Ecological significance of Tiwai Peninsula
locally and globally

The Tiwai Aluminium Smelter is classified as a Hazardous Activities and Industries List (HAIL) contaminated site, due to the presence of **storage of fuel, chemicals or liquid waste**; **metalliferous ore processing**; and a **landfill site**.

The main areas of concern are the site itself (industrial precinct), the landfill, SCL storage areas and the three main drains, which flow into Awarua Bay and the Bluff Harbour.

Of major concern is the siting of the smelter in close proximity to internationally recognised wetlands and coastal habitats for a range of nationally and internationally significant species. The ecological risk to this area is high. The effects of climate change, sea level rise, and coastal erosion will only add to this risk.

Tiwai Peninsula

The peninsula supports a variety of threatened plants and rare vegetation communities. It is ecologically significant regionally, nationally and internationally. This area has a diverse plant community of red tussock, bracken, flax, coprosma, native grasses and a variety of sub-alpine species. It is the largest coastal-lowland tussock-land in New Zealand, with 15 nationally threatened or uncommon species found here.

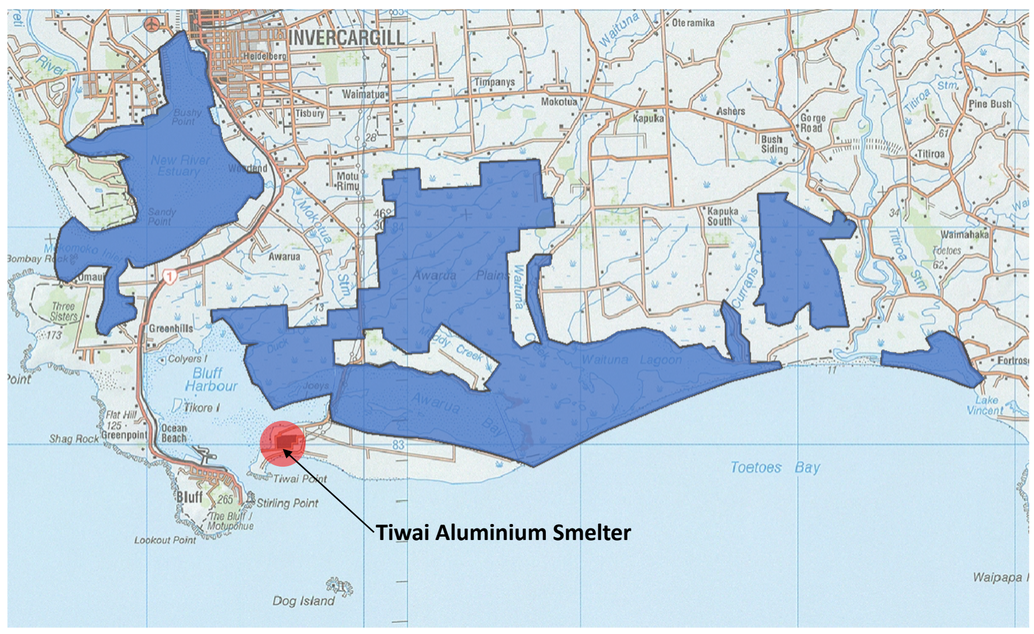
Three types of skink are found on the peninsula, including the rare green skink, which is listed as a threatened species (see photo right).

Awarua-Waituna Wetland

The Tiwai Aluminium Smelter is located adjacent to the internationally recognised **Awarua-Waituna Wetland** complex.

In February 2008, New Zealand's Department of Conservation was notified by the Ramsar Secretariat of its decision to approve an application to extend the Waituna Ramsar site from around 3,500 ha to around 20,000ha and to rename it the Awarua-Waituna Wetland.

The Awarua-Waituna Wetland Ramsar site is now the **largest protected wetland complex** in New Zealand. The extension includes not only Waituna but also the Awarua Plains, the New River Estuary, Toetoes Harbour and Spit and the northern edge of Tiwai Peninsula (shaded blue on map below).



Map showing the Awarua-Waituna Wetland Ramsar site (shaded blue) and the proximity of the Tiwai Aluminium Smelter at Tiwai Point.

Ramsar Convention on Wetlands

The Ramsar Convention on Wetlands is an intergovernmental treaty for the conservation and wise use of wetlands. It is named after the city of Ramsar in Iran, where the convention was signed in 1971.

Ramsar sites are recognised as being of significant value not only for the country or the countries in which they are located, but for humanity as a whole.

The inclusion of a wetland in the List ***embodies the government's commitment to take the steps necessary to ensure that its ecological character is maintained.*** The Convention includes various measures to respond to threats to the ecological character of Sites.

New Zealand committed to designating and protecting Ramsar wetland sites in 1976. There are currently seven Ramsar sites in New Zealand, covering approximately 67,000 hectares.

