



Environmental Monitoring and Reporting Swan River Estuary ~ Weekly profile

by
Water Science Branch, Department of Water and Environmental Regulation

Date: Monday 27th November 2017

Weather & tide conditions: Conditions were fine with up to 80% cloud cover and a predominantly south westerly breeze of up to 9 knots. The predicted tides at Guildford were 0.86 m (high tide) at 01:38 and 0.62 m (low tide) at 13:11. 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 not.

Lower Swan/Canning Estuary (FPI to NAR): The Lower Swan Estuary was saline throughout. Water was well oxygenated to oxygenated at all sites. Water temperature ranged from 21.1 to 25.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish on the surface over saline bottom water at NIL and brackish from STJ to RON. Surface water was well oxygenated at all sites while bottom water was oxygenated at NIL, low in oxygen at STJ and RON and hypoxic at MAY. Water temperature ranged from 25.3 to 28.1 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Surface water was well oxygenated to oxygenated at all sites while bottom water was hypoxic at BWR10 and KIN, low in oxygen at KMO and SUC and oxygenated at VIT and from MEA to POL. Water temperature ranged from 25.5 to 27.7 °C.

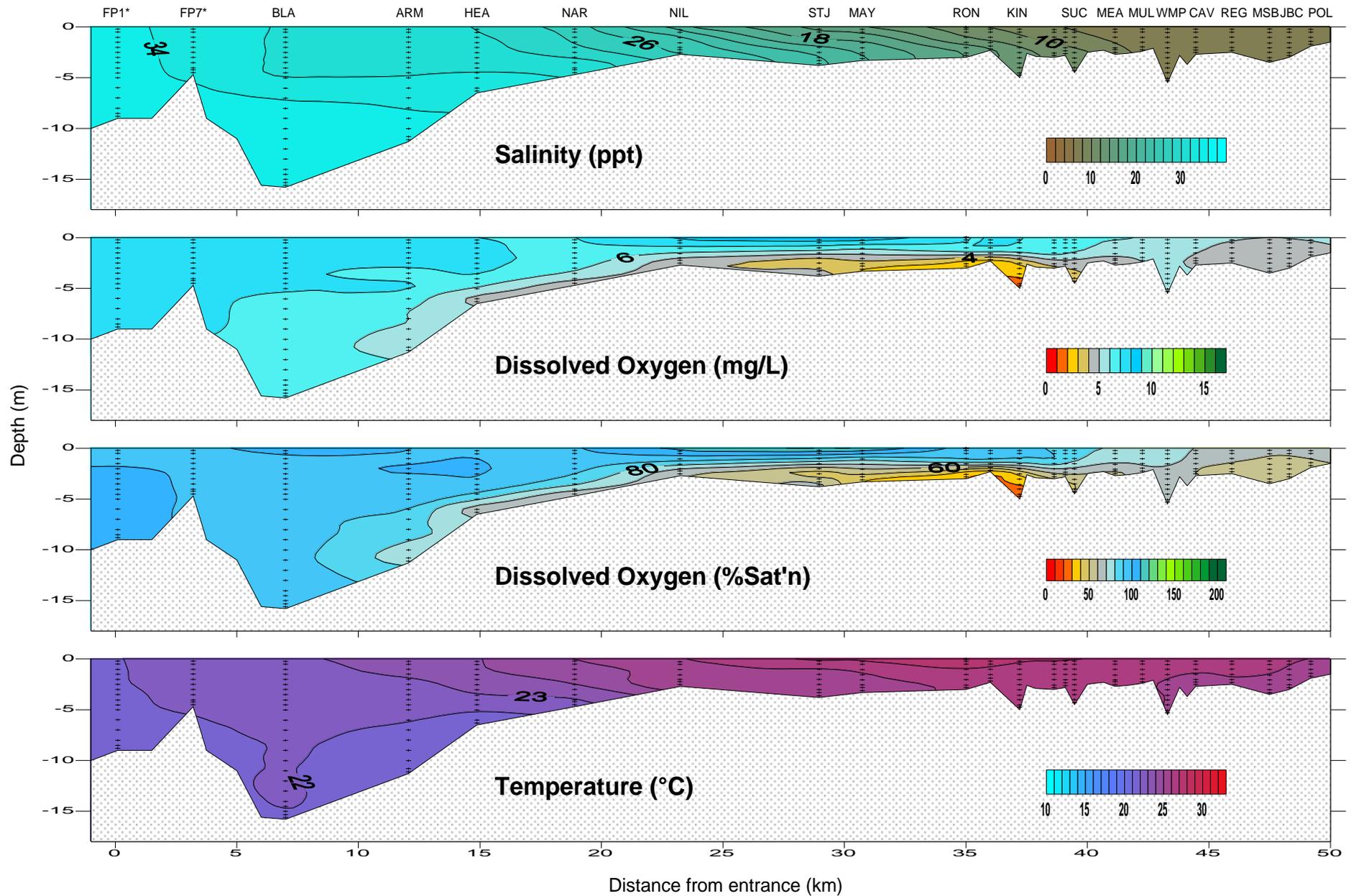
Definitions:

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 - 27th November 2017

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