



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

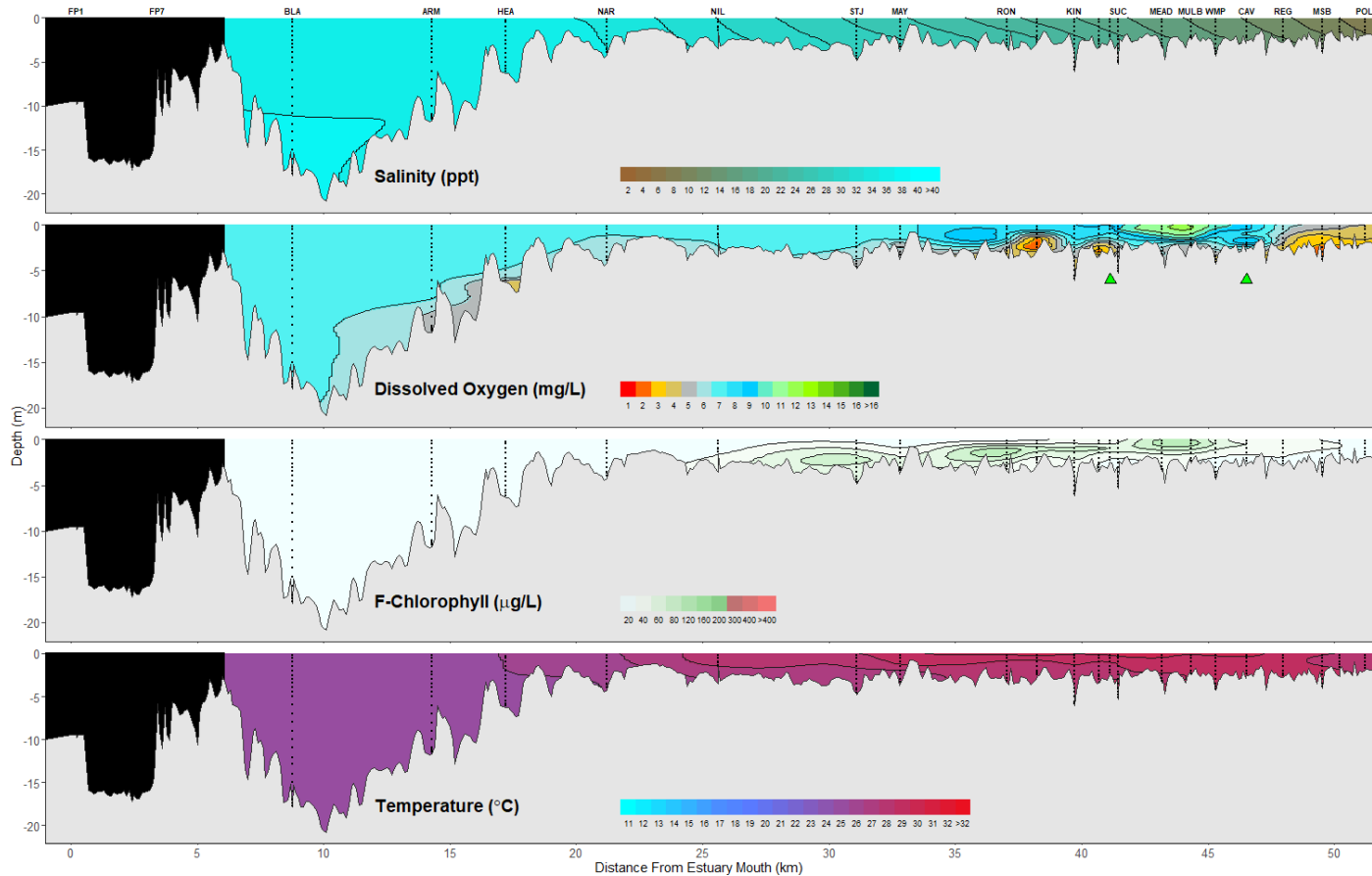
Lower Swan Canning Estuary to Upper Swan Estuary

