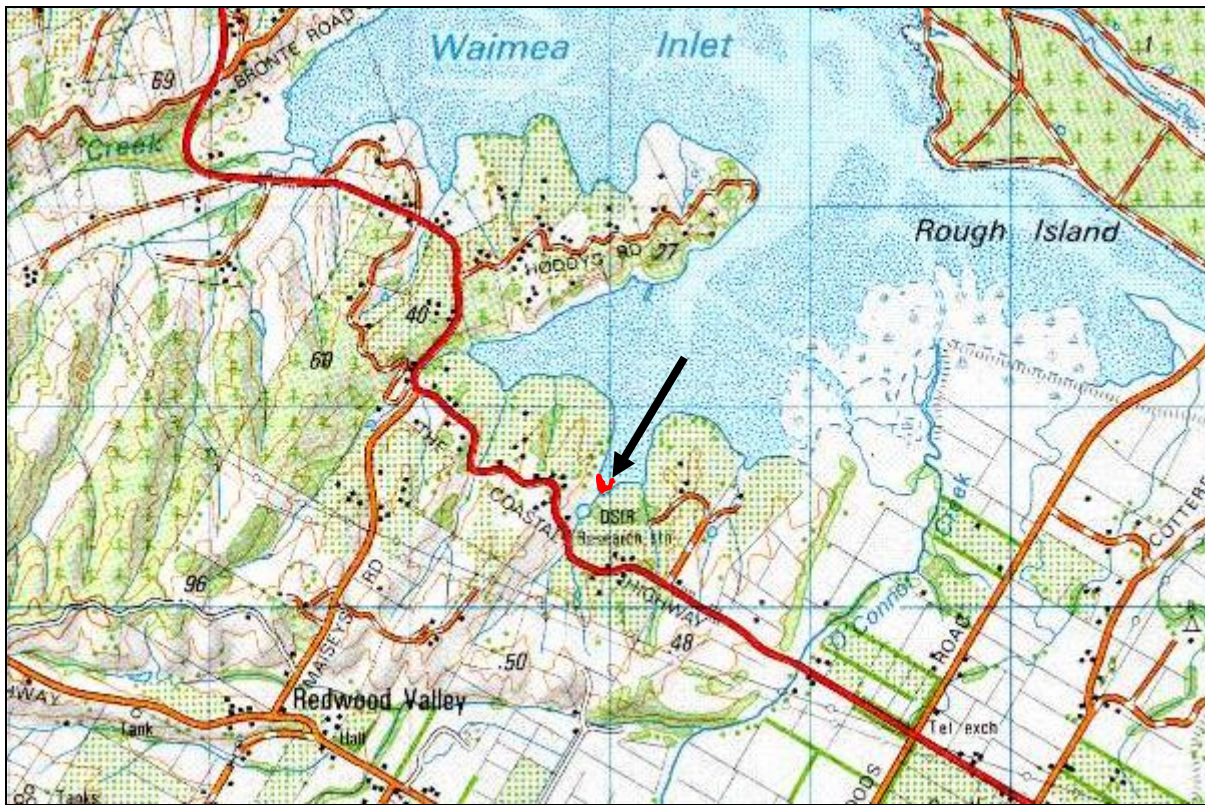


# Native Habitats Tasman Ecological Assessment Report

<b>Site:</b>	MU 318 Hoddy Estuary Park saltmarsh
<b>Landowners/Occupiers:</b>	Common Marine & Coastal Area
<b>Ecological District:</b>	Moutere
<b>Grid Ref:</b>	E2518032 N5990609
<b>Surveyed By:</b>	Michael North
<b>Date:</b>	17 June 2010
<b>Survey Time:</b>	1 hr



# THE SETTING – MOUTERE ECOLOGICAL DISTRICT (ED)

## Location and Physical Description

The Moutere Ecological District occupies most of the Moutere Depression. It is rolling hill country founded on deeply weathered fluvio-glacial outwash gravels (Moutere Gravels), with a little limestone and granite in the west. The hills are drained by numerous valleys with flat alluvial floors. There is a small amount of coast containing an estuarine shore and a series of bluffs. The climate is sunny and sheltered, with very warm summers and mild winters. Most of the land is in private ownership and is used for pastoral farming, forestry, horticulture and small-scale settlement. Tasman District Council has considerable landholdings in this District.



