

TAURANGA HARBOUR MARSHBIRD HABITAT SURVEY

Keith L. Owen

1993

Volume II

Department of Conservation
Bay of Plenty Conservancy
P.O.Box 1146
Rotorua
New Zealand

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Site Name: Wairoa River Island

Site No: 109

Map No: 9

Area: 5.6ha

Date: 19.12.91

Site 109

Brief Description of Site:

A small island near mouth of Wairoa River. Vegetation is dominated by native species. A mixed forest association of 5 metre high cabbage tree, mamaku, mahoe, *Myrsine australis* and wattle covers the western side of the island. The central section is dense *Coprosma propinqua* shrubland (2.0m to 3.0m high) with an understory of oioi sedgelands. Oioi and *Baumea articulata* sedgelands and raupo reedlands dominate the eastern side. Throughout the island are scattered areas of toitoi grassland, *Carex* sp. sedgeland, bracken fernland, flaxland, *Olearia solandri* scrub and blackberry.

WILDLIFE VALUES		
Species of Note	Numbers	Notes/Comments
banded rail		Likely to be present, but surveying of island restricted by dense vegetation, especially in <i>Coprosma propinqua</i> shrublands area.
North Island fernbird	10	Five birds seen and a further 5 birds heard calling.
Others	Numbers	Notes/Comments

Habitat Quality	High.
Existing Protection	

EXISTING THREATS AND IMPACTS	
Reclamation	
Drainage	
Rubbish	
Public Utilities	
Fencing	
Stock	
Adventive Plants	Wattle and blackberry present.
Residential	Houseboat moored in channel nearby. Residents have developed a small vegetable garden on island.
Recreation	
Harmful Water Discharges	
Fire	
Introduced Mammals	
Others	

CONSERVATION ACTIONS RECOMMENDED	
1.	Seek reservation of island.
2.	Control blackberry and wattle on island.

Site Name: Wairoa River Railway (Seaward side)

Site No: 110

Map No: 7 and 9

Area: 22.8ha.

Date: 19.12.90

Brief Description of Site:

A large area of estuarine vegetation at mouth of Wairoa River on the seaward side of railway embankment. Area is totally dominated by extensive areas of oioi and *Baumea juncea* sedgeland with local areas of searush sedgeland and marsh ribbonwood shrubland. Along the river bank are oioi sedgeland and mangrove scrub and shrubland, especially up the tidal creek on the eastern edge. A grove of wattle and she-oaks is found in the north-east corner of the wetland. A narrow enclosed area of oioi sedgeland with flaxland, *Olearia solandri* scrub, *Coprosma robusta*, manuka scrub, mamaku, *Hebe* sp. and gorse can be found on the south-western side of railway embankment alongside the river.

WILDLIFE VALUES		
Species of Note	Numbers	Notes/Comments
Australasian bittern	1	One bird heard booming (calling) in wetland. Feathers also found.
banded rail	2	Two birds heard calling in response to tape recordings played.
North Island fernbird	c 65	Six birds seen, 19 birds heard calling in response to tape recordings played and about 40 further birds called in response to disturbances or tape recordings played as survey team members carried out walking transects through wetland.
Others	Numbers	Notes/Comments
Australasian harrier	1	
white-faced heron	1	

Habitat Quality	Outstanding.
Existing Protection	

Site 110

EXISTING THREATS AND IMPACTS	
Reclamation	
Drainage	
Rubbish	
Public Utilities	
Fencing	Old fences run through area.
Stock	
Adventive Plants	A grove of wattles and she-oaks grow along the river bank.
Residential	An illegal riverside dwelling has been built in the wattle and she-oak grove area. The dwelling was occupied during our survey.
Recreation	
Harmful Water Discharges	
Fire	
Introduced Mammals	
Others	

CONSERVATION ACTIONS RECOMMENDED
1. Seek reservation of wetland .
2. Remove illegal buildings and old fences from wetland.
3. Remove wattle and she-oaks.

