site no: U13/1 Date of completion: 25.11.93
Category: A Ecological District: TGA

Habitat Type: Estuarine margin and wetland

Name: SS Athenree 1

Area:

Protection Status: Partially protected in the Athenree wildlife

management reserve

Map Series: NZMS260 Grid Reference: 725 140 Aerial photo no: 170788

Date Flown: 28.2.93

Landform: Estuary Habitat Description:

This site forms part of a larger botanical and wildlife site. The larger site is described as a large wetland, much of which is relatively unmodified, comprising a representative example of the estuarine vegetation of Tauranga Harbour (Beadel 1992). (Beadel, 1993).

There are five wildlife habitat sites identified within this site described as follows and mapped in Owen (1993a).

- Site 1. Area of dense mixed searush and oioi sedgeland, scattered mangrove scrub in channels, with marsh ribbonwood scrub, flaxland, *Olearia solandri* scrub, pampas, gorse and wattle on drainage embankments. Area is contained between two large drains, Emerton Road and the Waiau River.
- Site 2. A mixed estuarine vegetation association of mangrove scrub, searush and oioi sedgeland, marsh ribbonwood scrub, flaxland and pampas. Pohutukawa on embankment. Area lies between two drainage embankments, the Waiau River and Emerton Road.
- Site 3. Estuarine vegetation sequence on eastern side of Waiau River. Scattered and dense mangrove scrub and shrubland (up to 2m high), oioi, searush and Schoenoplectus pungens sedgeland with marsh ribbonwood scrub, flaxland, manuka scrub, raupo reedland and grey willow forest. Estuarine herbfield vegetation includes shore pimpernel and remuremu. Adjoining vegetation comprises of Olearia solandri scrub, pohutukawa, karo, Muehlenbeckia australis, manuka scrub, gorse and pampas.
- Site 4. Area of natural estuarine vegetation between Waiau River and Emerton Road. Area dominated by searush and oioi sedgeland with marsh ribbonwood scrub, flaxland and Olearia solandri scrub. Adjacent terrestrial area has karamu, mamaku, manuka scrub, five finger, mahoe, ponga, hangehange, poplar and pine.

contd..



Site 5. Extensive estuarine wetland vegetation sequence of Zostera novozelandica, mangrove scrub and shrubland (0.3m - 1.8m high), Schoenoplectus pungens, mixed oioi, searush and Baumea juncea sedgeland, marsh ribbonwood scrub, and Olearia solandri scrub. Flaxland, raupo reedland and Baumea articulata sedgeland association is present along the edge of the Waiau River at the south-west end. A degraded manuka shrubland, searush and oioi sedgeland's area is severed, by a large stopbank, from this area.

The larger site is mapped in Beadel (1992) and described in Beadel (1993).

Wildlife of the larger site includes the banded rail, NI fernbird, Australasian bittern, pukeko and the australasian harrier.

### CONSERVATION VALUES AND JUSTIFICATIONS:

Botanical: Identified as exceptional botanical conservation value in Beadel (1993) and identified as a Category one area in Beadel (1992).

**Wildlife:** Sites 3,4 and 5 assessed as having high to outstanding habitat quality for marshbirds in Owen (1993a). Sites 1 and 2 assessed as having outstanding habitat quality for marshbirds in Owen (1993a).

This estuarine margin strip is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to protect the wildlife values.

### Other:

### THREATS AND REMARKS:

For information on threats, remarks and conservation recommendations see Owen (1993a).

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M. in press. Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.



Site no: U13/2

Date of completion: 25.11.93

Category: A

Ecological District: TGA

Habitat Type: Fresh water wetlands

Name: Fresh water wetlands, Matakana Island.

Area:

Protection Status: Partially protected as part of wildlife

reserve.

Map Series: NZMS260

Grid Reference: 745 085

Aerial photo no:

Date Flown:

### Landform:

### Habitat Description:

These wetlands are part of a larger wetland system (Matakana Island 1 ranked as National; includes a category one area) (Beadel 1992a). Although these areas are more modified nevertheless they are of significant conservation value. Freshwater wetlands have been greatly reduced in extent, particularly in lowland areas (c.f. Pike 1991). Taken from Beadel (1993).

Mapped in Beadel (1992a).

**Botanical:** Identified as high botanical conservation value in Beadel (1993) for the reasons given in above habitat description.

Wildlife: There are 3 wildlife habitat sites within this site. They are all of moderate habitat quality for marshbirds (Owen, 1993a).
The three sites are 18,19 and 26.

Other:

### THREATS AND REMARKS:

- Beadel, S.M. in press. Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

Site no: U13/3 Date of completion: 25.11.93
Category: A Ecological District: TGA

Habitat Type: Freshwater Wetlands

Name: Northern Matakana Island Wetlands and sand-dunes

Area:

Protection Status: Partially protected as part of Matakana

Island Wildlife Refuge.

Map Series: NZMS260 Grid Reference: 750 095

Aerial photo no: Date Flown: Landform: Accretionary sequence of recurved ridges (CRI, BOP).

### Habitat Description:

Matakana Island contains the best examples of freshwater wetlands in the harbour environs; these are described in Beadel (1990). The wetlands contain one of the best national populations of two rare ferns, Cyclosorus interruptus and Thelypteris confluens in New Zealand...another are plant, Ranunculus macropus, classed as vulnerable also occurs in these wetlands. Much of the wetland vegetation is in good condition and is a good quality representative example of wetland vegetation (Beadel, 1992a).

The rare plant Pimelia arenaria is also found in these wetlands (Beadel, 1992b).

A natural spinifex-pingao community occurs along the majority of the frontal foredune of Matakana Island. This community is relatively intact although marram is present locally in this zone (Beadel, 1989), (Beadel, 1993).

For a more in depth description of the seaward side of Matakana island see site U13/3a

There are eight wetlands in this site forming eight wildlife habitats described and mapped in Owen (1993a) and Beadel (1990).

Wildlife in these eight sites collectively includes the australasian bittern, spotless crake, australasian harrier, pukeko, black shag, various waterfowl, NZ kingfisher (Owen, 1993a).

Botanical: Identified as exceptional botanical conservation value in Beadel (1993). This site contains high quality, representative examples of sand dune communities and wetland communities which are of national significance (Beadel, 1989 and 1990). The natural spinifex-pingao community which occurs along the majority of the frontal foredune of Matakana island is generally relatively intact,.....this vegetation community is now rare in New Zealand ...... Behind the frontal foredune zone the vegetation is still predominantly indigenous with only scattered exotic grasses and herbs. Pingao (classed as local is also common on these sites and over sixty plants of Pimelia arenaria (classed as rare) were recorded in 1989 (Beadel 1989). Another species of botanical interest which occurs on the island is Melicytus novae-zelandiae. This species occurs on several other islands in Bay of Plenty but is rare on the mainland...(Beadel, S.M., pers obs).

These wetlands contain one of the best populations of Thelypteris confluens (rare) and Cyclosorus interruptus (rare) in New Zealand. Ranunculus macropus (rare) also occurs in the wetlands (Beadel, 1990), (Beadel, 1993).

Wildlife: All of these freshwater water wetlands have collectively been assessed as having high value for wildlife (K.L. Owen, pers comm.). Three of the five wetlands have been assessed as having high wildlife habitat quality for marshbirds and the remaining two as moderate habitat quality for marshbirds. (Owen, 1993a). Sites are 13,14,15,16, and 17.

### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a) and Beadel (1992b). REFERENCES:

- Beadel, S.M. 1989. Notes on the Vegetation and Flora of Tauranga Harbours and Little Waihi Estuary, Bay of Plenty Conservancy. Report prepared for the Department of Conservation, Rotorua. 67 pp.
- Beadel, S.M., 1990: An Account of the vegetation and Flora of the North Western End of Matakana Island Tauranga Harbour. Rotorua Botanical Society Newsletter 19:24 -36.
- Beadel, S.M., 1992b: Threatened and Local Plants of the Bay of Plenty Conservancy. Prepared for the Department of Conservation, Bay of Plenty Conservancy.
- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Forbes, S. & Bridgewater, G. 1990. Coastal Resource Inventory, First Order Survey. Bay of Plenty Conservancy.



**Site no:** U13/4

Date of completion: 28.2.93

Category: A

Ecological District: TGA

Habitat Type: Shrubland and scrub.

Name: SS Athenree 2

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 707 134

Aerial photo no: 170789 Date Flown: 28.2.93

### Landform:

### Habitat Description:

Relatively large examples of manuka scrub and shrubland. The major vegetation types present are:

-manuka scrub

-willow-manuka forest

-willow forest

-manuka shrubland

-cabbage tree/ Baumea juncea- Coprosma tenuicaulis-Baumea articulata treeland.

from Beadel (1992a).

Mapped in Beadel (1992a).

Botanical: Identified as high botanical conservation value in Beadel (1993). A relatively good example of the freshwater wetland vegetation types, characteristic of Tauranga ecological district. Also identified as a category 2 area in Beadel (1992a).

Wildlife: Assessed as having moderate wildlife habitat value in Rasch (1989). This site requires a field inspection.

Other:

### THREATS AND REMARKS:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.



Site no: U13/5 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Scrub and flaxland

Name: Taupiro Point

Area: 13ha

Protection Status: Partly within a landing reserve controlled

by district council.

Map Series: NZMS260

Grid Reference: 713 085

Aerial photo no: 170813 Date Flown: 28.2.93

Landform: Sandspit

### Habitat Description:

Vegetated sandspit with *Pinus radiata*, manuka scrub, *Olearia solandri* scrub, flaxland, *Isolepis nodosa* sedgeland, secondary coastal scrub and forest regeneration. Margins comprise estuarine vegetation containing scattered mangrove scrub, oioi, searush and *Baumea juncea* sedgeland and estuarine herbfield. (Owen, 1993a).

Also mapped in Beadel (1992a).

Wildlife includes the banded rail and the NI fernbird (Owen, 1993a).

**Botanical:** The estuarine vegetation of this site are identified as moderate botanical conservation value (S.M. Beadel, pers comm).

Wildlife: Assessed as having moderate habitat quality for marshbirds in Owen (1993a).

Other:

### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

### REFERENCES:

Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.

Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.



Site no: U13/6 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Estuarine margin vegetation

Name: Ongare

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 715 075

Aerial photo no: 170813 Date Flown: 28.2.93

#### Landform:

### Habitat Description:

This estuarine margin strip forms part of a larger wildlife habitat site.

The larger site is described as a narrow, long band of estuarine vegetation around the harbour edge. Sparse to dense areas of mangrove scrub (0.2m - 0.5m high) on seaward side with a mixed association of searush and oioi sedgeland further inland. The margins contain a marsh ribbonwood scrub, manuka scrub and Olearia solandri scrub association (Owen, 1993a).

This site is mapped in Beadel (1992a).

Wildlife includes the NI fernbird, black swan, pukeko and white faced heron.

Botanical: The estuarine vegetation of this site is of moderate botanical conservation value (S.M. Beadel, pers comm).

Wildlife: The larger wildlife site is assessed as having moderate habitat quality for marshbirds in Owen (1993a).

Other:

### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.



Site no: U13/7 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Estuarine wetlands

Name: SS Matakana Island 2

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 765 040

Aerial photo no: 170815 Date Flown: 28.2.93

### Landform:

### Habitat Description:

This estuarine margin strip forms part of a larger significant botanical site.

The larger site is a relatively large, good quality representative example of the vegetation types present listed below, characteristic of the Tauranga ecological district.

Vegetation types of the larger site include:
-Cabbage tree-grey willow-manuka forest in the freshwater
wetland along with manuka scrub. Manuka scrub and mangrove
shrubland along with flaxland, Baumea juncea sedgeland, Baumea
juncea-marsh ribbonwood-oioi sedgeland, Wharariki/Baumea junceaoioi-marsh ribbonwood sedgeland, Mangrove/Schoenoplectus pungens
sedgeland, searush tussockland and oioi sedgeland in the saline
wetland and Sandspit vegetation on the dune and beach sands.
From (Beadel, 1993).

This site is mapped in Beadel (1992a).



Site no: U13/8 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Estuarine vegetation margin

Name: Athenree Road

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 718 118

Aerial photo no: Date Flown:

Landform:

### Habitat Description:

This site forms part of a large wildlife habitat site.

Mixed estuarine vegetation association extending along and out from shoreline including 3 small indented bays. Vegetation dominated by scattered to dense stands of mangroves (0.3m to 1.5m high) with bands of mixed searush and oioi sedgeland further inland. Behind this vegetation a narrow riparian strip of oioi and searush sedgeland, marsh ribbonwood scrub, Baumea articulata reedland, Cyperus ustulatus, flaxland, and raupo reedland merging into manuka scrub and grey willow forest exists.

At the southern end a small islet of tall *Pinus radiata* with an understory of *Myrsine australis*, *Isolepis nodosa* and rank grasses exists. (Owen, 1993a).

This larger site is mapped in Beadel (1992a).

Wildlife includes banded rail, NI fernbird, spur winged plover, pukeko, canada geese and the white faced heron (Owen, 1993a).

Botanical: Identified as moderate botanical conservation value by Beadel (pers comm).

Wildlife: Assessed as having moderate habitat quality for marshbirds in Owen (1993a).

This estuarine margin strip is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to protect the wildlife values.

### Other:

### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.



Site no: U13/9 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Estuarine vegetation

Name: Bowentown Road

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 715 124

Aerial photo no: 170788 Date Flown: 28.2.93

### Landform:

### Habitat Description:

This site forms part of a larger wildlife habitat site.

Long, narrow strip of estuarine vegetation comprising Zostera novozelandica, mangrove scrub (0.5m - 1.5m high), Schoenoplectus pungens, mixed searush and oioi sedgeland, marsh ribbonwood scrub, Olearia solandri scrub and flaxland, manuka scrub and raupo reedland (Owen, 1993a).

This site is mapped in Beadel (1992a).

Wildlife of the larger site includes the NI fernbird and the banded rail (Owen, 1993a).

Botanical: Identified as moderate botanical conservation value by Beadel (pers comm).

Wildlife: Assessed as having moderate habitat quality for marshbirds in (Owen, 1993a).

This estuarine margin strip is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to protect the wildlife values.

### Other:

### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

### REFERENCES:

Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation.
Report prepared for Bay of Plenty Regional Council,
Whakatane. 82pp plus maps.

Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.



Site no: U13/10 Date of completion: 25.11.93

Category: B Ecological District:

Habitat Type: Estuarine Vegetation

WBOPDC Map: Athenree 1 (1:5000)

Athenree Settlement Name:

Area:

Protection Status: Unprotected

Map Series: NZMS260 Grid Reference: 725 128

Date Flown: 28.2.93 Aerial photo no: 170788

Landform: estuary margin.

### Habitat Description:

This site forms part of a larger wildlife habitat site as described below.

