



Swan Canning Estuary Water Quality Monitoring Project

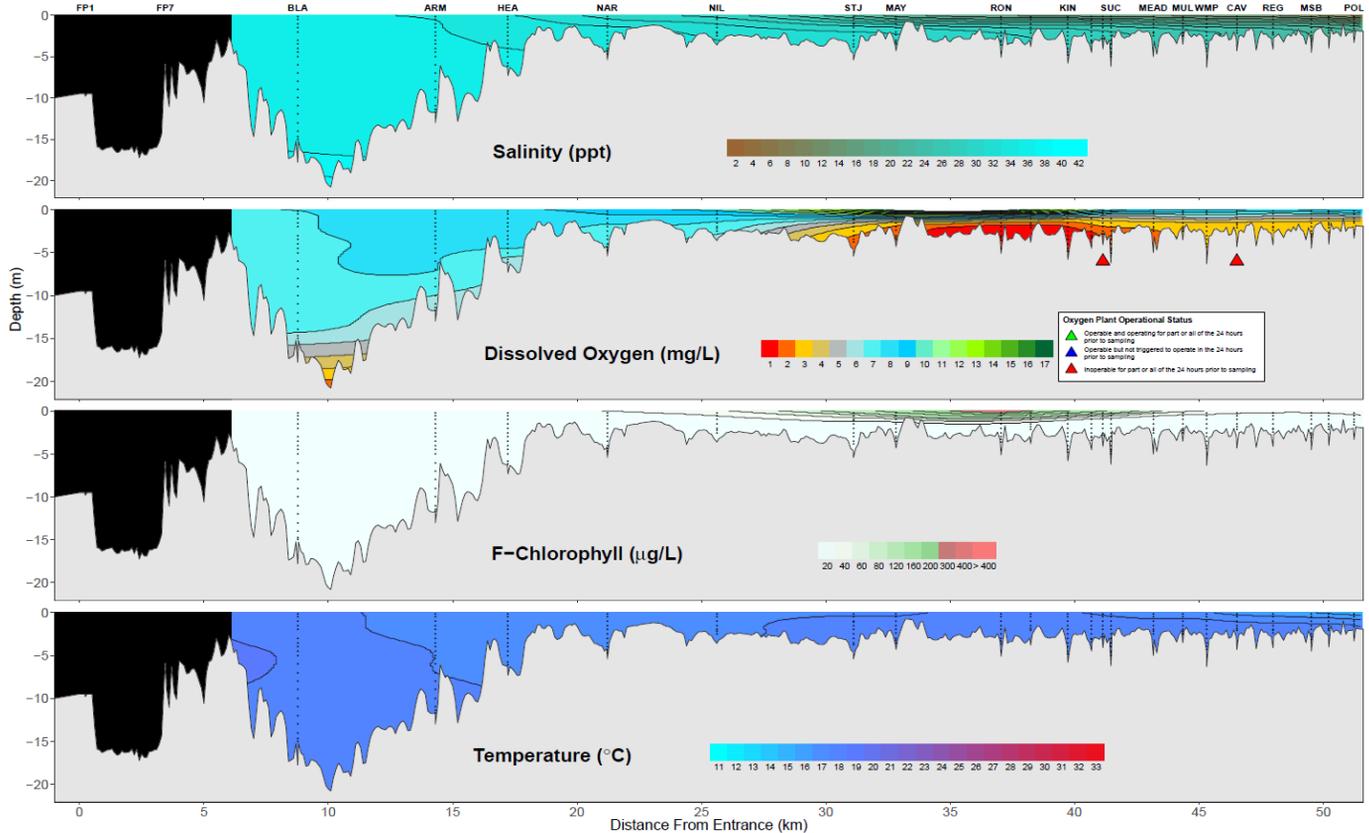
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