SIGNIFICANT INDIGENOUS
VEGETATION AND SIGNIFICANT
HABITATS OF INDIGENOUS FAUNA
IN THE COASTAL ENVIRONMENT OF
THE BAY OF PLENTY REGION

VOLUME 1

DECEMBER 2006

Contract Report No. 1345

Prepared for:

ENVIRONMENT BAY OF PLENTY
QUAY STREET
P.O. BOX 364
WHAKATANE



WAIROA RIVER

Site Number SVHZ-49
Grid Reference (NZMG) 2783412 6385816
Local Authority Tauranga City Council, Western Bay of Plenty District Council
Ecological District Tauranga
Status Unprotected
Site Area 38.1 ha
Altitudinal Range 0-20 m asl



Hydrosystem	Vegetation/Habitat Type	Landform
Estuarine	Gorse-pampas-harakeke-saltmarsh ribbonwood/sea rush-oioi-mangrove tussockland.	Intertidal flat
Estuarine	Sea rush-oioi-(pasture) tussockland.	Intertidal flat
Estuarine	Sea rush-(pasture) tussockland.	Intertidal flat
Estuarine	Mangrove shrubland.	Intertidal flat
Estuarine	Saltmarsh ribbonwood shrubland.	Intertidal flat
Estuarine	Mangrove scrub.	Intertidal flat
Palustrine	Manuka scrub.	Wetland
Terrestrial	Gorse-woolly nightshade scrub.	Hillslope
Estuarine	Oioi- <i>Baumea juncea</i> sedgeland.	Intertidal flat
Estuarine	Oioi rushland.	Intertidal flat
Estuarine	Oioi-saltmarsh ribbonwood shrub-sedgeland.	Intertidal flat
Estuarine	<i>Coprosma propinqua</i> subsp. <i>propinqua</i> /oioi rushland.	Intertidal flat
Palustrine	Raupo-oioi- <i>Baumea articulata</i> reedland.	Wetland
Palustrine	<i>Baumea articulata</i> - <i>Bolboschoenus fluviatilis</i> -raupo reedland.	Wetland
Terrestrial	Brush wattle-mamaku-ti kouka forest.	Hillslope
Palustrine	Grey willow forest.	Wetland
Terrestrial	She oak-wattle treeland.	Hillslope

(Wildland Consultants 2005j)

Indigenous Flora No significant species recorded.

Indigenous Fauna Australasian bittern (Acutely Threatened, Nationally Endangered); banded rail, North Island fernbird, spotless crane (At Risk, Sparse) recorded in 1990 (Owen 1993). Grey duck (Acutely Threatened, Nationally Endangered), red-

billed gull (Chronically Threatened, Gradual Decline) and North Island fernbird have been recorded at this site within the last four years (Wildland Consultants 2002a; 2005j).

Condition/Pressures The following weed species are present within the site in suitable habitat: smilax, she-oak, black wattle, tree privet, Chinese privet, woolly nightshade, grey willow, blackberry, brush wattle, gorse and pampas (Wildland Consultants 2005j).

Weed species present within the site that have increased in abundance and distribution since 2000 include brush wattle, she-oak, and possibly black wattle. Grey willow, pampas, and tree privet are widespread in suitable habitat but there has been no detectable change in their distribution and abundance since 2000. This is probably a reflection of the fact that they were widespread in 2000 and already occupied almost all suitable habitats and micro-sites (Wildland Consultants 2005j).

Significance Assessment

Criterion*	RPS Number*	Ranking**
Representativeness	3.1	H
Rarity or Distinctive Features	3.2	H
	3.3	M
	3.4	L
	3.5	L
	3.6	H
Diversity and Pattern	3.7	H
Naturalness	3.8	M
Ecological Context	3.9	H
	3.10	M
Viability and Sustainability	3.11	M
	3.12	M
	3.13	M

* Bay of Plenty Regional Policy Statement Heritage Criteria: Appendix F, Set 3. Refer to A3 fold-out page in Appendix 1 of this document for descriptions of criteria and definitions of High, Medium, and Low rankings.