A long, narrow band of estuarine vegetation dominated by both scattered and dense mangrove scrub (up to 1m high) with oioi and searush sedgeland merging into a narrow strip of marsh ribbonwood scrub, Olearia solandri scrub with an area of freshwater wetland vegetation comprising mainly flaxland, raupo reedland and grey willow forest (Owen, 1993a).

This site is also mapped in Beadel (1992a).

Wildlife of the larger site includes the banded rail and pukeko.

Most of this site is below Mean High Water Springs and so comes within the jurisdiction of the Bay of Plenty Regional Council"s Regional Coastal Environment Plan.

**Botanical:** Identified as moderate botanical conservation value by Beadel (pers comm).

Wildlife: Assessed as having moderate habitat quality for marshbirds in (Owen, 1993a).

This estuarine margin strip is part of the larger wildlife habit site and should be given the same conservation considerations to vegetation to protect the wildlife values.

### Other:

#### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

### REFERENCES:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation.
  Report prepared for Bay of Plenty Regional Council,
  Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

### LANDOWNER VISITS:

- 1. Mr Yeoman, PO Box 164, Katikati. Potential purchaser.
- 2. Snow Brown, 37 Athenree Road, R.D. 1, Katikati. Legal Description: Allot 82, Pt Allot 81 Katikati Parish. Lots 1,2,3,4 and 5 DPS 45090.

Visits by V. Froude (DOC) and Bruce Hawkins (WBOPDC) on 11.8.94.

Outcome of Visits:

Amended boundaries of site.

### SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE



Site no: U13/11 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Mangrove shrub and shrubland

WBOPDC Map: C5

Name: Tahawai Area: 3.8ha

Protection Status: Unprotected

Map Series: NZMS260 Grid Reference: 702 069 Aerial photo no: 170813

-

Date Flown:

28.2.93

### Landform:

### Habitat Description:

Narrow inlet with scattered to dense mangrove shrub and shrubland (0.3m to 2.0m high) throughout. Margins comprise a narrow band of searush and oioi sedgeland blending into marsh ribbonwood, Olearia solandri, and manuka scrub, raupo reedland and grey willow forest associations. Estuarine herbfield association dominated by Samolus repens, Selliera radicans, and Triglochin striata, along some margins. Pinus radiata and horticulture shelter belts around wetland margin (Owen, 1993a).

Site mapped in Beadel (1992a).

The site also includes a small willow-manuka/baumea freshwater wetland on the inland side of the road.

Part of this site is below Mean High Water Springs and so is under the jurisdiction of the Bay of Plenty Regional Councils Environment Plan.

Wildlife includes the australasian harrier, NZ kingfisher, mallard and the white faced heron (Owen, 1993).

Botanical: Identified as moderate botanical conservation value by Beadel (pers comm).

Wildlife: Assessed as having moderate habitat quality for marshbirds in (Owen, 1993a).

Other: Natural character values.

### THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a). Paper road has a different alignment to actual road location.

### REFERENCES:

Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.

Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

### LANDOWNER VISITS:

1. Crosby, 252 Tuapiro Road. Legal description: Lot 4, DPS 633113. Visited by V. Froude (Doc) and Bruce Hawkins (WBOPDC) ON 11.8.94.

Outcome of visit:

Deleted this property from site. Amalgamated site with U13/6.



Site no: U13/12 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: TGA

Name: Pios Beach

Area:

Protection Status: Part protected in recreation reserve.

Map Series: NZMS260

Grid Reference: 738 115

Aerial photo no: 170787 Date Flown: 28.2.93

### Landform:

### Habitat Description:

This site contains good quality representative sand dune vegetation communities typical of Tauranga ecological district. Their indigenous flora is relatively diverse. An interesting feature of these communities is the presence of seedling and sapling haupara amongst the Muehlenbeckia complexa and Isolepis nodosa. Tetragonia trigyna (New Zealand spinach) is also locally common amongst the Muehlenbeckia complexa and Isolepis nodosa.

One plant of *Pimelia arenaria* (rare was recorded from this site in 1983 (P.J. de Lange pers. comm.) *Desmoschoenus spiralis* (pingao) is locally common at this site (classed as local).

Taken from Beadel (1993).

The vegetation types of this site are also listed in Beadel (1993).

**Botanical:** Identified as very high botanical conservation value in Beadel (1993) for reasons given in above habitat description. Also identified as regionally important by Forbes and Bridgewater (1990).

Wildlife: Assessed as having moderate wildlife habitat value (K.L. Owen, pers comm.).

Other:

### THREATS AND REMARKS:

- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Beadel, S.M. 1989. Notes on the Vegetation and Flora of Tauranga Harbours and Little Waihi Estuary, Bay of Plenty Conservancy. Report prepared for the Department of Conservation, Rotorua. 67 pp.
- Forbes, S. & Bridgewater, G. 1990. Coastal Resource Inventory, First Order Survey. Bay of Plenty Conservancy.

Botanical: Part of this site identified as high botanical conservation value in Beadel (1993). Pohutukawa forest was once common in the Tauranga ecological district; However it has been greatly reduced in extent and only small areas now remain (e.g. Mount Maunganui, Bowentown Heads and Tanners Point) (Beadel, 1993). The rest of this site is of moderate botanical conservation value however is included as part of the A category site as it acts as a buffer to the high ranking part of the site.

Ranked as regionally important by Forbes and Bridgewater (1990).

Wildlife: Assessed as having moderate habitat value for wildlife. This site requires a field check as it may be the site of a pied shag and little blue penguin breeding colony. (K.L. Owen, pers comm.).

### Other:

### THREATS AND REMARKS:

see Forbes and Bridgewater (1990).

- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Forbes, S. & Bridgewater, G. 1990. Coastal Resource Inventory, First Order Survey. Bay of Plenty Conservancy.



**Site no:** U13/13

Date of completion: 25.11.93

Category: A

Ecological District: TGA

Habitat Type: Forest

Name: Bowentown Heads 1

Area:

Protection Status:

Map Series: NZMS260

Grid Reference: 748 109

Aerial photo no: 170788

Date Flown: 28.2.93

Landform: Headlands

Habitat Description:

A good example of pohutukawa forest and secondary mixed forest on volcanic hard coast (Beadel, 1993).

Buffeted by gorse and bracken on the perimeter.

Botanical: Part of this site identified as high botanical conservation value in Beadel (1993). Pohutukawa forest was once common in the Tauranga ecological district; However it has been greatly reduced in extent and only small areas now remain (e.g. Mount Maunganui, Bowentown Heads and Tanners Point) (Beadel, 1993). The rest of this site is of moderate botanical conservation value however is included as part of the A category site as it acts as a buffer to the high ranking part of the site.

Ranked as regionally important by Forbes and Bridgewater (1990).

Wildlife: Assessed as having moderate habitat value for wildlife. This site requires a field check as it may be the site of a pied shag and little blue penguin breeding colony. (K.L. Owen, pers comm.).

### Other:

### THREATS AND REMARKS:

see Forbes and Bridgewater (1990).

- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Forbes, S. & Bridgewater, G. 1990. Coastal Resource Inventory, First Order Survey. Bay of Plenty Conservancy.

Site no: U13/14 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Forest

Name: Bowentown Heads 2

Area:

Protection Status:

Map Series: NZMS260

Grid Reference: 740 108

Aerial photo no: 170788 Date Flown: 28.2. 93

Landform: Headlands

### Habitat Description:

A good example of pohutukawa forest and secondary mixed forest on volcanic hard coast (Beadel, 1993).

Surrounded by gorse and bracken.

Significant wildlife recorded here includes a colony of pied shag, the little blue penguin and the variable oystercatcher (Forbes and Bridgewater, 1990).

Botanical: Most of site identified as high botanical conservation value in Beadel (1993). Pohutukawa forest was once common in the Tauranga ecological district; However it has been greatly reduced in extent and only small areas now remain (e.g. Mount Maunganui, Bowentown Heads and Tanners Point) (Beadel, 1993). The rest of site consisting of gorse and bracken is of moderate botanical conservation value, however is included in the A category site as it provides a buffer for the high ranking part of the site.

Ranked as regionally important by Forbes and Bridgewater (1990).

Wildlife: Assessed as having moderate to high wildlife conservation values for presence of one of the few Bay of Plenty pied shag colonies, the little blue penguin and the variable oystercatcher (K.L. Owen, pers comm.).

### Other:

### THREATS AND REMARKS:

see Forbes and Bridgewater (1990).

- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Forbes, S. & Bridgewater, G. 1990. Coastal Resource Inventory, First Order Survey. Bay of Plenty Conservancy.

## SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE

## WESTERN BAY OF PLENTY

**Site no:** U13/15 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Forest

Name: Part of Athenree 2

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 713 132

Aerial photo no: 170788 Date Flown: 28.2.93

### Landform:

### Habitat Description:

Willow forest with moderate weed invasion low pest effects and high human modification, mapped in Beadel (1992a).

Vegetation types include - Grey willow forest, Grey willowmanuka forest, Manuka scrub, Manuka shrubland, Cabbage tree/Baumea juncea-Coprosma tenuicaulis-Baumea articulata treeland. (Beadel, 1993).

Botanical: Identified as high botanical conservation value in Beadel (1993). Part of a relatively large example of described vegetation types, characteristic of Tauranga ecological district. It was identified as a category 2 area in Beadel (1992a).

Wildlife: Assessed as having moderate wildlife habitat value in Rasch (1989). This site requires a field check.

Other:

#### THREATS AND REMARKS:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.

ORDER

**Site no:** U13/16

Date of completion: 28.11.93

Category: B

Ecological District: TGA

Habitat Type: Shrubland

Name: Northern half of Bowentown Heads

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 739 109

Aerial photo no: 170789 Date Flown: 28.2.93

Landform: Hillslope

Habitat Description:

Secondary vegetation, mostly bracken and gorse (K.D. Young, persobs).



Site no: U13/17 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Sedgeland/vineland

Name: Western side of Seaforth Road.

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 729 133

Aerial photo no: 170788 Date Flown: 28.2.93

### Landform:

### Habitat Description:

This site contains *Isolepis nodosa/ Muehlenbeckia complexa* sedge-vineland with exotic trees, grasses and herbs being common (Beadel, S.M., pers comm).

Botanical: Identified as moderate conservation value by Beadel (pers comm). There are better quality examples of similar vegetation elsewhere in the ecological district (eg. SS Bowentown sand dunes) (Beadel, pers comm).

Wildlife: Assessed as having potential wildlife habitat value (K.L. Owen, pers comm.).

Other:

### THREATS AND REMARKS:

Dumping of garden refuse

### REFERENCES:

Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.



Site no: U13/22 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Forest and treeland

Name: Tanners Point

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 709 903

Aerial photo no: 170813 Date Flown: 28.2.93

### Landform:

### Habitat Description:

Pohutukawa forest and treeland (Beadel, S.M., pers comm) with associated saltmarsh (Owen, 1993a) site 12.

### SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE

### WESTERN BAY OF PLENTY

ORAFT

Site no: T13/1 Date of completion: 25.11.93

Category: A Ecological District: Te Aroha & TGA

Habitat Type: Forest

Name: East Ngatukituku Ecological Area Extension

Area:

Protection Status: Partially protected by Conservation

Covenant.

Map Series: NZMS260

Grid Reference: 630 020

Aerial photo no: 170759 Date Flown: 4.2.93

Landform: Gentle toeslopes of eastern Kaimai Range on late Pliocene, early Miocene andesite.

### Habitat Description:

Modified and unmodified tawa forest. The lower slopes support the more semi-coastal type forest with tall kohekohe subcanopy, frequent nikau and kiekie and occasional puriri.

Common forest birds recorded.

All information taken from Humphries and Tyler (1990).

Botanical: Identified as exceptional botanical conservation value. This site is contiguous with the East Ngatukikuti ecological area (a large representative area of indigenous vegetation from lowland to montane). It contains semi-coastal forest which is currently under represented in the Te Aroha ecological district, Humphreys and Tyler (1990), ranking (S.M. Beadel, pers comm).

Wildlife: Assessed as having moderate to high wildlife habitat value. This site is adjacent to Kaimai Mamaku Forest Park, which is a kokako habitat of outstanding wildlife habitat value. (K.L. Owen, pers comm.).

Other:

## THREATS AND REMARKS:

Subdivision for lifestyle blocks and wild animals.

#### REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

## WESTERN BAY OF PLENTY

Site no: T13/2 Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

Name: Tauhawai Stream Bush

Area:

Protection Status: Partially protected by Conservation Covenant

Map Series: NZMS260

Grid Reference: 645 040

Aerial photo no: 170829 Date Flown: 28.2.93

## Landform:

## Habitat Description:

Rata-podocarp tawa forest (Te Aroha PNA report vegetation map, unpub).

Appears quite intact forest canopy from aerial photograph.

## WESTERN BAY OF PLENTY

Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Estuarine margin vegetation

Name: Park Road Shoreline

Area:

Site no: T13/3

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 690 028

Aerial photo no: 170826 Date Flown: 28.2.93

Landform: Estuarine margin

## Habitat Description:

This site forms part of a larger wildlife habitat site with moderate habitat quality. The whole wildlife habitat site is described as a narrow to wide band of estuarine vegetation below sea cliff. Scattered to dense mangrove scrub dominates the area with localised area of searush and oioi sedgeland with small areas of raupo reedland and flaxland merging into mixed native and introduced secondary vegetation on the inland side. (Owen, 1993a).

Wildlife of the whole site includes the banded rail and New Zealand kingfisher (Owen, 1993a).

This site is mapped in Beadel (1992).

**Botanical:** The larger wildlife habitat site is identified as moderate botanical conservation value by (S.M. Beadel, pers comm).

Wildlife: The larger wildlife habitat site is assessed as having moderate habitat quality for marshbirds in Owen (1993a).

This estuarine margin strip is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to preserve the wildlife values.

#### Other:

## THREATS AND REMARKS:

For threats, impacts and conservation recommendations, see Owen (1993a).

## REFERENCES:

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

## WESTERN BAY OF PLENTY

ORAFT

28.2.93

Date Flown:

Site no: T13/4 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Estuarine Vegetation

WBOPDC Map: C4

Name: SS Katikati 1

Area:

Protection Status: Unprotected

Map Series: NZMS260 Grid Reference: 682 028 Aerial photo no: 170826

Landform: Estuary margin/escarpment

## Habitat Description:

This site forms part of a larger site with outstanding habitat quality. On the inland slopes there is native secondary vegetation and pines and the larger wildlife habitat site is an extensive area of unmodified estuarine vegetation.... Contains broad bands of scattered to dense mangrove scrub and shrubland, searush sedgelands and mixed associations of both further inland. Along the inland side raupo reedland, manuka scrub and shrubland prevail (Owen, 1993a).

This site is mapped in Beadel (1992) and described in Beadel (1993).

