

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

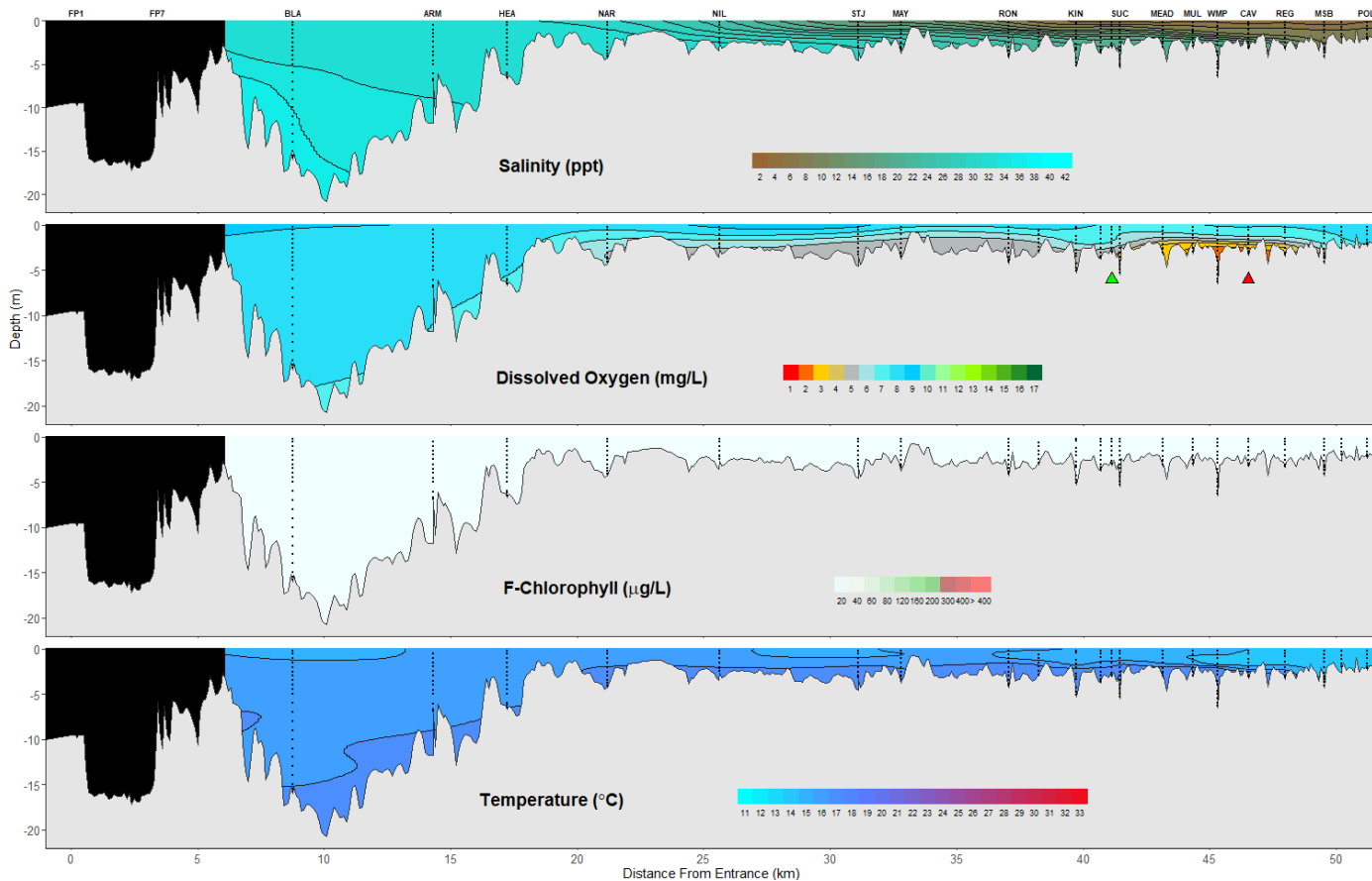
Lower Swan Canning Estuary to Upper Swan Estuary