** H = High, M = Medium, L = Low.

Relative Significance Regional

Significance Justification A site of reasonable size and a diverse range of indigenous vegetation types that it is of regional significance. This site contains a representative example of freshwater wetland vegetation adjacent to a river channel (Beadel 1994a). Two acutely threatened, one chronically threatened, and three at risk bird species have been recorded at the site, several within the last four years.

Notes This site is ranked as a Category 1 Special Ecological Site (SES) in Tauranga City (Wildland Consultants 2005j) and the vegetation was identified as being of District significance by Beadel (1994a).

Identified as a Category 1 natural heritage site in the Tauranga Ecological District (Beadel and Shaw 2000b).

References Owen 1993; Beadel 1994a; Beadel and Shaw 2000b; Wildland Consultants 2005j.



Our ref: PAP 04

Your ref:

To: Neville Hunter, Helen Neale
From: John Heaphy – Tauranga Area
Date: 6 June 2007

Subject: Gifting of Wetland – Margaret Jackson

The property proposed for gifting to the Crown by the estate of Margaret Jackson was inspected by the writer on Wednesday morning 6 June 2007 between 0750 and 1000 hrs.

Location:

NZMS 260 U14 GR 27836 63863. Situated on true right of Wairoa River Mouth where it enters Tauranga Harbour.

Access:

Either by walking along railway line SW from Bethlehem Road or E across Wairoa River railway bridge from Wairoa Road, or by boat.

There is no vehicle access to this property nor does there appear to be any legal access via public road.

Area and title:

This property is 3.5 ha, adjoining Maori land 53 ha.

Title is Pt Allot 92, Te Papa Parish, ML 10589.

Previous uses:

A very old fence line with posts still standing runs along the eastern edge of this property and the adjoining Maori land, suggesting it was grazed many years ago as one block. There is now no evidence of drains or grazing and the saltmarsh habitat is essentially natural.

Vegetation:

Good quality saltmarsh vegetation with approx 2/3rds of the property inundated by sea water each tide and the whole property at spring high water.

Most of property is usual Tauranga Harbour saltmarsh species bordered by mangroves, and a mix of Oioi or wirerush (*Apodasmia similis*), searush (*Juncus kraussii*), *Baumea juncia*, 3-square (*Schoeno plectus pungens*), and nobby sedge (*Ficinia* sp) in the middle.

A narrow line of Casurina's and wattle are present alongside the Wairoa River. No other introduced/weed species are present.

Birds:

Very good numbers of fernbird present. Spotless crake, marsh crake and banded rail tape played but no response. Likely banded rail are present.

Bird species recorded during visit –

Little black shag

Pukeko

Fernbird

Chaffinch

Black swan

Kingfisher

Goldfinch

Myna

Fish:

As this property is inundated at spring high water, it will be an important whitebait spawning habitat. Public would probably fish for flounder and mullet around the river edge.

Boundaries:

Bordered by the railway line to the east, Wairoa River to the north and west, and by Maori land to the south. The railway line and river are well defined boundaries. There is no distinct boundary between this property and the adjoining Maori land with the salt marsh habitat contiguous.

Recreation:

At least one whitebait stand and one maimai/hut are present within this area. The maimai/hut is at the southern end but inside of the Casurina's on the edge of the Wairoa River and has been present for many years. People used to stay in it (9(2)(a) pers. comm.).

Recommended Status:

Given the relatively small size and recreational use by duck shooters and whitebaiters, I consider Wildlife Management Reserve is the most appropriate status.

If the adjoining Maori land was ever included, this status should be reconsidered as 56.5 ha becomes a worthwhile size. A Wildlife Refuge status would be very difficult to enforce here and would probably be in name only given historical uses.