Wildlife of the whole site includes the Australasian bittern, the NI fernbird, the australasian harrier, pukeko, mallard, and white faced heron (Owen, 1993a).

Much of the site is below mean high water springs as so comes within the jurisdiction of the Bay of Plenty Regional Council's Regional Coastal Environment Plan.

Botanical: The greater site is identified as very high botanical value by Beadel (1992) and Beadel (1993). A relatively large good quality, representative example of the wetland vegetation of Tauranga harbour. It contains relatively extensive examples of three of the common vegetation types in the harbour: searush tussockland, oioi sedgeland and mangrove scrub/shrubland. It was identified as a category 1 area in Beadel (1992).

Wildlife: The greater site is assessed as having outstanding wildlife habitat quality for marshbirds in Owen (1993a).

This site is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to preserve the wildlife values.

Other: Natural character values.

## THREATS AND REMARKS:

For threats, impacts and conservation recommendations see Owen (1993a).

#### REFERENCES:

Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.

Beadel, S.M. in press. Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council,

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Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

## LANDOWNER VISITS:

1. J Pickering, 172 State Highway 2, North of Katikati. Legal description: Lot 2 DPS 40077, Lot 5, DPS 29930 Block 9, Katikati. Visited by V. Froude (DOC), K. Owen (DOC) and B. Hawkins (WBOPDC) on 4.8.94.

Outcome of visit: Adjusted boundary to exclude farmland.

Scattered gorse, blackberry, pines, woolly nightshade and Spanish heath.

EXISTING THREATS AND IMPACTS

Several drains through area.

Date: 22.01.92 Site No: 29 stokes Road Wetland

Brief Description of Site:

Map No: 2 Site Nan.

Area: 1.5ha

Enclosed upper tidal reaches of Tahawai Stream. Mixed estuarine vegetation dominated by oioi sedgeland with searush sedgeland, Baumea articulata sedgeland, marsh ribbonwood scrub, Olearia solandri scrub merging into a large area of manuka shrublands.

| Worlibers Natures National Annual Maries/Comments |  | 5 Two birds seen and three birds heard in response to tape recordings played. | Numbers Notes/Confronts 1 |  |  |
|---|--|---|---------------------------|--|--|
| Sbegies pi Note. 1Numbers.                        |  | North Island<br>fernbird  | Others .                  |  |  |

| WILDUIE VALUES | Notes/Confinedis          |  | Two birds seen and three birds heard in response to tape recordings played. | Notes/Comments 1.1 |  |  | - |
|----------------|---------------------------|--|---|--------------------|--|--|---|
|                | Numbers                   |  | 5   | Numbers            |  |  |   |
|                | Species of Nates (Nambers |  | North Island<br>fernbird  | Others             |  |  |   |

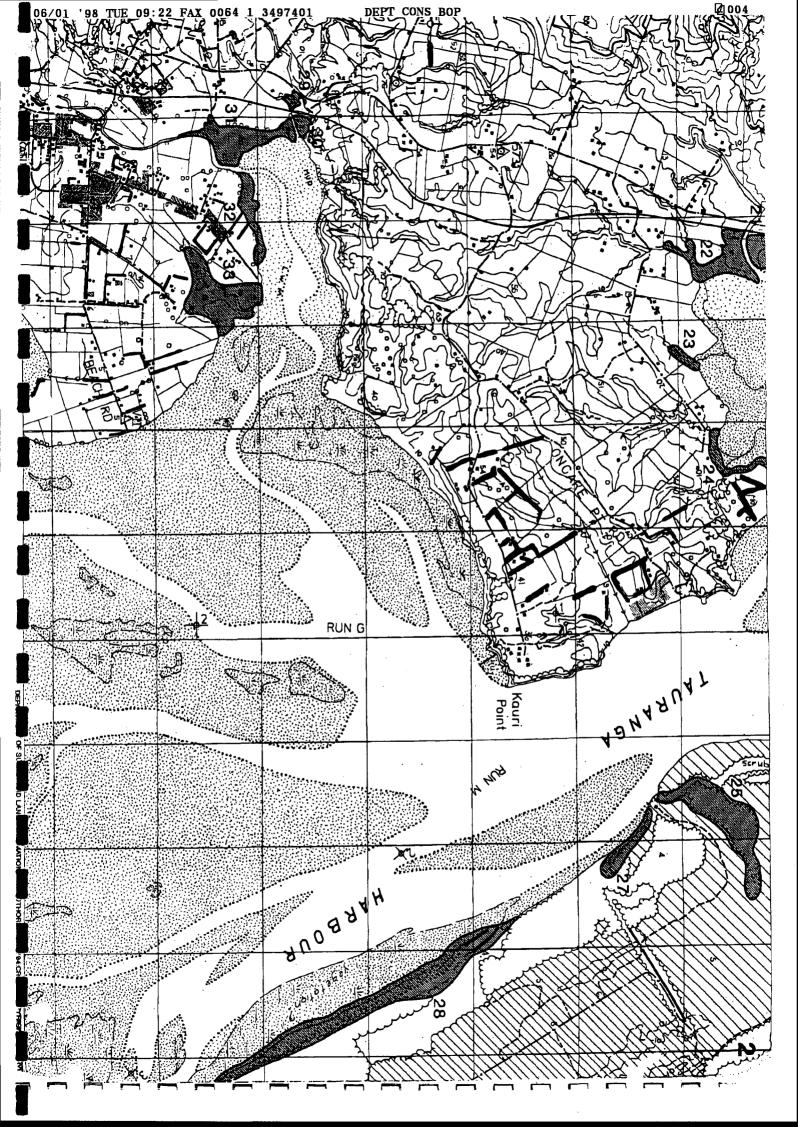
Infill illegal drain and restore locality.

Moderate

Control adventive plants.

4

T13 (5)



Scattered gorse, blackberry, pines, woolly nightshade and Spanish heath.

EXISTING THREATS AND IMPACTS

Several drains through area.

e 29

Area: 1.5ha

Site Nan. stokes Road Wetland

Map No: 2

Date: 22.01.92

Enclosed upper tidal reaches of Tahawai Stream. Mixed estuarine vegetation dominated by oioi sedgeland with searush sedgeland, Baumea articulata sedgeland, marsh ribbonwood scrub, Olearia solandri scrub merging into a large area of manuka shrublands. Brief Description of Site:

| Wildus Values Notes/Conminents |  | Two birds seen and three birds heard in response to tape recordings played. | Notes/Comments |  |   |
|--------------------------------|--|---|----------------|--|---|
| S.iegipioNT                    |  | C)  | Numbers        |  | j |
| Species of Northers            |  | North Island<br>fernbird  | Sallios"       |  |   |

CONSERVATION ACTIONS RECOMMENDED:

Control adventive plants.

5

Moderate

T13 (5)

Infill illegal drain and restore locality.

## WESTERN BAY OF PLENTY

S. S. F.

Site no: T13/6 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Geothermal

Name: Woodlands Hot Springs

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 670 049

Aerial photo no: Date Flown:

Landform: Hot Springs

## Habitat Description:

Warm springs, water probably contaminated by surface drainage, temperature approximately 34 degrees (Geo-preservation inventory).

## WESTERN BAY OF PLENTY



Site no: T13/7 & 8 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Estuarine Vegetation including a narrow fringe of

freshwater wetlands.

Name: SS Tuapiro

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 693 078

Aerial photo no: 170812 Date Flown: 28.2.93

Landform: Estuarine margin strip

## Habitat Description:

This strip forms part of a larger site of high botanical conservation value and outstanding habitat quality.

The northern half of this site is comprised of pohutukawa forest on the sedimentary coastal hinterland (Beadel, 1993), grey willow forest, tree fern, *Pinus radiata* and horticulture shelter belts (Owen, 1993a). The southern half is comprised of raupo reedland and grey willow forest associations (Owen, 1993a).

There is a narrow fringe of freshwater wetland vegetation (Beadel, 1993).

The vegetation of this site is mapped in Beadel (1992) and described in Beadel (1993).

Wildlife of the northern half of the greater site includes banded rail, NI fernbird, australasian harrier, pukeko, and the NZ kingfisher. In the southern half of the greater site the banded rail, marsh crake, NI fernbird, pukeko and NZ kingfisher are present. (Owen, 1993a).

Asplenium terrestre subsp. maritinum occurs in the pohutukawa forest.

Botanical: The greater site is identified as high botanical conservation value in Beadel (1993). It is a large relatively good quality, diverse example of the estuarine vegetation of Tauranga Harbour......there is a narrow fringe of freshwater wetland vegetation. Pohutukawa forest was once common in the TGA ecological district. It has been greatly reduced in extent and only small areas now remain..... This site includes a good example of pohutukawa forest with a reasonably intact understorey (Beadel, 1993). Asplenium terrestre subsp. maritinum occurs on this site.

**Wildlife:** The greater site is assessed as having outstanding wildlife habitat quality for marshbirds in Owen (1993a). Being part of the greater site this estuarine margin strip must be given the same conservation considerations to wildlife.

This site is part of the larger wildlife site and should be given the same conservation considerations to vegetation to preserve the wildlife values.

#### Other:

There is recreational whitebaiting associated with the greater site (Owen, 1993).

## THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

## REFERENCES:

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M. in press. Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

## WESTERN BAY OF PLENTY

Site no: T13/9 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Estuarine vegetation

Name: Wolseley Road

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 700 092

Aerial photo no: 170812 Date Flown: 28.2.93

Landform:

## Habitat Description:

This estuarine margin strip forms part of a larger wildlife habitat site of moderate botanical and wildlife conservation value.

The greater site is described as a narrow strip of estuarine vegetation, except in the inlet at the southern end, where it is more expansive and intact. The area is dominated by searush and oioi sedgelands, with mangrove scrub on the seaward side. Areas of manuka scrub, marsh ribbonwood scrub, Olearia solandri scrub and flaxland are generally confined to the wetland margins. (Owen, 1993a).

The vegetation of this site is mapped in Beadel (1992).

Wildlife of the greater site includes the banded rail, NI fernbird, NZ kingfisher, paradise shelduck and white-faced heron (Owen, 1993a).

## Botanical:

Wildlife: The larger wildlife habitat site is assessed as having moderate habitat quality for marshbirds in Owen (1993a).

This estuarine margin strip is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to preserve the wildlife values.

## Other:

## THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

## REFERENCES:

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L. 1991. A Preliminary Directory of Bay of Plenty Wetlands of International Importance. Department of Conservation, Bay of Plenty.

## WESTERN BAY OF PLENTY

Site no: T13/10 Date of completion: 25.11.93

Category: B Ecological District: Waihi

Habitat Type: Forest

Name: Waihi Bush 1

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 692 185

Aerial photo no: 170763 Date Flown: 28.2.93

## Landform:

## Habitat Description:

Manuka- broadleaf species scrub (Humphreys and Tyler, vegetation map, unpub).

Regenerating native forest with rewarewa, treefern , pohutukawa, ti kouka and fivefinger (K.D. Young, pers obs).

## WESTERN BAY OF PLENTY



Site no: T13/12 Date of completion: 25.11.93
Category: B Ecological District: TGA

Habitat Type: Forest & Estuarine wetland

WBOPDC Map: C4

Name: Katikati Estuary 3

Area:

Protection Status: Unprotected except for a 20 metre esplanade

reserve.

Map Series: NZMS260 Grid Reference: 695 038

Aerial photo no: 170826 Date Flown: 28.2.93

Landform: Hillslopes

## Habitat Description:

The site is a mosaic of regenerating indigenous forest types with self seeded pines (pinus pinaster) and black wattles. Most of the site is scattered pines over mamaku-rewarewa forest with kanuka and kamahi in some areas. There are a few examples of pohutukawa, pole rimu, and totara. There is a small area of saltmarsh with flax and mangroves adjoining the harbour (V. Froude, pers obs, 1994).

**Botanical:** Identified as moderate botanical conservation value by Beadel (pers comm). Adventive species including radiata pine are common at this site and the vegetation is highly modified.

Wildlife: Assessed as having moderate wildlife habitat value.
(K.L. Owen, pers comm.).

Other: Natural character, water and soil conservation values.

## THREATS AND REMARKS:

Stock and falling pines.

## REFERENCES:

Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.

## LANDOWNER VISITS;

1. George Wilks, 38 Castlereagh drive, Kauri pt RD 1, Katikati. Legal description: Lot 5 DPS 39611. Visited by V. Froude (DOC) and Hawkins (WBOPDC) on 9.8.94.

Outcome of visit: Amended boundaries and site description.

Agreements between WBOPDC and Landowners:

1. Wilks: Pines around the margin of the fenced area can be removed. Pines in the centre of the fenced area require consent from Council to avoid too much damage to indigenous vegetation.

## WESTERN BAY OF PLENTY

CE

Site no: T13/13 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Shrubland and estuarine wetland

Name:

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 695 004

Aerial photo no: 170826 Date Flown: 28.2.93

Landform:

## Habitat Description:

Narrow tidal inlet with lower half comprising dense mangrove scrubland merging into the upper inlet where small areas of mixed searush and oioi sedgelands are found below two dam sites. Above the dams the vegetation comprises freshwater wetland vegetation dominated by raupo reedland and grey willow forest. (Owen, 1993a).

See Beadel (1992) for vegetation map and description.

Wildlife includes the banded rail and spotless crake (Owen, 1993a).

**Botanical:** Identified as moderate botanical conservation value by (S.M. Beadel, pers comm). There are better quality examples of similar vegetation elsewhere around Tauranga harbour.

Wildlife: Assessed as having moderate habitat quality for marshbirds in Owen (1993a).

#### Other:

## THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

## REFERENCES:

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

## WESTERN BAY OF PLENTY

ORAFA

Site no: T13/14

Date of completion: 25.11.93

Category: A

Ecological District: TGA

Habitat Type: Estuarine wetland margin

Name: Hikurangi

Area:

Protection Status: unprotected

Map Series: NZMS260

Grid Reference: 000 100

Aerial photo no:

Date Flown:

Landform:

## Habitat Description:

This estuarine margin strip is adjacent to a large wildlife habitat site. The site is described as an extensive area of estuarine vegetation extending seaward from a major stopbank, except at northern end, where saltmarsh is contained behind an old railway embankment. Area is dominated by dense and scattered mangrove scrub and shrubland in a 50 - 200 metre wide band with 3 large areas of oioi searush sedgelands along with scattered Zostera novozelandica and marsh ribbonwood scrub, flaxland and raupo reedland alongside the stopbank and where freshwater influences the wetland such as at the northern end. (Owen, 1993a).

The vegetation is mapped in Beadel (1992).

Wildlife of the adjacent wildlife habitat site includes the australasian bittern, banded rail, NI fernbird, coastal birds, pukeko and mallard (Owen, 1993a).

Botanical: The large habitat site is identified as moderate botanical conservation value by (S.M. Beadel, pers comm).

