



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

by

Water Science Branch, Department of Water and Environmental Regulation

Date: Monday 18<sup>th</sup> September 2017

Weather & tide conditions: Conditions were fine with 0% cloud cover and a predominantly north easterly breeze of up to 9 knots. The predicted tides at Guildford were 0.96 m (high tide) at 10:31 and 0.63 m (low tide) at 19:28. Perth recorded 6.6 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Caversham oxygenation plant was operational the week prior to sampling, while the Guildford oxygenation plant was not.

Lower Swan/Canning Estuary (FP1 to NAR): The Lower Swan Estuary was hyper saline to saline throughout FP1 and FP7 and brackish over saline from BLA to NAR. Water was mostly well oxygenated to oxygenated throughout all sites with the exception of low oxygen bottom water at HEA and NAR. Water temperature ranged from 16.6 to 20.2 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish at NIL, fresh over brackish at STJ and MAY and fresh at RON. Water was well oxygenated to oxygenated throughout NIL and RON. Surface water was well oxygenated from STJ to MAY while bottom water was near anoxic at STJ and hypoxic at MAY. Water temperature ranged from 17.7 to 20.8 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was fresh at BWR10 and mostly brackish throughout KIN to POL with the exception of fresh surface water at SUC, VIT and KMO. Water was well oxygenated at all sites. Water temperature ranged from 18.1 to 19.8 °C.

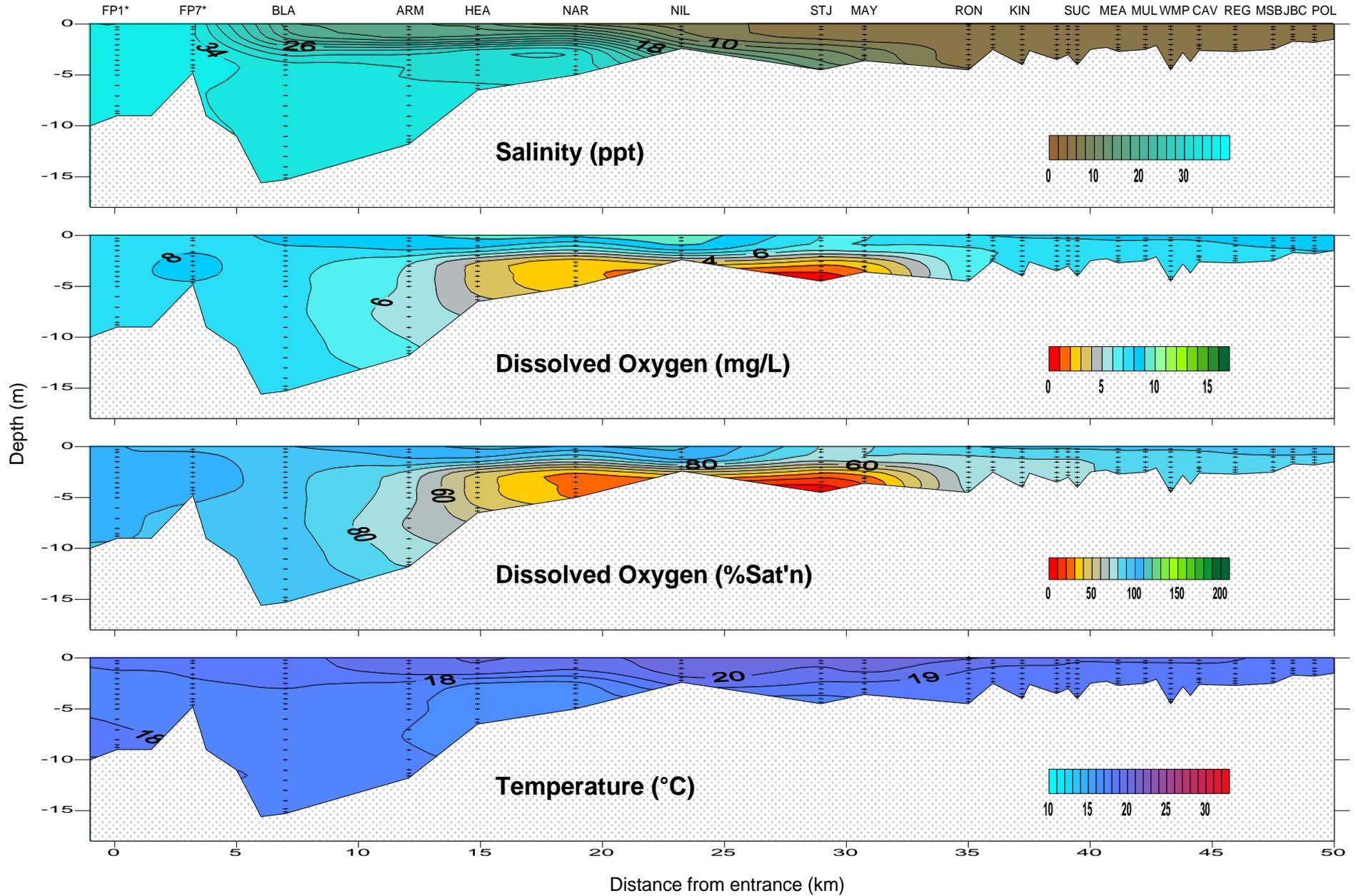
**Definitions:**

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 - 18th September 2017

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