Ramsar and cultural values

Cultural and ecological values are often inter-twined. Wetlands are some of the most productive ecosystems on earth, therefore it follows that they are places of significant importance to indigenous cultures. This has been acknowledged by the Ramsar Convention. The following has been taken from the Ramsar website:

"People are at the heart of wetland conservation. The Convention on Wetlands supports governments to safeguard the cultural values of wetlands, the livelihoods they provide, and the rights of indigenous peoples and local communities to participate in their management.

When the Convention was adopted in Iran in 1971, in its preamble the signatories affirmed their conviction '*…that wetlands constitute a resource of great economic, cultural, scientific and recreational value, the loss of which would be irreparable*.'

In this sense, although the Convention is better known for its focus on wetland biodiversity, cultural aspects have been taken into account from the very start."

The international mandate of Ramsar in relation to the rights and cultural values of indigenous cultures is of particular significance to the Iwi of Murihiku in relation to the remediation of Tiwai Point.

Awarua-Waituna Wetland and the Department of Conservation

The Department of Conservation states on its website that the Awarua-Waituna is an *internationally significant* Ramsar site. The coastal wetland system has outstanding biodiversity values and deep cultural significance to Ngāi Tahu.

Conservation efforts in Awarua-Waituna wetlands are focused on monitoring and protecting the rich array of species that live there, protecting waterways and restoring natural vegetation.

Our vision: That the internationally significant lagoon, wetlands, rivers, estuary, forests and heaths are protected through wise stewardship with the community.

Australasian Bittern (at Foxton Beach). Photo: Imogen Warren.
Solitary bittern can be found on Tiwai Peninsula.

Juvenile banded dotterel.
Photo: DOC

Australasian bittern chicks, Tiwai, 2017.
Photo: Sarah Crump, DOC

Green skink.
Photo: Possumsend

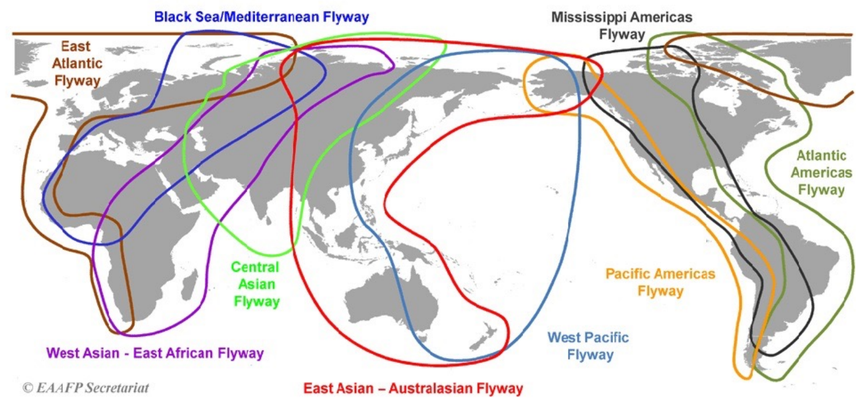
Awarua-Waituna Wetland and the East Asian-Australasian Flyway (EAAFP)

Not only is the Awarua-Waituna Wetland complex a Ramsar site, it is also part of the East Asian-Australasian Flyway (EAAF). The routes that migratory waterbirds traverse each year are known as 'flyways'. There are nine major flyway around the world. The EAAF stretches from the Russian Far East and Alaska, southwards through East Asia and South-east Asia, to Australia and New Zealand and encompasses 22 countries (see map below).

The EAAF is home to over 50 million migratory waterbirds from over 250 different populations, including 32 globally Threatened species and 19 Near Threatened species.

During migration, waterbirds rely on a system of highly productive wetlands to rest and feed, building up sufficient energy to fuel the next phase of their journey. International cooperation across their migratory range is therefore essential to conserve and protect migratory waterbirds and the habitats on which they depend. **New Zealand signed as an EAAFP partner in 2011**.

Awarua Bay is internationally recognised as an important stop-over location for birds migrating along the EAAF. These birds rely on the estuary for its high quality environment and feeding grounds. This coastal area is of international importance, therefore it's vital that it's ecological health does not become compromised.



Map showing the 9 major flyways, including the East Asian-Australasian Flyway in red.
Awarua Bay is part of a globally important network of stop over points for migratory birds.

More than 80 bird species have been sighted at Awarua Bay and surrounds.

- 65 of these birds are dependent on estuaries for part or all of their life.
- 21 species use the EAAF, spending summer months at Awarua Bay, before returning to the northern hemisphere to breed.
- Awarua Bay is an important wintering site for New Zealand dotterels.
- White heron (*Ardea modesta*) and Royal spoonbill (*Platalea regia*) regularly visit.
- Game birds present include Black Swan, Mallard, Grey Duck, New Zealand Shoveler and Pukeko.

Also found in this area are:

- Caspian tern (*Hydroprogne caspia*)
- White-fronted tern (*Sterna striata*)
- Banded dotterel (*Charadrius bicinctus bicinctus*)
- South Island fernbird (*Bowdleria punctata punctata*)
- Australasian bittern (*Botaurus poiciloptilus*).

Murihiku Regeneration