



# Swan Canning Estuary Water Quality Monitoring Project

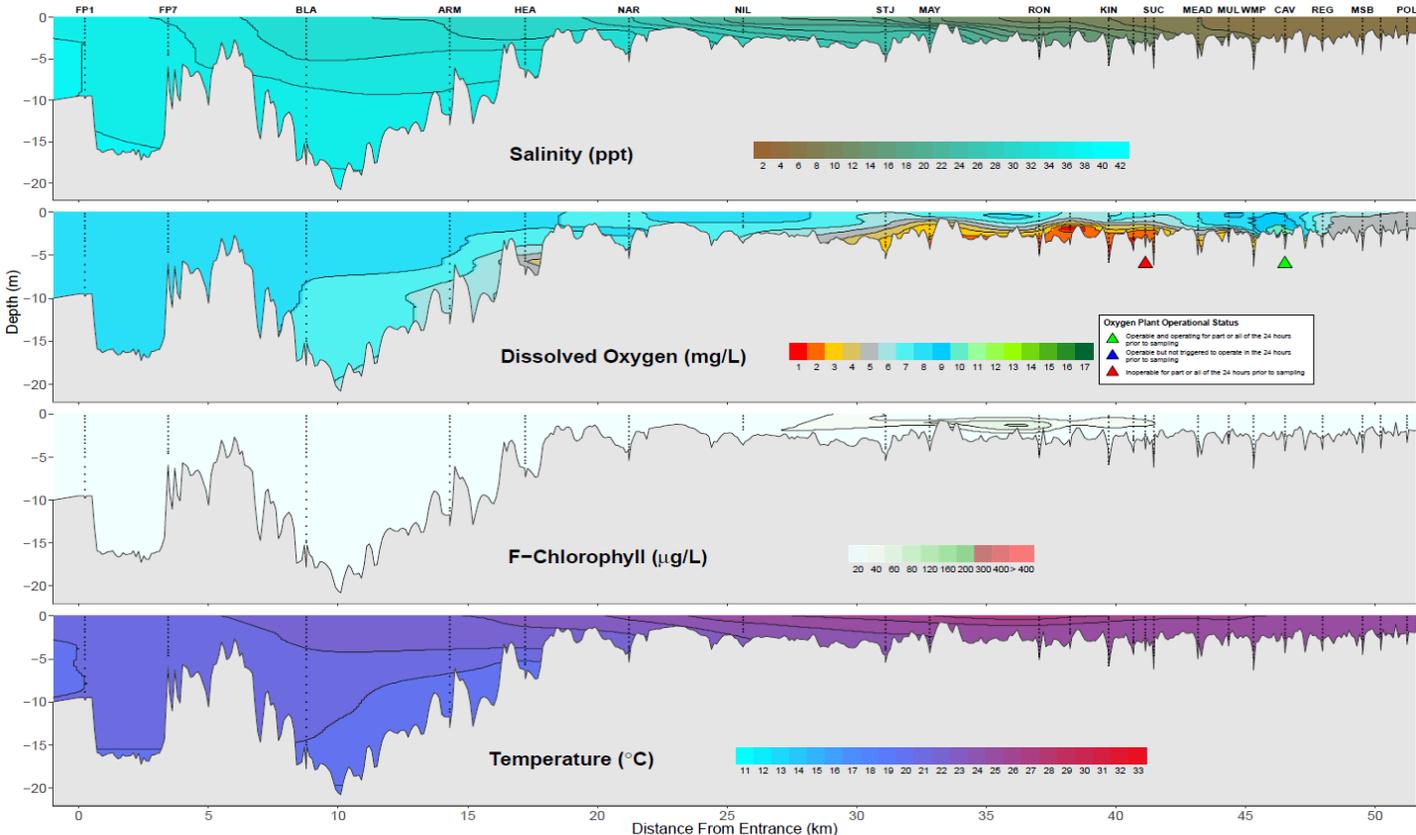
**Weekly Profile Report for the  
Lower to Upper Swan Estuary**

