



Environmental Monitoring and Reporting Swan River Estuary ~ Weekly profile

by

Aquatic Science Branch, Department of Water and Environmental Regulation

Date: Monday 29th October 2018

Weather & tide conditions: Conditions were fine and with up to 60% cloud cover and a predominantly south westerly breeze of up to 13 knots. The predicted tides at Guildford were 1.00 m (high tide) at 01:38 and 0.51 m (low tide) at 12:45. Perth recorded 0 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 (FP7 to NAR): The Lower Swan Estuary was saline from FP7 to BLA and brackish over saline from ARM to NAR. Water was well oxygenated to oxygenated from FP7 to ARM. Surface water was well oxygenated from HEA to NAR, while bottom water was low in oxygen at HEA and hypoxic at NAR. Water temperature ranged from 18.5 to 22.9 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish at NIL, fresh over brackish at STJ and fresh throughout MAY and RON. Water was mostly well oxygenated throughout with the exception of near anoxic bottom water at STJ. Water temperature ranged from 21.4 to 24.0 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was fresh throughout. Water was well oxygenated at all sites. Water temperature ranged from 22.3 to 24.0 °C.

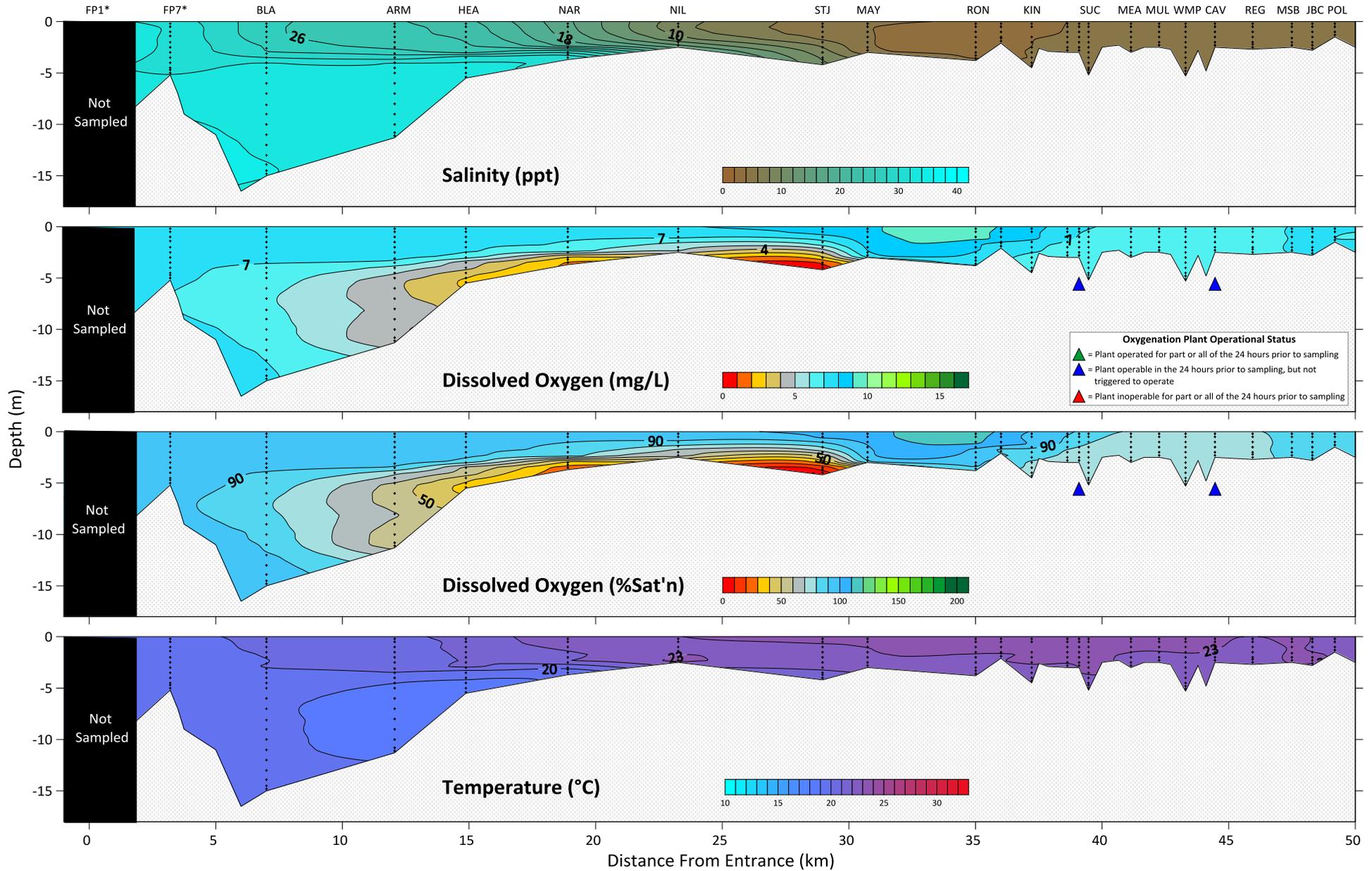
Definitions:

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 - 29th October 2018

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