



# Swan Canning Estuary Water Quality Monitoring Project

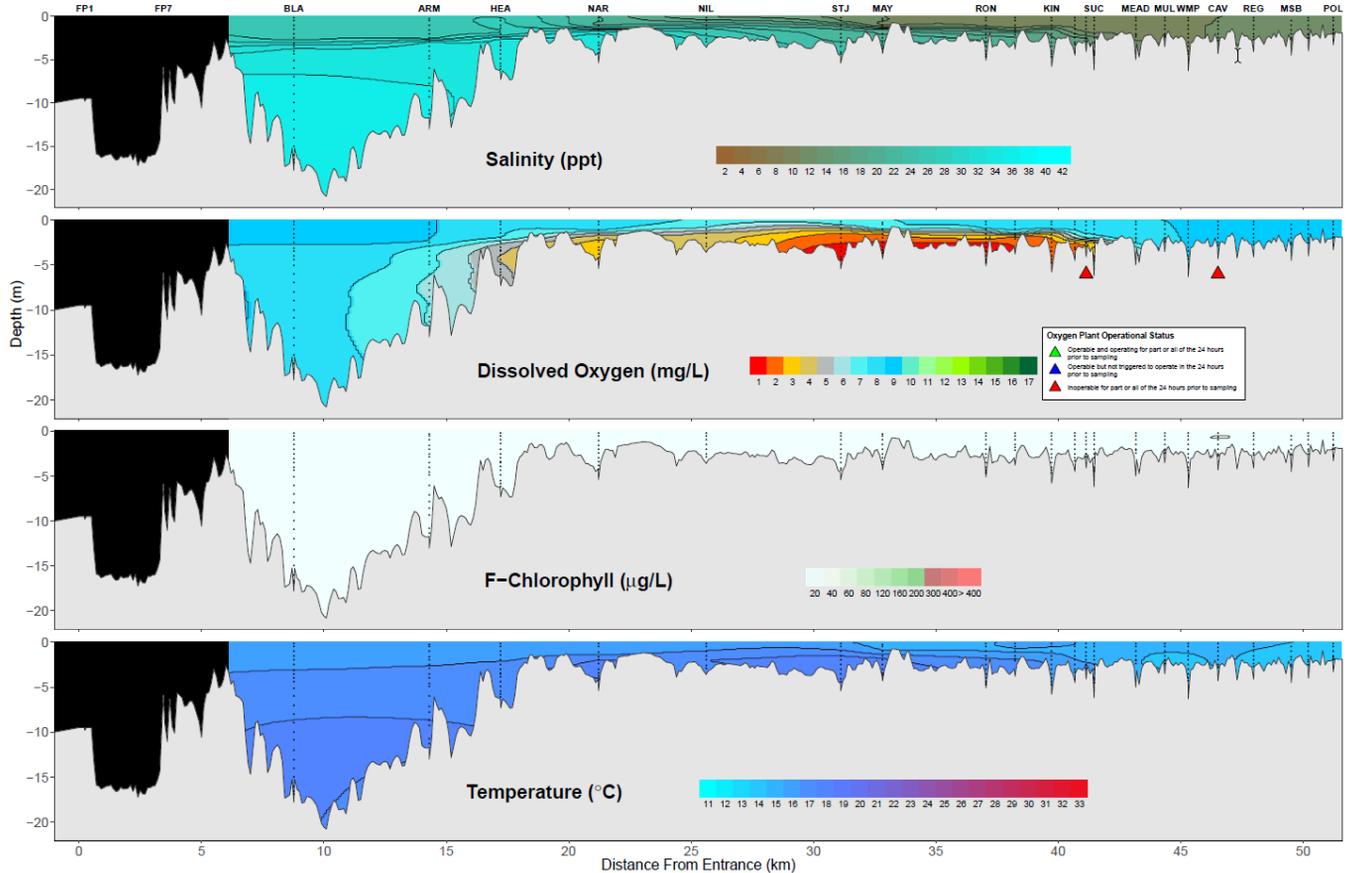
**Weekly Profile Report for the  
Lower to Upper Swan Estuary**

