



Swan Canning Estuary Water Quality Monitoring Project

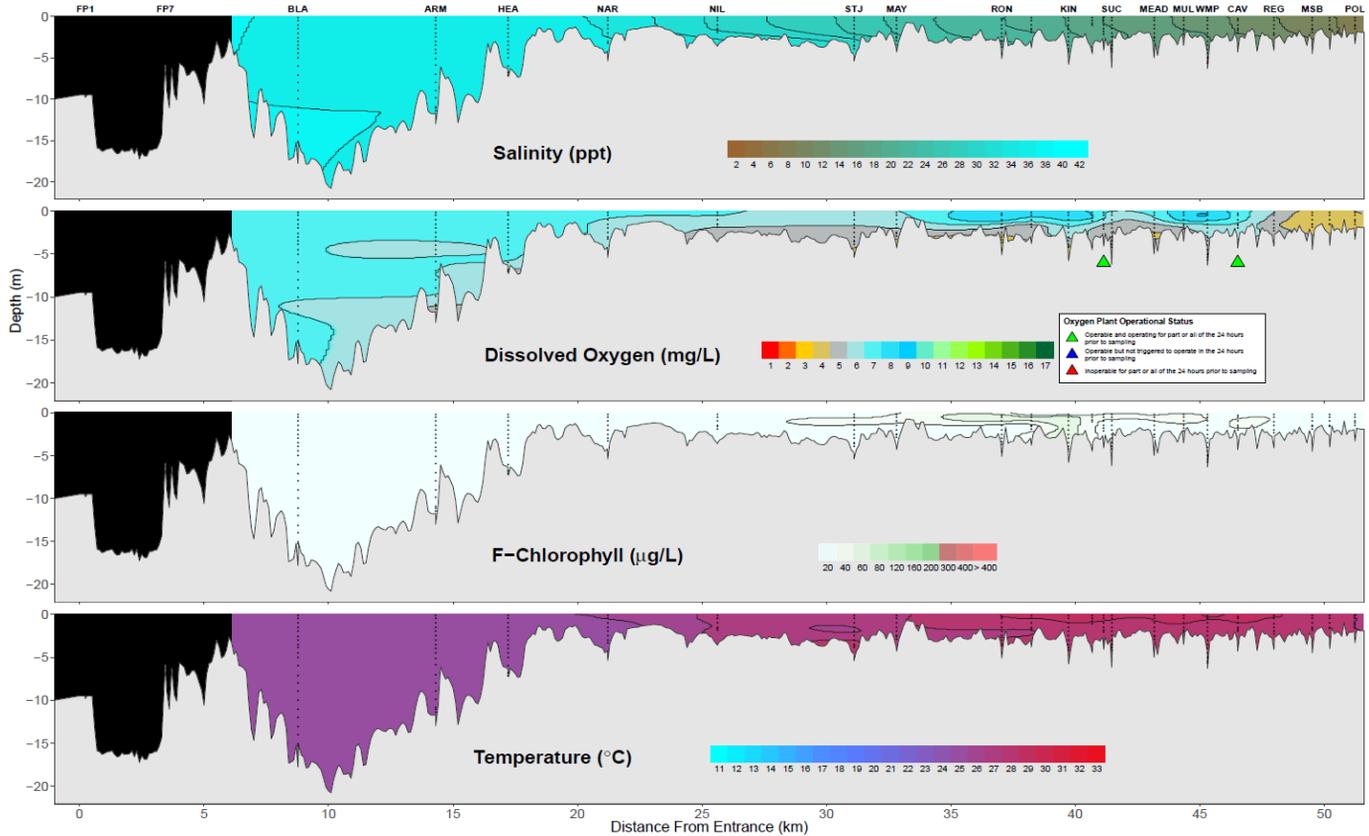
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

