



# Swan Canning Estuary Water Quality Monitoring Project

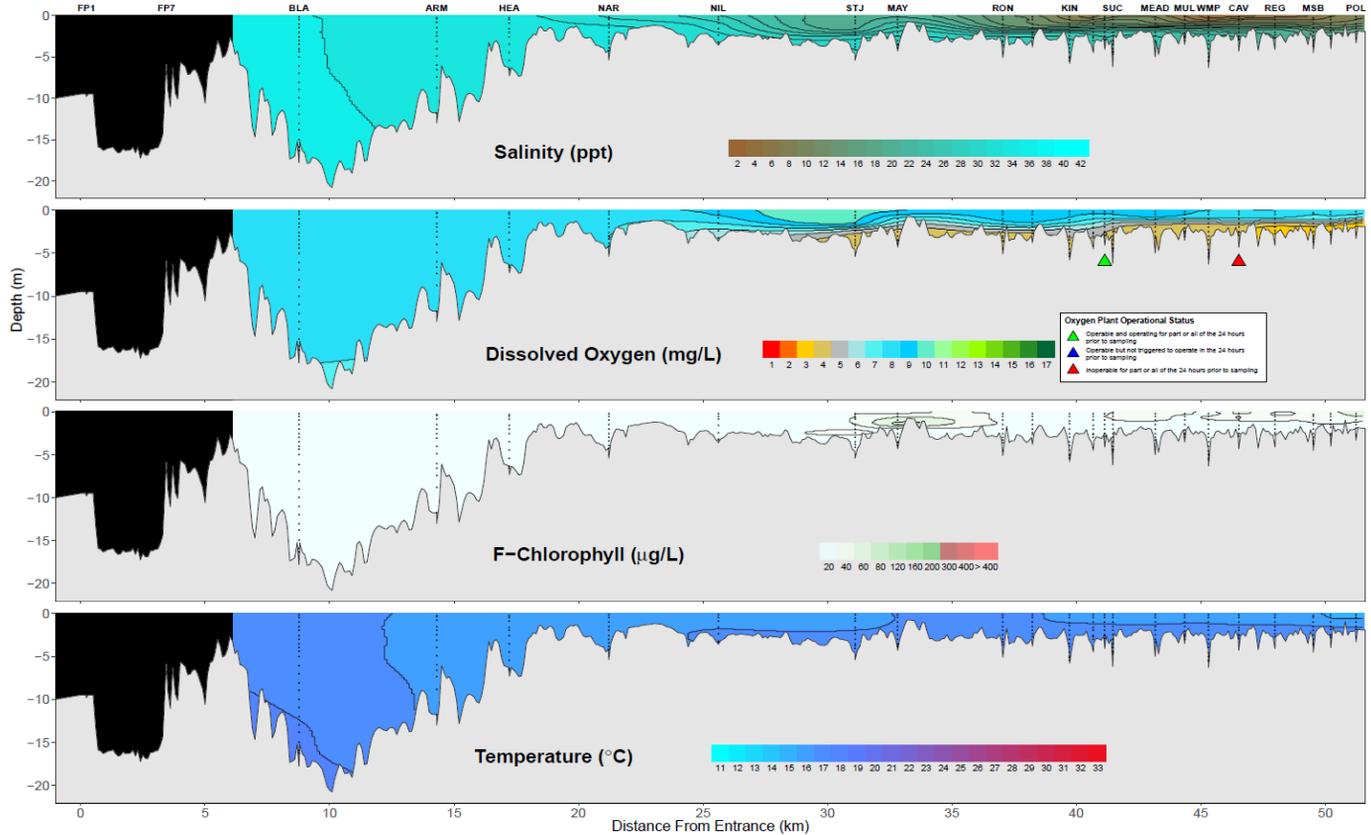
**Weekly Profile Report for the  
Lower to Upper Swan Estuary**