10th August 2020

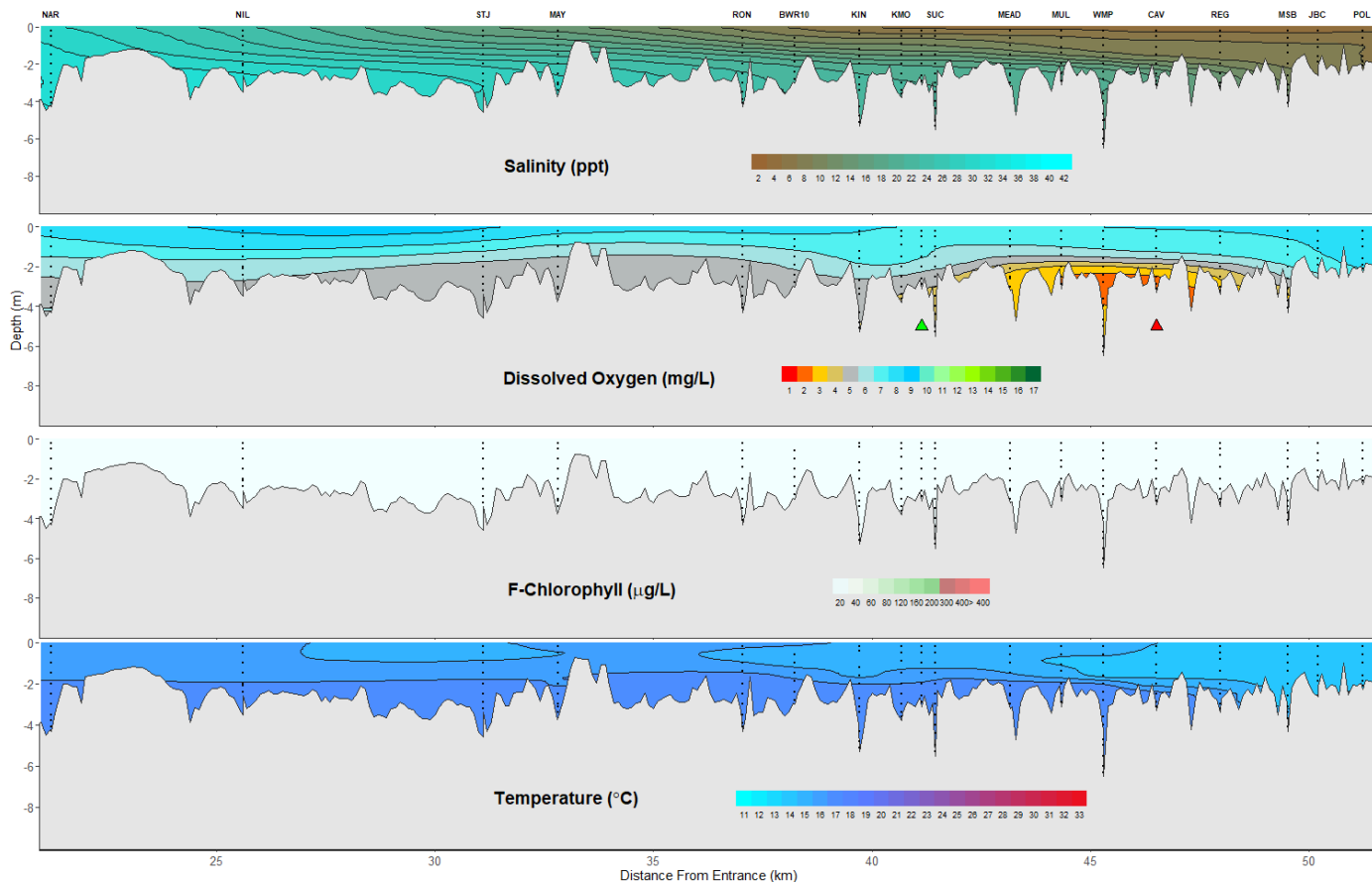
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Middle and Upper Swan Estuary- Water Quality Profiles- 10th August 2020



Swan Canning Estuary- Water Quality Profiles- 10th August 2020



Date: 10th August 2020

Weather & tide conditions: Conditions were overcast with a predominantly westerly breeze of up to 8 knots following stormy conditions in the previous 24hrs. The predicted tides at Barrack St were 0.85 m at 8:17 am (low tide) and 0.87 m at 12:03 pm (high tide). Perth recorded 19.4 mm of rainfall during the week prior to sampling and a further 31 mm 24hrs prior to sampling at 9am (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 throughout. Waters were oxygenated to well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15.0 to 16.3 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline except at RON which was brackish. Surface waters were well oxygenated and bottom waters were oxygenated. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 14.7 to 16.3 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish at BWR10 and fresh over brackish from KIN to POL. Surface waters were oxygenated or well oxygenated and bottom waters were low between MEAD, MULB FARM and MSB, and hypoxic at WMP, CAV and REG. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 13.3 to 16.8 °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

Recommended reference: Department of Biodiversity, Conservation and Attractions 2020. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 10th August 2020*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)