



Environmental Monitoring and Reporting Swan River Estuary ~ Weekly profile

by

Water Science Branch, Department of Water and Environmental Regulation

Date: Monday 5th February 2018

Weather & tide conditions: Conditions were fine with up to 70% cloud cover and a predominantly south-westerly breeze of up to 9 knots. The predicted tides at Guildford were 0.63 m (low tide) at 08:46 and 0.82 m (high tide) at 17:13. Perth recorded 0 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was operational the week prior to sampling, while the Caversham oxygenation plant was operational up to 3/2/18.

Lower Swan/Canning Estuary (FPI to NAR): The Lower Swan Estuary was hyper-saline to saline throughout. Water was well oxygenated to oxygenated, with the exception of low oxygen bottom water at HEA. Water temperature ranged from 22.4 to 25.8 °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 to oxygenated throughout. Bottom water had low oxygen at NIL, was hypoxic STJ and MAY, and was near anoxic at RON. Water temperature ranged from 25.5 to 28.4 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Surface water was well oxygenated to oxygenated at BWR10 to MEA with near anoxic bottom water at BWR10, KIN and SUC, and low oxygen bottom water at KMO, VIT, MEA. Water had low oxygen throughout at MUL and WMP and was hypoxic throughout at CAV to POL. Water temperature ranged from 25.7 to 28.4 °C.

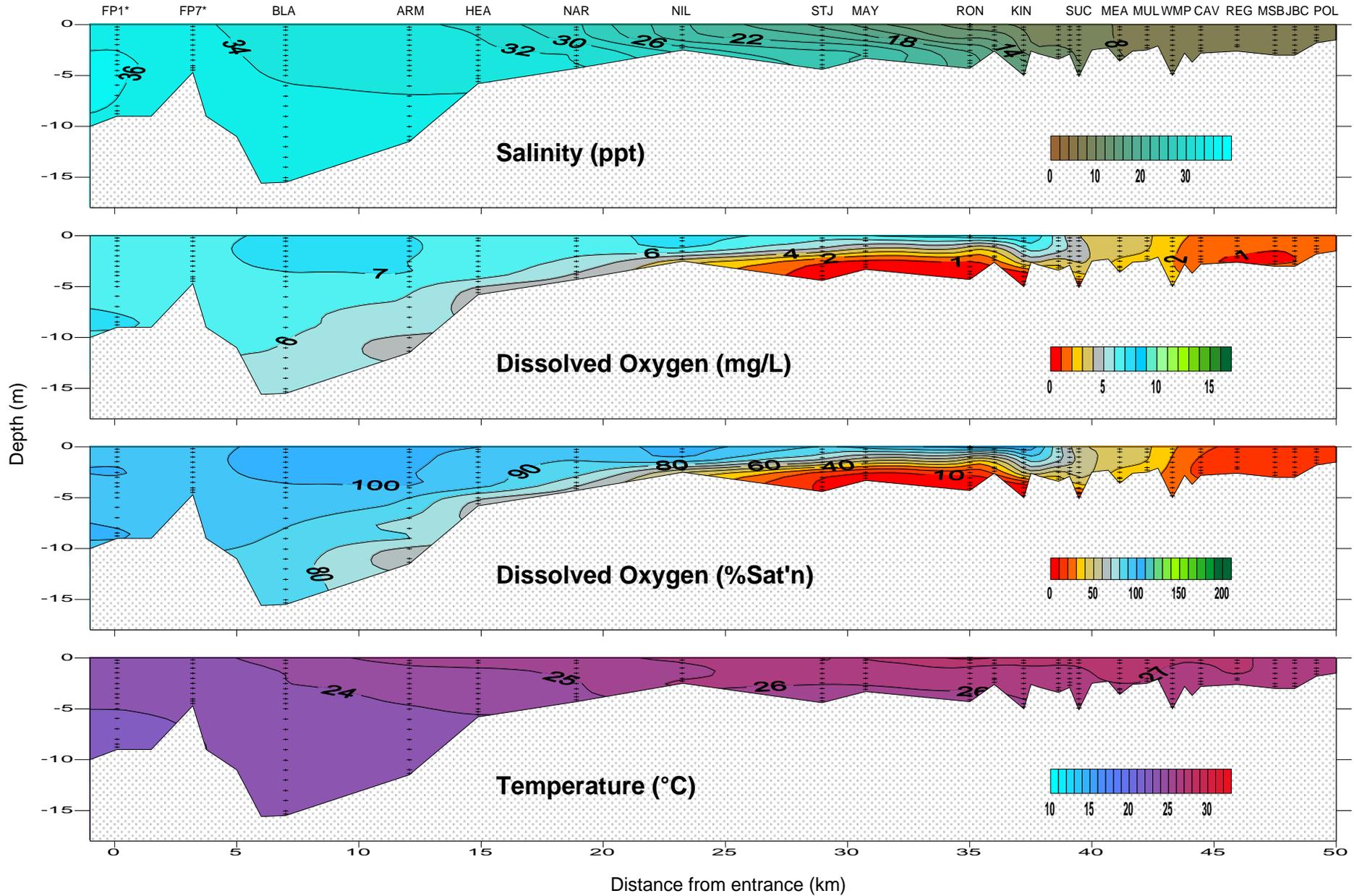
Definitions:

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 - 5th February 2018

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