



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

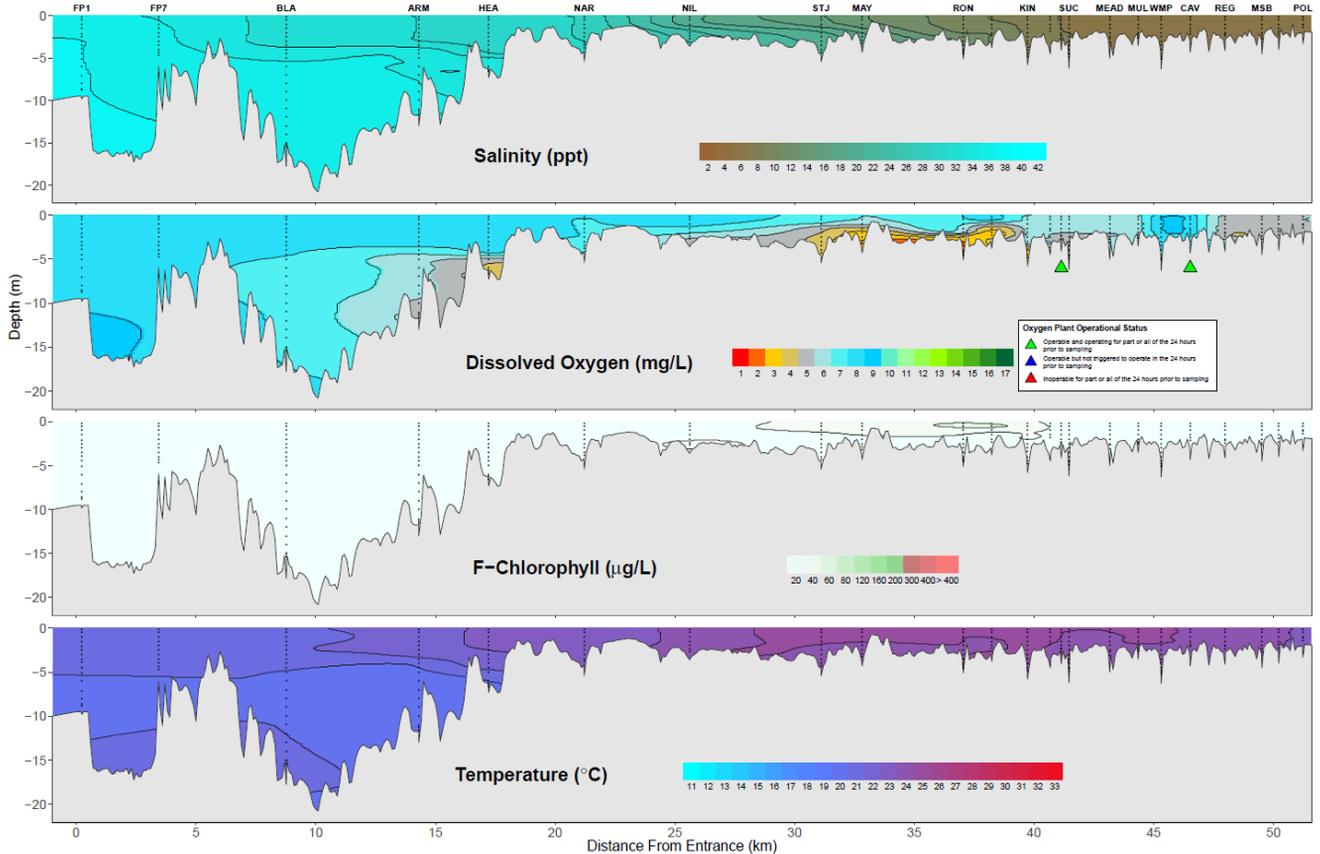
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