The Eastern Fish & Game Council should be notified of this action in due course

John Heaphy
Conservation Officer (Protected Species & Islands)
for Manager Tauranga Area Office



Photo 1 left:

Approx southern boundary of property in middle of photo running across to Wairoa River in background with adjoining contiguous Maori land.



Photo 2 left:

Middle of property looking across to Wairoa River and line of Casuarinas.



Photo 3 left:

Northern end of property railway line to left and Wairoa River to right.



Photo 4 above:

Aerial view of saltmarsh cut off by railway line. Margaret Jackson property at top far end of this photo, Maori land in foreground.

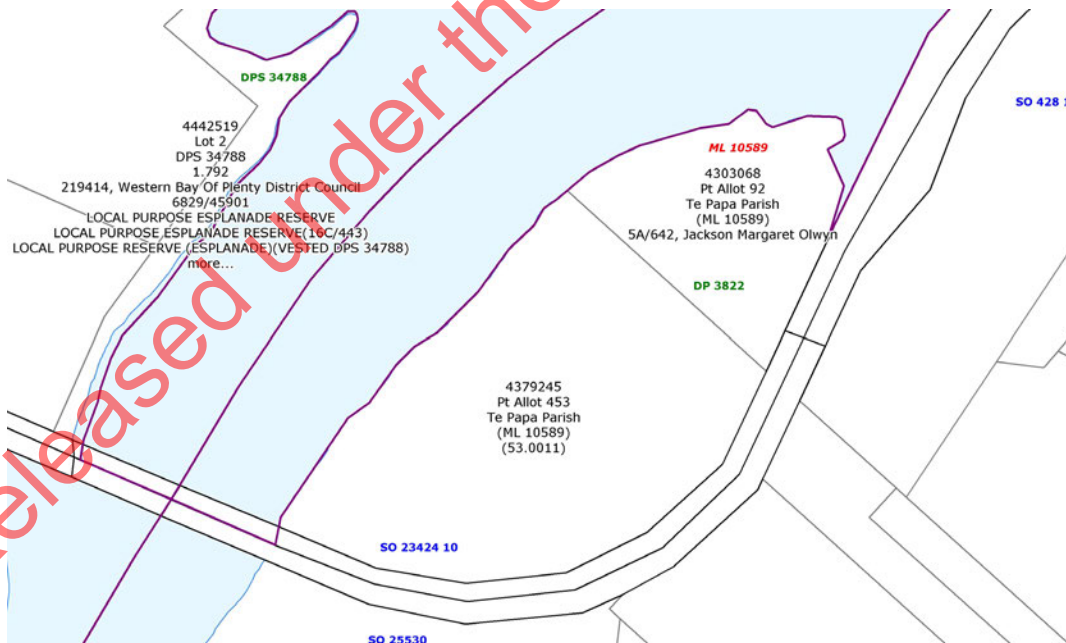


Photo 6 above:

Cadastral map

NATURAL AREAS IN
TAURANGA ECOLOGICAL
DISTRICT

2008

Report No. 1914

Prepared for:

ENVIRONMENT BAY OF PLENTY
P.O. BOX 364
WHAKATANE



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WAIROA RIVER WETLANDS

Site Number 029
Grid Reference (NZMG) E2783453 N6386018
Local Authority Tauranga City Council, Western Bay of Plenty District Council
Status Unprotected (including 3.48 ha Margaret Jackson Wildlife Management Reserve)
Site Area 33.6 ha
Altitudinal Range <20 m asl
Bioclimatic Zone Coastal