Being adjacent to this larger habitat site, this site must be given botanical conservation value considerations.

Wildlife: The large habitat site is assessed as having high habitat quality for marshbirds in Owen (1993).

Being adjacent to this larger habitat site this site must be given wildlife conservation value considerations.

#### Other:

## THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

## REFERENCES:

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

## WESTERN BAY OF PLENTY

TENKA.

Site no: T13/15 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Estuarine margin strip

Name: SS Katikati 2

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 696 025

Aerial photo no: 170826 Date Flown: 28.2.93

## Landform:

## Habitat Description:

This site forms part of a larger wildlife and botanical site of high conservation value.

The larger site is described as a large semi enclosed inlet dominated by extensive areas of mangrove scrub and shrubland with a relatively narrow margin of searush sedgelands, some oioi sedgelands with in some places, a mixed association of searush, oioi and Baumea juncea sedgelands. Marsh ribbonwood scrub and manuka scrub is also associated with this margin . (Owen, 1993a).

The larger site is also mapped in Beadel (1992) and described in Beadel (1993).

Wildlife of the larger site includes the banded rail, and NI fernbird (Owen, 1993a).

Botanical: The larger site is identified as high botanical conservation value in Beadel (1993) being a relatively large area of mangrove scrub with small areas of saltmarsh. It contains vegetation types are characteristic of Tauranga ecological district. It was identified as a category two area in Beadel (1992). (Beadel, 1993).

The category 2 area defined in Beadel (1992a) is of high botanical conservation value and the rest of the site that is contiguous if moderate botanical conservation value.

Wildlife: The larger site is assessed as having high habitat quality for marshbirds in (Owen, 1993).

This estuarine margin strip is part of the larger wildlife habitat site and should be given the same conservation considerations to vegetation to preserve the wildife values.

## Other:

## THREATS AND REMARKS:

For information on threats, impacts and conservation recommendations see Owen (1993a).

#### REFERENCES:

- Beadel, S.M., 1992: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M. 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

## WESTERN BAY OF PLENTY

RAFT

Site no: T13/16 Date of completion: 25.11.93

Category: B Ecological District: Waihi

Habitat Type: Forest

Name: Firewood Stream 1

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 643 105

Aerial photo no: 170793 Date Flown: 28.2.93

## Landform:

## Habitat Description:

Northern part; (Rata-podocarp)/tawa forest. Southern part; Kanuka-broadleaf species forest. see map in SSSCV file.

(Source: Humphreys and Tyler, vegetation map, unpub).

## WESTERN BAY OF PLENTY

Site no: T13/17 Date of completion: 25.11.93

Category: B Ecological District: Te Aroha

Habitat Type: Forest and scrub

Name:

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 680 086

Aerial photo no: 170810 Date Flown:

Landform:

## Habitat Description:

Part: pines, wattle, gorse, treeferns and scrub species with

some kamahi and kanuka.

Part: (Rata) tawa modified forest Part: (Rata-podocarp)/tawa forest

see attached mapped in SSSCV file.

(Source: Humphreys and Tyler, vegetation map, unpub).

## SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE WESTERN BAY OF PLENTY

Site no: T13/22 Category: A Habitat Type: Date of completion: 25.11.93 Ecological District: Te Aroha

WBOPDC Map: C3

Name: Area:

Protection Status: Unprotected

Henry Road Bush

Map Series: NZMS260 Grid Reference: 638 014 Aerial photo no: 170846

Date Flown:

Landform: steep gullies and hillslopes.

Habitat Description:

(Pukatea)/rewarewa-tawa forest in the gullies with some rimu, kauri and miro. On the forest edges there is puriri-tawa forest. There is a diversity of subcanopy species including kohekohe and nikau palms (V. Froude, pers obs. 1994).

Botanical: The forest is of high botanical conservation value due to the diversity of species present and the abundance of species such as puriri (V. Froude, pers com).

Wildlife: Assessed as having moderate wildlife habitat value (K.L. Owen, pers comm.). There are good numbers of kereru along with kaka and other forest species. Birdlife reflects the abundance of food supplies (V. Froude, pers comm).

Other: Water and soil conservation values.

## THREATS AND REMARKS:

Stock grazing and tracking (bulldozer) over part of the site.

## REFERENCES:

## LANDOWNER VISITS:

1. Marsdon Carrad, 426 Busby Road, Katikati. Legal description, Lot 1 DPS 49476. Visited by V. Froude (DOC), K. Owen (DOC) and Bruce Hawkins (WBOPDC) on 4.8.94.

Outcomes of visit: Amended site description.

## WESTERN BAY OF PLENTY

Site no: T13/23 Date of completion: 25.11.93

Category: B Ecological District: Waihi

Habitat Type: Forest

Name: Firewood Stream 2.

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 645 116

Aerial photo no: 170792 Date Flown: 28.2.93

## Landform:

## Habitat Description:

Part: Kanuka-broadleaf species forest.

Part: (Rata) / tawa modified forest

Part: Highly modified indigenous vegetation

See map held SSSCV file

(Source: Humphreys and Tyler, vegetation map, unpub).

## WESTERN BAY OF PLENTY

Site no: T14/1 Date of completion: 25.11.93

Ecological District: OTW Category: A

Habitat Type: Forest

Name: End of Works Road Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 690 855

Date Flown: 4.2.93 Aerial photo no: 170712

Landform: Stream gullies

## Habitat Description:

Dense tawa forest contiguous with Kaimai Mamaku State Forest Canopy appears intact (K.D. Young, pers obs from aerial Park. photo).

## WESTERN BAY OF PLENTY

Site no: T14/2 Date of completion: 25.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Works Road Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 700 858

Aerial photo no: 170712 Date Flown: 4.2.93

Landform: Stream Gully

## Habitat Description:

Dense indigenous tawa forest on the northern side and general hardwood forest on the southern side.

Site forms part of the larger Wainui river bush which is partly owned by DOC.

# SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE WESTERN BAY OF PLENTY

Site no: T14/3 Date of completion: 25.11.93

Category: A Ecological District: OTW

Habitat Type: Forest

Name: End Wright Road Bush

Area: 15ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 682 882

Aerial photo no: 170712 Date Flown: 4.2.93

Landform: Flat ground and steeper sides of a small side stream.

## Habitat Description:

The canopy is tawa dominant with occasional rimu emergent above the tawa along the stream. Rewarewa occurs throughout, with kamahi, puriri and kohekohe also present in the canopy.

Nikau occurs over the stream , with kamahi and tanekaha common locally near margins. Some larger puriri are present, with mamaku scattered throughout the canopy and locally common along the stream along with pukatea.

The tawa canopy is 18-20m high with kohekohe common in the canopy and understorey. Other understorey components include hukihuki, ponga. Kawakawa is common near the stream. The groundcover is predominantly litter with scattered seedlings of kohekohe, kareao, heruheru and kamu. There is grazing damage throughout, but its intensity varies markedly. The understorey is particularly open adjacent to the farm access track that bisects this block.

The canopy is relatively open in places, probably reflecting the imp[act of previous logging of emergent podocarp. Some trees have been removed for firewood along the western margin.

(Shaw, un pub).

## WESTERN BAY OF PLENTY

Site no: T14/4 Date of completion: 25.11.93

Ecological District: OTW Category: A

Habitat Type: Forest

Name: Whatakao Stream Bush

Area: 21ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 691 880

Aerial photo no: 170712 Date Flown: 4.2.93

Landform: Steep stream gully

Habitat Description:

A relatively large area of predominantly secondary forest which is contiguous with the Kaimai-Mamaku Forest Park. ..... Narrow tongues of contiquous forest also extend up side streams of the Whakatao Stream.

Most of this block is secondary forest dominated by rewarewa/kamahi-kanuka. Different species are dominant or prominent on different sites reflecting site conditions and history. Some remnant examples of rimu/tawa-puriri are still present in gullies and tanekaha occurs locally, and is dominant in one place. Mamaku is locally common in the canopy. occurs locally in the canopy. Heketara is locally common along with regenerating kohekohe in the understorey. The understorey has been heavily depleted by stock grazing.

Kamahi (12-14 metres high) is dominant on a flat section of The understorey is very depleted, with scattered kohekohe, kaponga, hangehange present. The groundcover is mainly litter with Oplismenus imbecillus, Blechnum filiforme and scattered seedlings of mahoe, kaponga and rewarewa. There are a few rimu and miro present, 4-6 metres high.

Tanekaha is dominant on one section of ridge crest near the forest park boundary, up to 16 metres high, in association with rewarewa and toru. The understorey on this site is abundant tanekaha, locally abundant komingiroa, occasional hukihuki, hangehange and mapou. Ground cover is almost entirely litter. Rimu and kamahi also occur with the tanekaha. Pukatea occurs near the valley floor in a small side stream.

(Shaw, unpub)

Botanical: Identified as High botanical conservation value using Shaw's (in press) rankings. This site contains an example of tanekaha forest. It is contiguous with a large tract of indigenous vegetation. It extends down the whatakao stream into Tauranga ecological district, As such it provides a sequence extending towards the coast.

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other:

## THREATS AND REMARKS:

This site should be fenced from stock as there is heavy grazing damage (Shaw, unpub).

#### REFERENCES:

Shaw, W.B., 1993. Field inspection of Davey Property: Kaimai Foothills, Otanewainuku Ecological District. Unpublished.

## SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE WESTERN BAY OF PLENTY

Site no: T14/5

Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

WBOPDC Map: E4

Name: Poupou Stream Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 665 910

Aerial photo no: 170712 & 170734 Date Flown: 4.2.93

Landform: Gentle foothills of the eastern Kaimai Ranges on

Waiteariki ignimbrite

## Habitat Description:

Some of these stream valleys emerging from the Kaimai Ranges still support original of slightly modified (rata-podocarp)/tawa forest. Below about 200m up sheltered valleys there is a semi-coastal type of forest with puriri and sometimes a distinctive, tall dense subcanopy of kohekohe. In areas which have been modified there is kamahi scrub or taller kamahi forest with good regeneration of other forest species under main canopy, especially kohekohe. Common forest birds recorded. (Humphreys and Tyler ,1990).

The northern arm of the sit is tawa-rewarewa forest with scattered pines on the upper slopes (V. Froude, pers obs. 10.8.94).

Botanical: Identified as moderate conservation value by Humphreys and Tyler, 1990). Under-represented semi-coastal type forest and scrub, two bioclimatic zones and three vegetation types gives moderate diversity. Some remnants have a high degree of naturalness although grazing has reduced naturalness. (1990).

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other: Scenic

## THREATS AND REMARKS:

Conversion to farming, forestry and residential subdivision (lifestyle blocks) (Humphreys and Tyler, 1990).

## REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

## LANDOWNER VISITS:

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1. T. Hindrup, 186 Upland Road. Legal description: lot 2, DPS 50651. Visited by V. Froude (DOC) on 10.8.94.

Outcome of visit:
Amended site boundaries to delete most of property.

# SCHEDULE OF SITES OF SIGNIFICANT CONSERVATION VALUE WESTERN BAY OF PLENTY

Site no: T14/5
Category: A

Date of completion: 25.11.93 Ecological District: Te Aroha

Habitat Type: Forest

WBOPDC Map: E4

Name: Poupou Stream Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260 Grid Reference: 665 910

Aerial photo no: 170712 & 170734 Date Flown: 4.2.93

Landform: Gentle foothills of the eastern Kaimai Ranges on

Waiteariki ignimbrite

## Habitat Description:

Some of these stream valleys emerging from the Kaimai Ranges still support original of slightly modified (rata-podocarp)/tawa forest. Below about 200m up sheltered valleys there is a semicoastal type of forest with puriri and sometimes a distinctive, tall dense subcanopy of kohekohe. In areas which have been modified there is kamahi scrub or taller kamahi forest with good regeneration of other forest species under main canopy, especially kohekohe. Common forest birds recorded. (Humphreys and Tyler ,1990).

The northern arm of the sit is tawa-rewarewa forest with scattered pines on the upper slopes (V. Froude, pers obs. 10.8.94).

Botanical: Identified as moderate conservation value by Humphreys and Tyler, 1990). Under-represented semi-coastal type forest and scrub, two bioclimatic zones and three vegetation types gives moderate diversity. Some remnants have a high degree of naturalness although grazing has reduced naturalness. (1990).

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other: Scenic

#### THREATS AND REMARKS:

Conversion to farming, forestry and residential subdivision (lifestyle blocks) (Humphreys and Tyler, 1990).

#### REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

# LANDOWNER VISITS:

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1. T. Hindrup, 186 Upland Road. Legal description: lot 2, DPS 50651. Visited by V. Froude (DOC) on 10.8.94.

Outcome of visit:
Amended site boundaries to delete most of property.

#### WESTERN BAY OF PLENTY

Site no: T14/6 Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

Name: End Hume road Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 657 914

Aerial photo no: 170712 & 170734 Date Flown: 4.2.93

Landform: Gentle foothills of the eastern Kaimai Ranges on Waiteariki ignimbrite

# Habitat Description:

Some of these stream valleys emerging from the kaimai ranges still support original of slightly modified (rata-podocarp)/tawa forest. Below about 200m in sheltered valleys there is a semi-coastal type of forest with puriri and sometimes a distinctive, tall dense subcanopy of kohekohe. In areas which have been modified there is kamahi scrub or taller kamahi forest with good regeneration of other forest species under main canopy, especially kohekohe.

Common forest birds recorded.

All information taken from Humphreys and Tyler (1990).

**Botanical:** Identified as exceptional botanical conservation value using Shaw's (in press) rankings. It is part of a representative example of the vegetation of Te Aroha ecological District.

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other: Scenic

#### THREATS AND REMARKS:

Conversion to farming, forestry and residential subdivision (lifestyle blocks) (Humphreys and Tyler, 1990).

Identified as moderate conservation value by Humphreys and Tyler, 1990). Under-represented semi-coastal type forest and scrub, two bioclimatic zones and three vegetation types gives moderate diversity. Some remnants have a high degree of naturalness although grazing has reduced naturalness. (1990). REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

#### WESTERN BAY OF PLENTY

Site no: T14/7 Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

Name: Lockington Road Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 649 922

Aerial photo no: 170712 & 170734 Date Flown: 4.2.93

Landform: Gentle foothills of the eastern Kaimai Ranges on

Waiteariki ignimbrite

# Habitat Description:

Some of these stream valleys emerging from the kaimai ranges still support original of slightly modified (rata-podocarp)/tawa forest. Below about 200m in sheltered valleys there is a semi-coastal type of forest with puriri and sometimes a distinctive, tall dense subcanopy of kohekohe. In areas which have been modified there is kamahi scrub or taller kamahi forest with good regeneration of other forest species under main canopy, especially kohekohe.

Common forest birds recorded.

All information taken from Humphreys and Tyler (1990).

