



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

by
Water Science Branch, Department of Water

Date: Monday 12th June 2017

Weather & tide conditions: Conditions were fine with up to 50% cloud cover and a predominantly north easterly breeze of up to 14 knots. The predicted tides at Guildford were 1.22 m (high tide) at 12:47 and 0.74 m (low tide) at 22:54. Perth recorded 0 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 operational up to 10/6/17.

Lower Swan/Canning Estuary (FPI to NAR): The Lower Swan Estuary was hyper saline to saline throughout. Water was well oxygenated to oxygenated at all sites. Water temperature ranged from 15.8 to 18.6 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline throughout with the exception of brackish surface water at RON. Water was well oxygenated throughout NIL, surface water was well oxygenated from STJ to RON and bottom water was low in oxygen from STJ to MAY and hypoxic at RON. Water temperature ranged from 15.2 to 18.0 °C.

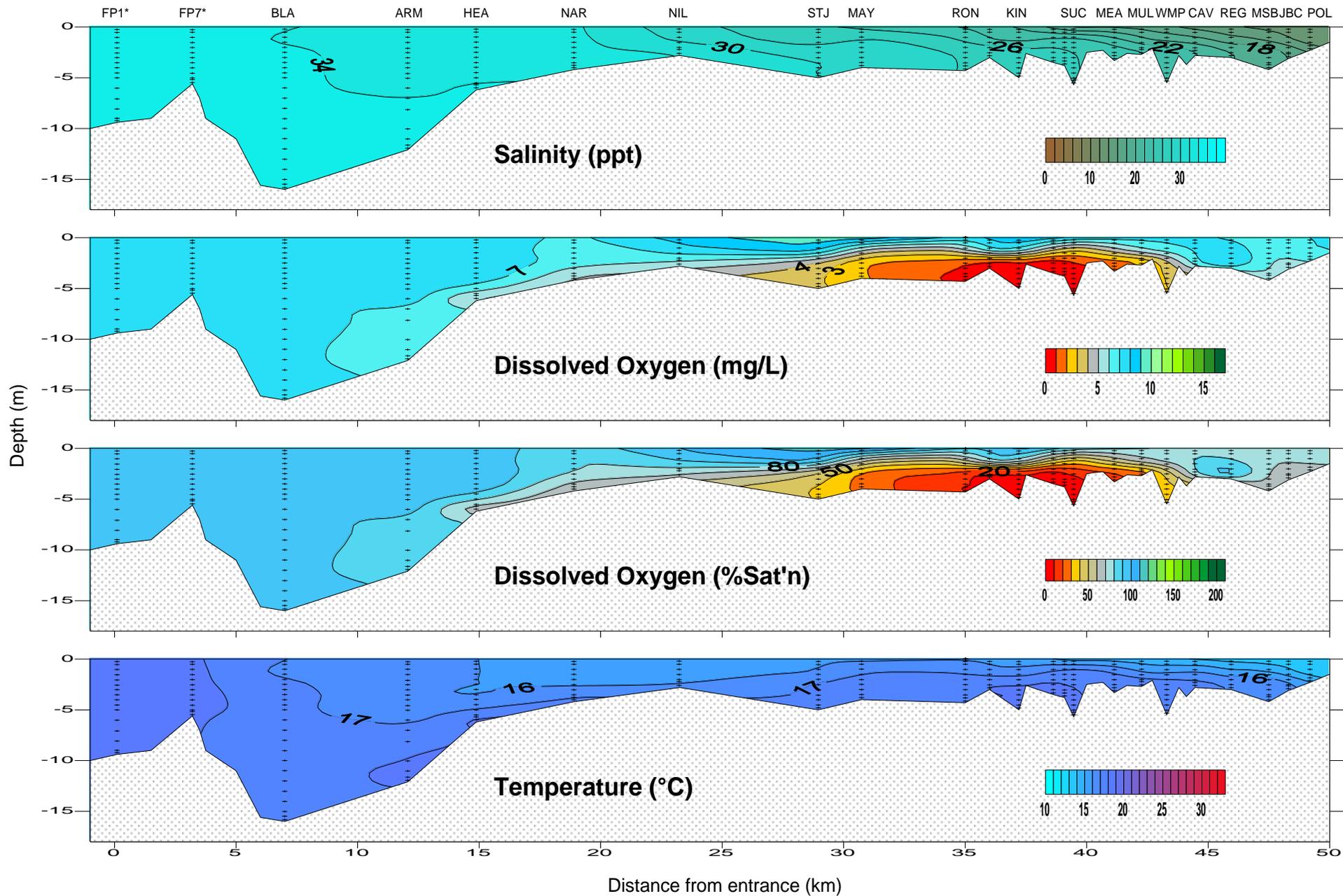
Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish at the surface over saline bottom water from BWR10 to SUC and brackish throughout MEA to POL. Surface water was well oxygenated at all sites and bottom water was near anoxic at BWR10 and from KMO to SUC, hypoxic at KIN and MEA, low in oxygen from MULB FARM to WMP and well oxygenated to oxygenated from CAV to POL. Water temperature ranged from 13.2 to 18.1 °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 - 12th June 2017



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