## Ecosystem Types Originally Present

Formerly, the Ecological District, apart from the waterways, would have been almost entirely covered in forest. The alluvial valley floors supported towering podocarp forests of totara, matai, rimu, miro and kahikatea. On the hills, black beech was dominant at the seaward end of the District, with hard beech prominent further inland, giving way further inland still to red beech with silver beech. In sheltered coastal gullies were pockets of lush broadleaved forest containing tawa, titoki, pukatea, nikau and tree ferns. Along the coastal bluffs was forest of ngaio, titoki, nikau and other broadleaved trees, with totara and black beech. Fringing the estuary would have been a vegetation sequence like that in the neighbouring Motueka Ecological District. Freshwater

wetlands occurred in the coastal valleys and would have included fertile lowland swamps with kahikatea, harakeke, cabbage tree and tussock sedge (*Carex secta*). Rivers and streams, including riparian ecosystems (trees, shrubs, flaxes, toetoe, etc) and some braided river beds, would have made up an appreciable although not large portion of the District. The table below gives estimates of the extent of these original ecosystems.

## Existing Ecosystems

Most of the natural terrestrial ecosystems have been lost. What remains is largely a scattering of fragments of beech forest, with some larger areas in the south. There are tiny remnants of coastal bluff forest, lowland broadleaved forest and podocarp forest only, and a few wee freshwater wetlands. The estuary margin is still surprisingly intact, although its fringing vegetation sequence has largely gone. The table below gives estimates of the proportions of the original ecosystems that remain.

## Degree of Protection

There is little protected land within the Ecological District. However, there are significant remnants protected in reserves and covenants. These include a coastal bluff forest remnant at Ruby Bay, tawa forest at Eves Valley, podocarp forest remnants near Upper Moutere, several key remnants of beech forest and larger tracts of beech forest in the south. A few tiny wetlands are also protected. The table below gives estimates of how much of the original and remaining ecosystems have formal protection.

<b>Indigenous Ecosystems – Moutere Ecological District</b>				
Ecosystem type	Original extent (% of ED)	Proportion of original extent remaining (%)	Proportion of original extent / remaining area protected (%)	
			Original	Remaining
Coastal sand dune and flat	—	—	—	—
Estuarine wetland	<1	30	?	?
Fertile lowland swamp and pond	1	<5	<2	<20
Infertile peat bog	—	—	—	—
Upland tarn	—	—	—	—
Lake	—	—	—	—
River, stream and riparian	1	40	?	?
Lowland podocarp forest	20	1	<1	50
Lowland broadleaved forest	1	<5	<5	100
Lowland mixed forest	5	<5	<5	50
Lowland beech forest	65	5	2	40
Upland beech forest	5	50	40	80
Subalpine forest	—	—	—	—
Lowland shrubland	<1	<5	<1	<10
Upland/subalpine shrubland	—	—	—	—
Frost flat communities	—	—	—	—
Tussock grassland	—	—	—	—
Alpine herbfield and fellfield	—	—	—	—

# SITE DESCRIPTION

## Location, Geology, Hydrology

This 1.4ha site lies at and around MHW at the head of one of the western arms of the Waimea Inlet. The substrate is of estuarine muds and pebble deposits.

The site has been delineated to include all rush and sedge beds rising up to coastal margin shrubland, but to generally exclude glasswort saltmarsh herbfield as outside the scope of the survey.

## Vegetation

### COMMUNITIES

1 Sea rush(land)

2 Oioi sedgeland

3 Saltmarsh ribbonwood +- oioi shrub/sedgeland along margins

Sea rush dominates the site, with small areas of oioi in places where there is more pronounced freshwater seepage. The margins support a variable association of these species with tall fescue, saltmarsh ribbonwood, and very locally, gorse and a patch of native umbrella sedge. A tiny lawn of slender clubrush occurs along the western margins of the site.

## Botanical Values

### COMMUNITIES

Estuarine wetlands only ever occupied <1% of the Moutere Ecological District (ED) and of this area, only some 30% is believed to still remain. Any remnants are therefore of value. This particular site is small and of low diversity compared to a number of other sites surveyed.

### SPECIES

Six native plant species were noted. The diminutive sedge *Isolepis cernua* (slender clubrush) and native umbrella sedge are both rare in Moutere ED. The latter occurs in a patch where freshwater trickles into the estuary and constitutes the best population known in the ED, small though it is.

## Fauna

A few pukeko were noted. Banded rail sign was noted by Graeme Elliott during his 1980-82 crane/rail survey of coastal Nelson/Marlborough. It is listed as 'at risk, naturally uncommon' in the national threat classification list.

## Weed and Animal Pests

Tall fescue is common at the very upper margins of the site, particularly at the head of the inlets where freshwater issues. Gorse is occasional.

## Other Threats

None were noted. In the longer term, sea level rise will spell doom for this site with no low-lying land for it to retreat inland.

