



Swan Canning Estuary Water Quality Monitoring Project

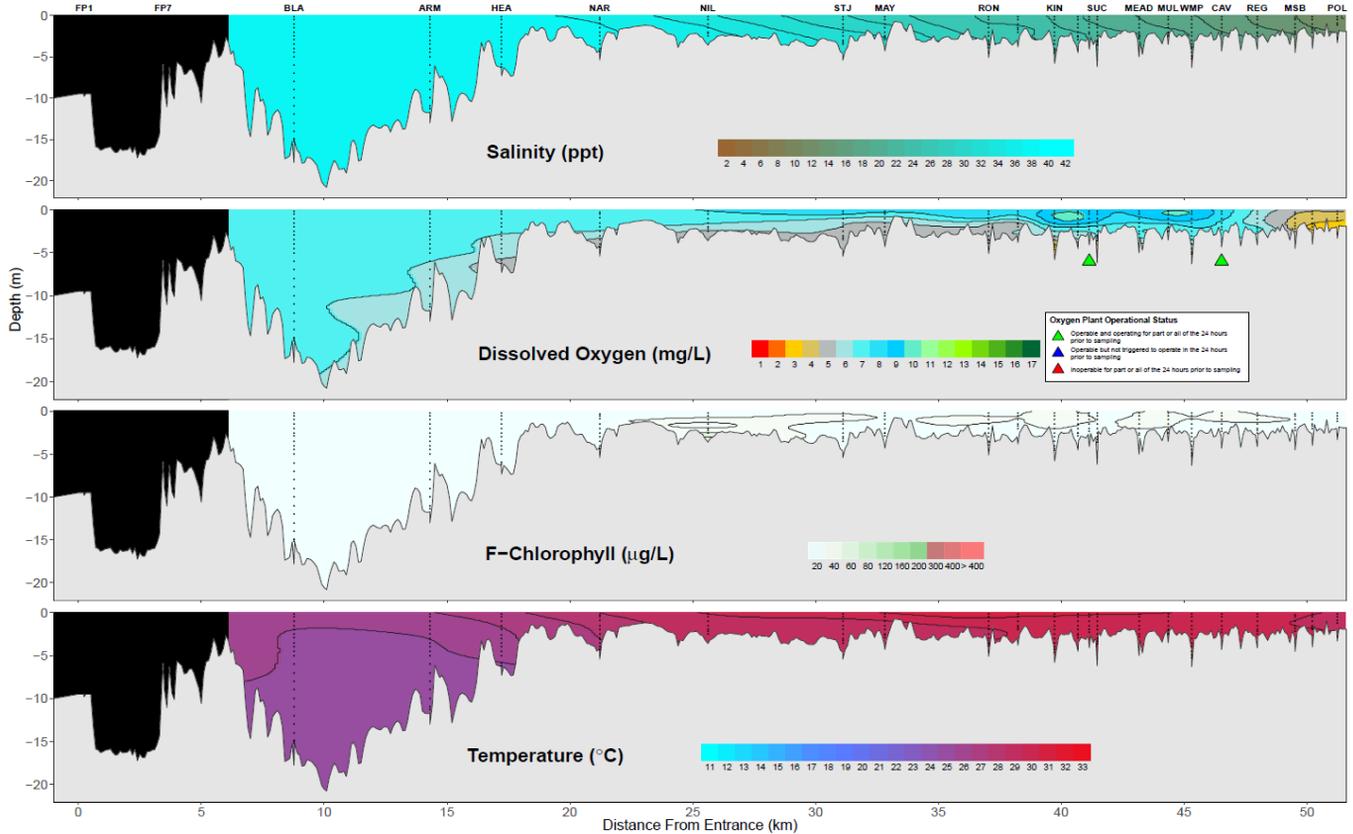
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

