



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

by

Water Science Branch, Department of Water and Environmental Regulation

Date: Monday 19<sup>th</sup> February 2018

Weather & tide conditions: Conditions were fine with up to 25% cloud cover and a south westerly breeze of up to 14 knots. The predicted tides at Guildford were 0.63 m (low tide) at 08:37 and 0.82 m (high tide) at 15:14. Perth recorded 0.2 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 to saline throughout. Water was well oxygenated to oxygenated throughout with the exception of low oxygen bottom water at ARM and HEA. Water temperature ranged from 23.6 to 25.7 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL, brackish over saline at STJ and brackish at MAY and RON. Water was well oxygenated to oxygenated throughout all sites, with the exception of hypoxic bottom water at STJ and MAY and low oxygen bottom water at RON. Water temperature ranged from 26.6 to 28.5 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Water was well oxygenated to oxygenated throughout at all sites from BWR10 to CAV with the exception of low oxygen bottom water at BWR10, SUC and WMP, and hypoxic bottom water at KIN. Water had low oxygen throughout at all sites from REG to POL with hypoxic bottom water at JBC and MSB. Water temperature ranged from 26.7 to 28.4 °C.

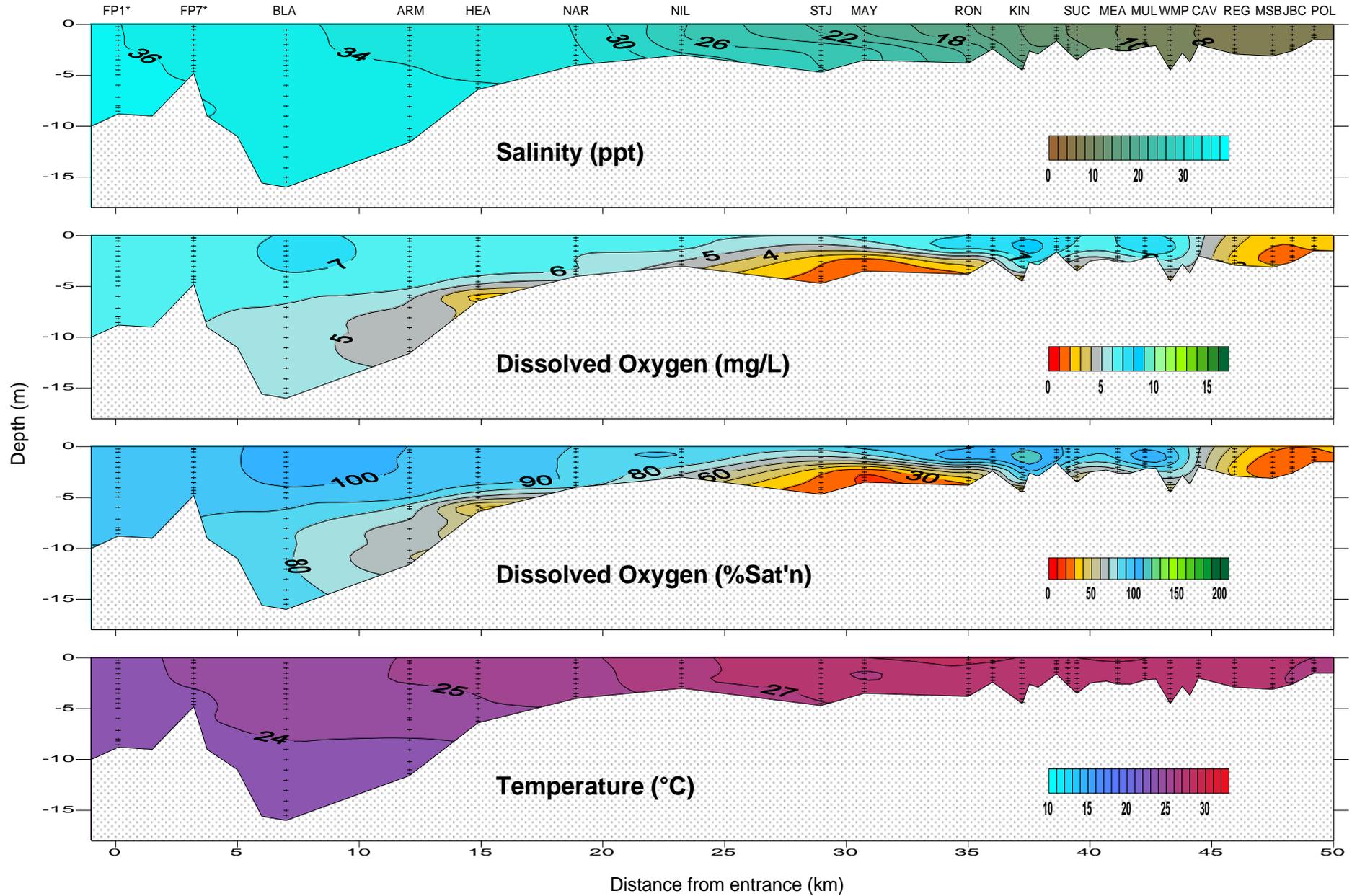
### Definitions:

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 - 19th February 2018

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