**29<sup>th</sup> June 2020**

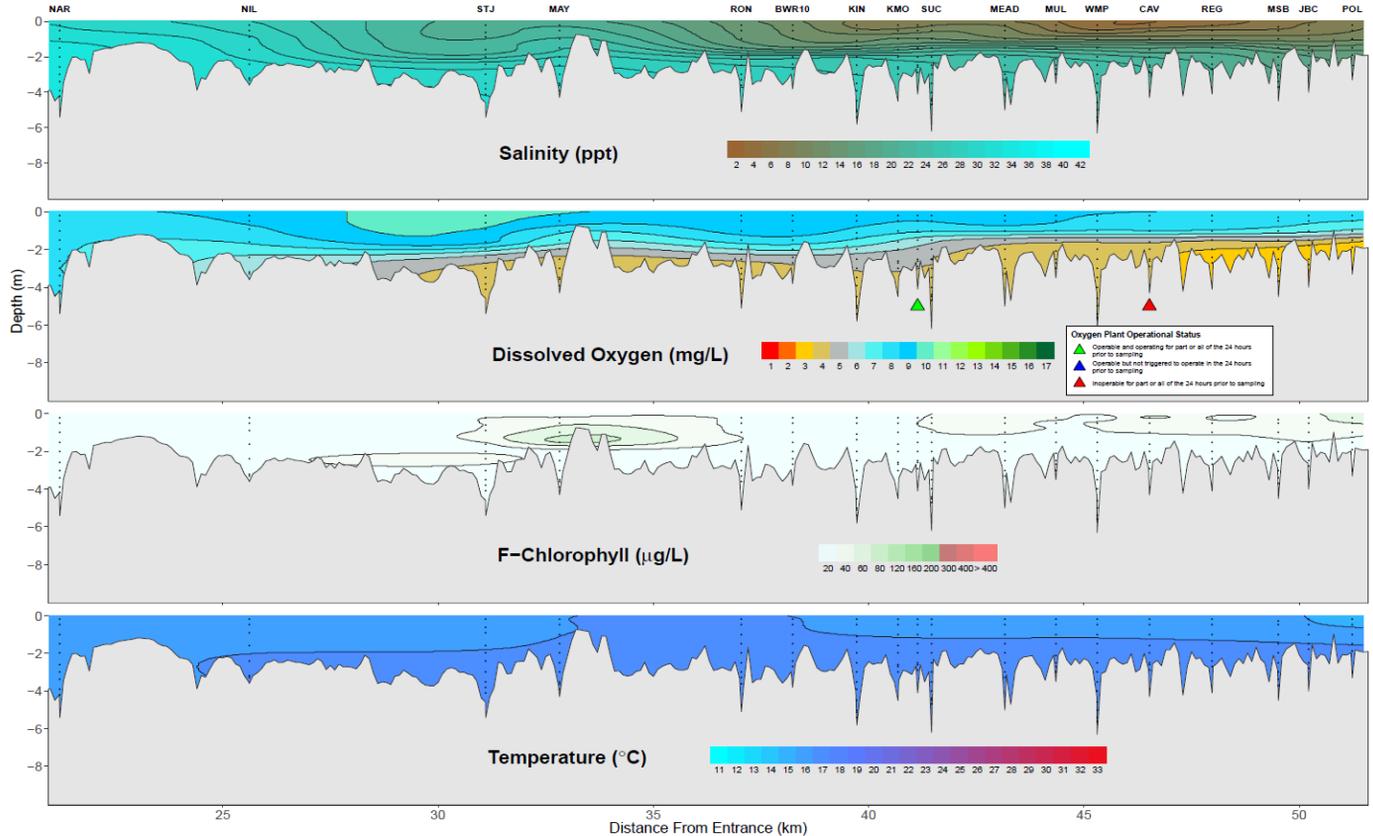
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### Swan River Estuary – Physical-Chemical Profile – 29th Jun 2020



### Middle and Upper Swan River Estuary – Physical-Chemical Profile – 29th Jun 2020



Date: 29<sup>th</sup> June 2020

Weather & tide conditions: Conditions were overcast with strong winds of up to 36 knots from a predominantly westerly direction. The predicted tides at Barrack St were 1.01 m at 8:30 am (high tide) and 0.84 m at 10:02 pm (low tide). There was a significant storm surge on top of predictions. Perth recorded 58.0 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15.6 to 17.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL and brackish over saline from STJ to RON. Surface waters were oxygenated or well oxygenated. Bottom waters were low in oxygen between STJ and RON. Chlorophyll fluorescence was highest at MAY indicating higher microalgal activity in that area. Water temperature ranged from 15.6 to 16.4 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish over saline between BWR10 and KIN, fresh over saline at KMO, brackish from VIT to MEAD, fresh over brackish between MUL and MSB and brackish from JBC to POL. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen from BWR10 to KIN and from VIT to POL. Chlorophyll fluorescence was highest at POL indicating higher microalgal activity in that area. Water temperature ranged from 14.8 to 16.8 °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).

**Oxygenation Plant Operational Status:**

- ▲ Operating for part or all of the 24 hours prior to sampling
- ▲ Operable but not triggered to operate in the 24 hours prior to sampling
- ▲ Inoperable for part or all of the 24 hours prior to sampling

**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