

Wetlands are the natural boundary between land and water. The areas are permanently or intermittently wet areas, shallow water and land water margins and they support a number of plants and animals that are adapted to live in wet conditions.

The wetland and ecosystem services they provide are very important. They help to improve water quality by filtering nutrients and sediments, and provide habitat for native flora and fauna, including rare and endangered indigenous species. They assist in flood mitigation and provide amenity, natural and cultural landscape values.

Most natural wetlands in New Zealand are primarily waterlogged soil, rather than areas of open water. Shallow wetlands are also of great value, particularly in filtering water (i.e. the pond with the margins of vegetation shouldn't be the goal of everything and does not a wetland make).

Approximately 90 percent of New Zealand's freshwater wetlands have been lost in the last 150 years. The Bay of Plenty region has lost more than the national average – A recent estimate shows that we have less than 8% of our historic wetland extent left. Most of these wetlands were in areas very desirable for the development of farmland. Draining, burning and clearing of vegetation for farmland, together with the reclamation of wetlands for urban and industrial uses, have been the principal agents of wetland destruction. Pest animals and plants pose a major



threat to the health of wetlands and have the potential to spread further into surrounding waterbodies where they could have devastating consequences.

Controlling animal pests

A number of animal pests pose significant risks to wetlands. These include:

- Fish species such as **koi carp, catfish, *Gambusia*, rudd and tench** destroy native plants and fish habitats. These fish species will eat insects, eggs, and juvenile native fish. The foraging nature of most of these species reduces water quality because they regularly stir up sediments, increasing the risk of toxic algal blooms.
- **Possums, cats, stoats, weasels, ferrets, rats and hedgehogs.** These animals will all eat bird eggs, and most will eat chicks and adult birds. Possums and rabbits also eat wetland plants.

Dogs can become a problem if they harass wetland birds and disturb nesting.

Animal pest control will enhance bird life in your wetland and protect young plants. Establishing bait stations for predators and the development of community care groups are encouraged to enhance vegetation diversity and overall health of wetland ecosystems.

The Bay of Plenty Regional Council land management staff provide a free advisory service for land owners who want to construct or restore wetland areas. Grants are also available to cover some, or all of the costs involved in wetland construction. These may take place in the form of riparian vegetation schemes (fences, planting etc) and biodiversity plans such as pest removal and other related works.

Controlling weeds

Weeds are a significant threat to our region's wetlands and waterways. Aquatic weeds can form dense beds of vegetation that impede drainage, encourage stagnation and silting, aggravate the effects of flooding and degrade water quality. Invasive weed species such as parrot's feather, yellow flag iris and Senegal tea out-compete native species and exclude other desirable vegetation. Some species are already evident in some of the wetlands in the Bay of Plenty. If using machinery in or around a wetland, ensure that it has been cleaned of all mud and plant material before arriving at your site. This is the most common way for weeds to be transferred, particularly aquatic weeds.

You can help enhance your wetland by controlling for weeds in and around it, and planting native species rather than introduced ones. Once established, weeds are often difficult and costly to control, and even harder to eradicate. It is much better to prevent them from invading in the first place. The Bay of Plenty Regional Council land management staff encourage you to notify them on 0800 884 880 if you have any concerns about pest plant identification and species control management.

DO NOT PLANT THESE OR MOVE THEM FROM PLACE TO PLACE. CONTROL THEM IF YOU FIND YOU ALREADY HAVE THEM

Parrot's feather

Myriophyllum aquaticum



Yellow flag iris

Iris pseudacorus



Alligator weed

Alternanthera philoxeroides



Mexican water lily

Nymphaea Mexicana



African feather grass

Pennisetum macrourum



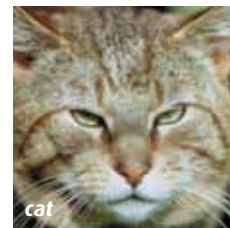
possum



rat



ferret



cat



rudd



tench



catfish



koi carp

Rudd (*Scardinius erythrophthalmus*) © NIWA - D K Rowe
Tench (*Tinca tinca*) © NIWA - R M McDowall
Brown bullhead catfish (*Ameiurus nebulosus*) © NIWA - R M McDowall



Bay of Plenty Regional Council

5 Quay Street, Whakatāne
1125 Arawa Street, Rotorua
Rata Street, Mount Maunganui

Post: PO Box 364, Whakatāne 3158

Phone: 0800 884 880

Fax: 0800 884 882

Pollution Hotline: 0800 884 883

Email: info@boprc.govt.nz

Website: www.boprc.govt.nz



www.facebook.com/boprc



www.twitter.com/boprc



www.youtube.com/bopregionalcouncil



For more information and advice on what to plant instead contact Bay of Plenty Regional Council staff or download the 'wetland restoration guide' from www.boprc.govt.nz.