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

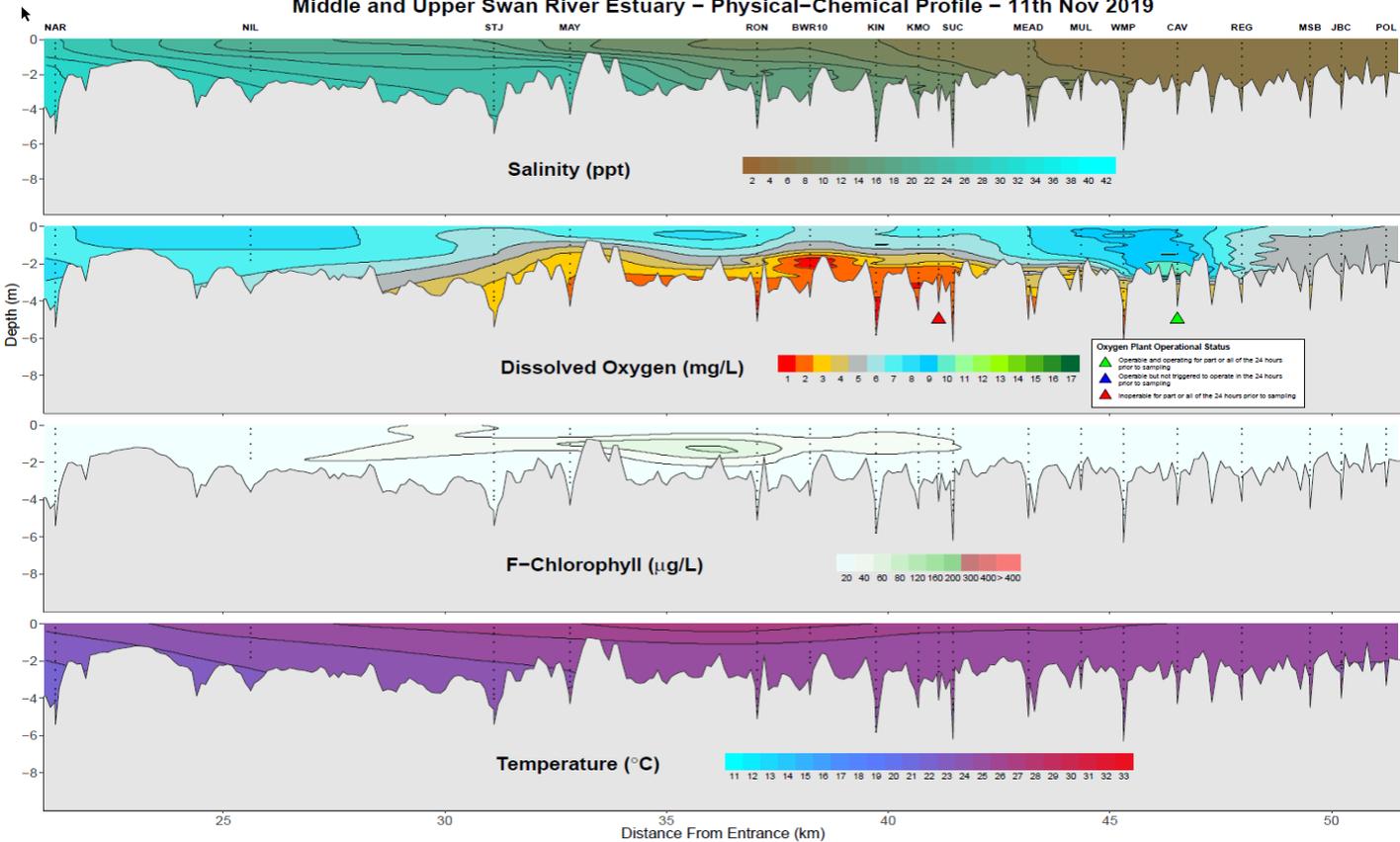
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### Swan River Estuary – Physical-Chemical Profile – 11th Nov 2019



### Middle and Upper Swan River Estuary – Physical-Chemical Profile – 11th Nov 2019



Date: 11<sup>th</sup> November 2019

Weather & tide conditions: Conditions were clear with low cloud cover (up to 10%) and a south easterly breeze of up to 7 knots. The predicted tides at Barrack St were 0.61 m (low tide) at 06:17 am and 0.72 m (high tide) at 12:10 pm. Perth recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford plant was not operational and the Caversham oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan-Canning Estuary (FP1 to NAR): The Lower Swan-Canning Estuary was saline from FP1 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 19.5 to 23.1 °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 RON indicating higher microalgal activity in this area. Water temperature ranged from 23.4 to 26.4 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish from BWR10 to WMP and fresh from CAV to POL. Surface waters were oxygenated in this zone with bottom waters being hypoxic between BWR10 and WMP. Chlorophyll fluorescence was highest at KIN indicating higher microalgal activity in this area. Water temperature ranged from 21.2 to 26.0 °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 11<sup>th</sup> November 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.