



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

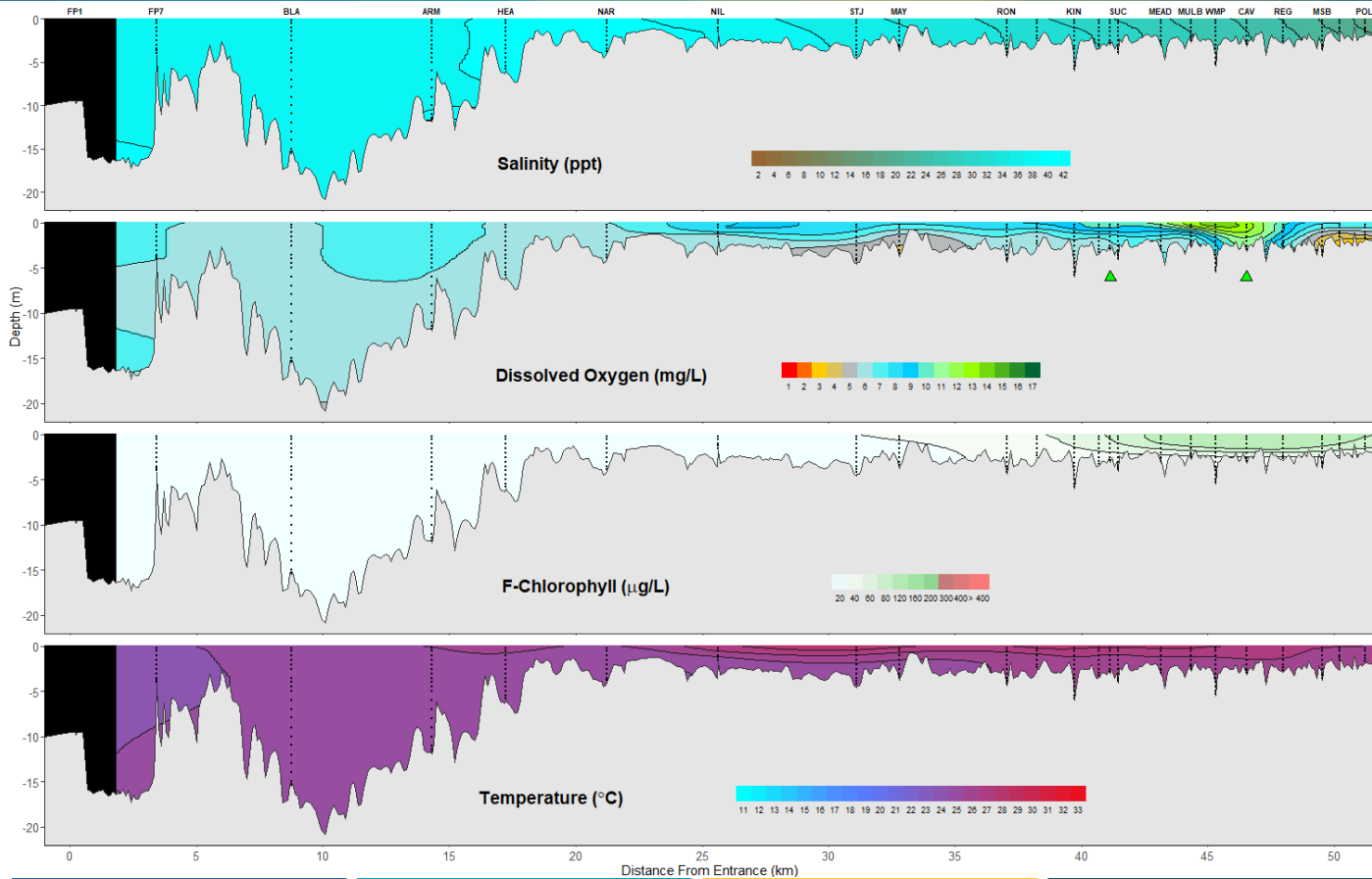
Lower Swan Canning Estuary to Upper Swan Estuary

