



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

by
Water Science Branch, Department of Water

Date: Tuesday 18th April 2017

Weather & tide conditions: Conditions were overcast with up to 90% cloud cover and a south to south westerly breeze of up to 4 knots. The predicted tides at Guildford were 0.69 m (low tide) at 02:46 and 1.08 m (high tide) at 15:16. Perth recorded 0 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

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

Lower Swan/Canning Estuary (FP1 to NAR): The Lower Swan Estuary was hypersaline throughout FP1 and FP7 and saline throughout HEA and NAR. Surface water was saline over hypersaline bottom water at BLA and ARM. Water was mostly well oxygenated with oxygenated bottom water at ARM, low oxygen at HEA and hypoxic bottom water at NAR. Water temperature ranged from 20.1 to 21.3 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish throughout, with the exception of saline bottom water at NIL. Surface water was well oxygenated at all sites. Bottom water was oxygenated at NIL, low oxygen at STJ and MAY and was near anoxic at RON. Water temperature ranged from 20.2 to 22.2 °C.

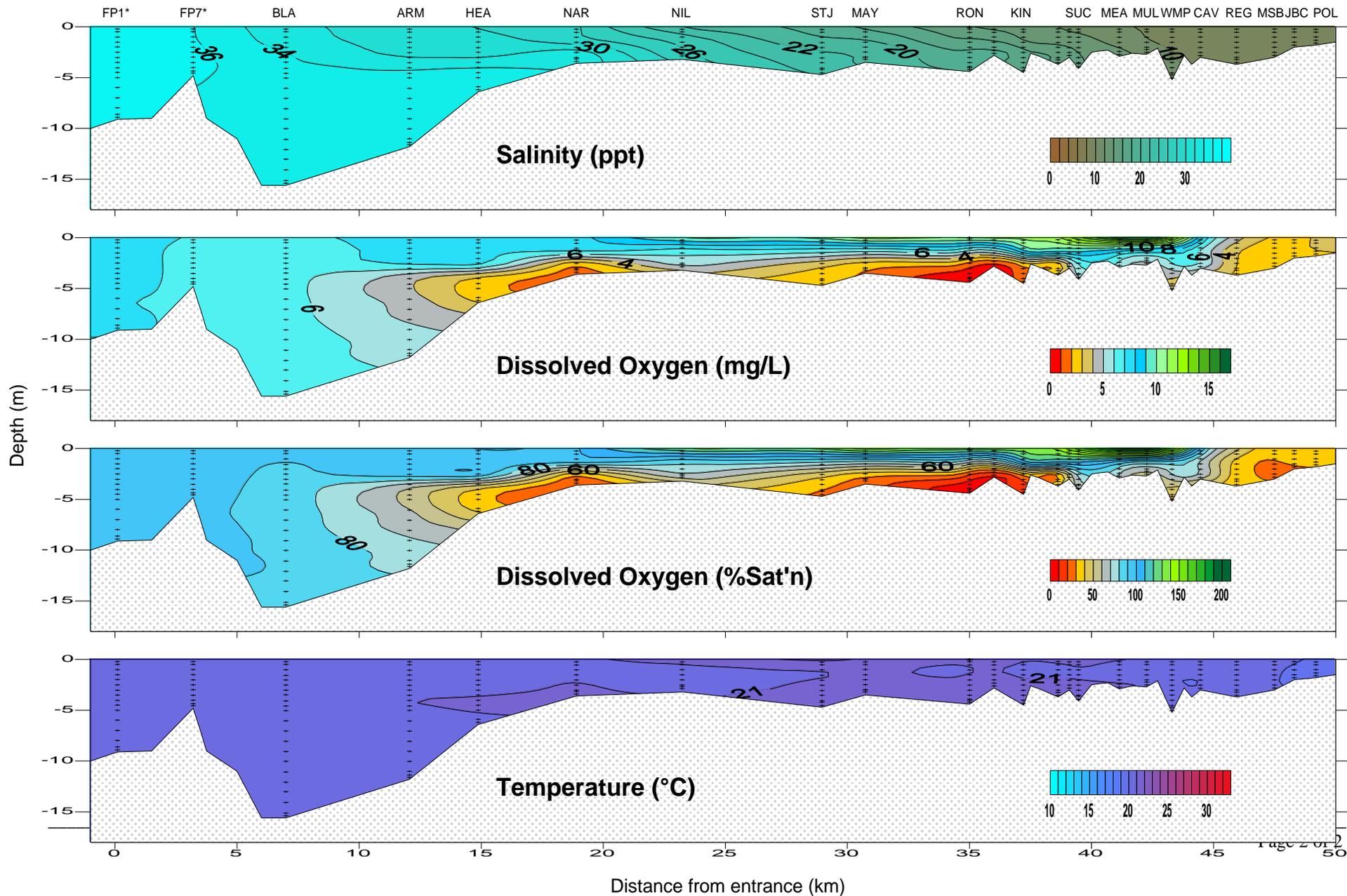
Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Surface water was well oxygenated at BWR10 to CAV. Bottom water was oxygenated at CAV and SUC, low oxygen at WMP, MULB FARM and VIT, hypoxic at KMO and KIN and near anoxic at BWR10. There was low oxygen water at MSB to POL. Water temperature ranged from 19.9 to 21.9 °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 April 2017



*Data for sites FP1 (Harbour entrance) and FP7 (Fremantle Bridge) are supplied courtesy of the Fremantle Port Authority