15th June 2020

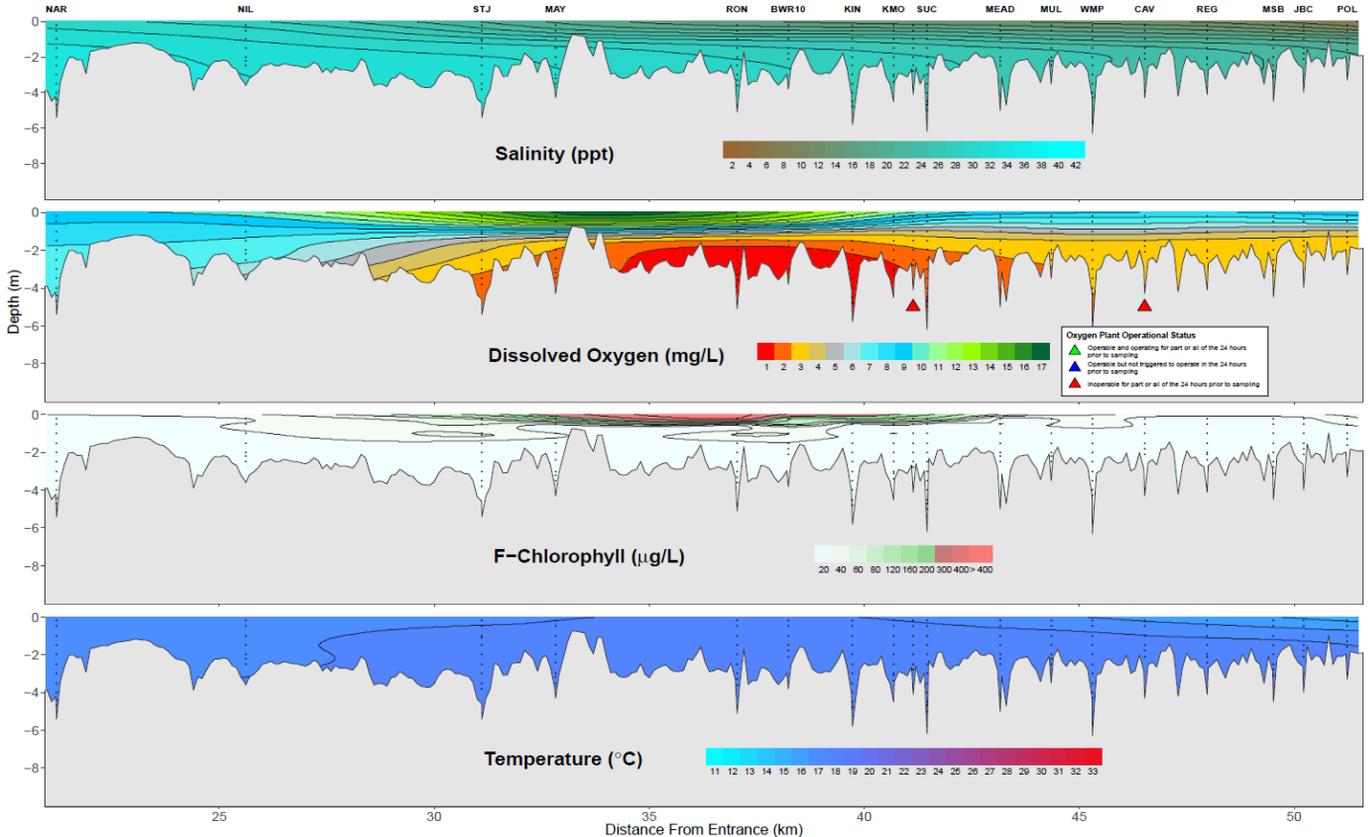
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Swan River Estuary – Physical-Chemical Profile – 15th Jun 2020



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 15th Jun 2020



Date: 15th June 2020

Weather & tide conditions: Conditions were overcast with a predominantly northerly breeze of up to 5 knots. The predicted tides at Barrack St were 1.05 m at 8:49 am (high tide) and 0.85 m at 10:45 pm (low tide). Perth recorded 35.2 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were 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 oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 16.1 to 17.9 °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 and bottom waters were hypoxic from STJ to MAY and anoxic at RON. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in that area. Water temperature ranged from 16.5 to 17.7 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish over saline between BWR10 and MEAD and brackish from MUL to POL. Surface waters were well oxygenated and bottom waters were anoxic from from BWR10 to KIN, hypoxic between KMO and MEAD and low in oxygen from MUL to POL. Chlorophyll fluorescence was highest at KIN indicating higher microalgal activity in that area. Water temperature ranged from 14.8 to 17.8 °C.

NB: Profile plots are visual interpolations of measured parameters only. Detailed data are available at 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