Hydrosystem	Vegetation/Habitat Type	Landform
Estuarine	1. Oioi- <i>Baumea juncea</i> rushland.	Intertidal flat
Estuarine	2. Saltmarsh ribbonwood shrubland.	Intertidal flat
Estuarine	3. Mangrove scrub and shrubland.	Intertidal flat
Estuarine	4. Oioi rushland.	Intertidal flat
Estuarine	5. <i>Coprosma propinqua</i> subsp. <i>propinqua</i> /oioi rushland	Intertidal flat
Estuarine	6. She-oak-wattle treeland.	Intertidal flat
Estuarine	7. Oioi-saltmarsh ribbonwood shrub-rushland.	Intertidal flat
Palustrine	8. Sea rush-oioi-(pasture) tussockland.	Wetland
Palustrine	9. Manuka scrub.	Wetland
Riverine	10. <i>Baumea articulata</i> - <i>Bolboschoenus fluviatilis</i> -raupo reedland; <i>Baumea articulata</i> reedland; <i>Schoenoplectus tabernaemontani</i> reedland.	River margin
Palustrine	11. Grey willow forest.	Wetland
Palustrine	12. Raupo-oioi- <i>Baumea articulata</i> reedland.	Wetland
Terrestrial	13. Brush wattle-mamaku-ti kouka forest. (Beadel 1992a, Wildland Consultants 2005e)	Hillslope

Vegetation and Indigenous Flora

Wairoa River includes estuarine and freshwater wetlands. North of the railway bridge are estuarine wetlands dominated by oioi, sea rush, *Baumea juncea*, and saltmarsh ribbonwood. East of the railway bridge are freshwater wetlands dominated by manuka, and grey willow. Towards the southern end of the site there are wetlands of *Coprosma propinqua* subsp. *propinqua*, oioi, raupo, and *Baumea articulata*. There is also an example of brush wattle-mamaku-ti kouka forest. No rare or uncommon plant species have been recorded at this site.

Fauna

Australasian bittern (Acutely Threatened, Nationally Endangered), banded rail, North Island fernbird, and spotless crane (all At Risk, Sparse) were recorded in 1990 (Owen 1993). Grey duck (Acutely Threatened, Nationally Endangered), red-billed gull (Chronically Threatened, Gradual Decline) and North Island fernbird (At Risk, Sparse) have been recorded at this site within the last four years (Wildland Consultants 2002a; 2005e).

Condition/Pressures

The following weed species are present within the site in suitable habitat: smilax, she-oak, black wattle, tree privet, Chinese privet, woolly nightshade, grey willow, blackberry, brush wattle, gorse and pampas (Wildland Consultants 2005e).

Weed species which have increased in abundance and distribution at the site since 2000 include brush wattle, she-oak, and possibly black wattle. Grey willow, pampas, and tree privet are widespread in suitable habitat but there has been no detectable change in their distribution and abundance since 2000. This is probably a reflection of the fact that they were widespread in 2000 and already occupied almost all suitable habitats and micro-sites (Wildland Consultants 2005e). There is a building on the Margaret Jackson Wildlife Management Reserve site (used by whitebaiters and game hunters).

Significance Assessment

Criterion*	RPS Number*	Ranking**
Representativeness	3.1	H
Rarity or Distinctive Features	3.2	H
	3.3	M
	3.4	M
	3.5	H
	3.6	H
Diversity and Pattern	3.7	H
Naturalness	3.8	M
Ecological Context	3.9	H
	3.10	M
Viability and Sustainability	3.11	M
	3.12	M
	3.13	M

* Bay of Plenty Regional Policy Statement Heritage Criteria: Appendix F, Set 3. Refer to A3 fold-out page in Appendix 11 of this document for descriptions of criteria and definitions of High, Medium, and Low rankings.

** H = High, M = Medium, L = Low.

Relative Significance Regional

Significance Justification Wairoa River is a site of reasonable size with a diverse range of indigenous vegetation types and is of regional significance. It contains a representative example of freshwater wetland vegetation adjacent to a river channel (Beadel 1994a). Two Acutely Threatened, one Chronically Threatened, and three At Risk bird species have been recorded at the site, several within the last four years.