28th October 2019

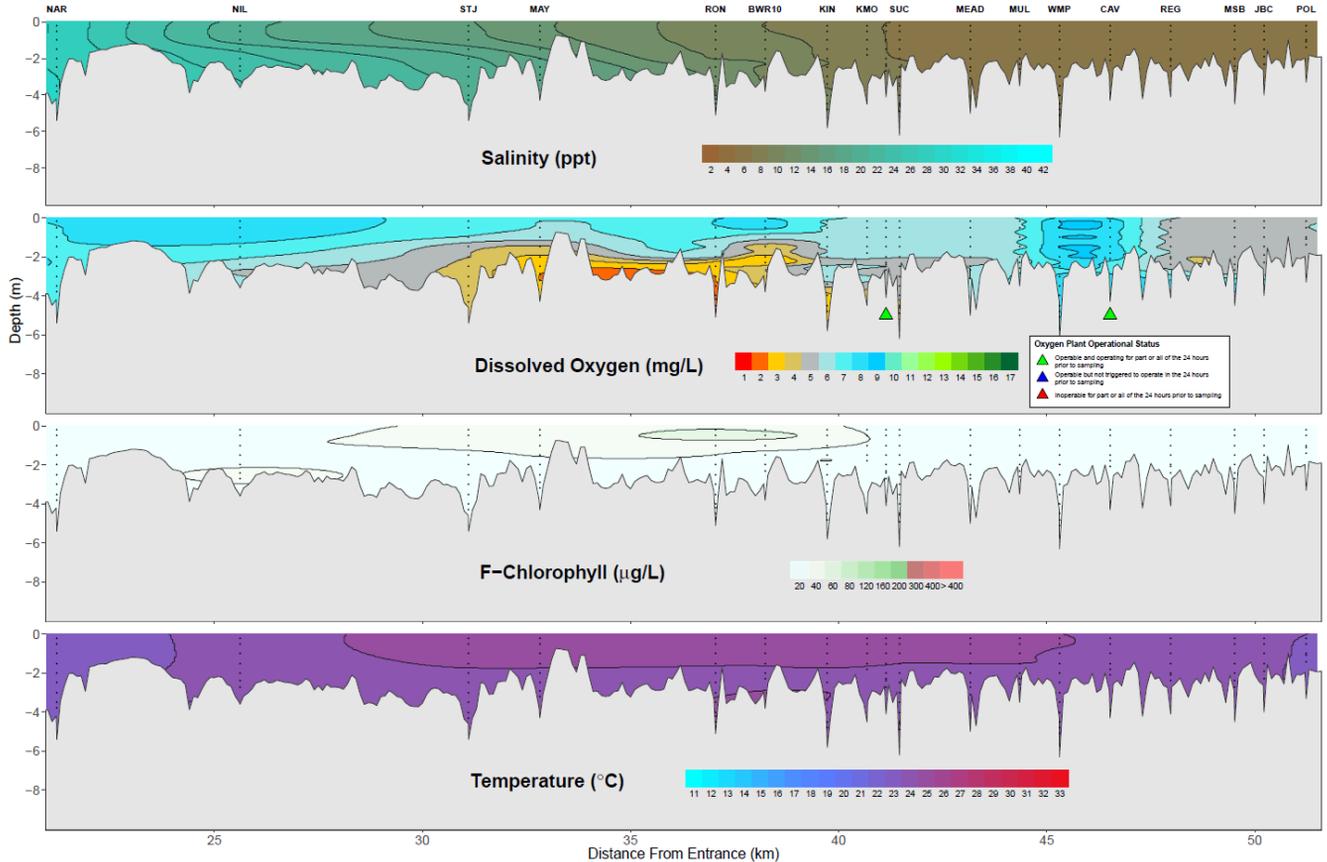
Prepared by

**River and Estuaries Science Program,
Biodiversity and Conservation Science
Department of Biodiversity, Conservation and Attractions**

Swan River Estuary – Physical-Chemical Profile – 28th Oct 2019



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 28th Oct 2019



Date: 28th October 2019

Weather & tide conditions: Conditions were overcast with up to 95% cloud cover and a predominantly south westerly breeze of up to 16 knots. The predicted tides at Barrack St were 0.73 m (high tide) at 12:41 pm and 0.71 m (low tide) at 3:24 pm. Perth recorded 2.0 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were 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 from FPI to NAR. Surface waters in this zone were well oxygenated with bottom waters being low in oxygen at HEA. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 19.4 to 22.3 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish from NIL to RON. Surface waters were well oxygenated throughout the zone with bottom waters being low in oxygen at STJ and hypoxic at MAY and RON. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in this area. Water temperature ranged from 23.4 to 24.9 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish from BWR10 to SUC and fresh from MEAD to POL. Surface waters were oxygenated throughout the zone with bottom waters being hypoxic at BWR10 and low in oxygen at KIN and SUC. Chlorophyll fluorescence was highest at BWR10 indicating higher microalgal activity in this area. Water temperature ranged from 22.9 to 24.6 °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 October 2019*. Rivers and Estuaries Science Program (<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.