



Environmental Monitoring and Reporting Swan River Estuary ~ Weekly profile

by

Aquatic Science Branch, Department of Water and Environmental Regulation

Date: Monday 1st October 2018

Weather & tide conditions: Conditions were overcast and with up to 100% cloud cover and a predominantly south-easterly breeze of up to 6 knots. The predicted tides at Guildford were 0.95 m (high tide) at 02:50 and 0.57 m (low tide) at 14:48. Perth recorded 6.8 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 operational.

Lower Swan/Canning Estuary (FP1 to NAR): The Lower Swan Estuary was saline from FP1 to FP7 and brackish over saline from BLA to NAR. Water was well oxygenated to oxygenated from FP1 to BLA. Surface water was well oxygenated from ARM to NAR, while bottom water was low in oxygen at ARM, hypoxic at HEA and near anoxic at NAR. Water temperature ranged from 16.7 to 18.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was fresh over brackish from NIL to MAY and fresh at RON. Surface water was well oxygenated at all sites, while bottom water was hypoxic at NIL and STJ, low in oxygen at MAY and well oxygenated at RON. Water temperature ranged from 17.8 to 18.8 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was fresh throughout all sites. Water was well oxygenated throughout all sites. Water temperature ranged from 18.0 to 19.0 °C.

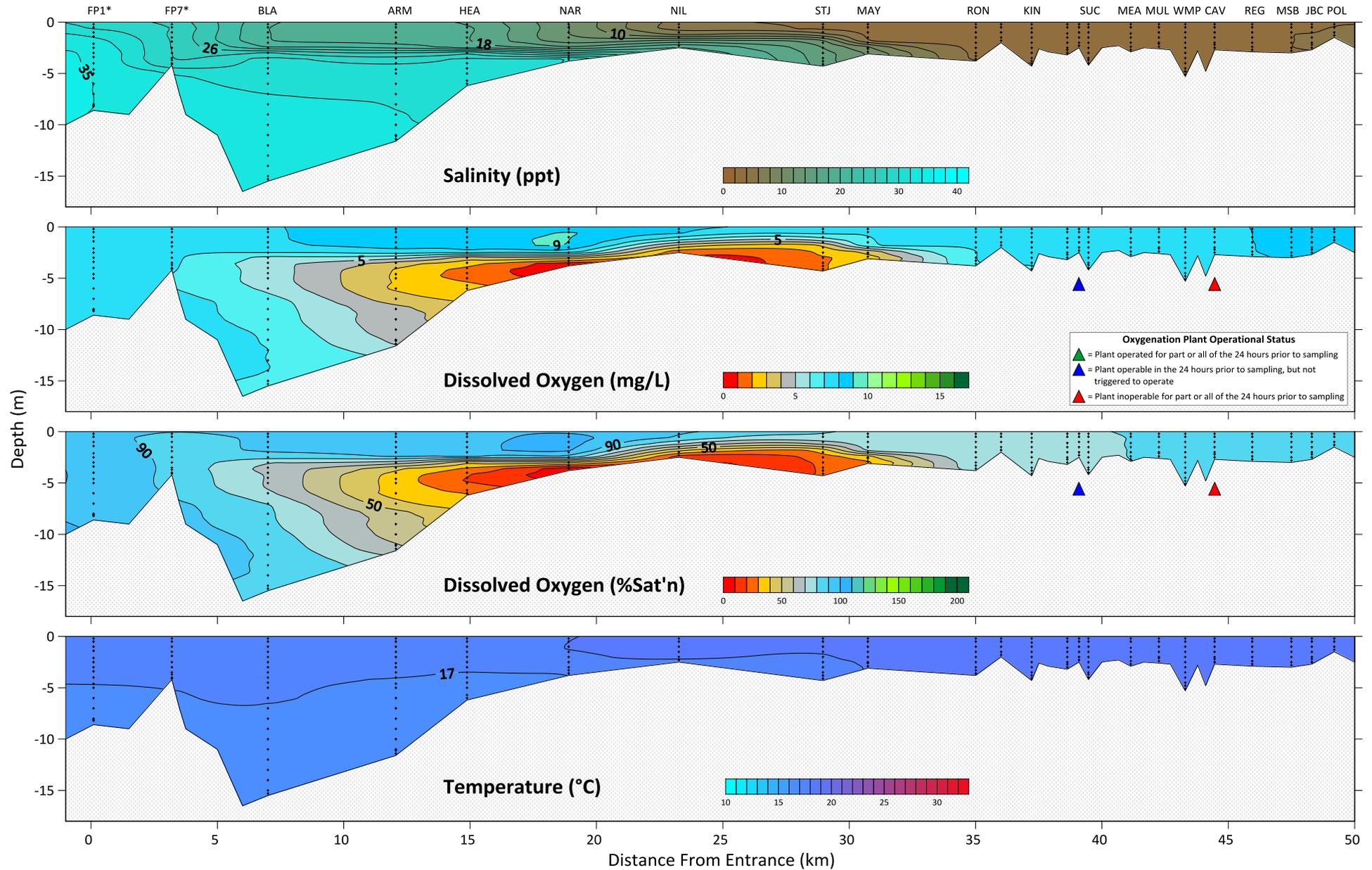
Definitions:

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 - 1st October 2018

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