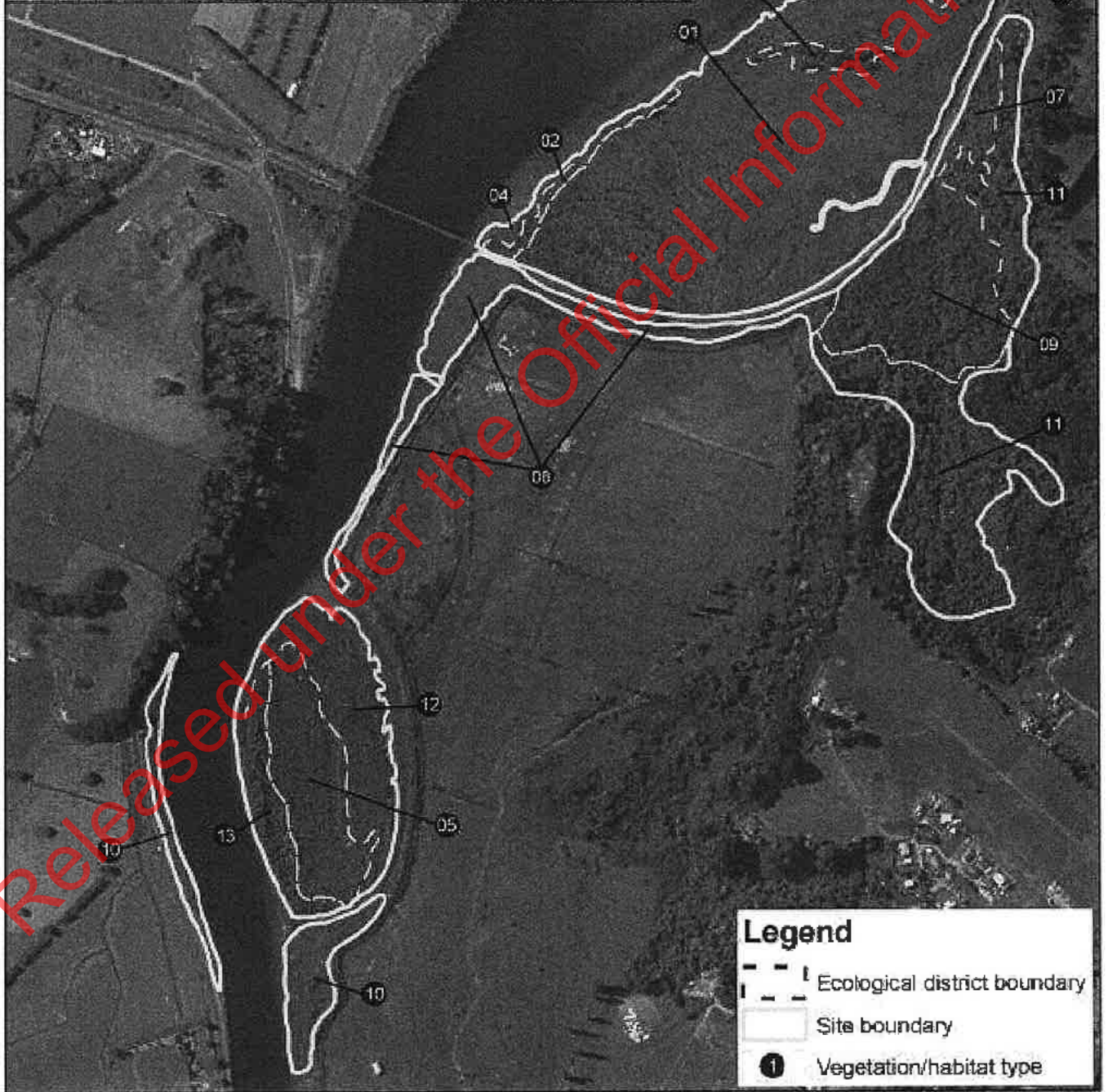
Category 1

Notes This site is ranked as a Category 1 Special Ecological Site (SES) in Tauranga City (Wildland Consultants 2005e) and the vegetation was identified as being of District significance in Beadel (1994a).