6 January 2025

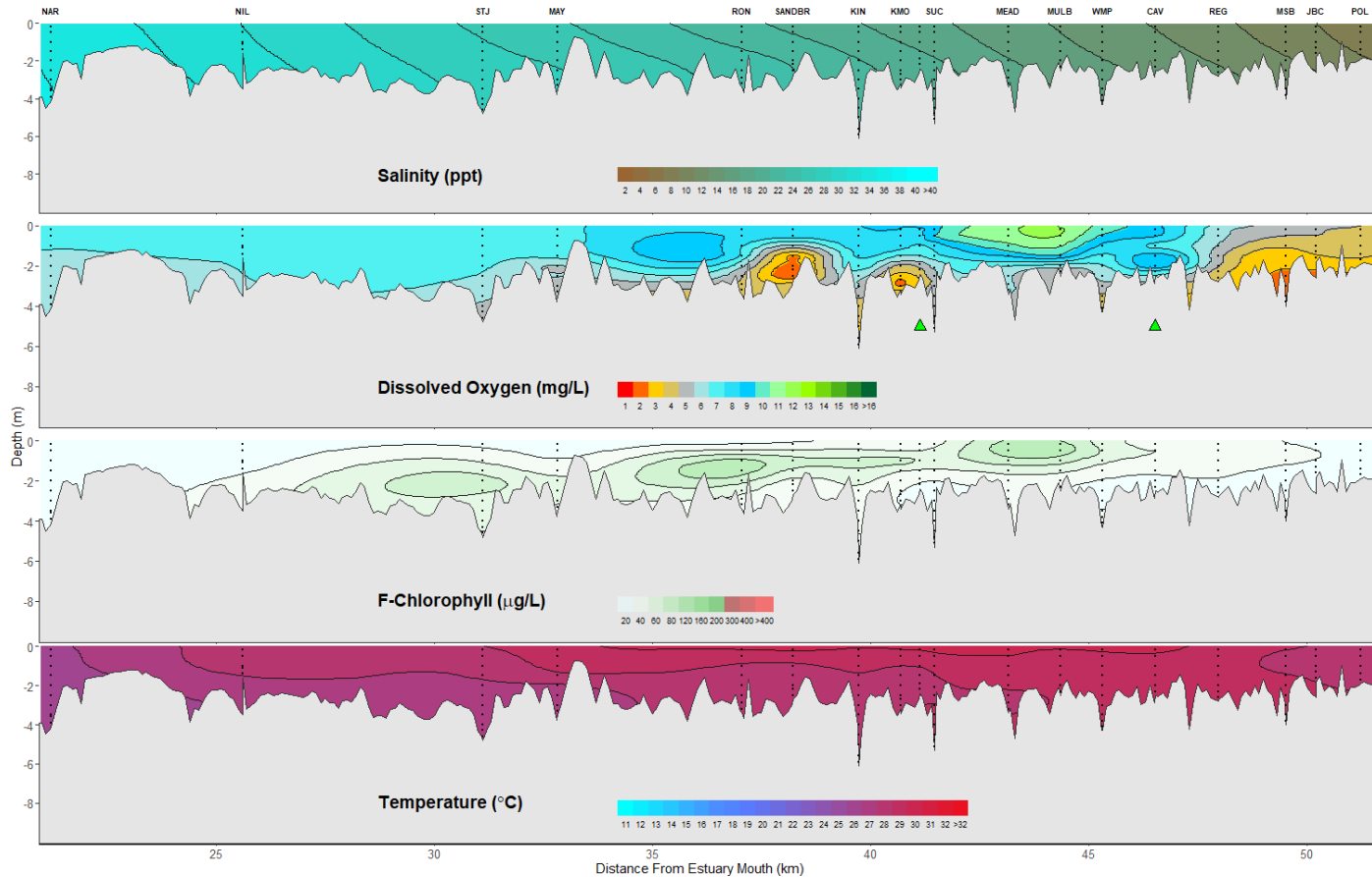
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Swan Canning Estuary - Water Quality Profiles – 6 January 2025



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Date: 6 January 2025

Weather & tide conditions: Conditions were clear with an easterly breeze of up to 10.3 knots. The predicted tides at Barrack St were 0.68 m at 9:11 am (low tide) and 0.93m at 6:40 pm (high tide). Perth recorded 1mm 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 throughout and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 24.1 to 25.7 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline from NIL to STJ, brackish over saline at MAY and brackish at RON. Waters were oxygenated or well oxygenated except for bottom waters at RON. Chlorophyll fluorescence was moderate in subsurface waters from STJ and RON. Water temperatures ranged from 26.6 to 29 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish. Waters were oxygenated or well oxygenated, except for bottom waters from SANDBR to KMO and at MSB which were hypoxic. Bottom waters at WMP and REG were low in oxygen and both surface and bottom waters from JBC to POL were also low in oxygen. Chlorophyll fluorescence was moderate in sub-surface waters between SANDBR and KMO and in surface waters between MEAD and CAV. Water temperatures ranged from 27.4 to 29.5 °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