



Department of Biodiversity,  
Conservation and Attractions



Biodiversity and  
Conservation Science

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# Swan Canning Estuary Water Quality Monitoring Project

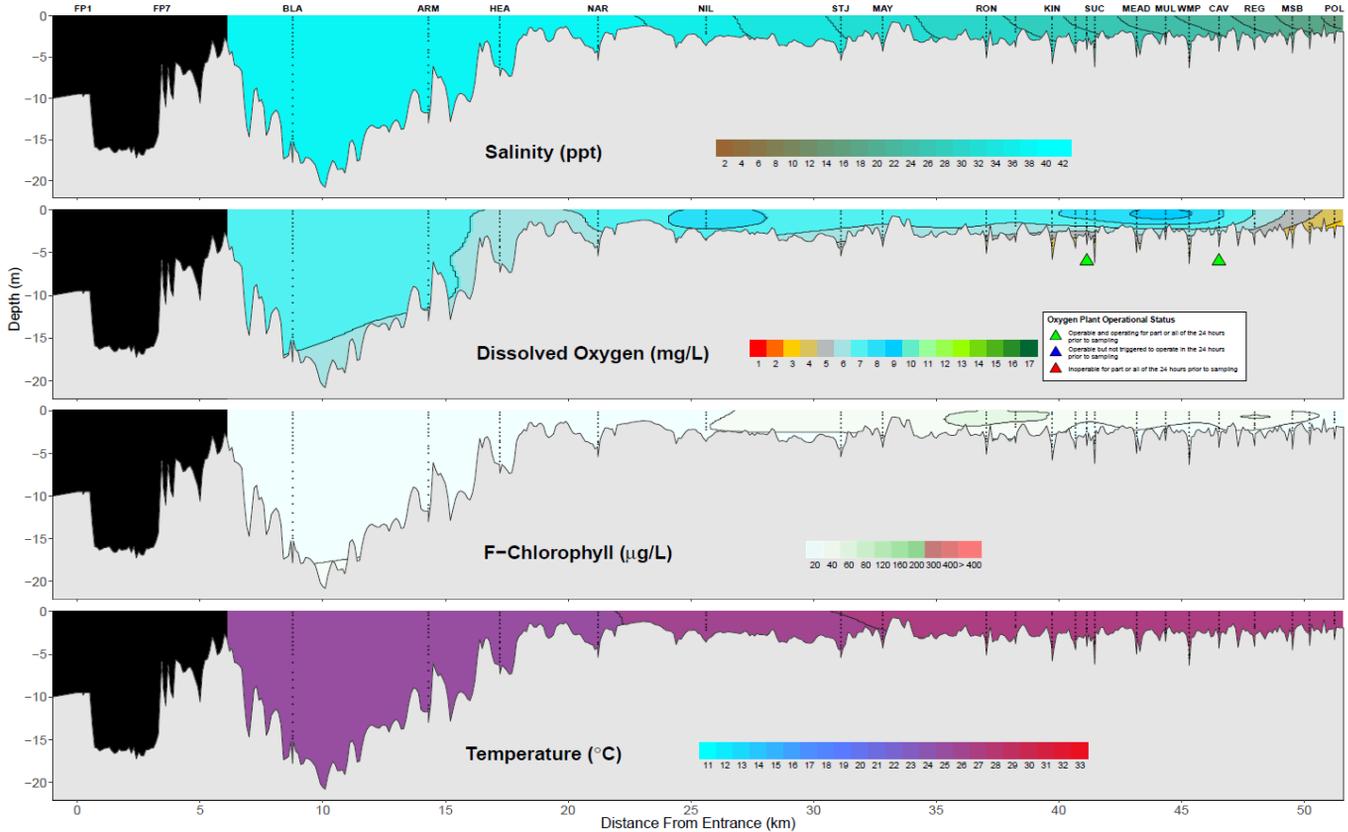
**Weekly Profile Report for the  
Lower to Upper Swan Estuary**

