



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

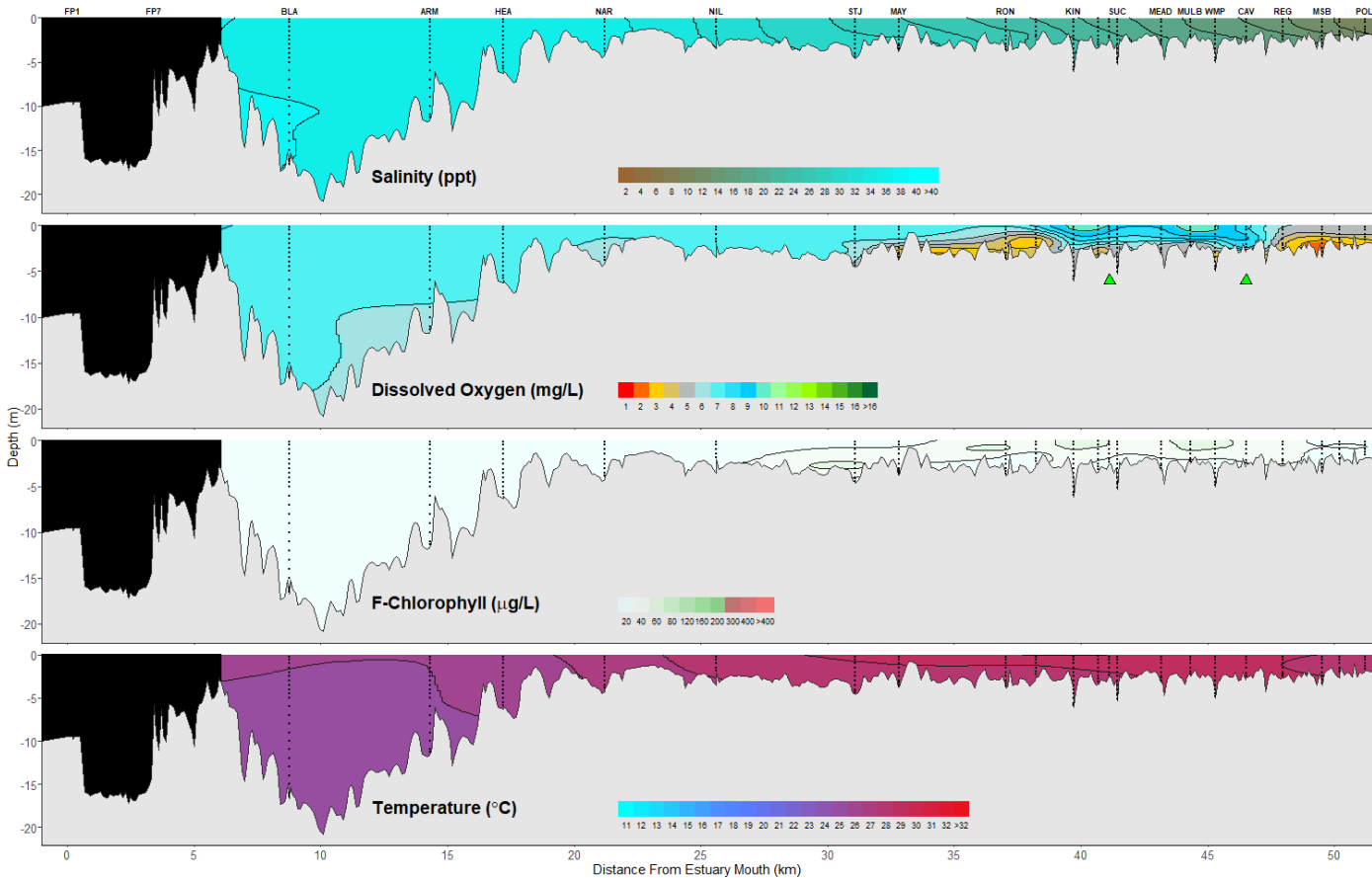
Lower Swan Canning Estuary to Upper Swan Estuary

