



**Environmental Monitoring and Reporting
Swan River Estuary ~ Weekly profile**

by
Water Science Branch, Department of Water

Date: 20th June 2016

Weather & tide conditions: Conditions were fine with up to 100% cloud cover and an easterly breeze of up to 2.4 knots. The predicted tides at Guildford were 1.23 m (high tide) at 11:24 and 0.75 m (low tide) at 21:33. Perth recorded 8.8 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was operational the week prior to sampling. The Caversham oxygenation plant was operational the week prior to sampling up to 10/6/16.

Lower Swan/Canning Estuary (BLA to NAR): The Lower Swan Estuary was saline throughout, with the exception of brackish surface water at NAR. Water was well oxygenated to oxygenated, with the exception of hypoxic bottom water at HEA and NAR. Water temperature ranged from 15.1 to 16.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish on the surface over saline bottom water, with the exception of brackish bottom water at RON. Water was well oxygenated on the surface at all sites, and bottom water was low in oxygen at NIL, near anoxic at STJ and RON and hypoxic at MAY. Water temperature ranged from 14.4 to 16.7 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Water was well oxygenated throughout all sites, with the exception of hypoxic bottom water at BWR10 to KMO, low oxygen bottom water at VIT and SUC and near anoxic bottom water at RON2. Water temperature ranged from 12.3 to 15.3 °C.

Definitions:

Salinity – fresh <5ppt, brackish 5-25ppt, saline 25-35ppt, hypersaline >35ppt

Dissolved oxygen – well oxygenated >6 mg/L
oxygenated >4 to 6 mg/L, low oxygen >2 to 4 mg/L,
hypoxic >0.5 to 2.0 mg/L, near anoxic <0.5 mg/L

Swan River Estuary - Physical-chemical Profile - 20th June 2016