**24<sup>th</sup> February 2020**

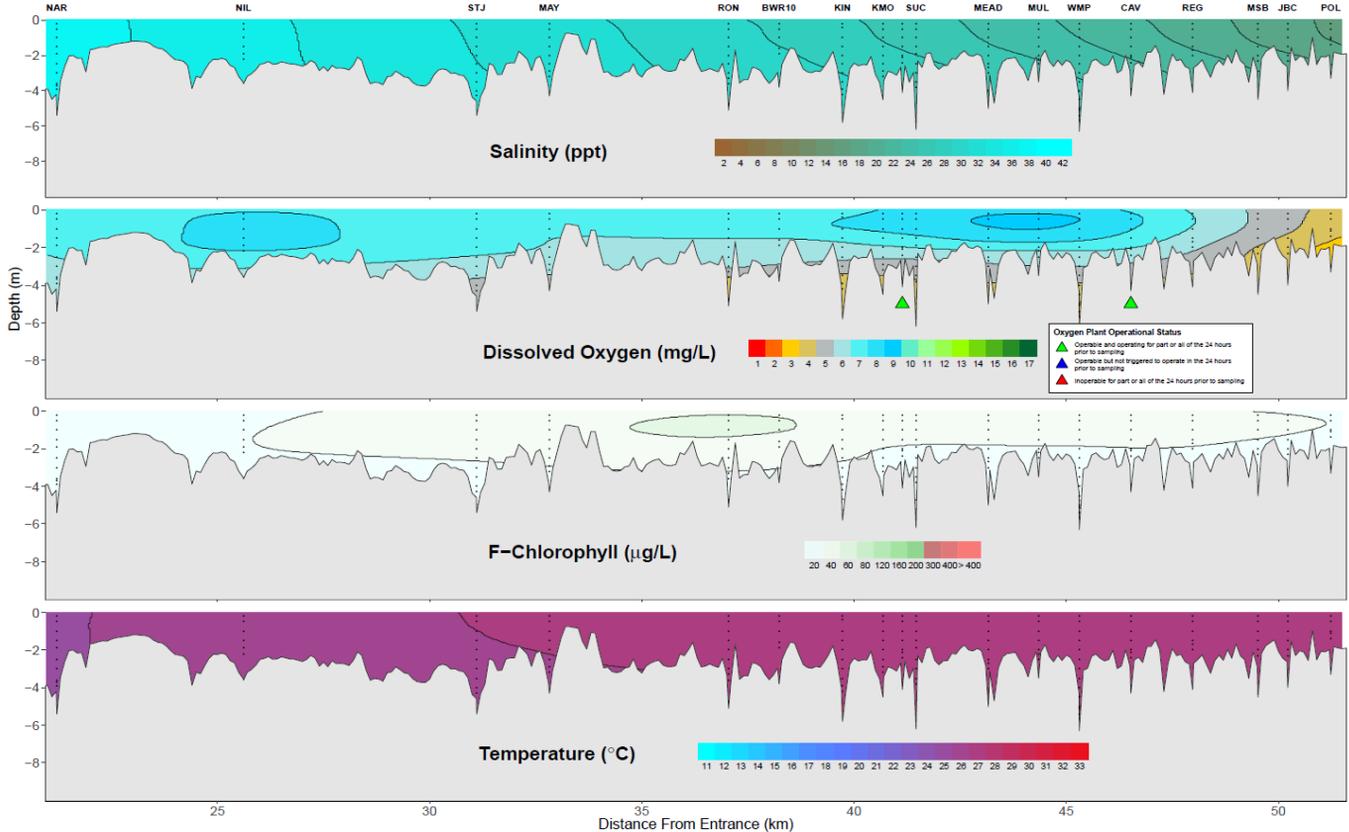
**Prepared by**

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### Swan River Estuary – Physical-Chemical Profile – 24th Feb 2020



### Middle and Upper Swan River Estuary – Physical-Chemical Profile – 24th Feb 2020



Date: 24<sup>th</sup> February 2020

Weather & tide conditions: Conditions were clear with a predominantly easterly breeze of up to 11 knots. The predicted tides at Barrack St were 0.59 m at 8:10 am (low tide) and 0.75 m at 2:07 pm (high tide). Perth recorded 1 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, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 24.6 to 24.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline and waters were oxygenated or well oxygenated throughout this zone except bottom waters at RON which were low in oxygen. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in that area. Water temperature ranged from 25.7 to 26.7 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was saline between BWR10 and VIT, brackish over saline at SUC and MEAD and brackish from MUL to POL. Surface waters were oxygenated or well oxygenated between BWR10 and JBC and low in oxygen at POL. Bottom waters were low in oxygen between BWR10 and KMO, at WMP and from MSB to POL. Chlorophyll fluorescence was highest at WMP indicating higher microalgal activity in that area. Water temperature ranged from 25.9 to 26.8 °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 24<sup>th</sup> February 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.