Identified as a Category 1 natural heritage site in the Tauranga Ecological District (Beadel and Shaw 2000).

References Owen 1993; Beadel 1994a; Beadel and Shaw 2000; Wildland Consultants 2005e.



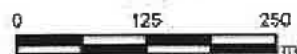


Legend

- Ecological district boundary
- Site boundary
- Vegetation/habitat type

Wairoa River Wetlands

29



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Wildlands

Scale: 1:7,500
 Date: 18/06/08
 Cartographer: RPB
 Map format: A4

FINAL

**SIGNIFICANT NATURAL AREAS
IN THE COASTAL ENVIRONMENT
OF BAY OF PLENTY REGION**



providing
outstanding
ecological
services to
sustain
and improve our
environments



Wildlands

R2837

WAIROA RIVER WETLANDS

Site Number ¹	068
Grid Reference (NZMG)	E2783412 N6385816
Local Authority	Tauranga City Council, Western Bay of Plenty District Council
Ecological District	Tauranga
Protection Status	Protected (Department of Conservation, Margaret Jackson Wildlife Management Reserve) and unprotected parts
Site Area	71.7 ha
Altitudinal Range	<20 m asl
Geology-Landform Type	Estuarine, Low gradient alluvium
HVES Number	45

Hydrosystem	Vegetation/Habitat Type	Landform
Estuarine	Oioi- <i>Machaerina juncea</i> rushland.	Intertidal flat
Estuarine	Saltmarsh ribbonwood shrubland.	Intertidal flat
Estuarine	Mangrove scrub and shrubland.	Intertidal flat
Estuarine	Oioi rushland.	Intertidal flat
Estuarine	<i>Coprosma propinqua</i> subsp. <i>propinqua</i> /oioi rushland.	Intertidal flat
Estuarine	She-oak-wattle treeland.	Intertidal flat
Estuarine	Oioi-saltmarsh ribbonwood shrub-rushland.	Intertidal flat
Palustrine	Sea rush-oioi-(pasture) tussockland.	Wetland
Palustrine	Manuka scrub.	Wetland
Riverine	<i>Machaerina articulata</i> - <i>Bolboschoenus fluviatilis</i> -raupo reedland; <i>Machaerina articulata</i> reedland; <i>Schoenoplectus tabernaemontani</i> reedland.	River margin
Palustrine	Grey willow forest.	Wetland
Palustrine	Raupo-oioi- <i>Machaerina articulata</i> reedland.	Wetland
Terrestrial	Brush wattle-mamaku-ti kouka forest.	Hillslope
Terrestrial	Gorse-woolly nightshade scrub. (Beadel 1992a, Wildland Consultants 2005j)	Flat

Vegetation and Indigenous Flora

Wairoa River includes estuarine and freshwater wetlands. North of the railway bridge are estuarine wetlands dominated by oioi, sea rush, *Machaerina juncea*, and saltmarsh ribbonwood. East of the railway bridge freshwater wetlands are dominated by manuka, and grey willow. Towards the southern end of the site there are wetlands of *Coprosma propinqua* subsp. *propinqua*, oioi, raupo, and *Machaerina articulata*. There is also an example of brush wattle-mamaku-ti kouka forest. No rare or uncommon plant species have been recorded at this site.

Indigenous Fauna

Australasian bittern (Threatened-Nationally Endangered), North Island fernbird (At Risk-Declining), and spotless crane (At Risk-Relict) were recorded in 1990 (Owen 1993). There is also a more recent record of North Island fernbird, and records of grey duck (Threatened-Nationally Critical) and red-billed gull (Threatened-Nationally Vulnerable) (Wildland Consultants 2002a; 2005j).

