



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

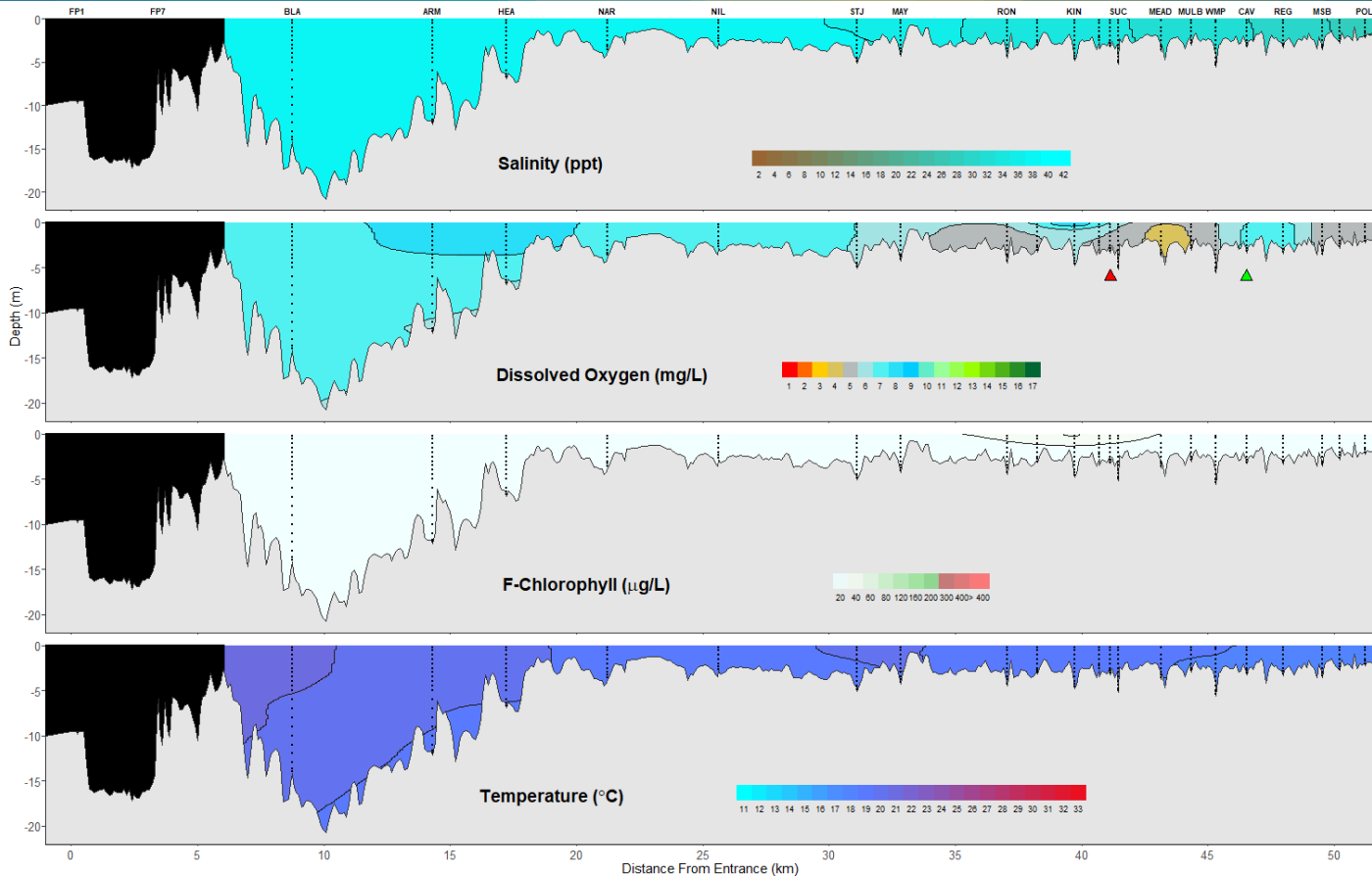
Lower Swan Canning Estuary to Upper Swan Estuary