Botanical: Identified as exceptional botanical conservation value using Shaw's (in press) rankings. It is part of a representative example of the vegetation of Te Aroha ecological District.

Wildlife: Assessed as moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other: Scenic

#### THREATS AND REMARKS:

Conversion to farming, forestry and residential subdivision (lifestyle blocks) (Humphreys and Tyler, 1990).

Identified as moderate conservation value by Humphreys and Tyler, 1990). Under-represented semi-coastal type forest and scrub, two bioclimatic zones and three vegetation types gives moderate diversity. Some remnants have a high degree of naturalness although grazing has reduced naturalness. (1990). REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

#### WESTERN BAY OF PLENTY

Site no: T14/8 Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

Name: Tuapo Stream Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 655 932

Aerial photo no: 170712 & 170734 Date Flown: 4.2.93

Landform: Gentle foothills of the eastern Kaimai Ranges on Waiteariki ignimbrite

# Habitat Description:

Some of these stream valleys emerging from the kaimai ranges still support original of slightly modified (rata-podocarp)/tawa forest. Below about 200m in sheltered valleys there is a semi-coastal type of forest with puriri and sometimes a distinctive, tall dense subcanopy of kohekohe. In areas which have been modified there is kamahi scrub or taller kamahi forest with good regeneration of other forest species under main canopy, especially kohekohe.

Common forest birds recorded.

All information taken from Humphreys and Tyler (1990).

Botanical: Identified as exceptional botanical conservation value using Shaw's (in press) rankings. It is part of a representative example of the vegetation of Te Aroha ecological District.

**Wildlife:** Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other: Scenic

#### THREATS AND REMARKS:

Conversion to farming, forestry and residential subdivision (lifestyle blocks) (Humphreys and Tyler, 1990).

Identified as moderate conservation value by Humphreys and Tyler, 1990). Under-represented semi-coastal type forest and scrub, two bioclimatic zones and three vegetation types gives moderate diversity. Some remnants have a high degree of naturalness although grazing has reduced naturalness. (1990). REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

#### WESTERN BAY OF PLENTY

Site no: T14/9

Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

WBOPDC Map: D3

Name: Waitekohe Stream

Area:

Protection Status: Upland part of site is protected by a Queen

Elizabeth National Trust Covenant (see map).

Map Series: NZMS260 Grid Reference: 640 940 Aerial photo no: 170742

Landform: Easy low foothills of the eastern Kaimai Range on Waiteariki ignimbrite and Huka group siltstones, sandstones and conglomerates.

## Habitat Description:

Tawa forest in this area has been modified but still maintains a forest canopy. The valley of the Waitekohe lies below 200m and supports a semi-coastal type of tawa forest which has been mostly cleared for agriculture on the eastern side of Kaimai-Mamaku Forest Park and is currently under-represented in protected natural areas in Te Aroha Ecological District.

Common forest birds recorded.
There is some past modification.

(Humphreys and Tyler, 1990).

The vegetation on the Humphries property (northern end of the site) is a mosaic of indigenous forest and shrubland communities including tawa-rewarewa forest (some with young rimu in the canopy); Kamahi-rewarewa-hinau forest, manuka dominant shrubland with scattered emergent wilding pines; treefern and pockets of pasture. There is a small area of kauri regeneration. Pukatea, puriri, miro, kohekohe and nikau are present. (V. Froude, pers obs. 1994).

Date Flown: 4.2.93

**Botanical:** Identified as a Recommended area for Protection by Humphreys and Tyler (1990). This small forested catchment supports under represented semi-coastal tawa forest.

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen., pers comm.).

Other:

## THREATS AND REMARKS:

Subdivision for lifestyle blocks and horticulture, feral animals. Site requires protection and some management to maintain natural values (Humphreys and Tyler, 1990).

#### REFERENCES:

Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

#### LANDOWNER VISITS:

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1. Barry and Jean Humphrey, 392 Lund Road. Legal description: Lot 1, DPS 35116, Blk 1, Aongatete. Visited by V. Froude (DOC), B. Hawkins (WBOPDC), K. Owen (DOC) on 4,8,94.

Outcome of visit: Amended boundaries of site to exclude pasture dominant and modified areas.

Agreements between WBOPDC and Landowners:

Humphrey's property is a mosaic with some small areas of pasture included within the marked schedule site because they are too small to exclude at a 1:25 000 scale of mapping. The provisions of the schedule do not apply to these pasture areas.

#### WESTERN BAY OF PLENTY

Site no: T14/10 Date of completion: 25.11.93

Category: A Ecological District: Te Aroha

Habitat Type: Forest

Name: Te Rereatukahia

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 626 964

Aerial photo no: 170742 Date Flown: 4.2.93

Landform: Easy hillslopes in the lower Te Tereatukahi catchment on Waiteariki ignimbrite and Huka groups siltstones, sandstones and conglomerates.

# Habitat Description:

Lowland and semi-coastal type (rata-podocarp)/tawa forest occupies major hillslope and stream valleys with frequent, scattered hardbeech and kauri along streams, especially those to the south. Tall tawa forest in the semi-coastal zone has a dense subcanopy of kohekohe and occasional puriri and karaka. Past kauri logging has resulted in secondary kamahi forest on ridges with other forest tree regeneration. On the northern side of the catchment is a distinctive and unusual dense kauri grove on a ridge.

Common forest birds recorded.

All above information taken from Humphreys and Tyler (1990).

Kingfern occurs at this site. Kingfern is classed as rare (Cameron et al, 19930.

Botanical: Identified as a Recommended area for Protection by Humphreys and Tyler (1990). It is of very high botanical conservation value. It contains one of the last remaining examples of semi coastal forest in the ecological district. This site is contiguous with a large tract of indigenous vegetation which extends over several ecological districts. This site also includes one of the southernmost hardbeech kauri forest associations. Source, Humphreys and Tyler (1990).

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

#### Other:

#### THREATS AND REMARKS:

Requires protection and low level of management, threats include fire, people damage and wild animals. Popular walking tracks run through this area.

#### REFERENCES:

- Beadel, S.M., 1992: Threatened and Local Plants of the Bay of Plenty Conservancy. Prepared for the Department of Conservation, Bay of Plenty Conservancy.
- Humphreys, E.A. & Tyler, A.M., 1990: Coromandel Ecological Region. Survey for the Protected Natural Areas Programme. Department of Conservation.

#### WESTERN BAY OF PLENTY

Site no: T14/11 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Forest and Geothermal

Name: Sapphire Springs Bush

Area:

Protection Status: District Council Reserve, Crown owned.

Map Series: NZMS260

Grid Reference: 645 977

Aerial photo no: 170742 Date Flown: 4.2.93

Landform: Warm springs emerging form the back of Te Rereatukahia Stream.

# Habitat Description:

Regenerating native forest with rewarewa canopy with good understorey (Rasch, 1989).

Regionally important geological feature (Geo-preservation Inventory).

Botanical: Identified as high botanical conservation value. A good example of the present day vegetation of the semi coastal bioclimatic zone of the Tauranga Ecological District. This site may deserve a higher ranking and should be re-evaluated when more information is available.

Wildlife: Assessed as having moderate wildlife habitat value in Rasch (1989).

Other: Regionally important geological feature with a vulnerability of 2 classification (Geo-preservation Inventory).

#### THREATS AND REMARKS:

#### REFERENCES:

Geo-preservation Inventory

Rasch, G. 1989: Wildlife and Wildlife Habitats in the Bay of Plenty Region. Regional Report Series Number 11. Department of Conservation, Rotorua.

#### WESTERN BAY OF PLENTY

Site no: T14/12 Date of completion: 25.11.93

Category: A Ecological District: TGA

Habitat Type: Estuarine vegetation

Name: Waitekohe Stream Mouth

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 702 983

Aerial photo no:

Date Flown:

Landform: Estuary margins

#### Habitat Description:

This estuarine margin site forms part of a larger wildlife habitat site with high habitat quality. In the site itself there is dense and scattered mangrove scrub and shrubland with searush and oioi sedgeland and small remnant areas of marsh ribbonwood and manuka scrub and raupo reedland along with pampas along the stopbank margin (Owen, 1993a).

The vegetation of the larger site is also mapped in Beadel (1992).

Wildlife of the larger site includes the australasian bittern and NI fernbird along with the white faced heron, pukeko, black swan and mallard (Owen, 1993a).

Botanical: Identified as moderate botanical conservation value (Beadel, S.M., pers comm).

Wildlife: The whole wildlife habitat site is of high habitat quality for marshbirds (Owen, 1993), being part of this site the estuarine margin strip must be given the same consideration.

#### Other:

#### THREATS AND REMARKS:

A major stopbank and drains built along the full length of the inland margin of wetland prohibits the sea from entering reclaimed pasture. Domestic and farm rubbish including old tyres, trees etc dumped into wetland. Parts of wetland unfenced at northern end, Stock have access to top end of wetland and to stopbank where browsing and pugging occurs, spartina sp. present along edge of stopbank. Source, Owen (1993a).

For conservation recommendations see Owen (1993).

## REFERENCES:

Beadel, S.M. 1989. Notes on the Vegetation and Flora of Tauranga Harbours and Little Waihi Estuary, Bay of Plenty Conservancy. Report prepared for the Department of Conservation, Rotorua. 67 pp.

Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

# WESTERN BAY OF PLENTY

**Site no:** T14/13 Date of completion: 25.11.93

Category: A Ecological District:

Habitat Type: Forest

Name: Cole Bush

Area:

Protection Status: Partially protected by QE2 Covenant on

northern half.

Map Series: NZMS260

Grid Reference: 695 893

Aerial photo no: 170713 Date Flown: 4.2.93

Landform: stream gully

# Habitat Description:

Mainly kanuka, rewarewa, and rimu forest emergent over treefern. Some large rimu present on northern half of site however some pine invasion as well. Southern half of site in poor condition being pasture, gorse, bracken and pines (K.D. Young, pers obs).

Botanical: Identified as high botanical conservation value except for areas dominated by adventives. This site contains one of the few remaining examples of indigenous vegetation in the semi-coastal bioclimatic zone in the Tauranga ecological district. However there is very little information on the present day vegetation in the district and this site should be re-evaluated when more information becomes available.

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other: Popular spot for the locals to picnic, swim and watch the trains go over the railway bridge.

#### THREATS AND REMARKS:

Owner Ted Cole on southern half of site wishes to swap land with part of the reserve opposite his property.

#### REFERENCES:

Young K.D (pers obs) notes held in SSSWBOP file.

#### WESTERN BAY OF PLENTY

Date of completion: 25.11.93

Category: A Ecological District: **TGA** 

Habitat Type: Forest/ Shrubland

Name: Walford Road Bush.

Site no: T14/14

Area:

Protection Status: Partially protected by BOPRC Land

Improvement Agreement.

Map Series: NZMS260

Grid Reference: 688 905

Aerial photo no: 170713 Date Flown: 4.2.93

Landform:

Habitat Description:

Regenerating native forest with some tawa but mainly kanuka, kamahi, and some pine (K.D. Young, pers obs).

#### WESTERN BAY OF PLENTY

Date of completion: 25.11.93

Category: В Ecological District: OTW

Habitat Type: Forest/Shrubland

Name: Whatakao Stream Bush 2

Area:

Protection Status: Southern tip protected by QE11 Covenant

Map Series: NZMS260

**Site no:** T14/15

Grid Reference: 698 884

Aerial photo no: 170713 Date Flown: 4.2.93

Landform:

# Habitat Description:

Regenerating native forest. Predominantly rewarewa, kanuka, treefern with some pole rimu and kamahi. Some areas are completely invaded by pines and there are some pure stands of rewarewa. Canopy is approximately 15m with a moderate native understorey. (K.D. Young, pers obs. 1994).

#### WESTERN BAY OF PLENTY

Site no: T14/16 Date of completion: 25.11.93

Category: B Ecological District: TGA

Habitat Type: Estuarine Wetlands

Name: Rereatukahia Estuary

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 688 992

Aerial photo no:

Date Flown:

Landform:

# Habitat Description:

Mainly searush tussockland and oioi sedgeland with mangrove scrub and shrubland. Also manuka, Olearia solandri, and marsh ribbonwood shrubland (Beadel, 1992).

#### WESTERN BAY OF PLENTY

Date of completion: 25.11.93

Category: Ecological District: В

Habitat Type: Estuarine Wetland

Name:

Area:

Protection Status:

Site no: T14/17

Map Series: NZMS260

Grid Reference:

Aerial photo no:

Date Flown:

Landform:

# Habitat Description:

Mangrove scrub and shrubland, searush tussockland, oioi sedgeland and marsh ribbonwood/oioi shrubland are the dominant types. There are small examples of manuka shrubland, manuka -Olearia solandri scrub, raupo reedland and ti kouka/ manuka shrubland . (Beadel, 1992).

#### WESTERN BAY OF PLENTY

Date of completion: 20.12.93

Category: A Ecological District: TGA & Te Aroha

Habitat Type: Forest

**Site no:** T14/20

Name: Stevenson Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 663 925

Aerial photo no: 170734 Date Flown: 4.2.93

Landform: Stream gully

# Habitat Description:

Tawa forest remnant with kamahi, kohekohe, puriri and nikau palm in the sub canopy. Mainly broadleaf understorey. The core of the forest is relatively intact however the outer flanks are less intact with pine and wattle emergent over younger secondary growth with mainly treefern canopy. The outer flanks are bordered by gorse in places. (K.D. Young, pers obs).

**Botanical:** Identified as high botanical conservation value. There is very little vegetation of a similar type remaining in the Tauranga ecological district.

Wildlife: Assessed as having moderate to high wildlife habitat value (K.L. Owen, pers comm.).

Other:

#### THREATS AND REMARKS:

The main bulk of the site appears fenced although rather flimsily. There is an intrusion into the core of the site for a cattle watering pathway allowing access to the stream. At the time of visit this site is under subdivision application and according to current owner the new owner intends to use adjacent land for a nursery.

#### REFERENCES:

#### WESTERN BAY OF PLENTY



**Site no:** U14/2

Category: A

Habitat Type: Forest

Date of completion: 24.11.93

Ecological District: OTW

WBOPDC Map: F6, F5

Name: Mackersey Bush

Area:

Protection Status: Part of the site is protected by QE2 national trust covenant (26 ha) which includes riparian areas not mapped in

the schedule site.

Map Series: NZMS260 Grid Reference: 755 803

Aerial photo no: 170889, 170888

Date Flown: 24/3/93

Landform: Rolling hill slope down to stream.

## Habitat Description:

Tawa - rewarewa/kohekohe forest with Pukatea , mangeo, hinau and puriri. Nikau palms are common in the understory. The canopy is approximately 25 - 30m high. It is dominated by tawa over much of the site although pukatea is dominant in part of the northern end. Beneath the pukatea canopy is a treefern-rimu sub-canopy with nikau palms. (V. Froude, pers obs, 1994).

