

Hunter Estuary

(Including Kooragang Island, Fullerton Cove, some of City East and the suburb of Stockton.)

Of the Harbour and Estuary area, 2926 ha is taken up in the Kooragang Nature Reserve with further areas also recommended for protection. The Reserve covers Fullerton Cove and the north-eastern section of Kooragang Island including, the adjacent intertidal and aquatic areas. It was listed as a RAMSAR Wetland of International Significance in 1984. The Kooragang Wetland Rehabilitation Project was initiated in 1993 to compensate for the loss of fish and other wildlife habitat in the Hunter River Estuary. The project area covers 1560 ha on three sites: Ash Island, Tomago and near Stockton Bridge.

The Kooragang Island region is predominantly sandbeds so infiltration of rainfall is significant and hence limits direct stormwater runoff to the estuary. Stormwater runoff occurs mainly from road surfaces in the area and for the purposes of this assessment, is deemed an insignificant source. However, the mangrove forests and either intertidal areas of the Island accumulate significant volumes of gross pollutants, believed to originate in urban stormwater from Hunter River catchments.

Pollutants present in urban runoff across the city, represent a significant pressure to the Hunter Estuary. Newcastle City Council has indicated 104 stormwater outlets, which discharge directly to Newcastle Harbour. The vast majority of outlets discharge untreated stormwater with no sediment, nutrient or trash removal. The major outlet located on the Foreshore of the Harbour, and draining the East End Precinct of Newcastle, is screened to remove gross pollutants. Stormwater effluent is not treated at any of the other numerous outlets which discharge into the Estuary.

Council has had trash baskets/pits within the stormwater drainage system discharging to the Harbour since 1992. This has been in response to the large amounts of debris i.e. bottles, plastics, paper etc found within the drainage systems and is most evident where drainage lines discharge into waterways and open space areas. There are currently four trash baskets in place, one at Foreshore Park and three in Carrington at Hargreaves and Robertson Streets.

Honeysuckle has significantly changed public and residential land adjoining the harbour, bringing heightened levels of enthusiasm for protection of this tidal region of the City. Stormwater quality was one of the issues addressed in the development process with gross pollutant & oil/grease capture designed within the pit drainage for the development, as well as proprietary "CDS" units installed.

There are currently three boat launching ramps (Carrington, Stockton and Horseshoe Beach) within the harbour on Crown Land and administered by The Waterways Authority, and two others at Hexham and Kooragang. Carrington and Horseshoe Beach facilities appear to have no pollution control bunding on the ramp or car park facilities for 40 and 30 trailers respectively. Information about the others was not available at time of printing.



Photo 17:

Shows the typical array of litter and gross pollutants removed from the trash baskets (Foreshore Park) during the regular cleaning program conducted after rain events (on average every 6 weeks).

Many data gaps were identified for the estuary in the Hunter Estuary Data Compilation Report (1999). Some of those relevant to stormwater included:

- The effects of stormwater pollution on aquatic biota;
- Contribution of stormwater to hydrocarbon pollution;
- Determination of pollutants present in stormwater runoff and their sources e.g. abietic acid from tyres;

- Sewage system overflows;
- Leachates from dump sites; and
- A GIS system that allows the integration of layers of physical environment with biological and social environment adjoining the estuary.

The responsibility for urban stormwater management within the estuary is shared between Council, Hunter Water, NSW Fisheries and Newcastle Port Corporation.



Photo 18:
The Kooragang Island Rehabilitation Program staff and volunteers seen here hard at work, have changed the Island over the past 10 years from degraded habitat, to offering important sites for the migratory wader populations, in these internationally significant wetland areas that surround the City.

Photo 19:
Areas of the Estuary such as the sand spit at Stockton provide the Sharp-tailed and Curlew Sandpiper with welcome refuge.

