



Swan Canning Estuary Water Quality Monitoring Project

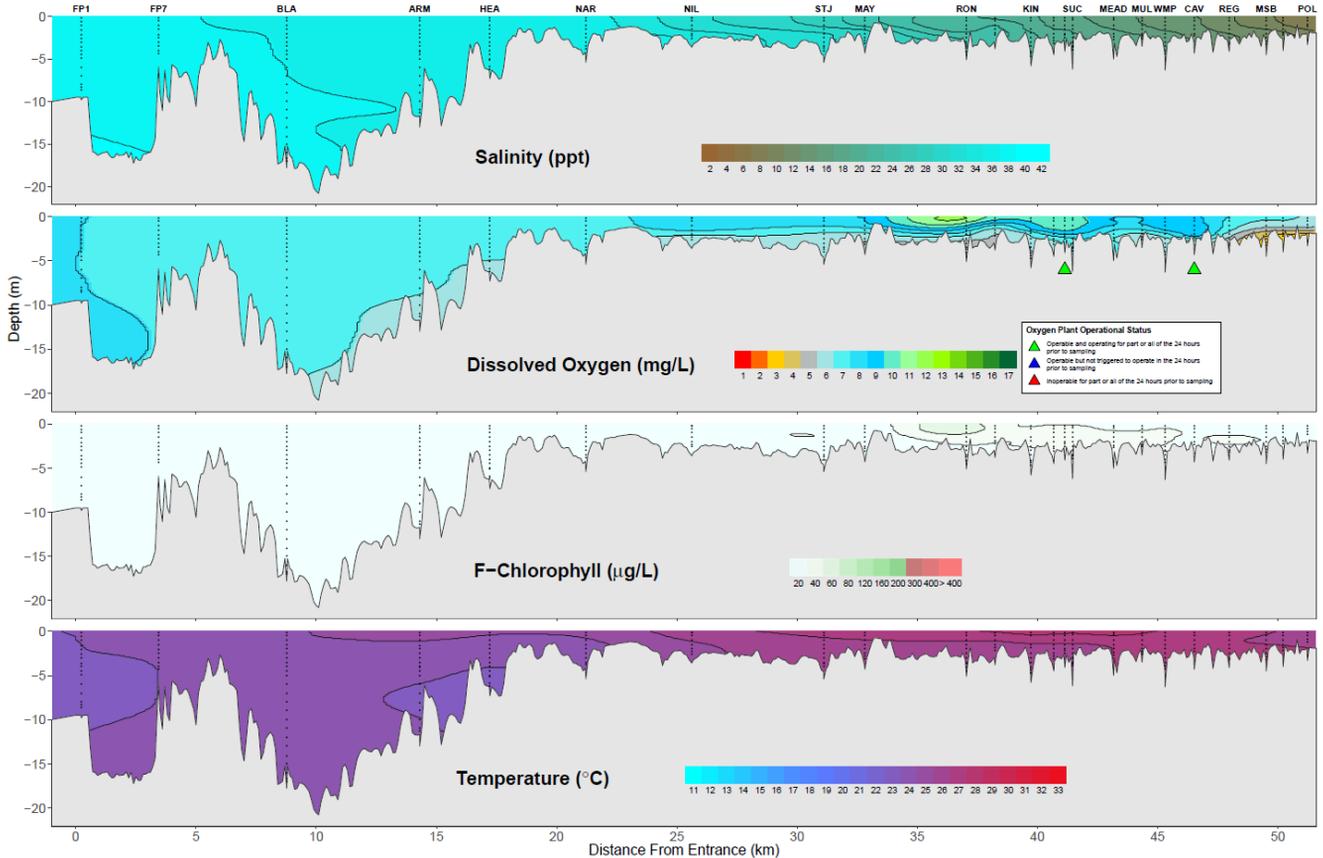
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

