

Wetlands: what are they?

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'Wetland' is the collective term for the wet margins of lakes, ponds, rivers, streams, estuaries, lagoons, bogs and swamps.

Wetlands may be large or small, natural or man-made, permanently or intermittently wet. They host complex ecosystems which harbour a large fraction of our native flora and fauna. A wetland has an importance much larger than its size implies and contains much to explore, discover and enjoy.

Where have all the wetlands gone?

Large areas of wetlands have disappeared since the early days of European settlement. Activities associated with the development of farmland – draining, burning, clearing – together with the 'reclamation' of former swamp lands for industry and housing have removed most of these important habitats from our landscape.

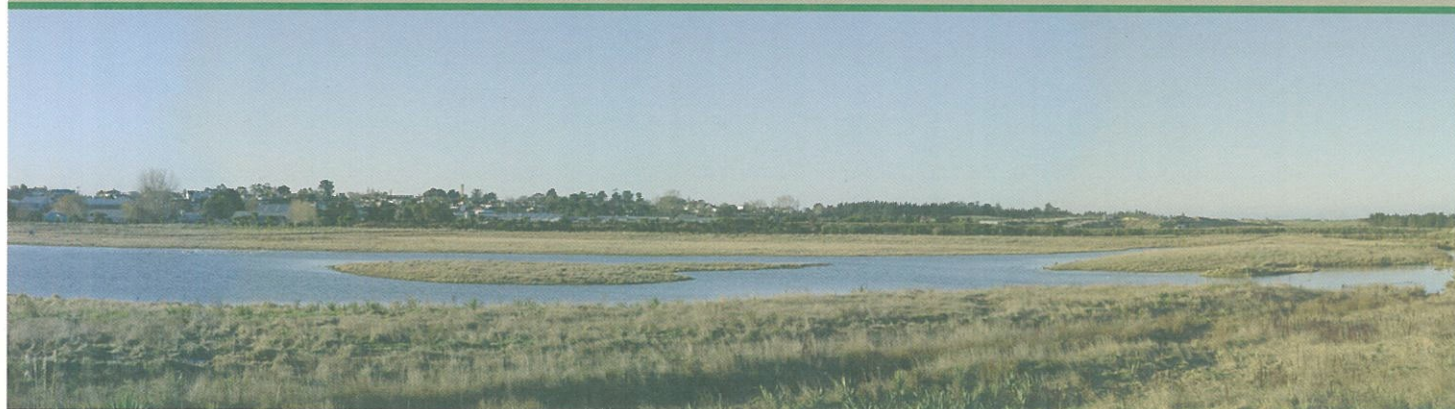
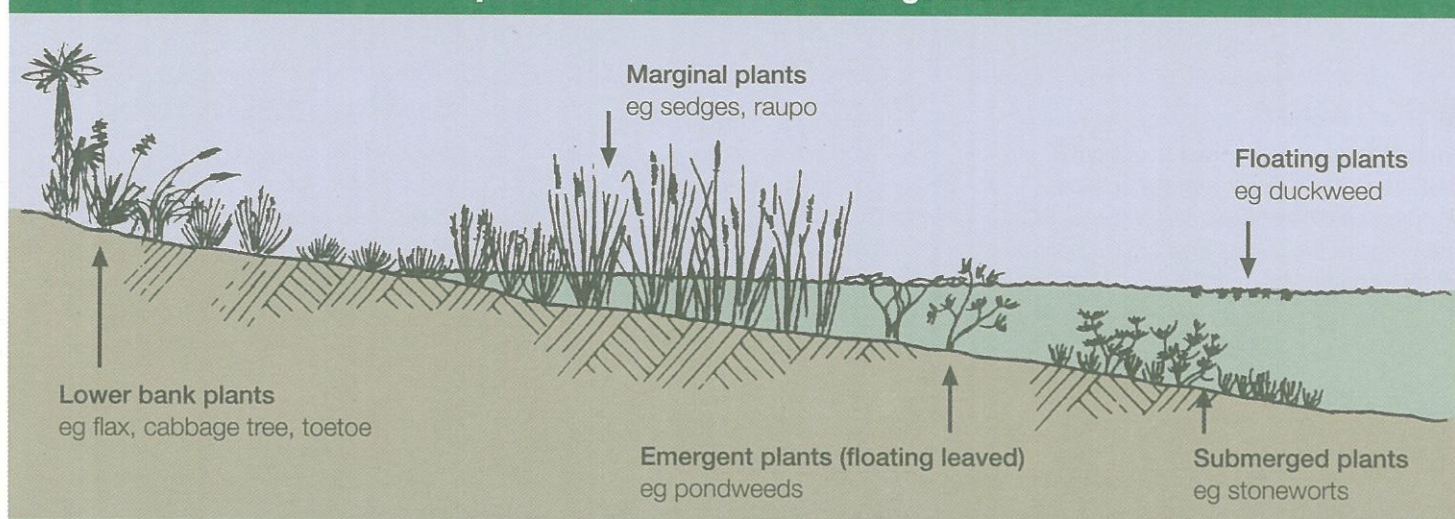
WHAT ENDANGERS WETLANDS?

