

Local government shorebird factsheet and guidelines for planners (use with shorebird GIS)

What are shorebirds ?

Shorebirds or waders are a diverse group of birds from the taxonomic order Charadriiformes and include plovers, sandpipers, stints, curlews, knots, snipes, godwits, avocets, stilts, oystercatchers, pratincoles, lapwings and several other odd species. They range in shape and size from the tiny Red-necked Stint (30 g) to the largest species, Eastern Curlew, at 1.3 kg. Their bills vary greatly in length and shape among the species groups, depending on their prey and habitats they use.



Terek Sandpipers roosting on a typical type 3 roost (Photo: Ian Sutton)

Shorebirds can be classified into two main groups – migratory or resident. The migratory species make spectacularly long annual flights to reach their breeding grounds in northern Russia, Mongolia and China. Because migratory waders are shared between a number of countries there are international agreements that identify and promote the protection of these birds.

Where do they live ?

In the Great Sandy Strait, the majority of shorebirds, and all migratory species, live on the coast and feed in the intertidal area. Their lives are governed by the tides not by the sun and so when the tides are low, they will be feeding, both day and night. At high

tide, the feeding habitats are covered; they need to rest to digest their food and sleep. In order to do this, they need a suitable “roosting” site – near their feeding ground, safe from predators (disturbance) and of a habitat that enables them to maintain their preferred body temperatures.

These roost sites are usually open areas above high tide (claypans, saltmarshes, sandbars, spits) where they can see predators easily. Tides vary during the lunar cycle and seasonally and so shorebirds take advantage of this to use different roost sites depending on the tide height.

There are three main types of roost site:

Type 1 – ground sites that cater for most species on most tides (saltmarshes, claypans or high level sandpits). Most common type of roost used by shorebirds (especially at spring tides)

Type 2 – sites that serve as roosts on lower high tides or function as a staging roost during incoming and outgoing tides as they move on and off the feeding grounds.

Type 3 – tree roosts used by a selection of species that move into trees (mostly old mangroves) behind a type 2 roost as the tide rises. These roosts are often close to larger type 1 ground roosts of other shorebird species.

Migratory shorebirds are predominantly in the GSS in the summer months and its where they spend the non-breeding season (September-April).

At the end of the non-breeding season (March/April), as they prepare to migrate to the Arctic, shorebirds feed continuously to build up fat reserves that they use during the long flights. Disturbance to shorebirds at this time can have a significant adverse effect on their ability to complete this flight and breed.

Major management issues and suggested guidelines

Shorebirds roosts are often in estuaries where there are already many important reasons why they should be kept free of development. Maintaining viable shorebird roosts needs to be seen as part of the overall protection of a wetland system (with both tidal and fresh water components). A viable roost should not be disturbed by human activity. Therefore the roost needs to be managed in the context of the surrounding wetlands. The buffer distances required for the roost will vary with the land use in the buffer. For example, people can walk within 50m of roosting birds without disturbing them. However, this will only occur when its in a managed way – such as only along a set path clearly separated from the roost, (which may be fenced or separated by water).

When new residential subdivisions are being considered in the vicinity of shorebird roosts, the intent should be to allow the shorebirds flexibility in how and when they use the roost. For instance the birds will have different areal requirements in different seasons, tides and weather conditions. Therefore it is important to maintain a variety of habitats in a wetland. A recommended buffer is to ensure that assessable development is 200m from the highest astronomical tide.



Example of 200m buffer (blue line) around boundary of a wetland containing high tide shorebird roost (red line) at Toolara.

Such residential subdivisions should only be considered after establishing options to secure existing roost sites. To obtain approval for the development, developers need to make tradeoffs that provide protection of wetlands, including the shorebird roosts.

The other important area for shorebirds beside their roost sites is the intertidal areas where they feed when the tide is out. While shorebirds do concentrate their feeding in productive mudflats in the mouths of estuaries, these areas are most often subject to water pollution from storm water runoff and sewerage outlets. In areas of dense development, retention basins are needed to reduce high flows to marine areas.

Other threats in the GSS include damage of freshwater wetlands by feral pigs, changes to roosts from increased mangrove growth, invasion of wetlands by weeds such as groundsel. Feral foxes and cats prey on breeding shorebirds and migratory species at high tide roosts.

If the known shorebird roosts (identified in the GIS) are kept viable and free from disturbance, they should ensure that shorebirds have sufficient area to maintain their populations in the GSS.

The on-going management of roosts will often require cooperation between agencies. These agencies may include the QPWS and/or the Department of Natural Resources and Mines, depending on the tenure of the area. By taking a cooperative approach, the most effective management option can be identified for each roost. This approach will usually be on a case-by-case basis.

Further information

Qld EPA (2004) Moreton Bay shorebird management strategy

Qld EPA (2005) Draft Great Sandy Marine Park Northern Section Management Plan

Ramsar site description for Great Sandy Strait (including Great Sandy Strait, Tin Can

Bay and Tin Can Inlet)
(www.ramsar.org/gss)

Department of Environment and Heritage
directory of important wetlands
(www.deh.gov.au/water/wetlands)

Shorebird brochure (Shorebird
Conservation in Australia) insert to
Wingspan 12 (4) December 2002.

Qld EPA (2004) Draft SEQ Regional
Coastal Management Plan.