

Part A: Wetland classification, wetland condition, pressure indicators

Wetland name: Longbeach Coast
Region: Canterbury Plains ER, Low Plains ED
Altitude: <5 m

Date: November 2010
GPS Ref. (NZTM): E1498081 N5118051
No. of plots sampled: Overview only

A.1.1 Wetland classification

Classification: I System	IA Subsystem	II Wetland Class	IIA Wetland Form
Palustrine	Seasonal	Swamp/Marsh	Donga
Riverine	Permanent/Near-permanent	Shallow Water/Marsh	Donga

Wetlands occupy a series of coastal dongas. Approximately 80% of the surveyed wetland areas are freshwater palustrine and 20% freshwater riverine; <1% was estuarine saltmarsh.

Field team: Mark Parker

A.1.2 Recording wetland condition

Indicator	Indicator components	Specify and Comment	Score 0–5 ¹	Mean score
Change in hydrological integrity	Impact of manmade structures	Drains	4	3.3
	Water table depth	Lowered as a result of groundwater abstraction and ongoing impact of drainage	3	
	Dryland plant invasion	Gorse and exotic herbs and grasses spreading from surrounding terrestrial areas	3	
Change in physico-chemical parameters	Fire damage	No evidence of fire damage	5	4
	Degree of sedimentation/erosion	Visible sediment deposits affect <25% of wetland	4	
	Nutrient levels	Elevated as result of catchment land use and location at end of catchment	3	
	Von Post index	Not assessed		
Change in ecosystem intactness	Loss in area of original wetland	Estimated that >75% of previous wetland extent lost due to pasture development	1	2
	Connectivity barriers	Culverts, vegetation clearance	3	
Change in browsing, predation & harvesting regimes	Damage by domestic or feral animals	Sheep grazing in surrounding land; unfenced	4	3.3
	Introduced predator impacts on wildlife	No known predator control occurring in wider catchment	2	
	Harvesting levels	Minimal harvesting by locals; limited public access to coast	4	
Change in dominance of native plants	Introduced plant canopy cover	% canopy cover of couch and creeping bent	1	1
	Introduced plant understorey cover	Understorey largely creeping bent orache and couch	1	
Total wetland condition index /25				13.6

¹ Assign degree of modification as follows: 5=v. low/ none, 4=low, 3=medium, 2=high, 1=v. high, 0=extreme

Main vegetation types:

	Area (ha)
• Willow forest with tall fescue, creeping bent, pohuehue and yellow flag*	8.2
• Tall fescue grassland with <i>Bromus</i> spp., cock's foot, dock and buttercup*	0.5
• Harakeke flaxland with gorse and tall fescue	0.3
• Water pepper herbfield with cleavers and scentless mayweed*	0.3

Vegetated Area

9.9

Total Area

15.5

- denotes an exotic vegetation type

Native fauna:

Unranked for bird significance (O'Donnell, 2000); no native fauna seen at time of survey.

A. 1.3 Wetland pressure indicators (catchment)

Pressure	Score ²	Specify and Comment
Modifications to catchment hydrology	4	Vegetation clearance, water abstraction, drainage and irrigation.
Water quality within the catchment	2	Possible mild pollution.
Animal access	3	Partly fenced; no known animal control in wider catchment.
Key undesirable species	2	17 of 43 listed species thought to be present in catchment.
% catchment in introduced vegetation	5	All of catchment is introduced vegetation.
Other pressures	2	Coastal erosion; further land development/intensification.
Total wetland pressure index /30	18	

²Assign pressure scores as follows: 5=extreme, 4=very high, 3=high, 2=moderate, 1=low, 0=none/very low

Part B: Ecological significance assessment

B. 1.1 Assessment of Ecological significance

Criteria	Rank	Notes
Representativeness	Moderate	Modified wetland hydrology and vegetation composition.
Rarity / Distinctiveness	Moderate	Wetlands have been reduced to <10% of their former area in this land environment.
Diversity and pattern	Low	Low diversity of habitats; mainly exotic forest, with small areas of grassland, flaxland and herbfield.
Naturalness	Low	Wetland area dominated by exotic plants.
Ecological Context	Moderate	Connected to the marine environment, riverine and terrestrial habitats. Surrounding terrestrial areas contain small areas of scattered native vegetation.

The site is assessed against criteria developed for the Proposed Canterbury Regional Policy Statement (Wildland Consultants Limited, 2011)

Longbeach Coast is assigned an overall ecological significance ranking of **Moderate**.

References:

- Clarkson BR, Sorrell BK, Reeves PN, Champion PD, Partridge TR, Clarkson BD (2004) *Handbook for monitoring wetland condition. Coordinated Monitoring of New Zealand Wetlands*. A Ministry for the Environment Sustainable Management Fund Project (5105)
(Describes the assessment method generally. In particular, Table 5 was used to determine the indicator scores and Table 6 for the pressure scores)
- O'Donnell CFJ. 2000. The significance of river and open water habitats for indigenous birds in Canterbury, New Zealand. Environment Canterbury Unpublished Report U00/37.
- Wildland Consultants (2011) *Guidelines for the application of ecological significance criteria for indigenous vegetation and habitats of indigenous fauna and wetlands in Canterbury*. Wildland Consultants Contract Report No. 2289c. Prepared for Environment Canterbury.