Wildlife includes tui, bellbird, tomtit, fantail, NZ pigeon (G. Mackersey, pers obs).

Botanical: Identified as very high botanical conservation value using Shaw's (in press) rankings. A relatively good example of ungrazed semi-coastal vegetation of Otanewainuku ecological district. This ranking should be re-evaluated when more information is available.

Wildlife: Assessed as having moderate wildlife habitat value (K. Owen, pers comm).

Other: Water and soil conservation values.

#### THREATS AND REMARKS:

Enhancement planting by owner G. Mackersey with Tasmanian blackwood. The stock margins are fenced therefore the forest margins are not being grazed by stock. Occasionally deer, goats and wild pigs are present.

## REFERENCES:

K.D. Young (pers obs) notes held in SSSWBOP file.

#### LANDOWNER VISITS:

1. Godfrey Mackersey, 105 Odey Road. Legal description; Pt Whakamarama 2 Te Iri hanga 1 and Oteora 1 Blocks, Lot 70, 71, DP 5112, Lots 58, 59, DP 6662. Visited by V. Froude (DOC) and B. Hawkins (WBOPDC) on 10.8.94.

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Outcome of visit:

#### WESTERN BAY OF PLENTY

Site no: U14/4 Date of completion: 23.11.93

Category: A Ecological District: TGA

Habitat Type: Secondary shrubland, scrub and forest.

Name: Eastern side of Te Puna Quarry

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 795 840

Aerial photo no: 170859 Date Flown: 24/3/93

Landform: Hillslope

# Habitat Description:

Regenerating shrubland with emergent rewarewa over treefern and kamahi.

Potential habitat value. Good supply of food species and supplies and a good stepping stone to Kaimai-Mamaku forest park. Lots of pines, however with a good percentage of the area covered in rewarewa there is a good supply of nectar in season. Also very prevalent is bush lawyer in the understorey (Rasch, 1989).

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Part mapped in Beadel (1992c).

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Botanical: Identified as high botanical conservation value using Shaw's (in press) rankings. The site is a sizable example of secondary vegetation where there is relatively little indigenous vegetation cover remaining in the Tauranga district.

Wildlife: Potential as assessed in Rasch (1989).

Other: Very scenic. Highly visible from state highway 2.

#### THREATS AND REMARKS:

Local conservation group wish to preserve area as a botanical reserve with the intention of enhancement planting including native orchids and other species. Site has had a history of planning issues related to its preservation, (see DOC file Min 323278). The site also provides a buffer for Minden scenic reserve.

## REFERENCES:

Beadel, S.M. 1992c: Vegetation and flora of Te Puna Quarry, Tauranga. Report prepared for Max Johnstone, Thames. 10pp.

DOC file MIN323278. Mining Western Bay of Plenty District Council.

Rasch, G. 1989: Wildlife and Wildlife Habitats in the Bay of Plenty Region. Regional Report Series Number 11. Department of Conservation, Rotorua.

#### WESTERN BAY OF PLENTY

Date of completion: 23/11/93

Category: B-A Ecological District: OTW Habitat Type: Forest

WBOPDC Maps: F5 and F6.

Site no: U14/6

Name: Whakamarama Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260
Grid Reference: 753 825

Aerial photo no: 170890 & 170858 Date Flown: 24/3/93

Landform: Undulating hill country

# Habitat Description:

Wildlife includes tui, fantail, greywarbler, bellbird and kingfisher (F.S.U. unpub), kiwi (N. Birks, pers com. 1994) and Kaka (A. Benn, pers com. 1994).

The site contains semi-coastal tawa dominant forest with puriri. The Benn property contains fenced (for 20 years) remnant of tawa-rewarewa-puriri-mangeo forest with abundant kohekohe subcanopy and hinau.

The Birk property contains a fenced tawa dominant forest remnant with miro and kamahi; and abundant kohekohe. Fenced areas have a good understorey.

Botanical: Identified as moderate to high botanical conservation value using Shaw's (in press) rankings.

Wildlife: Moderate habitat value as assessed in Rasch (1989). Reasonably good bird list and a larger habitat (F.S.U., unpub).

Other: riparian habitat, natural character, water and soil.

## THREATS AND REMARKS:

Partly fenced off with an electric fence. The three forest remnants are all fenced with some fences having been in place for 20 - 30 years.

#### REFERENCES:

Rasch, G. 1989: Wildlife and Wildlife Habitats in the Bay of Plenty Region. Regional Report Series Number 11. Department of Conservation, Rotorua.

## LANDOWNER VISITS:

1. Noel Birks, 23 Leyland Road, Legal description: DP 27364, Pt 1 DP 36631, Lots 2,3,5,6. DPS 46093, Pt Lot 2 DP 25626. Visited by V. Froude (DOC) and B. Hawkins (WBOPDC) on 10.8.94.

Outcome of visit:
Several areas added, pines deleted, updated site description.

2. Austin and Ann Benn, 50 Goodall Road, Legal description; to come. Visit as above.

Agreements with landowners and WBOPDC.

1. Birks and Benn. Pines on the margin part of the site are not part of the site.

#### WESTERN BAY OF PLENTY



Site no: U14/11

Category: B

Habitat Type: Forest

Date of completion: 23.11.93
Ecological District: OTW

WBOPDC Map: G7

Name: Merrick Road

Area:

Protection Status: Unprotected

Map Series: NZMS260 Grid Reference: 843 743 Aerial photo no: 170908

Date Flown: 24/3 /93

Landform: steep gorge

# Habitat Description:

Lowland forest remnant with good species diversity. Canopy includes tawa, rewarewa and treefern with some pines on ridges. Dense understorey including mahoe, fivefinger and nikau palms (K.D. Young & V. Froude, pers obs).

# WESTERN BAY OF PLENTY

Site no: U14/12 Date of completion: 23.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Edward Ave Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 846 745

Aerial photo no: 170908 Date Flown: 24/3 /93

Landform: steep gully

# Habitat Description:

Regenerating indigenous forest consisting of treefern-rewarewa canopy with broadleaf ground fern understorey. Approximately 9m canopy height.

Southern end is less intact with manuka and gorse covering and a more open canopy  $(K.D.\ Young,\ pers\ obs)$ .

# WESTERN BAY OF PLENTY

Site no: U14/13 Date of completion: 23.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Joyce Road/Pyes Pa Bush

Area: 35ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 850 750

Aerial photo no: 170909 Date Flown: 23/3/93

#### Landform:

#### Habitat Description:

Kamahi mixed broadleaf forest with emergent rewarewa (Rasch, 1989).

Wildlife includes grey warbler, fantail, silvereye, welcome swallow, NZ Pigeon, Tui, Bellbird, morepork, shining cuckoo, kaka and kingfisher (Rasch, 1989).

Good understorey and ground cover (F.S.U. unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/14 Date of completion: 25.11.93

Category: A Ecological District: OTW

Habitat Type: Forest

Name: Archer's Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 720 715

Aerial photo no: 170703 Date Flown:

Landform:

#### Habitat Description:

This site contains highly modified indigenous vegetation.

The forest cover is predominantly heavily cutover tawa dominant forest...... Where the canopy has not been damaged by logging there is an intact canopy of large tawa and scattered hinau with an understorey of mainly porokaiwhiri, kaponga and wheki. Kiekie is locally abundant on the ground and scrambling up trees and there are also local thickets of mangemange and supplejack.

The groundcover is mainly crown fern and litter. Blechnum fraseri and *Hymenopphyllum demissum* are locally abundant. Mamaku is locally dominant. The understorey contains a few plants preferred by browsing animals.

Source (Shaw, unpub).

# WESTERN BAY OF PLENTY

Site no: U14/16 Date of completion: 23.11.93

Category: A Ecological District: TGA & OTW

Habitat Type: Forest

Name: Waipapa River Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 732 865

Aerial photo no: 170857 Date Flown: 23.4.93

Landform: Steep sided riverine gorge

# Habitat Description:

Regenerating indigenous forest with rewarewa, treefern, tawa, rimu, ti kouka, kohuhu and some pine (K.D. Young, pers obs).

Wildlife includes Rosella, heron, tui, bellbird, swallow and canada geese (K.D. Young, pers obs).

# WESTERN BAY OF PLENTY

Site no: U14/18 Date of completion: 23.11.93

Category: A Ecological District: TGA

Habitat Type: Forest

Name: Ross Road Bush 2

Area: 9ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 738 832

Aerial photo no: 170857 Date Flown: 24.3.93

#### Landform:

# Habitat Description:

Densely intact forest remnant - unmodified. Pukatea, rewarewa, tawa, kohekohe and kamahi (Rasch, 1989).

Wildlife includes grey warbler, tui and NI Fantail (F.S.U. unpub)

Excellent habitat quality with dense understorey (F.S.U., unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/19 Date of completion: 24.11.93

Category: B Ecological District: OTW

Habitat Type: Shrubland and forest

Name: Rocky Road Cutting Bush

Area: 20ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 963 802

Aerial photo no: 17880 Date Flown: 24.3.93

Landform: Steep sided gully

#### Habitat Description:

Regenerating indigenous forest with treefern canopy and emergent rewarewa. Natives include kanuka and mingimingi in the understorey.

Site is heavily invaded with pines and wattle, approximately 20% of each, and densely covered in creepers (K.D. Young, pers obs).

The regionally rare fernbird has been sited at this site (B. Mankelow, Tga Field Office, pers obs).

#### WESTERN BAY OF PLENTY

Site no: U14/20 Date of completion: 25.11.93

Category: A Largest Remnant Ecological District: TGA

B Other Remnants

Habitat Type: Semi-Coastal Forest

WBOPDC Maps: F10, F11

Name: Area:

Protection Status: Unprotected

Map Series: NZMS260
Grid Reference: 998 797
Aerial photo no: 170879

Date Flown: 24.3.93

Landform: Gullies in hill country

#### Habitat Description:

The site is a series of semi-coastal forest remnants. The two western remnants (nearest Reid Road) are rewarewa forest with some puriri. The eastern most remnant is rewarewa forest with mangeo and some Karaka-rewarewa forest. Kohekohe and titoki are present as subcanopy species (V. Froude, pers obs, 1994).

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Botanical: The western two remnants and the most eastern remnant are of moderate botanical conservation value. These small forest remnants are some of the few remaining examples of indigenous forest in the semi-coastal bioclimatic zone of the Tauranga ecological district.

The largest remnant is of high botanical conservation value as it contains a good diversity of coastal tree species.

Wildlife: The largest remnant has diverse wildlife for its size, kereru are present (V. Froude, pers obs. 1994).

Other: Water and soil conservation values.

#### THREATS AND REMARKS:

Threats include stock grazing and damage due to the edge effect. Part of the largest remnant is fenced to exclude stock.

#### REFERENCES:

## LANDOWNER VISITS:

1. Blackley, 345 Reid Road, RD7, Te Puke. Legal description: the 1 DPS 32429, Lots 1 and 2. DPS 59156, Pt Sec 25, Sec 9,41, Pt Sec 22 Blk III Te Tumu survey district. Visited by V.Froude (DOC) and B. Hawkins (WBOPDC) on 11.8.94.

Outcome of visit:
Adjusted boundaries and updated description.

2. McNaughton, SH opposite Bell Road. Legal description: Sec & Blk III, Te Tumu survey district. Sec 13, Pt 10 11 Blk III Te Tumu survey district.

Outcome of visit: Updated description.

Agreements between WBOPDC and Landowners:

1. Blackley - The logging of the planted trees around the native forest remnant(s) will be permitted as long as the native forest is not damaged.

#### WESTERN BAY OF PLENTY

Site no: U14/21 Date of completion: 24.11.93
Category: B Ecological District: TGA

Habitat Type: Forest

WBOPDC Map: F5

Name: Ross Road Bush 1

Area: 9ha

Protection Status: Protected by Queen Elizabeth 2 National Trust

Covenant.

Map Series: NZMS260 Grid Reference: 735 835 Aerial photo no: 170857

Date Flown: 24.3.93

Landform: flat

#### Habitat Description:

Tawa -rewarewa -puriri forest with kohekohe understorey. Mangeo is also present. The area is fenced and covenanted with QE II National Trust. (V. Froude, pers obs. 1994). Wildlife includes N.Z. pigeon, grey warbler, silvereye and harrier hawk (F.S.U., unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/22 Date of completion: 25.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Mangakawhirua Stream Bush

Protection Status: Partially protected in Regional Council Land

Improvement agreement and QEII Covenant.

Map Series: NZMS260

Grid Reference: 760 745 & 765 734

Aerial photo no: 170701 Date Flown: 24.3.93

Landform:

Area:

Habitat Description:

Regenerating indigenous forest with patches of shrubland, wilding pines, coprosma, mingimingi and emergent rewarewa. Some pasture right to the waters edges (B. Norton, pers comm).

#### WESTERN BAY OF PLENTY

Site no: U14/24 Date of completion: 24.11.93

Category: A Ecological District: TGA

Habitat Type: Forest

Name: Ohineanganga Stream Bush

Area: 160ha

Protection Status: unprotected

Map Series: NZMS260

Grid Reference: 005 705

Aerial photo no: 170668 & 170671 Date Flown: 24.3.93

#### Landform:

#### Habitat Description:

Broadleaf forest with some radiata pines. Kingfern abundant (Rasch, 1989).

Very good habitat quality, mostly very steep, some parts of site fenced off at the top denying stock access. Much of farm adjacent is horticultural. There is a small amount of feral pig sign (F.S.U., unpub).

Various parts of the gully have become dominated by poorer exotic vegetation of pine and gorse (F.S.U., unpub).

Wildlife includes fantail, tui, grey warbler, welcome swallow. NZ pigeon, bellbird and morepork were reported and the threatened NI brown kiwi is present (F.S.U., unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/25 Date of completion: 24.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Waiorohi Stream Bush

Area: 200ha

Protection Status: unprotected

Map Series: NZMS260

Grid Reference: 857 733

Aerial photo no: 170696 & 170663 Date Flown: 24.3.93

Landform: Riverine gorge

#### Habitat Description:

Tawa-podocarp forest in stream catchment (Rasch (1989). Extensive stream system in good condition with good forest diversity and regeneration (F.S.U., unpub).

Lower stream is emergent in pines and macrocarpa, and there is a lot of exotics raspberry, gorse, pine, eucalypts, wattle) invading the peripheral areas (F.S.U., unpub).

There is good tawa forest in places and fish present in the stream (unidentified at time of survey) (F.S.U., unpub).

Wildlife includes grey warbler, harrier, bellbird, fantail, kingfisher, and the threatened NI brown kiwi are suspected to be present (F.S.U., unpub).

Bats have also been reported at this site in the gorge cave Nth of Pyes Pa school (F.S.U., unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/27 Date of completion: 25.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Mangakorengorenga River Bush

Area:

Protection Status: Partially protected under QEII covenant.