Plans for a walkway around the very margins of Waimea Inlet pose a very serious threat to breeding banded rail. This is because nest sites are nearly always located in the upper margins of saltmarshes where there is sufficient elevation to place them above the highest tides. This would put them very close to the proposed public right of way. Bylaws or not, wandering dogs would be the inevitable consequence of any walkway, with consequent impacts on this species.

In the longer term the site is threatened with sea-level rise, with little scope for retreat inland.

## General Condition

The site is in good condition.

## Landscape/Historic Values

The site forms an attractive margin to the new Hoddy Estuary Park.

## ASSESSMENT OF ECOLOGICAL SIGNIFICANCE

The following criteria are assessed:

**Representativeness:** *How representative is the site of the original vegetation?*

**Rarity:** *Are there rare species or communities?*

**Diversity and pattern:** *Is there a notable range of species and habitats?*

**Distinctiveness/special features:** *Are there any features that make the site stand out locally, regionally or nationally for reasons not addressed by the above criteria?*

**Size/shape:** *How large and compact is the site?*

**Ecological context:** *How well connected is the site to other natural areas, to what extent does the site buffer and is buffered by adjoining areas, and what hydrological services to the catchment and critical resources to mobile species does it provide?*

**Sustainability:** *How well is the site able to sustain itself without intervention?*

## Site Significance

The technical assessment of significance is tabled in the Appendix.

This site is significant for the following reasons:

The site has moderately high representativeness and high rarity values.

## Management Issues and Suggestions

The site is essentially self-sustaining, other than for its immediate landward margins, where gorse and tall fescue intrude into the site and compete with native vegetation. The gorse at least should be removed but the tall fescue should only be managed if replacement native restoration plantings are put in place, otherwise it will simply reinvade. There is an opportunity to extend the natural margins back on to private land as the saltmarsh is not artificially stop-banked (at least not hard up to its margins), but much of the margins are steep with little scope for transitional vegetation sequences to establish – other than at the small stream inlets. Willows and pampas could be removed along the Hoddy Estuary Park margins and replaced with appropriate native species without blocking out the view (if that is an issue).

## PHOTO GALLERY



*The eastern end of this embayment saltmarsh on the margins of Hoddy Estuary Park*



*View toward the western end of this saltmarsh embayment*



*An unnamed stream enters the site at the western end; smaller seeps or trickles enter the site elsewhere*



*Banded rail sign was recorded from this site in 1980-82 by Graeme Elliott during his crane/rail survey of the Nelson/Marlborough coastline*

# APPENDIX

## Technical Assessment of Site Significance

Each site is ranked according to the highest ranking vegetation community or habitat that occurs within it. However, a site will be divided into more than one area for assessment purposes if they vary markedly in character, size or condition. Some examples are:

- (a) a core area of vegetation (say, a podocarp gully remnant) is surrounded by/adjoins a much larger area of markedly different vegetation (say, kanuka scrub);
- (b) a core area of vegetation has *markedly* different ecological values to the surrounding/adjacent vegetation;
- (c) where artificially abrupt ecological boundaries occur between an area of primary vegetation and a surrounding/adjacent area of secondary vegetation.

*Where such division of a site into two or more separately assessed areas occurs, such adjoining areas will also be considered in their buffering/connectivity roles to one another.*

***This site was assessed as one unit as the above considerations did not indicate the need to assess communities separately.***

Significance Evaluation		
	Score	Example/Explanation
<b>Primary Criteria</b>		
<b>Representativeness</b>		
The site includes primary vegetation that moderately resembles its original condition	MH	Site fragmented by tall fescue in SW corner
<b>Rarity and Distinctiveness</b>		
The site supports an indigenous species that is 'at risk - naturally uncommon/recovering/relic' nationally	M	Banded rail
The site includes an ecosystem that is originally rare nationally as listed under DoC/MfE National Priority 3, and retains functional indigenous components	H	Estuaries
<b>Diversity and Pattern</b>		
Indigenous plant communities species or habitats are present with less diversity than is typical for such sites in the Ecological District	L	
<b>Secondary Criteria</b>		
<b>Ecological Context (highest score)</b>		
<b>Connectivity</b>		
The site is separated from other areas of indigenous vegetation but provides an important part of a network of closely lying sites	M	Saltmarshes lie c 500m either side of this site with nearly continuous connecting bands of saltmarsh linking the site to the west
<b>Buffering to</b>		
The site is moderately-poorly buffered by vegetation	ML	Vegetation buffers the site effectively around at least ¼ of its boundary
<b>Provision of critical resources to mobile fauna</b>		



