



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

by
Water Science Branch, Department of Water

Date: Tuesday 8th March 2016

Weather & tide conditions: Conditions were fine with up to 5% cloud cover and a predominantly east to north easterly breeze of up to 5.7 knots. The predicted tides at Guildford were 0.61 m (low tide) at 07:51 and 1.02 m (high tide) at 23:48. 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 (FPI to NAR): The Lower Swan Estuary was hyper saline throughout. Water was well oxygenated with oxygenated bottom water at ARM and NAR. Water temperature ranged from 22.7 to 25.0 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline throughout with the exception of hyper saline bottom water at NIL. Surface water was well oxygenated over oxygenated bottom water throughout all sites. Water temperature ranged from 25.1 to 27.5 °C.

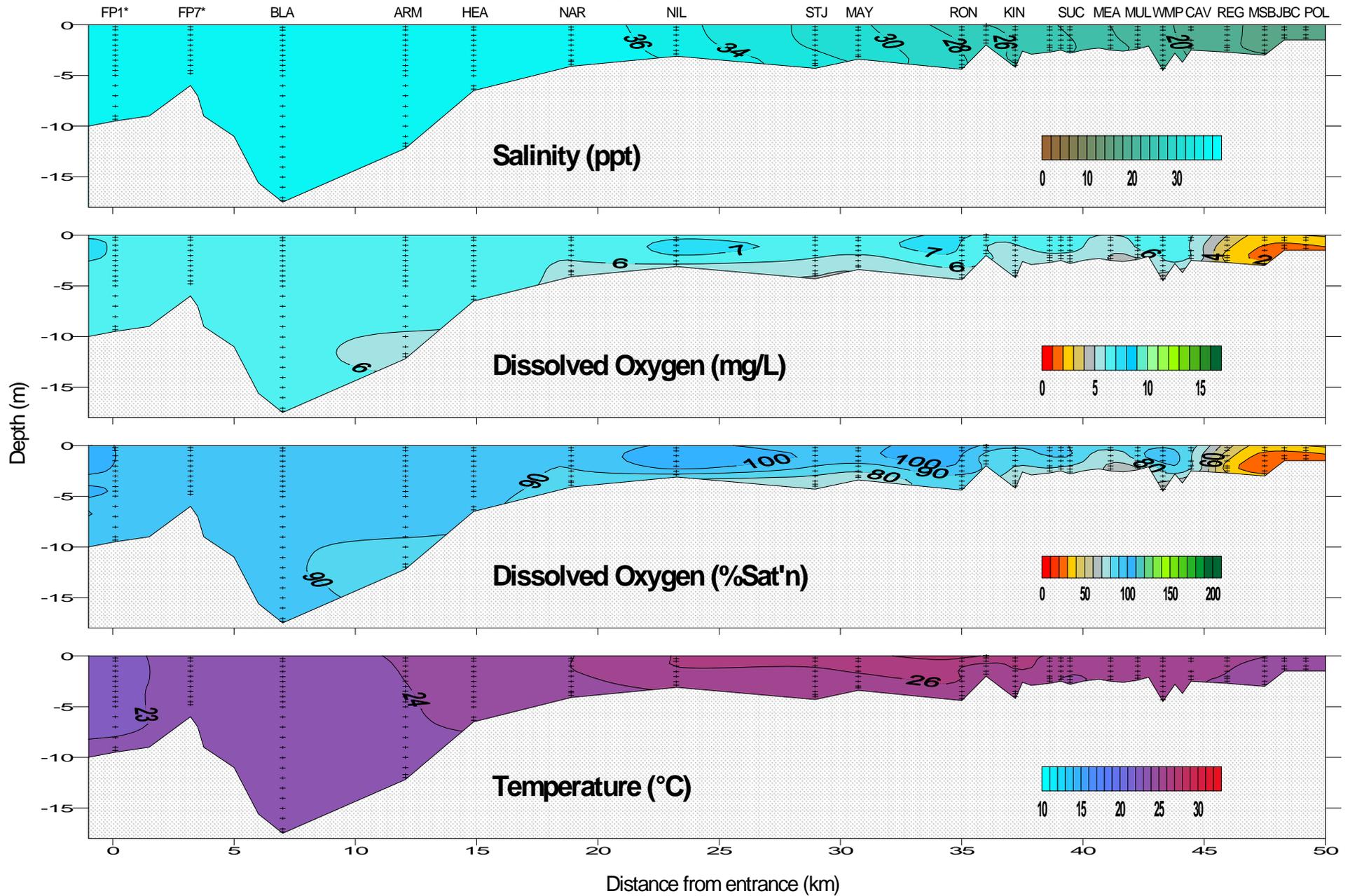
Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was saline at BWR10 and KIN and brackish at all sites from KMO to POL. Water was well oxygenated to oxygenated at all sites with the exception of low oxygen water at REG and low oxygen surface water over hypoxic bottom water at MSB, JBC and POL. Water temperature ranged from 24.4 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 - 8th March 2016



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