30th December 2019

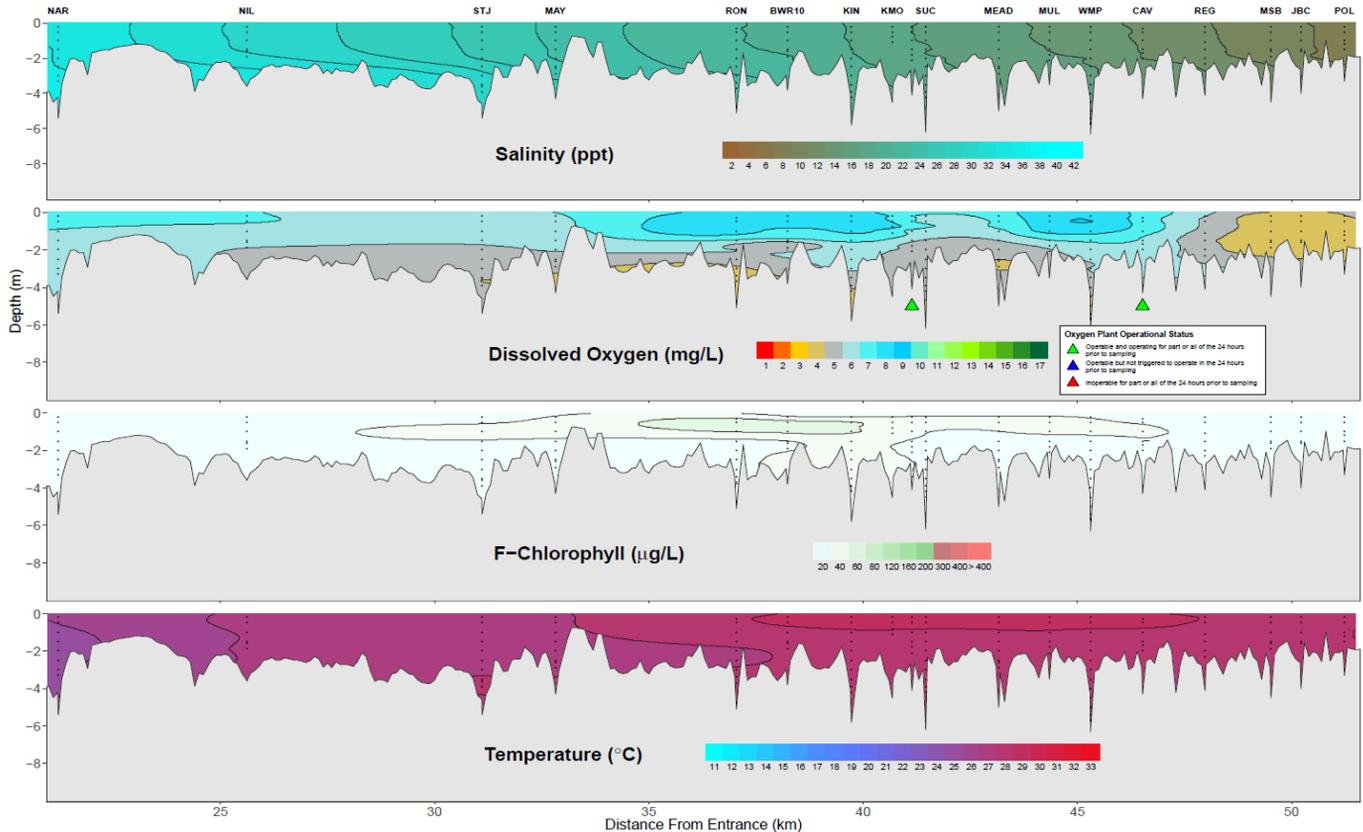
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Swan River Estuary – Physical-Chemical Profile – 30th Dec 2019



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 30th Dec 2019



Date: 30th December 2019

Weather & tide conditions: Conditions were clear with a variable breeze of up to 9 knots. The predicted tides at Barrack St were 1.01 m at 12:03 am (high tide overnight) and 0.53 m at 10:27 am (low tide). Perth recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both 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, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 24.3 to 25.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline between NIL and STJ and brackish between MAY and RON. Surface waters were oxygenated or well oxygenated throughout this zone. Bottom waters were low in oxygen at STJ and RON. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in this area. Water temperature ranged from 25.9 to 28.1 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout. Surface waters were oxygenated or well oxygenated from BWR10 to REG and low in oxygen from MSB to POL. Bottom waters were low in oxygen at MEAD and WMP and from MSB to POL. Chlorophyll fluorescence was highest at KIN indicating higher microalgal activity in this area. Water temperature ranged from 26.9 to 28.3 °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 30th December 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.