27th May 2024

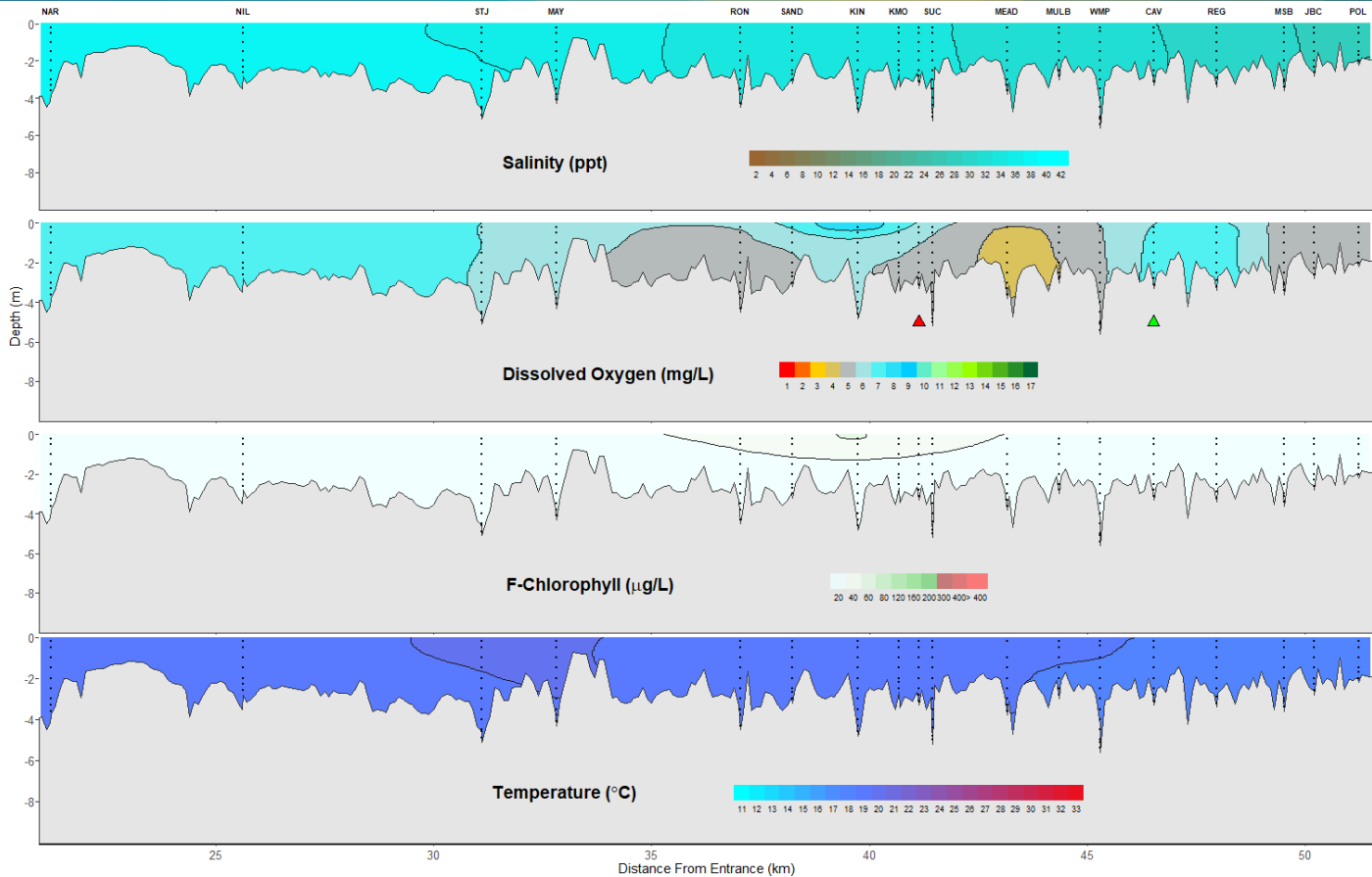
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Swan Canning Estuary - Water Quality Profiles – 27th May 2024



Swan Canning Estuary - Water Quality Profiles – 27th May 2024



Date: 27th May 2024

Weather & tide conditions: Conditions were overcast with occasional showers, and a light variable breeze of up to 6 knots. The predicted tides at Barrack St were 0.69 m at 11:29 pm on the 26th (low tide) and 1.32 m at 1:09 pm the day of (high tide). Perth recorded 9.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Caversham oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling, while the Guildford plant was offline and not operable during this window.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 18.7 to 20.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was hypersaline from NIL to MAY and saline at RON. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 18.2 to 19.2 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline and waters were oxygenated or well oxygenated, except for bottom waters of MEAD and MULB which were low in oxygen. Chlorophyll fluorescence was moderate in the surface water layer at KIN and low elsewhere. Water temperatures ranged from 17.4 to 19 °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 >6 mg L⁻¹, oxygenated >4-6 mg L⁻¹, low oxygen >2-4 mg L⁻¹, hypoxic 0.5-2 mg L⁻¹, anoxic <0.5 mg L⁻¹
Chlorophyll fluorescence (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹

Recommended reference: Department of Biodiversity, Conservation and Attractions, 2024. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 27th May 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)