



Swan Canning Estuary Water Quality Monitoring Project

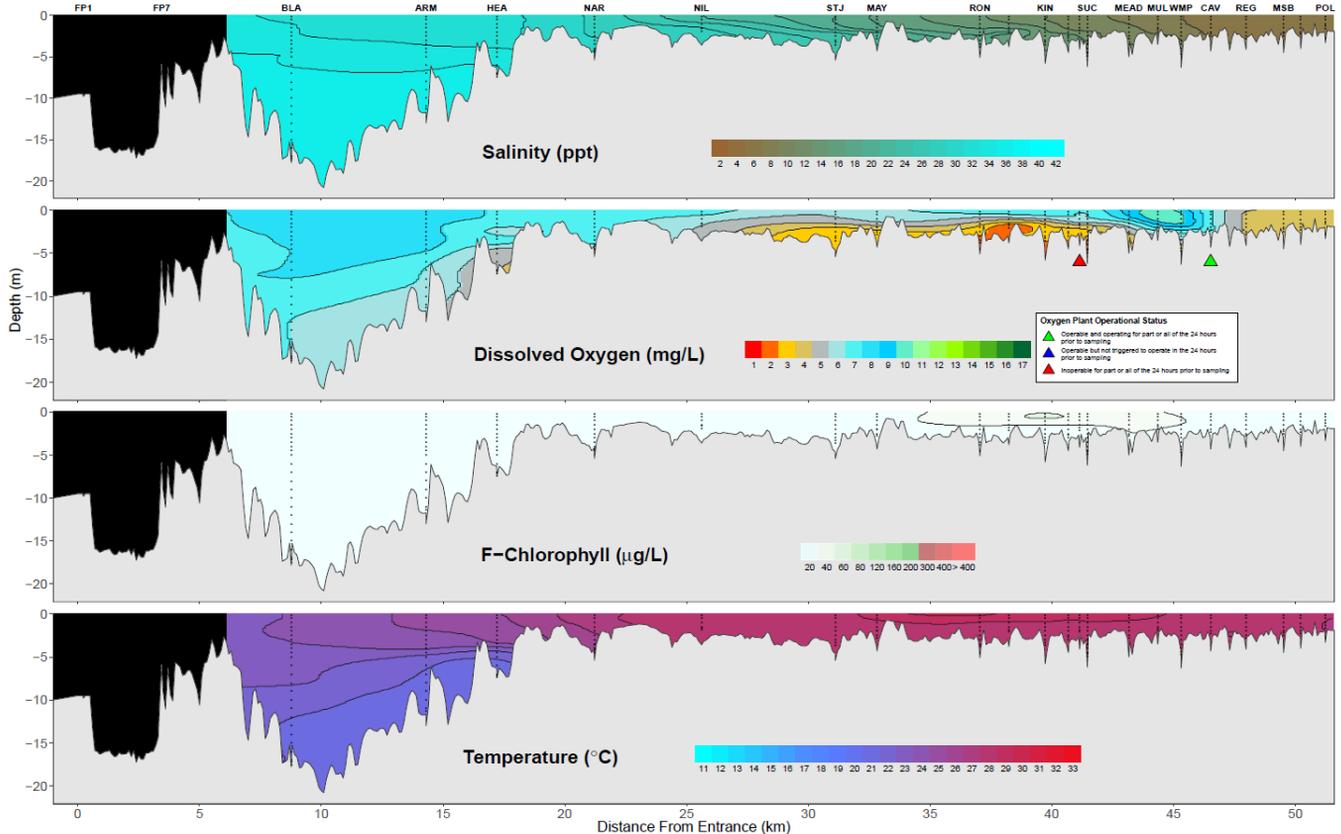
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