<b>Significance Evaluation</b>		
	<b>Score</b>	<b>Example/Explanation</b>
The site provides seasonally important resources for indigenous mobile animal species and these species are present in the locality even though they may not have been observed at the site.	L	Unusually important stands of podocarp, tawa or kowhai trees that provide seasonally important benefits for forest birds.
<b>Hydrological services to the catchment</b>		
The site provides hydrological services to the catchment.	L	
<b>Size and Shape</b>		
The site is of moderate size for its vegetation community and Ecological District but is not compact	ML	
<b>Other Criterion</b>		
<b>Sustainability</b> (average score)	<b>ML</b>	
<b>Physical and proximal characteristics</b>		
Size, shape, buffering and connectivity provide for a moderately low overall degree of ecological resilience.	ML	Size ML Shape ML Buffering ML Connectivity M
<b>Inherent fragility/robustness</b>		
Indigenous communities are inherently fragile.	L	
<b>Threats</b> (low score = high threat; lowest score taken)		
Ecological impacts of grazing, surrounding land management, weeds and pests*	MH	Grazing H Surroundings H Weeds MH Pests H

\* observed pest impacts only


NB where scores are averaged, the score must reach or exceed a particular score for it to apply

<b>Summary of Scores</b>	<b>Criterion</b>	<b>Ecological District Ranking</b>
<b>Primary Criteria</b>	Representativeness	MH
	Rarity	H
	Diversity and Pattern	L
<b>Secondary Criteria</b>	Ecological Context	M
	Size/Shape	ML
<b>Additional Criteria</b>	Sustainability	ML

H = High MH = Medium-High M = Medium ML = Medium-Low L = Low

## Summation of Scores to Determine Significance

If a site scores at least as highly as the combinations of primary and secondary scores set out below, it is deemed significant for the purposes of this assessment.

Primary Criteria		Secondary Criteria	
Any of the three primary criteria with a score at least as high as listed		Any of the two secondary criteria with a score at least as high as listed	
		Plus	
	H		—
	MH x 2		—
	MH + M		—
	MH	+	MH
	M x 2	+	H
	M x 2	+	MH x 2
	M	+	H + MH

H = High MH = Medium-High M = Medium

Is this site significant under the TDC assessment criteria? <b>YES</b>
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## Species List

r = Rare o = Occasional m = Moderate Numbers ml = Moderate Numbers Locally c = Common  
 lc = Locally Common f = Frequent lf = Locally Frequent x = Present But Abundance Not Noted  
 P = Planted R = Reported