20 January 2025

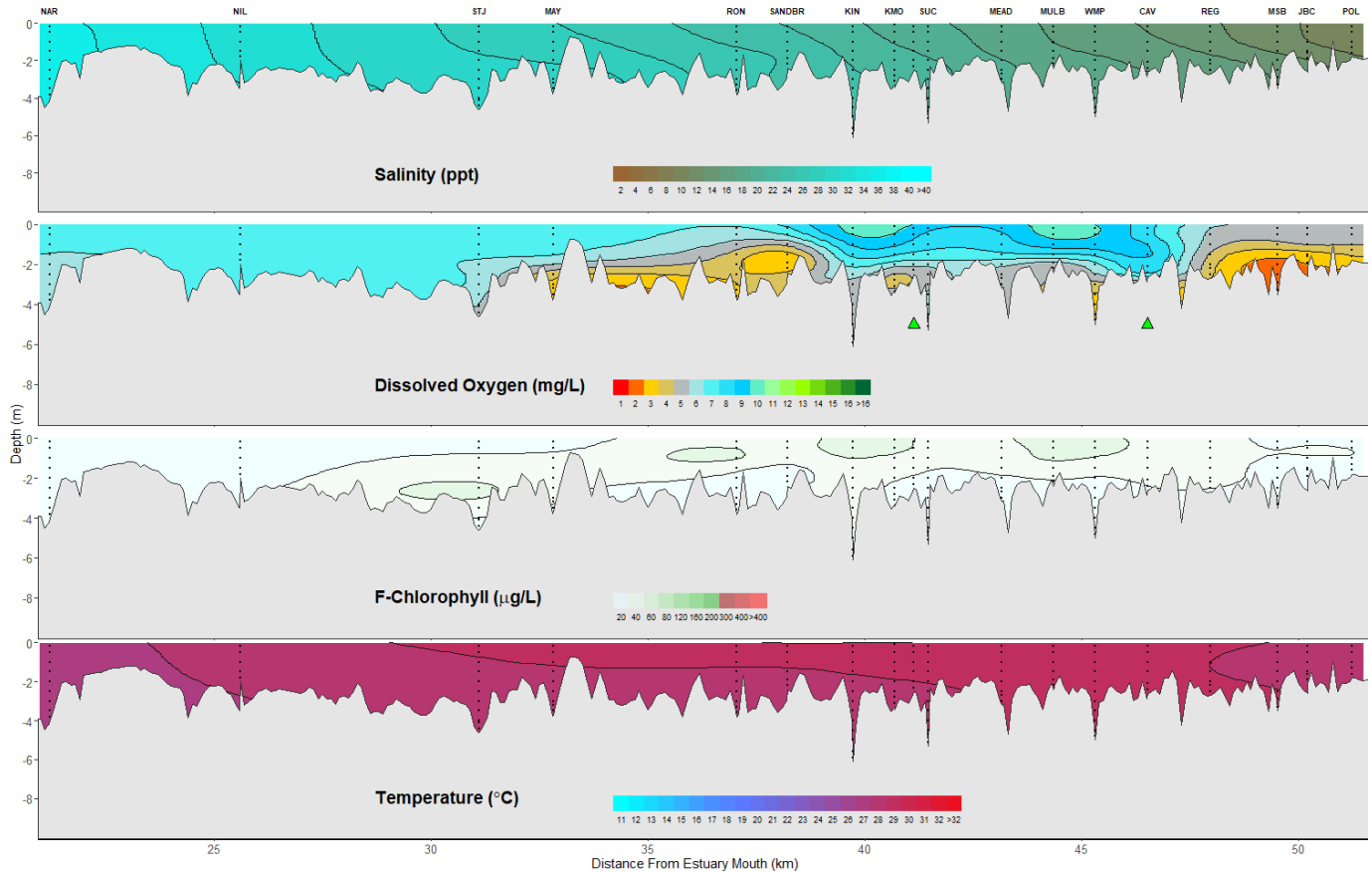
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Swan Canning Estuary - Water Quality Profiles – 20 January 2025



Swan Canning Estuary - Water Quality Profiles – 20 January 2025



Date: 20 January 2025

Weather & tide conditions: Cloud cover increased throughout the day with an easterly breeze of up to 10.6 knots. The predicted tides at Barrack St were 0.65 m at 7:59 am (low tide) and 0.94 m at 5:09 pm (high tide). Perth recorded 1.8 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 at BLA and saline from ARM to NAR. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 24.4 to 26.4°C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline from NIL to MAY and brackish at RON. Waters were oxygenated or well oxygenated, except for bottom waters at MAY and RON which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 27.0 to 28.9 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at KMO, VIT, MULB, WMP, REG and POL and hypoxic at SANDBR, MSB and JBC. Chlorophyll fluorescence was low, except for surface waters at KMO and WMP which were moderate. Water temperatures ranged from 27.3 to 29.3 °C at the time of sampling.

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, 2025. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 20 January 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)