



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

by
Water Science Branch, Department of Water

Date: Monday 21st March 2016

Weather & tide conditions: Conditions were fine with up to 80% cloud cover and a predominantly south westerly breeze of up to 7 knots. The predicted tides at Guildford were 0.67 m (low tide) at 06:42 and 0.83 m (high tide) at 12:47. Perth recorded 1.4 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 to oxygenated at all site. Water temperature ranged from 23.0 to 24.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline throughout with the exception of hyper saline water at NIL. Surface water was well oxygenated over oxygenated bottom water at all sites. Water temperature ranged from 23.8 to 26.2 °C.

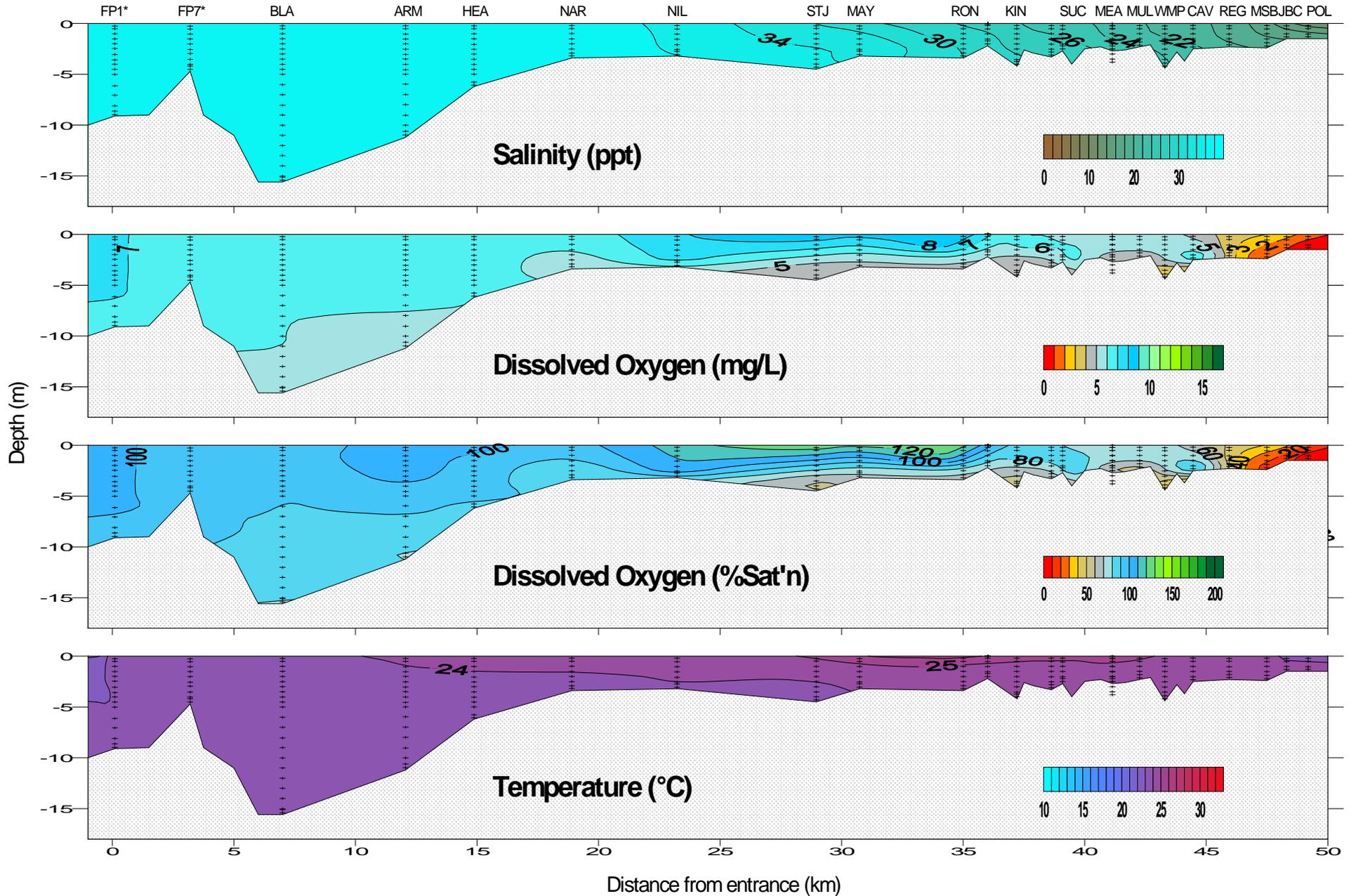
Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was saline at BWR10, KIN and at VIT, brackish over saline bottom water at KMO, SUC and MEA and brackish from MULB to POL. Water was well oxygenated to oxygenated at BWR10 to CAV with the exception of low oxygen bottom water at KMO and at MEA to WMP. Water at REG had low oxygen. There was low oxygen surface water over hypoxic bottom water at MSB and JBC. At POL surface water was hypoxic over anoxic bottom water. Water temperature ranged from 23.5 to 25.9 °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 - 21st March 2016



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