18th November 2019

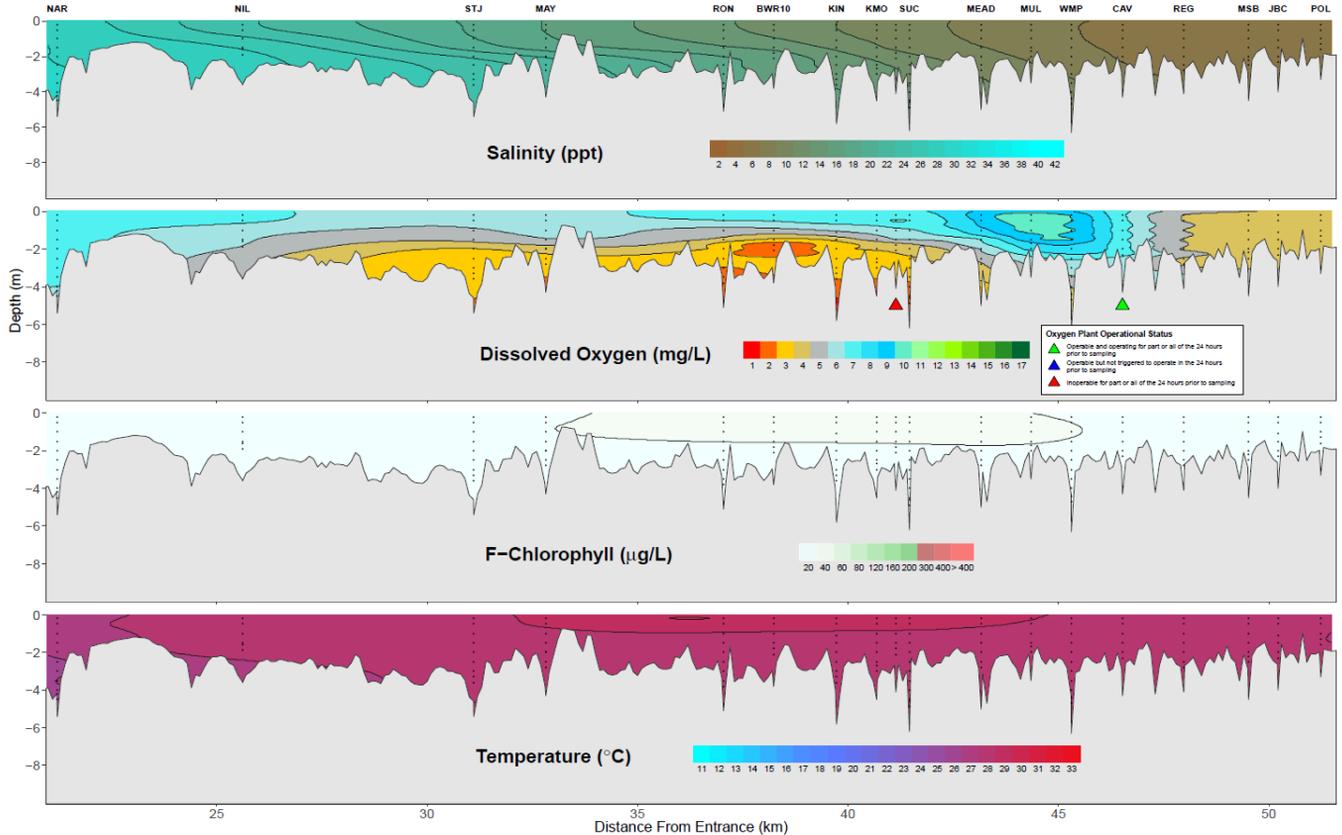
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Swan River Estuary – Physical-Chemical Profile – 18th Nov 2019



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 18th Nov 2019



Date: 18th November 2019

Weather & tide conditions: Conditions were clear with low cloud cover (up to 5%) and a south easterly breeze of up to 8 knots. The predicted tides at Barrack St were 0.95 m (high tide) at 01:54 am and 0.50 m (low tide) at 12:59 pm. Perth recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was not operational and the Caversham oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline from BLA to NAR. Surface waters were well oxygenated and bottom waters were low in oxygen at HEA. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 20.4 to 26.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish from NIL to RON. Surface waters were well oxygenated at NAR, NIL and RON and oxygenated at STJ and MAY. Bottom waters were hypoxic between STJ and RON. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in this area. Water temperature ranged from 27.1 to 29.0 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish from BWR10 to CAV and fresh from REG to POL. Surface waters were well oxygenated between BWR10 and CAV, oxygenated at REG and low in oxygen between MSB and POL. Bottom waters being hypoxic between BWR10 and WMP. Chlorophyll fluorescence was elevated between RON and MUL indicating higher microalgal activity in this area. Water temperature ranged from 26.9 to 28.8 °C.

NB: Profile plots are visual interpolations of measured parameters only. Detailed data are available at wir.water.wa.gov.au.

Recommended reference

Department of Biodiversity, Conservation and Attractions 2019. *Swan Canning Estuary water quality monitoring weekly profile report, Lower to Upper Swan Estuary 18th November 2019*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)

Definitions:

Salinity – fresh <5, brackish 5-25, saline 25-35, hypersaline >35
Dissolved oxygen – well oxygenated >6mg/L, oxygenated >4-6mg/L, low oxygen >2-4mg/L, hypoxic 0.5-2mg/L, anoxic <0.5mg/L.