



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

by
Water Science Branch, Department of Water

Date: Wednesday 30th March 2016

Weather & tide conditions: Conditions were fine with up to 5% cloud cover and a predominantly north easterly breeze of up to 6 knots. The predicted tides at Guildford were 0.68 m (low tide) at 04:28 and 1.04 m (high tide) at 15:31. Perth recorded 15.6 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were operational from 21/3/16 to 26/3/16 on the week prior to sampling.

Lower Swan/Canning Estuary (BLA to NAR): The Lower Swan Estuary was hyper saline throughout. Water was mostly well oxygenated with oxygenated bottom water at ARM and NAR. Water temperature ranged from 22.2 to 22.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL. Surface water was brackish over saline bottom water at STJ to RON. Water was well oxygenated to oxygenated at all sites with the exception of low oxygen bottom water at STJ and MAY, and hypoxic bottom water at RON. Water temperature ranged from 22.8 to 24.0 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout, with the exception of saline bottom water at BWR10 and KIN. Water was oxygenated throughout all sites with the exception of low oxygen surface water at BWR10, hypoxic bottom water at BWR10, KIN, VIT and MEA to WMP and anoxic at KMO and SUC. Water temperature ranged from 20.7 to 24.5 °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 - 30th March 2016