The Wairoa River is a migratory corridor for indigenous freshwater fish including shortjaw kōkopu (At Risk-Declining), inanga (At Risk-Declining), redfin bully (At Risk-Declining), longfin eel (At Risk-Declining), giant kōkopu (At Risk-Declining), shortfin eel, common smelt, common bully, and

¹ Identified as SVHZ-49 in Wildland Consultants 2006g.



giant bully (Environment Bay of Plenty 2008). It is also a whitebait spawning site (BOPRC 2012).

Condition/Pressures The following weed species are present within the site: smilax (*Asparagus asparagoides*), she-oak, black wattle, tree privet, Chinese privet, woolly nightshade, grey willow, blackberry, brush wattle, gorse, and pampas (Wildland Consultants 2005j).

Weed species which have increased in abundance and distribution at the site since 2000 include brush wattle, she-oak, and possibly black wattle. Grey willow, pampas, and tree privet are widespread in suitable habitat but there has been no detectable change in their distribution and abundance since 2000. This is probably a reflection of the fact that they were widespread in 2000 and already occupied almost all suitable habitats and micro-sites (Wildland Consultants 2005j). There is a building on the Margaret Jackson Wildlife Management Reserve used by whitebaiters and game hunters.

Key Site Features The Wairoa River site is of regional significance because it is moderately sized, contains a wide range of indigenous vegetation types, contains a representative example of freshwater wetland vegetation adjacent to a river channel (Beadel 1994a), and provides habitat for three Threatened and two At Risk bird species. The river is a migratory corridor for indigenous freshwater fish including At Risk species and is a whitebait spawning site (BOPRC 2012).

Significance Assessment

Criterion*	RPS Number*	Ranking**
Representativeness	3.1	H
Rarity or Distinctive Features	3.2	H
	3.3	M
	3.4	M
	3.5	H
	3.6	H
Diversity and Pattern	3.7	H
Naturalness	3.8	M
Ecological Context	3.9	H
	3.10	M
Viability and Sustainability	3.11	M
	3.12	M
	3.13	M

* Bay of Plenty Regional Policy Statement Assessment Criteria: Appendix F, Set 3. Refer to A3 fold-out page in Appendix 1 of this document for descriptions of criteria and definitions of High, Medium, and Low rankings.

** H = High, M = Medium, L = Low.

Significance Level: Regional



Assessment Against Policy 11 of the NZCPS

Policy	Criteria Met	Explanation
11(a)		
i	✓	Avifauna: Grey duck (Threatened-Nationally Critical) Australasian bittern (Threatened-Nationally Endangered) (1990) Red-billed gull (Threatened-Nationally Vulnerable) North Island fernbird (At Risk-Declining) Spotless crane (At Risk-Relict) (1990) Fish: Giant kōkopu (At Risk-Declining) Inanga (At Risk-Declining) Longfin eel (At Risk-Declining) Redfin bully (At Risk-Declining)
ii	✓	Australasian bittern (Endangered) (1990) Giant kōkopu (Vulnerable)
iii	✓	One of the highest quality examples of palustrine wetland next to a river in Tauranga Ecological District.
iv		
v		Regionally Significant
vi		Partially protected (Margaret Jackson Wildlife Management Reserve, Department of Conservation)
Policy Met:		11(a)
Justification:		Three Threatened and two At Risk avifauna species have been recorded at Wairoa River Wetlands, but some of those records date from 1990. The site comprises estuarine and palustrine wetlands that are bisected by a railway embankment and include a component of invasive, exotic species. Most of the site is not legally protected. The site is consistent with Policy 11(a) because it includes indigenous vegetation and habitats that are confined to the coastal environment.

Notes Identified as a Category 1 natural area in Tauranga Ecological District (Wildland Consultants 2008a) and a Category 1 Special Ecological Area in Tauranga City (Wildland Consultants 2009b).

References Owen 1993; Beadel 1994a; Environment Bay of Plenty 2008; Wildland Consultants 2005j; Wildland Consultants 2006g; Wildland Consultants 2008a; Wildland Consultants 2009b; BOPRC 2012.

