



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

**by
Water Science Branch, Department of Water**

Date: Monday 16th March 2015

Weather & tide conditions: Conditions were overcast with up to 90% cloud cover and predominantly a westerly to south westerly breeze of up to 10 knots. The predicted tides at Guildford were 0.58 m (low tide) at 06:03 and 1.05 m (high tide) at 20:47. Perth recorded 7.4 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 hypersaline throughout. Surface water was well oxygenated from BLA to HEA, then oxygenated at NAR. Bottom water was well oxygenated at BLA, then oxygenated from ARM to NAR. Water temperature ranged from 24.2 to 25.0 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline throughout with the exception of hypersaline bottom water at NIL. Water was well oxygenated at the surface over oxygenated bottom water at all sites. Water temperature ranged from 24.7 to 26.5 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was saline throughout from BWR10 to VIT, brackish over saline at SUC, then brackish throughout from MEA to POL. Surface water was well oxygenated to oxygenated from BWR10 to REG, then low in oxygen from MSB to POL. Bottom water was well oxygenated at VIT and CAV, oxygenated at SUC and REG and low in oxygen at all other sites. Water temperature ranged from 25.2 to 26.6 °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 - 16th March 2015

