



Environmental Monitoring and Reporting
Swan River Estuary ~ Weekly profile

by
Water Science Branch, Department of Water

Date: Monday 19th January 2015

Weather & tide conditions: Conditions were cloudy with up to 85% cloud cover and a west to south westerly wind of up to 4 knots. The predicted tides at Guildford were 0.48 m (low tide) at 08:44 and 1.11 m (high tide) at 23:01. Perth recorded 0 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

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

Lower Swan/Canning Estuary (BLA to NAR): The Lower Swan Estuary was saline throughout with the exception of hypersaline bottom water at BLA and ARM. Water was well oxygenated at BLA, well oxygenated over oxygenated at ARM and HEA, and oxygenated throughout at NAR. Water temperature ranged from 23.8 to 26.4 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL and STJ, brackish over saline at MAY, then brackish throughout at RON. Water was oxygenated throughout at STJ and was well oxygenated at the surface over oxygenated bottom water at all other sites. Water temperature ranged from 27.3 to 28.6 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Surface water was low in oxygen from MSB to POL and was oxygenated to well oxygenated at all other sites. Bottom water was oxygenated to well oxygenated at all sites with the exception of low oxygen bottom water at WMP and from MSB to POL. Water temperature ranged from 27.5 to 29.1 °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 - 19th January 2015