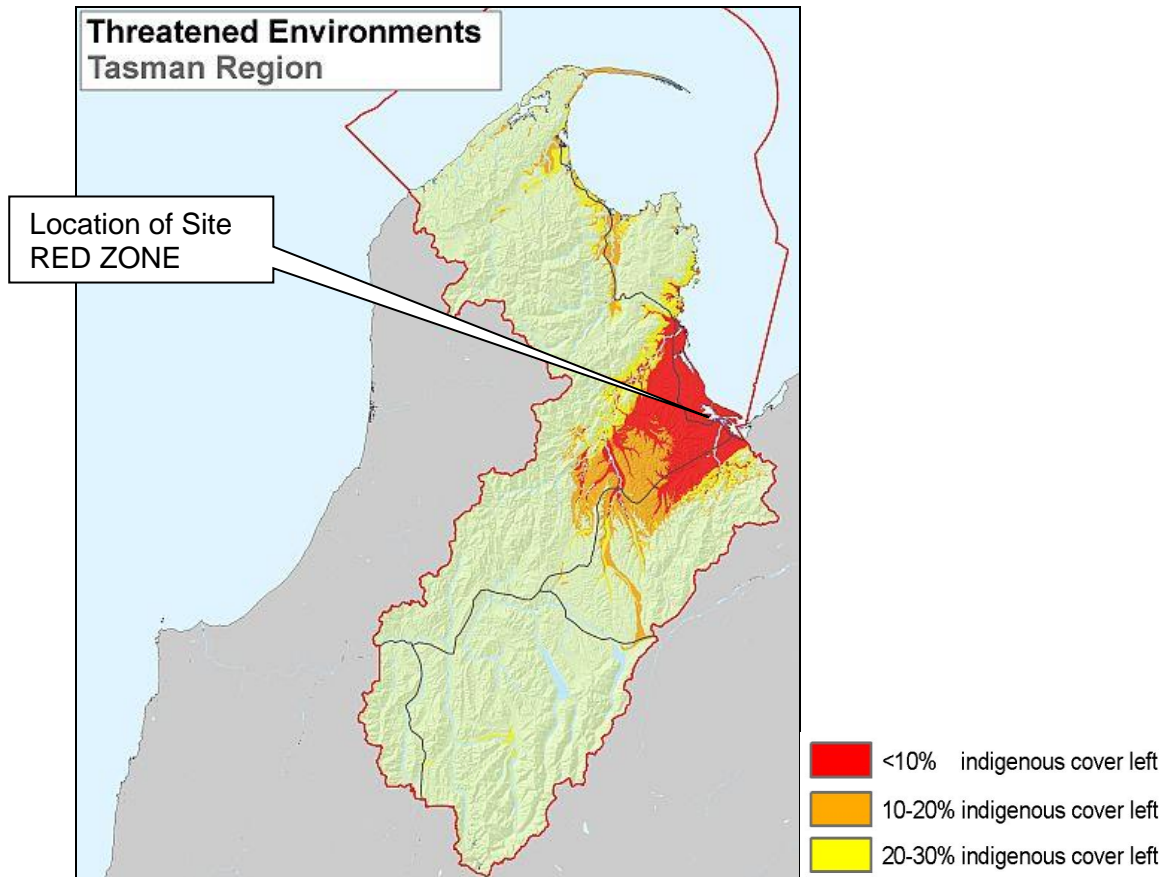
<b>Species Name</b>	<b>Common Name</b>	<b>Status</b>
<b>Trees Shrubs</b>		<b>x</b>
<i>Plagianthus divaricatus</i>	saltmarsh ribbonwood	o
<b>Lianes</b>		<b>x</b>
<b>Dicot Herbs</b>		<b>x</b>
<i>Samolus repens</i>	sea primrose	o
<i>Sarcocornia quinquefolia</i>	glasswort	ml
<b>Monocot Herbs</b>		<b>x</b>
<b>Grasses Sedges Rushes</b>		<b>x</b>
<i>Apodasmia similis</i>	oioi	ml
<i>Cyperus ustulatus</i>	umbrella sedge	r
<i>Isolepis cernua</i>	slender clubrush	r
<i>Juncus kraussii</i>	sea rush	f
<b>Ferns</b>		<b>x</b>
<b>Weeds</b>		<b>x</b>
<i>Schedonorus phoenix</i>	tall fescue	ml
<b>Birds</b>		<b>x</b>
	banded rail	R

## Land Environments of New Zealand (LENZ)

LENZ is a national classification system based on combinations of soil characteristics, climate and landform. These three factors combined are correlated to the distribution of native ecosystems and species.

When LENZ is coupled with vegetation cover information it is possible to identify those parts of the country (and those Land Environments) which have lost most of their indigenous cover. These tend to be fertile, flatter areas in coastal and lowland zones as shown in the map below for Tasman District.

Further information on the LENZ framework can be found at [www.landcareresearch.co.nz/databases/lenz](http://www.landcareresearch.co.nz/databases/lenz)



## National Priorities for Protecting Biodiversity on Private Land

Four national priorities for biodiversity protection were set in 2007 by the Ministry for the Environment and Department of Conservation.

<b>National Priorities</b>	<b>Does this Site Qualify?</b>
<b>1</b> Indigenous vegetation associated with land environments (ie LENZ) that have 20 percent or less remaining in indigenous cover. This includes those areas colored in red and orange on the map above.	Yes
<b>2</b> Indigenous vegetation associated with sand dunes and wetlands; ecosystem types that have become uncommon due to human activity	No
<b>3</b> Indigenous vegetation associated with 'naturally rare' terrestrial ecosystem types not already covered by priorities 1 and 2 (eg limestone scree, coastal rock stacks)	No
<b>4</b> Habitats of nationally 'threatened' or 'at risk, declining' indigenous species	No

Further information can be found at -

[www.biodiversity.govt.nz/pdfs/protecting-our-places-brochure.pdf](http://www.biodiversity.govt.nz/pdfs/protecting-our-places-brochure.pdf)

## Significance of LENZ and National Priorities

What does it mean if your site falls within the highly depleted LENZ environments, or falls within one or more of the four National Priorities?

These frameworks have been included in this report to put deeper ecological context to the site. They are simply another means of gauging ecological value. This information is useful in assessing the relative value of sites within Tasman District when prioritising funding assistance. They otherwise have no immediate consequence for the landowner unless the area of indigenous vegetation is intended to be cleared, in which case this information would be part of the bigger picture of value that the consenting authority would have to take into account if a consent was required.



MU 318

Hoddy Park Salt Marsh



1 Sea rush (land)

2 Oioi sedge/land

3 Saltmarsh ribbonwood scrub/shrubland ± oioi

4 Umbrella sedge(land)