28th January 2020

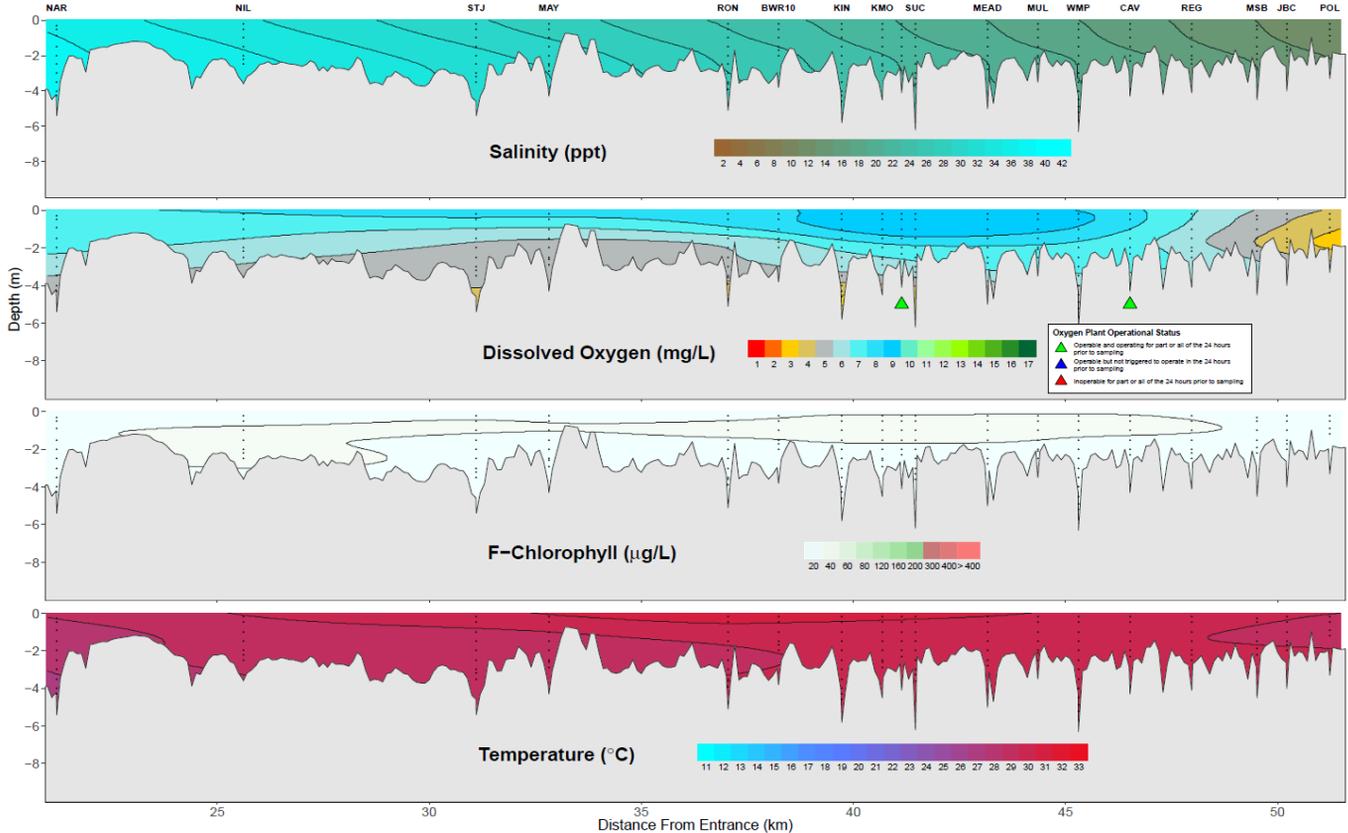
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Swan River Estuary – Physical-Chemical Profile – 28th Jan 2020



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 28th Jan 2020



Date: 28th January 2020

Weather & tide conditions: Conditions were clear with a predominantly westerly breeze of up to 13 knots. The predicted tides at Barrack St were 0.57 m at 09:25 am (low tide) and 0.95 m at 11:56 pm (high 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 and waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was highest at NAR indicating higher microalgal activity in this area. Water temperature ranged from 24.2 to 28.0 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline between NIL and MAY and brackish over saline at RON. Surface waters were well oxygenated and bottom waters were oxygenated throughout this zone. Chlorophyll fluorescence was highest at NIL indicating higher microalgal activity in this area. Water temperature ranged from 28.2 to 31.2 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish over saline at BWR10 and brackish between KIN and POL. Surface waters were oxygenated or well oxygenated throughout this zone except at JBC which was low in oxygen. Bottom waters oxygenated or well oxygenated except between BWR10 and KIN and between MSB and POL which were low in oxygen. Chlorophyll fluorescence highest at KIN indicating higher microalgal activity in this area. Water temperature ranged from 28.4 to 30.7 °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 28th January 2020*. 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.