**12 August 2019**

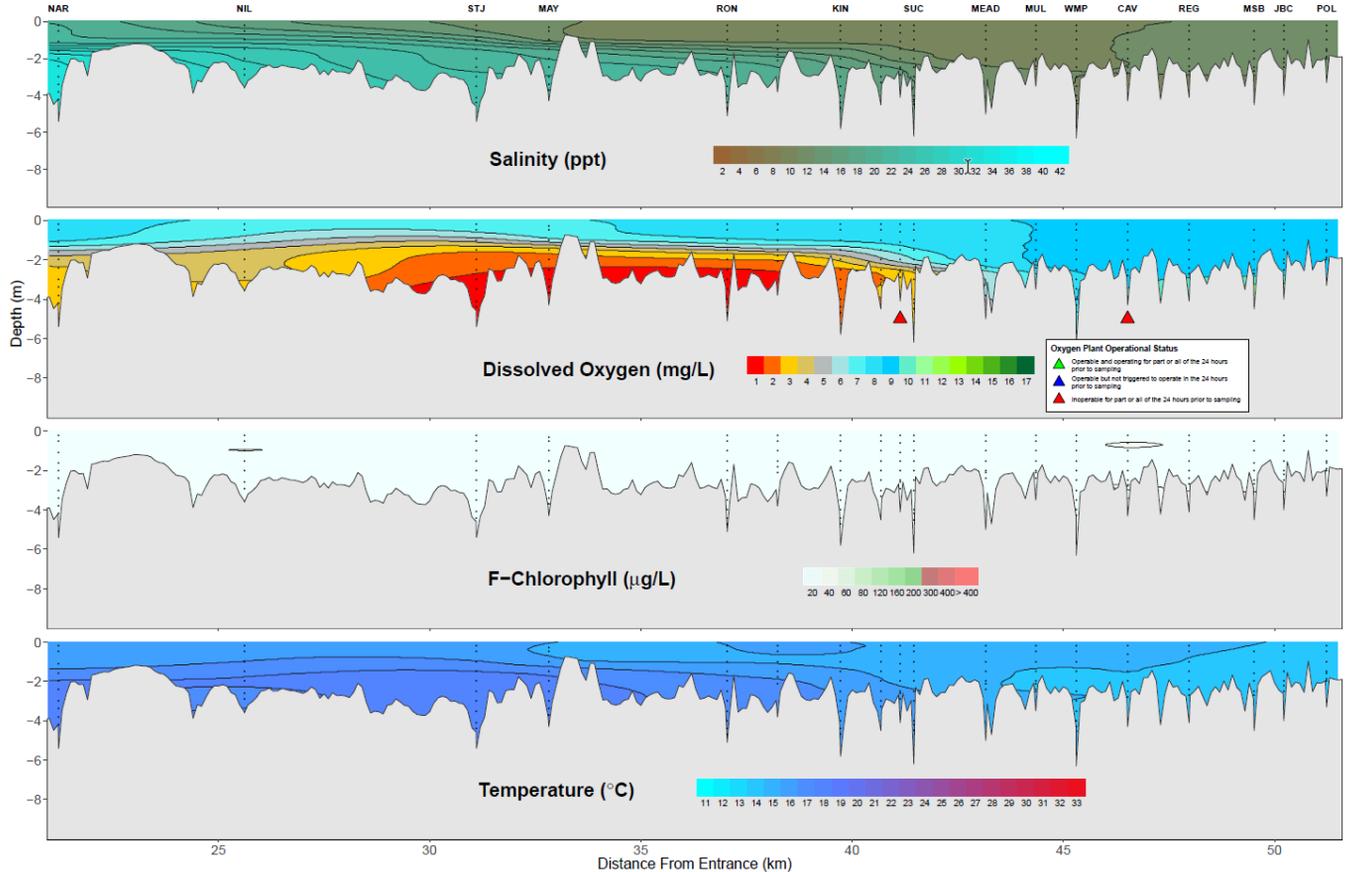
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### Swan River Estuary – Physical-Chemical Profile – 12th Aug 2019



### Middle and Upper Swan River Estuary – Physical-Chemical Profile – 12th Aug 2019



Date: 12 August 2019

Weather & tide conditions: Conditions were clear skies with no cloud cover and a predominantly east to north-easterly winds of up to 12 knots. The predicted tides at Fremantle were 1.09m (high tide) at 8.44am and 0.63m (low tide) at 7:41pm. Perth recorded 18.2mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were not operational prior to sampling.

Lower Swan-Canning Estuary (FPI to NAR): The Lower Swan Estuary from BLA to NAR was brackish over saline. BLA and ARM were well oxygenated throughout. Low oxygen conditions in bottom waters occurred between HEA and NAR. Water temperature ranged from 15.1-17.1°C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline at NIL and brackish throughout STJ to RON. Surface waters were well oxygenated with low oxygen and hypoxic bottom waters. Chlorophyll fluorescence was generally low indicating low microalgal activity. Water temperature ranged from 14.8 to 17.2°C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish throughout BRW10 to POL. Surface waters were well oxygenated throughout between POL and MEAD. From SUC to BWR10 surface waters were well oxygenated with hypoxic bottom waters. Water temperature ranged from 13.6 to 15.2°C.

#### **Recommended reference**

Department of Biodiversity, Conservation and Attractions 2019. *Swan Canning estuary water quality monitoring weekly profile report, Lower to Upper Swan Estuary 12 August 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.