Map Series: NZMS260

Grid Reference: 762 733

Aerial photo no: 170903 Date Flown: 24.3.93

Landform: Steep sided riverine gully

#### Habitat Description:

There is pasture right to the escarpment edge of this site, but the valley itself is predominantly tawa forest with rewarewa, treefern, kamahi, some pole rimu and fivefinger and mahoe in the understorey. (B. Norton, pers comm).

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#### WESTERN BAY OF PLENTY

**Site no:** U14/28

Date of completion: 24.11.93 Ecological District: OTW

Category: A

Habitat Type: Forest

WBOPDC Map: G10, H10

Name: Atuarua Stream Bush

Area: 200ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 003 732

Aerial photo no: 170691 & 170692 Date Flown: 4.2.93

Landform: Gully System

#### Habitat Description:

Mosaic of native forest communities on steep gorge sides with pines on the upper slopes in many places. Main native forest types include; rewarewa-kamahi-treefern, kanuka-treefern; mixed broadleaf forest and rewarewa-tawa forest (V. Froude, pers obs. 1994)

Wildlife includes Fantail, tui, bellbird, harrier, NZ pigeon, grey warbler, silvereye, little shag, kingfisher, morepork and the threatened NI brown kiwi (F.S.U., unpub).

Botanical: Identified as high botanical conservation value using Shaw's (in press) rankings. Kingfern occurs at this site (classed as rare, Cameron et al, 1993).

Wildlife: Assessed as moderate wildlife habitat value in Rasch (1989). Good bird list.

Other: Swimming pools in main stream. Landscape values and natural character of stream. Water and soil conservation values. Wildlife corridor.

#### THREATS AND REMARKS:

No threat of development according to F.S.U. (1982).

#### REFERENCES:

Rasch, G. 1989: Wildlife and Wildlife Habitats in the Bay of Plenty Region. Regional Report Series Number 11. Department of Conservation, Rotorua.

#### LANDOWNER VISITS:

1. Mr Karstanje, 121 No. 4 Road, Te Puke. Legal description; to 7, DPS 62146. Visited by V. Froude (DOC) on 11.8.94.

Outcome of visit:

#### WESTERN BAY OF PLENTY

Site no: U14/29 Date of completion: 24.11.93

Category: A Ecological District: TGA & OTW

Habitat Type: Forest

Name: Waipapa River Bush

Area: 460ha

Protection Status: Partially protected under QEII Covenant.

Map Series: NZMS260

Grid Reference: 715 825

Aerial photo no: 170856 Date Flown: 24.3.93

#### Landform:

#### Habitat Description:

Cutover podocarp-tawa-kamahi forest unmodified forest along river (Rasch, 1989).

Wildlife includes NI fantail, bellbird, silvereye, tui, grey warbler, NZ pigeon, grey duck and the mallard duck (F.S.U., unpub).

Pigs deer and possum are present (F.S.U., unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/30 Date of completion: 24.3.93

Category: B Ecological District: OTW

DR A

Habitat Type: Forest

Name: Mangapapa Opuinaki Bush

Area: 150ha

Protection Status: Partially protected, Tga City Council Water

Reserve

Map Series: NZMS260

Grid Reference: 775 705

Aerial photo no: 170700 Date Flown:

Landform:

#### Habitat Description:

Modified podocarp-tawa-kamahi forest with good regeneration (Rasch, 1989).

A continuum of interconnected forested gullies with areas of good native hardwood forest with rimu emergent. There is exceptional podocarp regeneration in some cases (F.S.U., unpub).

Wildlife includes bellbird, warbler, pied tit, fantail, tui, kingfisher, welcome swallow and harrier (F.S.U., unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/31 Date of completion: 24.3.93

Category: B Ecological District: OTW

Habitat Type: Forest

Name: Soldiers Road Bush

Area: 90

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 745 705

Aerial photo no: 170701 & 170657 Date Flown: 4.2.93

#### Landform:

#### Habitat Description:

Cutover broadleaved forest with podocarp (Rasch, 1989).

The site is grazed and stock are keeping regeneration down and allowing access to noxious weeds (FSU, unpub).

Wildlife includes silvereye, grey warbler, NI pied fantail (FSU, unpub).

# SCHEDULE OF SITES OF SPECIAL SIGNIFICANCE WESTERN BAY OF PLENTY

Site no: U14/32 Date of completion: 24.3.93

Category: A Ecological District: OTW

Habitat Type: Forest

Name: Kaikaikaroro Bush

Area:

Protection Status: unprotected

Map Series: NZMS260

Grid Reference: 735 765

Aerial photo no: 170903 & 170701 Date Flown: 24.3.93

#### Landform:

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#### Habitat Description:

Heavily cutover tawa podocarp forest with gorse and bracken on the northern side of DOC reserve spur and patches of lowland steepland and highlands softwoods over the whole site (Nicholls, 1974).

Predominantly tawa, rimu, totara in original parts of forest.

According to adjacent landowner G. Mackersey, kiwi are present.

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#### WESTERN BAY OF PLENTY

Site no: U14/33

Category: A

Date of completion: 24.3.93

Ecological District: TGA

DRAFT

Habitat Type: Forest and Shrubland

WBOPDC Map: E5

Name: Wainui River Bush 2

Area:

**Protection Status:** Part of the site is protected in a 15ha covenant with the Department of Conservation. Part of the site is the Wainui Scenic Reserve. The remainder of the site is unprotected.

Map Series: NZMS260 Grid Reference: 706 880

Aerial photo no: 170714 & 170712 Date Flown: 4.2.93

Landform: Steep sided gullies

#### Habitat Description:

The site is a mosaic of indigenous forest and shrubland including rewarewa-kamahi-treefern forest; rewarewa-manuka-kanuka forest and shrubland; kamahi-tree ferns-mixed broadleaved forest and rewarewa-kamahi-tree ferns- mixed broadleaf forest and shrubland. There are some scattered self seeded pines. (V. Froude, pers obs. 1994).

Botanical: Identified as high botanical conservation value. This site contains one of the few remaining examples of indigenous vegetation in the semi-coastal bioclimatic zone in the Tauranga ecological district.

Wildlife: Assessed as having moderate wildlife habitat value (K. Owen, pers com).

Other: Water and soil conservation, natural character, adjoins DOC reserve.

#### THREATS AND REMARKS:

#### REFERENCES:

Nicholls, J.L., 1974: Ecological survey of New Zealand Forests. Forest Service Mapping Series No 6. Sheet 5, Rotorua, Forest Research Institute.

#### LANDOWNER VISITS:

 Peter Savage, 307 Wainui South Road, RD 2, Katikati. Legal description: Lt 4, DPS 33605. Visited by V. Froude, (DOC) on 19.8.94.

Outcome of visit:
Updated site description and modified site boundaries.

#### Agreements Between Landowners and WBOPDC:

Savage: A house site can be established on the area of black wattles near the south-west corner of the block.

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#### WESTERN BAY OF PLENTY

Site no: U14/34 Date of completion: 24.11.93

Category: B Ecological District: OTW

DRAFT

Habitat Type: Forest

Name: Tautau Stream Bush

Area:

Protection Status: unprotected

Map Series: NZMS260 Grid Reference: 842 735

Aerial photo no: 170697 Date Flown: 4.2.93

Landform: Riverine gorge

#### Habitat Description:

Regenerating native forest badly invaded by pines in the northern end with the southern half of site more intact.

Southern half of site includes tawa, rimu, kamahi, kanuka and pine on the ridges. According to owner Mr Merrick, kauri is present at the junction between Hidden Gorge Scenic reserve and his property (K.D. Young, pers obs).

#### WESTERN BAY OF PLENTY

Site no: U14/35 Date of completion: 24.11.93

Category: A Ecological District: OTW

Habitat Type: Forest

Name: Otawa-Otanewainuku private land 4

DRAFT

Area: 166ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 980 760

Aerial photo no: 170915 Date Flown: 24.3.93

#### Landform:

#### Habitat Description:

Rewarewa-kamahi forest, bracken fernland, kanuka forest and treeland. (see Beadel (1985) for a vegetation map of site).

The site is part of the proposed Otawa-Otanewainuku reserve by Beadel (1985).

The whole site is ranked as outstanding wildlife value by Beadel (1985) for being part of a kokako habitat.

#### WESTERN BAY OF PLENTY

**Site no:** U14/37

Date of completion: 24.11.93

Category: A

Ecological District: OTW

Habitat Type: Forest

WBOPDC Map: G10

Name: Otawa/Otanewainuku private land 3

Area: 131ha

Protection Status: unprotected

DRAFI

Map Series: NZMS260

Grid Reference: 982 745 Aerial photo no: 170 915

Date Flown: 24.3.93

Landform: Hill country.

#### Habitat Description:

The site is mixture of: rewarewa-kamahi forest and manuka-kanukamixed broadleaf shrubland; kanuka shrubland (small area) and tawa kohekohe forest with mangeo. The pockets of grassland, gorse and barberry scrub and planted and introduced trees around the edge and intruding into some parts of the site are excluded (V, Froude, pers obs, 1994).

Mapped in Beadel (1985).

**Botanical**: Part Identified as exceptional botanical conservation value by S.M. Beadel (pers comm). This site is part of a large area identified as a representative example of the natural character of the ecological district, see Beadel (1985).

Wildlife: Identified as outstanding wildlife habitat value by Beadel (1985). Known habitat for Kokako.

Other:

THREATS AND REMARKS:

#### REFERENCES:

Beadel, S.M., 1985: A vegetation survey and an assessment of the biological conservation values of the Otawa-Otanewainuku Area, Western Bay of Plenty. Department of Lands and Survey, 61 pp.

## LANDOWNER VISITS:

1. Matt and Irene Reid, RD 6, Te Puke. Legal description; Lot 2, DPS 49573. Visited by V. Froude (DOC) and B. Hawkins (WBOPDC) on 11.8.94.

Outcome of visit: Reduced extent of site, clarified site description.

Agreements between WBOPDC and the landowner:

1. The site does not include the small pockets of grassland, barberry scrub, gorse scrub and planted tree areas that are within the site boundaries.

#### WESTERN BAY OF PLENTY

Site no: U14/38 Date of completion: 25.11.93

Category: A Ecological District: OTW

Habitat Type: Forest

Name: Deans Bush

Area: 500

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 925 715

Aerial photo no: 170694 Date Flown: 24.3.93

#### Landform:

#### Habitat Description:

Partly logged tawa-kamahi-kohekohe forest (Rasch, 1989), some patches of tawari forest, grassland, rewarewa/kamahi forest and a small area of Kauri/tawari forest, from (Beadel, 1985) (see Beadel (1985) for vegetation map).

Wildlife includes grey warbler, pied tit, bellbird, tui, kingfisher, welcome swallow, harrier, fantail, long tailed cuckoo, shining cuckoo, NI pigeon and the threatened NI brown kiwi (FSU, unpub).

Habitat quality is moderate on the ridges and high in the gullies (FSU, unpub).

Botanical: Part identified as exceptional botanical value by S.M. Beadel (pers comm) This site is part of a large tract of representative vegetation identified as an example of the natural character of the ecological district (see Beadel, 1985). Part of sit identified as high botanical conservation value, being contiguous with a large tract of vegetation identified as a representative example of the ecological district (see Beadel, 1985). See mapped information held within WBOPSSSCV for location of different parts of site.

Wildlife: Assessed as outstanding wildlife habitat value in Rasch (1989), being adjacent to known kokako area and contiguous with it.

Other:

THREATS AND REMARKS:

#### REFERENCES:

- Beadel, S.M., 1985: A vegetation survey and an assessment of the biological conservation values of the Otawa-Otanewainuku Area, Western Bay of Plenty. Department of Lands and Survey, 61 pp.
- Rasch, G. 1989: Wildlife and Wildlife Habitats in the Bay of Plenty Region. Regional Report Series Number 11. Department of Conservation, Rotorua.

#### WESTERN BAY OF PLENTY

Site no: U14/39

Date of completion: 25.11.93

Category: A

Ecological District: OTW

DRAFT

Habitat Type: Forest

WBOPDC Map: G10

Name: Otawa Block

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 955 715

Aerial photo no: 170914 & 170694 Date Flown: 24.3.93

Landform: Hillslopes and gully.

#### Habitat Description:

Mainly tawa-kohekohe forest with tawa forest in the southeastern end, patches of rewarewa/kamahi-kohekohe-mangeo forest, some grassland (see Beadel (1985)) for vegetation map. The northern end is dominated by rewarewa/mahoe-mangeo-tawa forest with kohekohe. Puriri is present.

The rare plant kingfern is located at this site (Beadel, 1985) and in 1985 the threatened NI kiwi and endangered kokako were present (Beadel, 1985).

Botanical: Identified as exceptional botanical conservation value by S.M. Beadel (pers comm).

This site is part of a large tract of vegetation which is a representative example of the natural character of the ecological district. (c.f. Beadel, 1985).

Wildlife: Assessed as having outstanding wildlife habitat values by Beadel (1985).

Other: Landscape, water and soil conservation.

#### THREATS AND REMARKS:

The Garretts intend to fence the forest approximately 20m inside the forest boundary.

#### REFERENCES:

Beadel, S.M., 1985: A vegetation survey and an assessment of the biological conservation values of the Otawa-Otanewainuku Area, Western Bay of Plenty. Department of Lands and Survey, 61 pp.

#### LANDOWNER VISITS:

1. Garrett and Wood, 693 Waitao Road. Legal description: Lots 1, DPS 3642, Otawa SD 132,133,134. Visited by V. Froude (00) 9.8.94.

Outcome of visit:

Amended site description and boundaries of site.

Agreements between Landowners and WBOPDC:

1 Garrett and Wood: The taking of 50 cubic metres of indigenous timber over 10 years for personal use will require the consent of the Minister of Forests under the Forest Amendment Act 1993, and will need to be done in a way that minimises damage to other native vegetation.

#### WESTERN BAY OF PLENTY

Site no: U14/41 Date of completion: 24.11.93

Category: B Ecological District: OTW

DRAFT

Habitat Type: Forest

Name: Annes Scenic Reserve

Area:

Protection Status: Protected by QE2 Covenant

Map Series: NZMS260

Grid Reference: 905 748

Aerial photo no: 170911 Date Flown: 24.3.93

Landform:

Habitat Description:

Regenerating native forest with rewarewa canopy, some rimu and an understorey of treefern, mahoe, kawakawa and fivefinger. Wattle and blackberry border edges at northern end (K.D. Young, pers obs).

#### WESTERN BAY OF PLENTY

Site no: U14/42 Date of completion: 24.11.93

Category: B Ecological District: OTW

Habitat Type: Forest

DRAFT

Name: Omanawa River Bush Northern end

Area: 40ha

Protection Status: unprotected

Map Series: NZMS260

Grid Reference: 815 745

Aerial photo no: 170907 Date Flown: 24.3.93

#### Landform:

#### Habitat Description:

Regenerating indigenous forest with areas of manuka and bracken shrubland, treefern with rewarewa, tawa and hinau. Invaded by exotics in many places including pines, wattle and gorse (K.D. Young, pers obs).

