



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

by
Water Science Branch, Department of Water

Date: Monday 18th January 2016

Weather & tide conditions: Conditions were fine with up to 100% cloud cover and a predominantly south to south westerly breeze of up to 5 knots. The predicted tides at Guildford were 0.58 m (low tide) at 07:49 and 0.97 m (high tide) at 19:47 and. Perth recorded 1.8 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: Guildford and Caversham oxygenation plants were operational the week prior to sampling.

Lower Swan/Canning Estuary (BLA to NAR): The Lower Swan Estuary was hyper saline throughout. Water was well oxygenated to oxygenated throughout all sites. Water temperature ranged from 24.3 to 25.7 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline throughout, with the exception of brackish surface water at RON. Surface water was oxygenated over low oxygen bottom water throughout STJ and MAY, well oxygenated over low oxygen bottom water at RON and well oxygenated over oxygenated bottom water at NIL. Water temperature ranged from 26.2 to 27.8 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish at all sites, with the exception of saline bottom water at BWR10. Water was well oxygenated to oxygenated at CAV and throughout SUC and VIT. Surface water was oxygenated over low oxygen bottom water at KMO and KIN and throughout WMP and MEA. Surface water was oxygenated over low oxygenated bottom water at POL, REG and BWR10. Surface water was low oxygenated over hypoxic bottom water throughout at JBC and MSB. Water temperature ranged from 26.8 to 28.1 °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 - 18th January 2016