6th January 2020

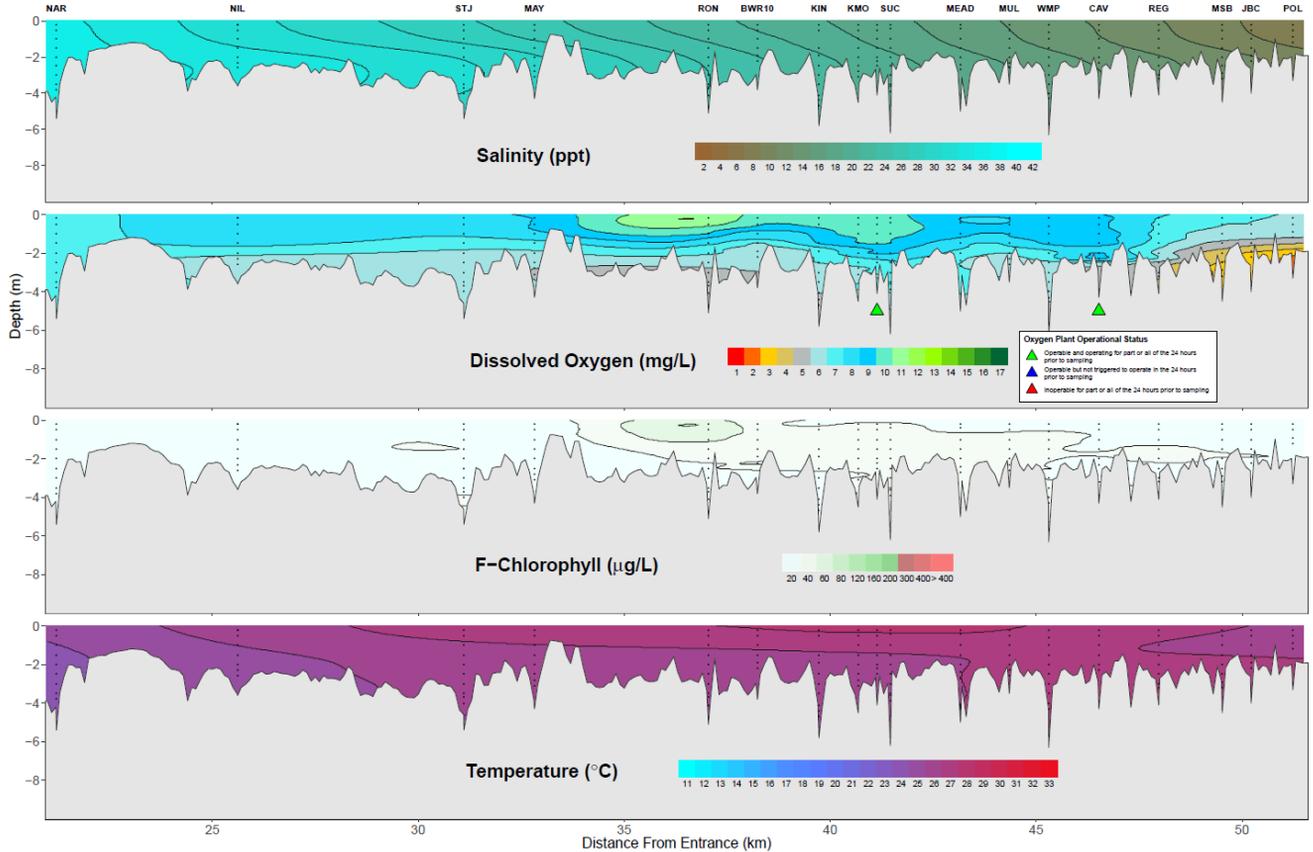
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Swan River Estuary – Physical-Chemical Profile – 6th Jan 2020



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 6th Jan 2020



Date: 6th January 2020

Weather & tide conditions: Conditions were clear with a variable breeze of up to 10 knots. The predicted tides at Barrack St were 0.6 m at 7:28 am (low tide) and 1.0 m at 8:15 pm (high tide). Perth recorded 2.0 mm of 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 (FPI to NAR): The Lower Swan Canning Estuary was saline, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 22.6 to 24.2 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline between NIL and MAY and brackish at RON. Surface waters were well oxygenated and bottom waters were oxygenated throughout this zone. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in this area. Water temperature ranged from 24.7 to 27.0 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish and surface waters were well oxygenated throughout this zone. Bottom waters were low in oxygen at MSB and JBC. Chlorophyll fluorescence was highest at REG indicating higher microalgal activity in this area. Water temperature ranged from 24.9 to 27.8 °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 6th 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.