Joined onto hidden gorge scenic reserve.

For a general description of whole Omanawa River Bush see Rasch (1989) and FSU (unpub).

#### WESTERN BAY OF PLENTY

Site no: U14/43 Date of completion: 24.11.93

Category: B Ecological District: OTW

DRAFE

Habitat Type: Forest

Name: McPhail Road Bush 1.

Area: 33ha

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 888 705

Aerial photo no: 170695 Date Flown: 4.2.93

Landform: Hillslope

#### Habitat Description:

Regenerating indigenous forest with emergent tawa, rewarewa, manuka, kanuka and treefern. Some areas completely invaded by pines. Grazed understorey (K.D. Young, pers obs).

#### WESTERN BAY OF PLENTY

Site no: U14/44 Date of completion: 24.11.93 Ecological District: OTW

Category:

Habitat Type: Forest

WBOPDC Map: G9, G10

Garrett Road Bush Name:

Area: 25ha

Protection Status: Unprotected

Map Series: NZMS260 Grid Reference: 945 760

Aerial photo no: 170914 Date Flown: 24.3.93

DRAFT

Landform: Stream gully

#### Habitat Description:

The upper reaches of the gully contain rewarewa-tawa forest with mangeo in the gully floor. There is a kawakawa-kohekohe understorey with good numbers of nikau palms.

The lower reaches contain rewarewa forest around the stream, merging into kanuka shrubland. The latter contains some emergent rewarewa, totara and rimu. Barberry and gorse are present on the upper slopes.

Wildlife includes grey warbler, tui, morepork, fantail, harrier and kingfisher, low bird list due to cicada noise at time of survey (FSU, unpub).

Habitat quality is restricted to moderately steep gully 150m wide at the most with slight understorey damage (FSU, unpub).

Botanical: Identified as moderate botanical conservation value using Shaw's (in press) rankings. Small example of indigenous vegetation where there are larger and better examples elsewhere in the Otanewainuku ecological district.

Wildlife: Assessed as potential wildlife habitat value in Rasch (1989).

Other: Water and soil conservation and natural character. THREATS AND REMARKS:

Partially fenced but still grazed at time of fsu survey. FSU (1982) recommend fencing off completely.

#### REFERENCES:

Rasch, G. 1989: Wildlife and Wildlife Habitats in the Bay of Plenty Region. Regional Report Series Number 11. Department of Conservation, Rotorua.

#### LANDOWNER VISITS:

1. Stan Garrett, 68 Garretts Access, Mike Woods 32 Garretts Access. Legal description: Lot 2 DPS 3642, Sec 24, Lot 2. Visited by V. Froude (DOC) and B. Hawkins (WBOPDC) on 11.8.94.

Outcome of visit: Clarified boundaries and schedule provisions.

Agreements between WBOPDC and landowners:

- 1. Garrett The pines adjoining the site are not part of the site.
- 2. Woods The barberry and gorse on the northern and eastern boundaries are excluded from the site.

#### WESTERN BAY OF PLENTY

Site no: U14/48 Date of completion: 24.3.93

Category: B Ecological District: OTW

ORAN

Habitat Type: Forest

Name: Omanawa Road Bush

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 803 746

Aerial photo no: 170907 Date Flown: 24.3.93

Landform: gully

#### Habitat Description:

Regenerating indigenous forest with treefern canopy approx 4m, emergent rewarewa, some tawa and an understorey of kanuka, tanekaha and mahoe. Wattle is present on the eastern edges and pines are also present (K.D. Young, pers obs).

Intact native understorey although partially grazed on the eastern side of stream by sheep.

#### WESTERN BAY OF PLENTY

Site no: U14/50 Date of completion: 25.11.93

Category: A Ecological District: OTW

Habitat Type: Forest

Name: Omanawa River Bush 2

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 818 735

Aerial photo no: 170907 Date Flown: 24.3.93

Landform:

#### Habitat Description:

Regenerating indigenous forest with areas of manuka and bracken shrubland, treefern with rewarewa, tawa and hinau. Invaded by exotics in many places including pines, wattle and gorse (K.D. Young, pers obs).

Contiguous with Hidden Gorge Scenic Reserve.

#### WESTERN BAY OF PLENTY

Site no: U14/100 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Estuarine wetland

Name: East Rangiwaea Island

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 853 930

Aerial photo no: Date Flown:

Landform:

#### Habitat Description:

This estuarine margin strip is part of a large wildlife habitat site described below.

The larger site is an area of estuarine vegetation along the middle section of the eastern side of Rangiwaea Island adjoining Hunters Creek. There are a few scattered, prostrate, mangrove scrubs on seaward side of wetland. Wetland is however dominated by extensive areas of searush sedgelands with Baumea juncea sedgelands, oioi sedgelands and marsh ribbonwood scrub. Along the inland margin is a mixed association of manuka shrubland, gorse, marsh ribbonwood scrub and bracken fern. Behind this are forestry plantations.

The vegetation of this site is mapped in Beadel (1992a).

**Botanical:** Identified as moderate botanical conservation value. There are other larger examples of similar vegetation elsewhere in the harbour.

Wildlife: Assessed as having high habitat quality for marshbirds (Owen, 1993a).

#### Other:

#### THREATS AND REMARKS:

For threats, impacts and recommendations see (Owen, 1993a).

#### REFERENCES:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

#### WESTERN BAY OF PLENTY

Site no: U14/102 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Estuarine wetland

Name: Wainui Estuary 1

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 714 917

Aerial photo no: 170733 Date Flown: 4.2.93

Landform:

#### Habitat Description:

Wetland located on each side of Wainui River, above State Highway No. 2. Wetland mainly contains estuarine vegetation with local areas of freshwater wetland around the margins. Vegetation is a mixed mosaic, with the immediate river edge comprising local marsh ribbonwood scrub and flaxland extending away from the river into large areas of oioi sedgelands and some searush sedgelands. Interspersed within these areas are scattered raupo reedlands, Baumea articulata sedgelands and toetoe grasslands. Further inland an area of grey willow forest, with manuka scrub, mamaku, wattle, gorse and blackberry exists. (Source: Owen, 1993).

The banded rail and North Island fernbird are found at this site. (Owen, 1993a).

The vegetation of this site is also mapped and described in (Beadel, 1992a).

Botanical: Identified as very high botanical conservation value. This site contains examples of oioi sedgeland inland from the main harbour adjacent to a tidal stream, and manukaraupo-toetoe shrubland; these vegetation types are characteristic of Tauranga Harbour. it was identified as a category one area in Beadel (1992a), (Beadel, 1993).

Wildlife: Assessed as having high wildlife habitat quality for marshbirds. (Owen, 1993a).

Other:

#### THREATS AND REMARKS:

#### REFERENCES:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

#### WESTERN BAY OF PLENTY

Site no: U14/103 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Sandspit vegetation

Name: Opureora

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 824 930

Aerial photo no: 170728 Date Flown: 4.2.93

Landform: Sandspit

#### Habitat Description:

Narrow spit extending seaward with several small islets towards the end. Located near the Opureora settlement, Matakana Island. The spit has a vegetation association comprising of large areas of searush and oioi sedgelands and Stipa stipoides grasslands with New Zealand iceplant, marsh ribbonwood scrub and Olearia solandri scrub less commonly found. On the foreshore there are mixed estuarine herbfields dominated by Sarcocornia quinqueflora and Samolus repens. On the islets a mixed association of mainly manuka scrub, wattle, pines, Myrsine australis and hawthorn prevail. (Source: Owen, 1993a).

Banded rail, spotless crake and the North Island Fernbird are present at this site (Owen, 1993a).

The vegetation of this site is also mapped and described in Beadel (1992a) and Beadel (1993).

Botanical: Identified as high botanical conservation value. This is the only site in Tauranga Harbour where a Stipa stipoides-oioi-Baumea juncea-searush tussockland association was recorded during the 1992 survey (Beadel, 1992a). It also contains a relatively good quality example of sandspit habitat. It was identified as a category one area in Beadel (1992a). (Source: Beadel, 1993).

Wildlife: Assessed as having high wildlife habitat quality for marshbirds. (Owen, 1993a).

Other:

#### THREATS AND REMARKS:

#### REFERENCES:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

#### WESTERN BAY OF PLENTY

Site no: U14/104 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Mainly estuarine wetland vegetation

Name: Motungaio Island

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 830 933

Aerial photo no: 170728 Date Flown: 4.2.93

Landform:

#### Habitat Description:

This site contains a good example of a vegetation sequence grading from saltmarsh to manuka scrub and forest. Vegetation types present are:

- -Searush tussockland
- -Sandspit vegetation
- -Baumea juncea-marsh ribbonwood-oioi sedgeland
- -Olearia solandri/oioi sedgeland
- -Manuka scrub
- -Manuka forest
- -Samolus repens herbfield.

(Source: Beadel, 1992a).

The foreshore of this site is also described in Owen (1993a) as:

Estuarine vegetation along the middle section of the western side of Rangiwaea Island. Vegetation forms a relatively narrow band along the foreshore dominated by extensive areas of searush sedgelands with scattered but local areas of oioi sedgelands and marsh ribbonwood scrubland. There is a patchy distribution of estuarine herbfield vegetation, chiefly Sarcocornia quinqueflora, remuremu and Samolus repens within the area. At the southern end a band of native and exotic vegetation forms a buffer to the wetland.

The North Island fernbird is found at this site. (Owen 1993a).

Botanical: Identified as high botanical conservation value. It is a good example of a vegetation sequence grading from saltmarsh to manuka scrub and forest. It was identified as a category one area in Beadel (1992a). (Source: Beadel 1993).

Wildlife: Assessed as having moderate wildlife habitat value for marshbirds. (Owen, 1993a).

#### Other:

#### THREATS AND REMARKS:

For threats, impacts and recommendations see Owen (1993a).

#### REFERENCES:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

#### WESTERN BAY OF PLENTY

Site no: U14/105 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Sandspit vegetation

Name: Tahunamanu Island

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 811 936

Aerial photo no: 170729 Date Flown: 4.2.93

Landform: Sandspit

#### Habitat Description:

This site supports a representative example of the vegetation occurring on sandspits (adventive species area are present and are a feature of these sites throughout the harbour) and one of the larger better quality representative examples of Sarcocornia quinqueflora herbfield. (Source: Beadel, 1992a).

The vegetation of this site is also described in Beadel (1993).

This site is an important wader high tide roost and has nesting variable oyster catchers and New Zealand dotterel (K.L. Owen, pers comm.).

#### WESTERN BAY OF PLENTY

Site no: U14/108 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Estuarine wetland

Name: Te Puna Estuary.

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 778 862

Aerial photo no: 170717 Date Flown: 4.2.93

Landform:

#### Habitat Description:

Two relatively narrow wetland areas lying seaward of reclaimed farmland on the north and south sides of the Te Puna Stream mouth. Estuarine vegetation on the north side has a large area of mangrove scrub and shrubland (0.5m to 1.75m high) at its eastern end. Further inland and upstream oioi and searush sedgelands and mangrove scrub and shrubland associations occur. At the upper end oioi sedgelands with patches of searush sedgelands along with a narrow inland band of flaxland, marsh ribbonwood scrub, manuka scrub and a range of adventive plants can be found. On the south side of the stream mangrove scrub and shrubland dominates a narrow estuarine vegetation band with oioi sedgeland and numerous adventive plants found along the stopbank

The banded rail and North Island fernbird are present at this site.

(Source: Owen, 1993a).

The vegetation of this site is mapped in Beadel (1992a) and part described in Beadel (1993).

Botanical: Part of this site is identified as high botanical conservation value. This part is mapped in Beadel (1992a) and described in Beadel (1993) as Te Puna Estuary. The rest of this site is identified as moderate botanical conservation value. (S.M. Beadel, pers comm).

Wildlife: Assessed as having moderate habitat quality for marshbirds (Owen, 1993a).

Other:

#### THREATS AND REMARKS:

see (Owen, 1993a).

#### REFERENCES:

- Beadel, S.M., 1992a: Tauranga Harbour Wetland vegetation. Report prepared for Bay of Plenty Regional Council, Whakatane. 82pp plus maps.
- Beadel, S.M., 1993: Significant sites of indigenous vegetation of Bay of Plenty coastal zone. Bay of Plenty Regional Council.
- Owen, K.L., 1993a: Tauranga Harbour Marshbird Habitat Survey, Vol 2, Technical Report Series No.17. Department of Conservation, Bay of Plenty Conservancy.

#### WESTERN BAY OF PLENTY

Site no: U14/107 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Estuarine wetland

Name: Snodgrass road inlet

Area:

Protection Status: Unprotected

Map Series: NZMS260

Grid Reference: 795 868

Aerial photo no: 170717 Date Flown: 4.2.93

#### Landform:

#### Habitat Description:

Tidal inlet on south-eastern side of Te Puna Estuary. Estuarine vegetation dominated by a large area of scattered to dense mangrove scrub and shrubland (0.5m to 2.0m high). A narrow band (5m to 30m wide) of oioi and searush sedgelands follows the eastern shoreline with local areas of raupo reedland, manuka scrub, marsh ribbonwood scrub and estuarine herbfield vegetation. The area is surrounded by a wetland, dominated by grey willow forest (up an adjacent gully), horticulture shelterbelts and farmland. (Source: Owen, 1993a).

The Banded rail is found at this site (Owen, 1993a).

#### WESTERN BAY OF PLENTY

Site no: U14/109 Date of completion: 1.12.93

Category: A Ecological District: TGA

Habitat Type: Estuarine and freshwater wetland

Name: Hunters creek

Area:

Protection Status: Partially protected, crown reserve

administered by BOP Harbour Board + Maori land.

Map Series: NZMS260

Grid Reference: 825 965

Aerial photo no: 170750 Date Flown: 4.2.93

Landform:

#### Habitat Description:

This site contains a relatively intact, high quality representative example of a contiguous estuarine and freshwater wetland vegetation sequence. Relatively intact, large freshwater wetlands contiguous with high quality saltmarsh are rare in the harbour. The following vegetation types are present:

- -Searush tussockland, Schoenoplectus pungens sedgeland
- -Oioi sedgeland
- -Baumea juncea sedgeland
- -Oioi-marsh ribbonwood shrub -sedgeland
- -Oioi-Baumea juncea sedgeland
- -Manuka scrub
- -Baumea teretifolia-B. sp. (B. Huttonii?)/Gleichenia dicarpa fernland
- -Manuka shrubland
- -Willow forest

Apparently high numbers of fernbird, banded rail and bittern present (Owen, 1991).