- Weeds
- Grazing and trampling by livestock
- Nutrient inputs from adjacent farmland
- Urban Expansion
- Drainage

Wildlife corridors

Single wetlands should not be considered as isolated wildlife habitats, but rather part of a network. Migratory birds species are very dependent on a chain of suitable wetlands on their flyways for resting and feeding.

Aquatic zones and wetland vegetation



WILDERNESS ON THE CITY EDGE – OTIPUA LAGOON

A community project taking shape at Timaru's southern entrance

Why are wetlands important?

Plant Habitat

Canterbury wetlands contain a huge diversity of plants adapted for survival in aquatic conditions.

Typical Canterbury lowland swamps are characterised by three tall herbs: Raupo (*Typha orientalis*), Pukio (*Carex secta*) and NZ flax (*Phormium tenax*).

Cultural Values

Wetlands have great spiritual significance to Tangata Whenua and are important sources for food, medicines and materials.

Flood Control

Wetlands slow the speed of surface water to lower erosion risk and reduce the effects of flooding.

Swamps and bogs have a 'sponge' effect on floodwaters, soaking up excess water and releasing it slowly and safely.

Wildlife Habitat

A wetland produces a fascinating range of habitats for its inhabitants. Freshwater and terrestrial insects provide food for fish, birds and amphibians. Wetlands are essential breeding areas for whitebait species, and game fish and are the refuge of the Canterbury mudfish. Surrounding riparian vegetation provides secure nesting for birds.



Nutrient Filtering

Nitrogen and phosphorus enter waterways through groundwater, surface runoff and effluent. Wetland vegetation uses some of these nutrients for growth. Wetlands remove up to 90% of nitrates from groundwater through the microbial process, "denitrification".

Education

Wetlands have considerable educational potential. They demonstrate complex food webs, the source of nutrients, the workings of life cycles and the functions of an ecosystem.

Recreation

Wetland areas offer opportunities for a range of leisure activities for those seeking a natural environment. Walking, fishing, hunting, bird watching....

Sediment Control

Wetlands riparian vegetation traps sediment from runoff and flooding to protect downstream water quality.

Managing wetlands

Wetlands are vulnerable to natural and introduced pressures – floods, drought, fire, browsing, pollution, weeds ...

"Wetland Care" management techniques include:

- Maintaining water levels at a fairly constant level although minor fluctuations are unavoidable and may be helpful to waterfowl and waders by exposing food sources. Drainage of wetlands should not be undertaken.
- Sustaining water quality by restricting nutrient and sediment inputs from activities on adjacent farmland.
- Controlling noxious weeds which aggressively compete with the wetland's natural plant communities.
- Preventing vehicles from entering the wetland margins to foster safer nesting and brood-rearing.
- Reinstating riparian vegetation* to the margins of our wetlands to improve water quality and habitat.

* Native plants, raised from local seed sources, should be the planter's first choice. Local plants generally perform better than plants from outside the area and also help to retain each area's unique flora.