



# Swan Canning Estuary Water Quality Monitoring Project

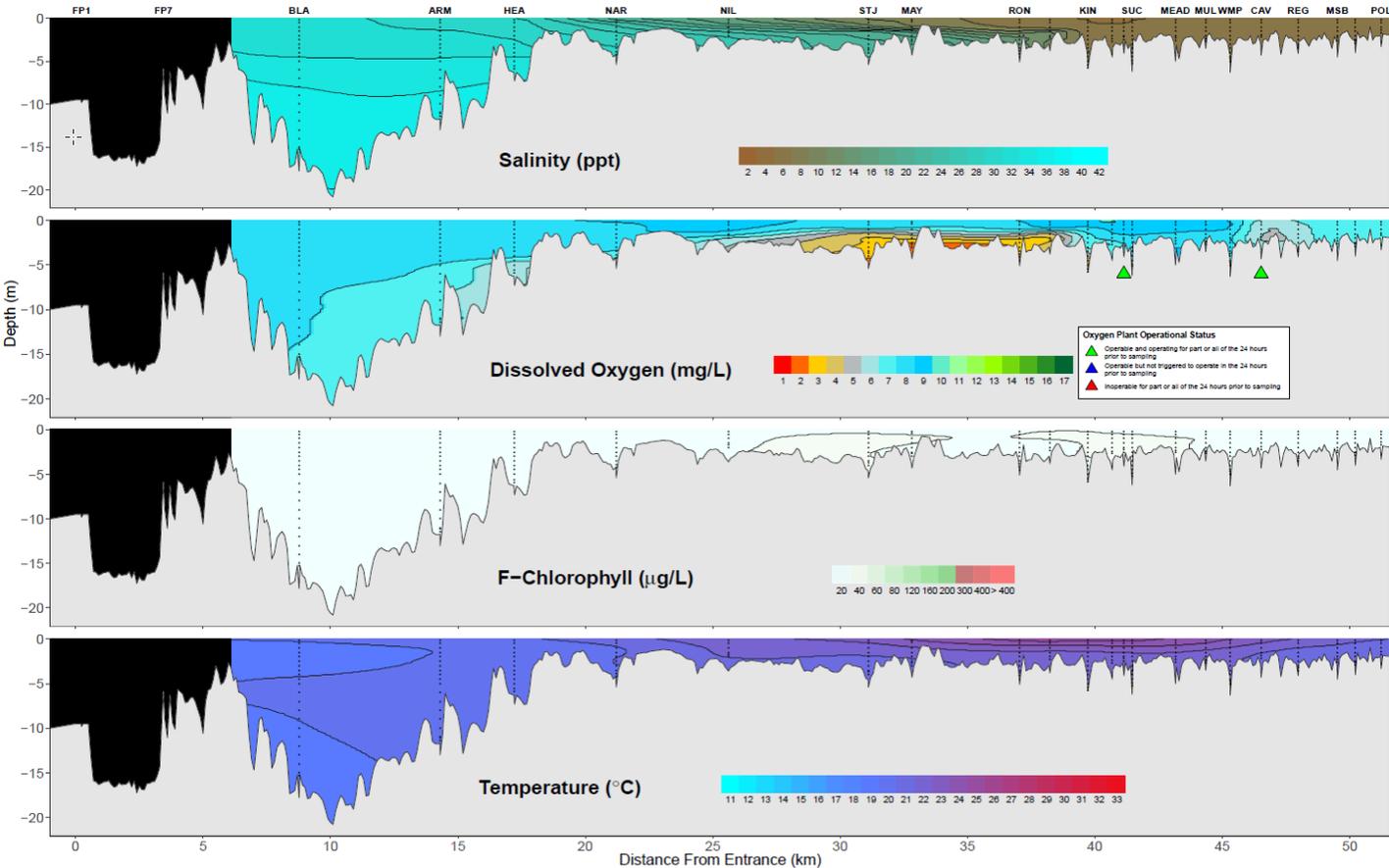
**Weekly Profile Report for the  
Lower to Upper Swan Estuary**

