

INTRODUCING WETLANDS

What is a wetland?

A wetland is a place where the ground is permanently or periodically wet and which supports a natural ecosystem of plants and animals.

Wetlands are a vital link between land and water. "Wetlands" is the collective term for marshes, swamps, bogs and similar areas found in generally flat vegetated areas, in depressions in the landscape and between dry land and water along the edges of streams, rivers, lakes, coastlines, and even on mountain tops.

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, and support specially adapted wetland species as well as other terrestrial and aquatic species.

It is recognised that rivers, lakes and wetlands are very closely linked. However, wetlands are a unique ecosystem that is neither fully terrestrial nor fully aquatic. They have been referred to as "biological supermarkets" and they play an integral role in the ecology of a water catchment.

Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance.

Wetland types in Southland

No two wetlands are exactly alike. Wetlands in Southland are widespread and diverse, occurring from the coast to the mountains, beside lakes and streams and the sea. There can also be wetland sequences, from swamp and peat land areas to shrub lands then forest. Wetland types found in the Southland region include the following:

- **Swamps:** include areas of open freshwater, pond margins, backwashes and backwaters, and valley floor areas
- **Created and restored wetlands:** duck ponds, open water, reversion of wastelands
- **Peatlands and peat bogs:** areas of peaty soil of low fertility
- **Coastal wetlands or salt marshes:** estuarine and lagoon areas e.g. Awarua Bay, Te Waewae Lagoon, and the Waituna lagoon
- **Alpine wetlands:** include tarns in mountain areas



Why are wetlands so

important? Wetlands support the highest proportion of endangered species of any terrestrial habitat on earth. They are an important 'genetic reservoir' for certain species of plants and their contribution to biodiversity is essential to the healthy functioning of our environment.



What's so great about wetlands?

- They act as a filter, recycling bad nutrients into good ones
- They are part of the hydrological cycle, which means they are a godsend during flood events
- They act as a buffer zone, protecting streams and waterways on your farm from erosion and nutrient loading
- They're great to fish in, duck shoot off and have picnics around
- Native species – birds, fish and plants – just love em

The Southland region has several wetlands of international, national or regional significance which contain irreplaceable values and which are or may be at risk of being lost through wetland modification, including reclamation of a wetland or diversion of water from a wetland (e.g. for the construction of drains). Many of

the wetlands in Southland are unique ecosystems and are significant habitats for vegetation and fauna.

Wetlands are living communities, different from the surrounding land and other water bodies. In many cases, Southland's wetlands are different from other wetlands and therefore are truly unique ecosystems. They are valued as nature reserves, part of the landscape, and as an educational resource.

Threats to wetlands

Wetlands are among the most threatened ecosystems in New Zealand. Wetlands face many pressures. Wetlands are very sensitive to changes in climate, water availability, disturbance and land use. They are extremely vulnerable to the effects of human activity. Conversion for agriculture, forestry, waste disposal, roads and residential development through drainage directly affects wetlands. Some farming practices have indirect effects, for e.g., nutrients and sediment can wash from the land into the wetland, while livestock grazing and trampling are both detrimental. Plant and animal pests can also cause problems. Fire (e.g. peatland fires), tourism, and recreational use are also threats. Careful management can decrease the effects of these threats on our wetlands.



Environment Southland,
Invercargill City Council,
Southland District Council
and Gore District Council
have prepared "Wetlands of

Southland: A guide for Maintaining and Enhancing the Values of our Wetland Areas" which you can get free from ES, SDC, ICC and GDC, and is also available on the ES website: www.es.govt.nz/environment/and/wetlands/southland-wetlands-working-party.aspx