26th February 2024

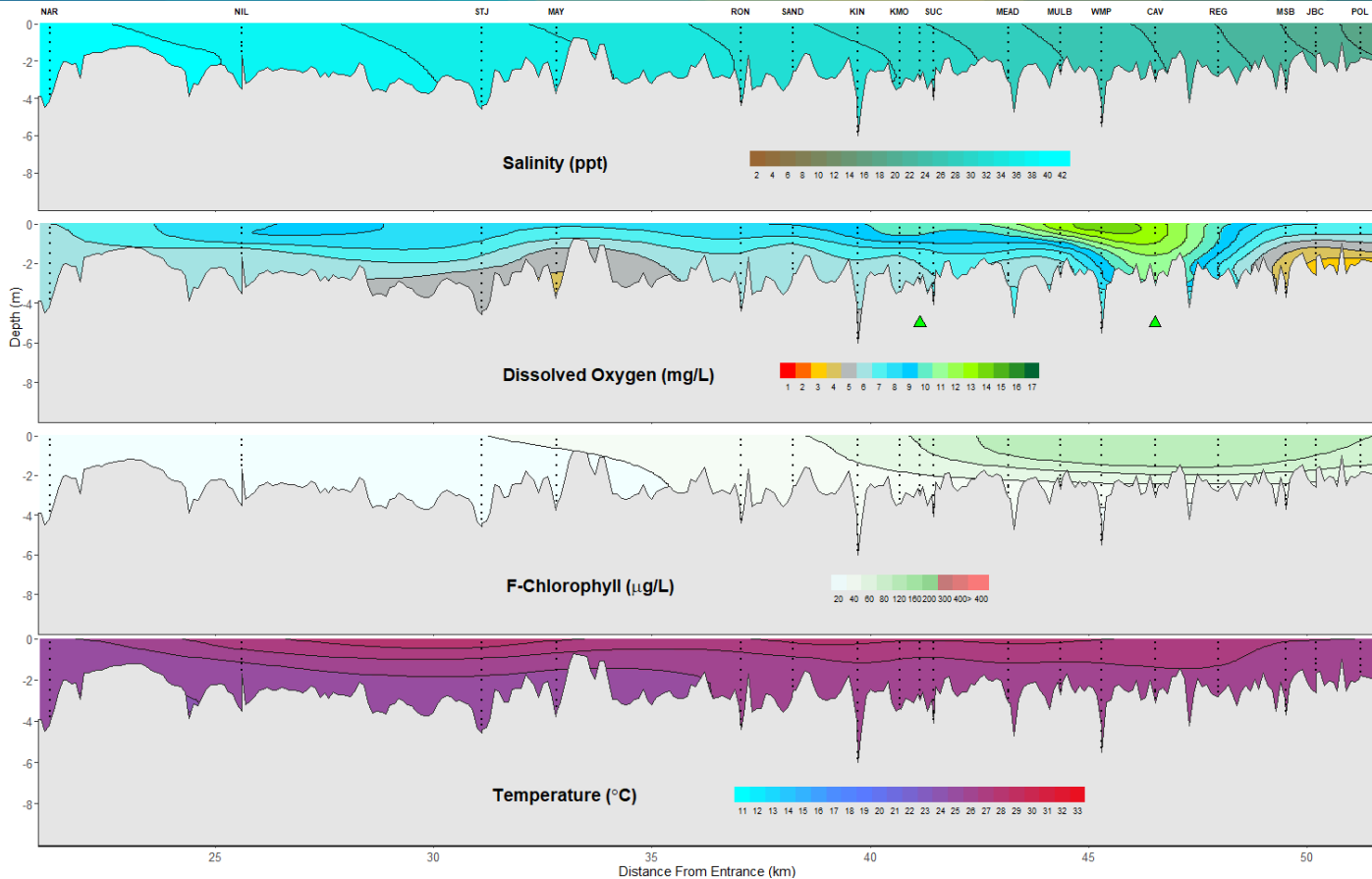
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Swan Canning Estuary - Water Quality Profiles – 26th February 2024



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Date: 26th February 2024

Weather & tide conditions: Conditions were overcast with a predominantly easterly breeze of up to 6.9 knots. The predicted tides at Barrack St were 0.68 m at 7:38 am (low tide), 0.87 m at 2:00 pm (high tide), 0.82 m at 5:34 pm (second low tide) and 0.98 m at 11:40 pm (second high tide). Perth recorded 4.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline and waters were oxygenated to well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 24.0 to 25.6 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was hypersaline at NIL, saline over hypersaline at STJ and saline from MAY to RON. Waters were oxygenated to well oxygenated, except bottom waters at MAY which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 27.3 to 27.9 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to MULB, brackish over saline at WMP and brackish between CAV and POL. Waters were oxygenated or well oxygenated, except bottoms waters from MSB to POL which were low in oxygen. Chlorophyll fluorescence was high in surface or subsurface at MULB, WMP and REG. Water temperatures ranged from 25.1 to 27.4 °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 (mod/high 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 26th February 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)