**4<sup>th</sup> November 2019**

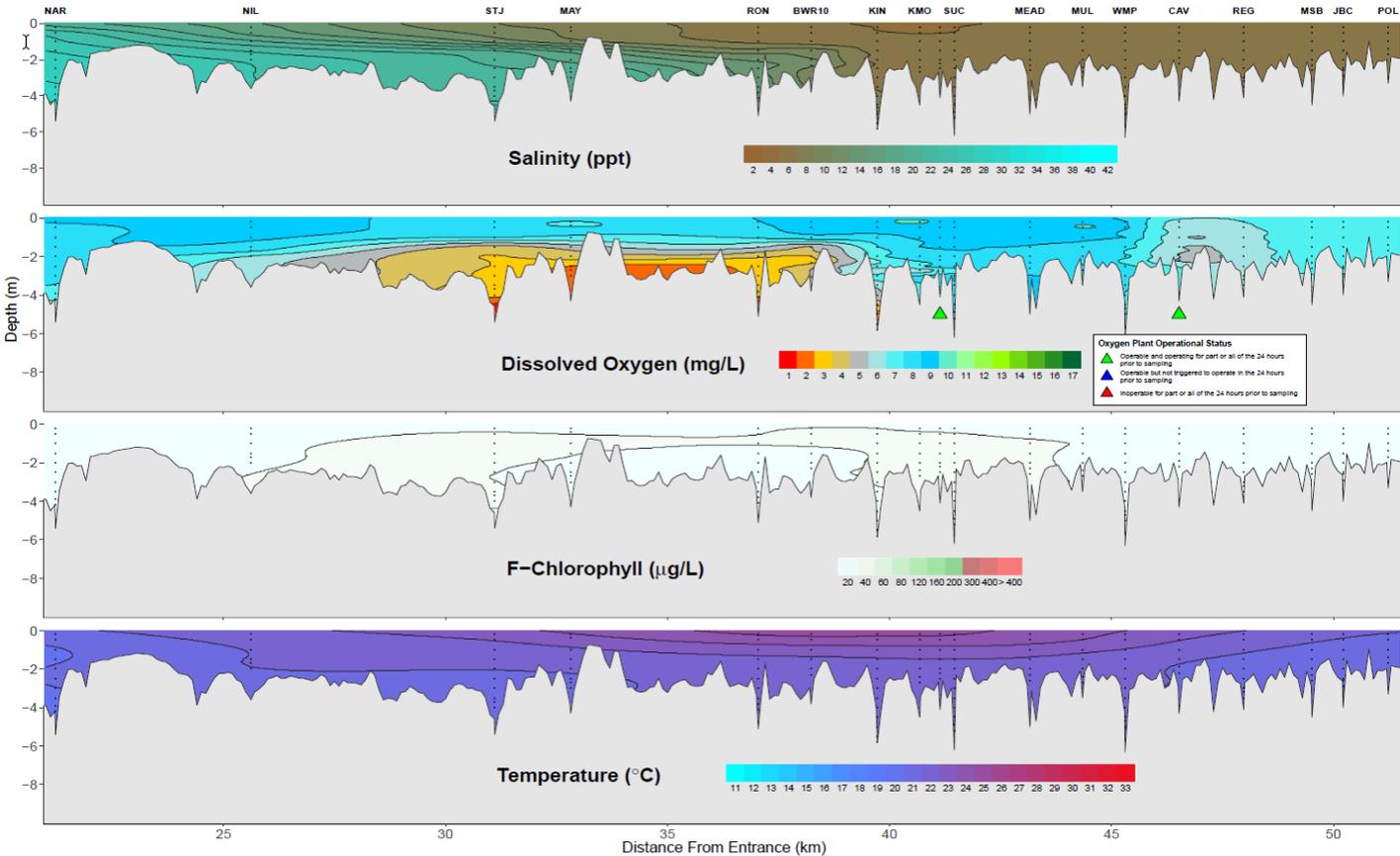
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### Swan River Estuary – Physical-Chemical Profile – 4th Nov 2019



### Middle and Upper Swan River Estuary – Physical-Chemical Profile – 4th Nov 2019



Date: 4<sup>th</sup> November 2019

Weather & tide conditions: Conditions were clear with no cloud cover and a predominantly north easterly breeze of up to 4.5 knots. The predicted tides at Barrack St were 0.92m (high tide) at 1:22am and 0.55 m (low tide) at 2:20 pm. Perth recorded 27.0 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 were well oxygenated and bottom waters were oxygenated in this zone. 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 hypoxic between STJ and RON. Chlorophyll fluorescence was highest at STJ indicating higher microalgal activity in this area. Water temperature ranged from 20.7 to 23.0 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish from BWR10 to SUC with fresh surface waters between KIN and SUC and was fresh throughout from MEAD to POL. Surface waters were oxygenated in this zone with bottom waters being hypoxic at BWR10 and KIN. Chlorophyll fluorescence was highest at SUC indicating higher microalgal activity in this area. Water temperature ranged from 20.9 to 25.0 °C.

NB: Profile plots are visual interpolations of measured parameters only. Detailed data are available at [wir.water.wa.gov.au](http://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 4<sup>th</sup> November 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.