

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

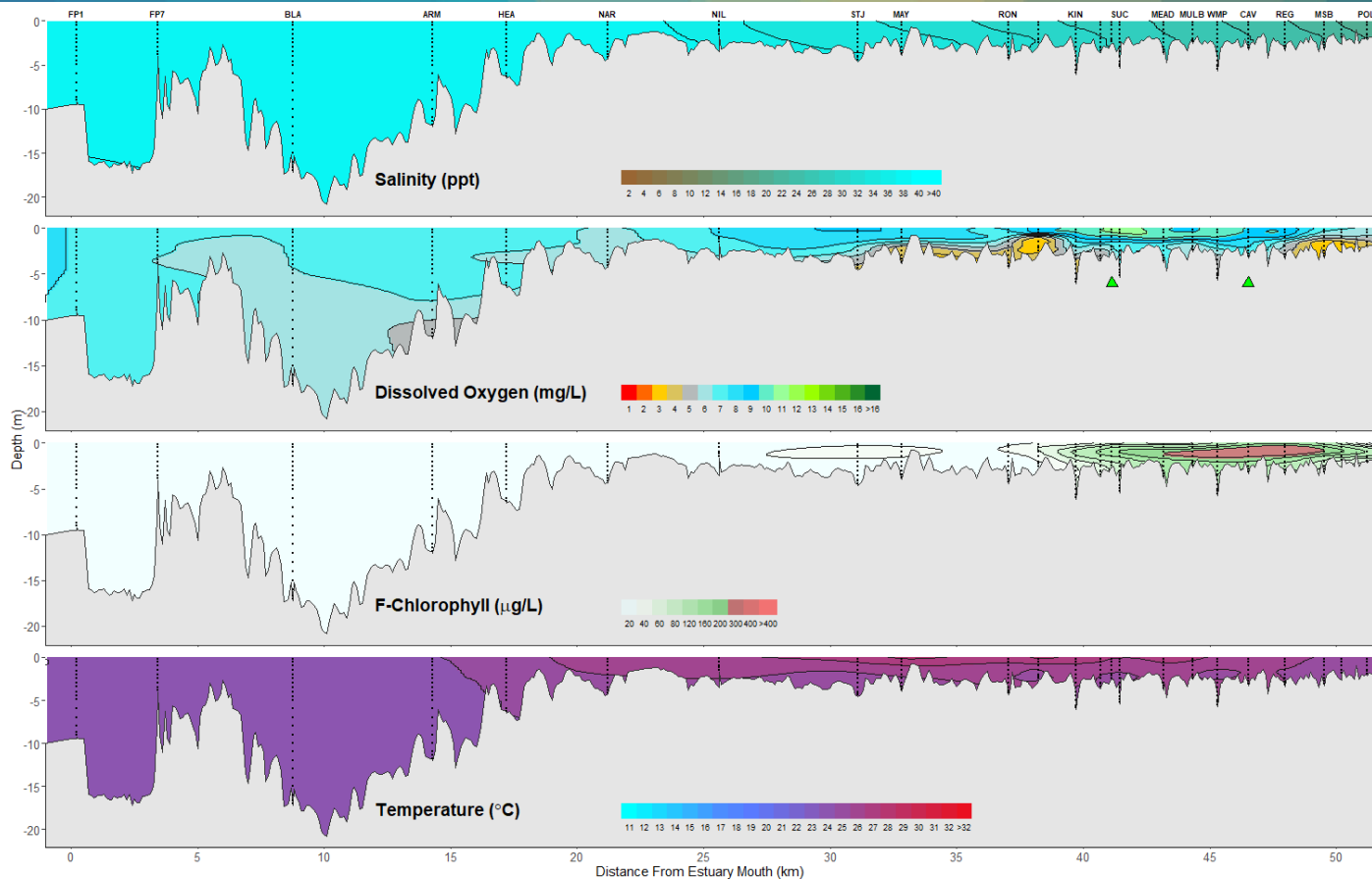
Lower Swan Canning Estuary to Upper Swan Estuary

24 March 2025

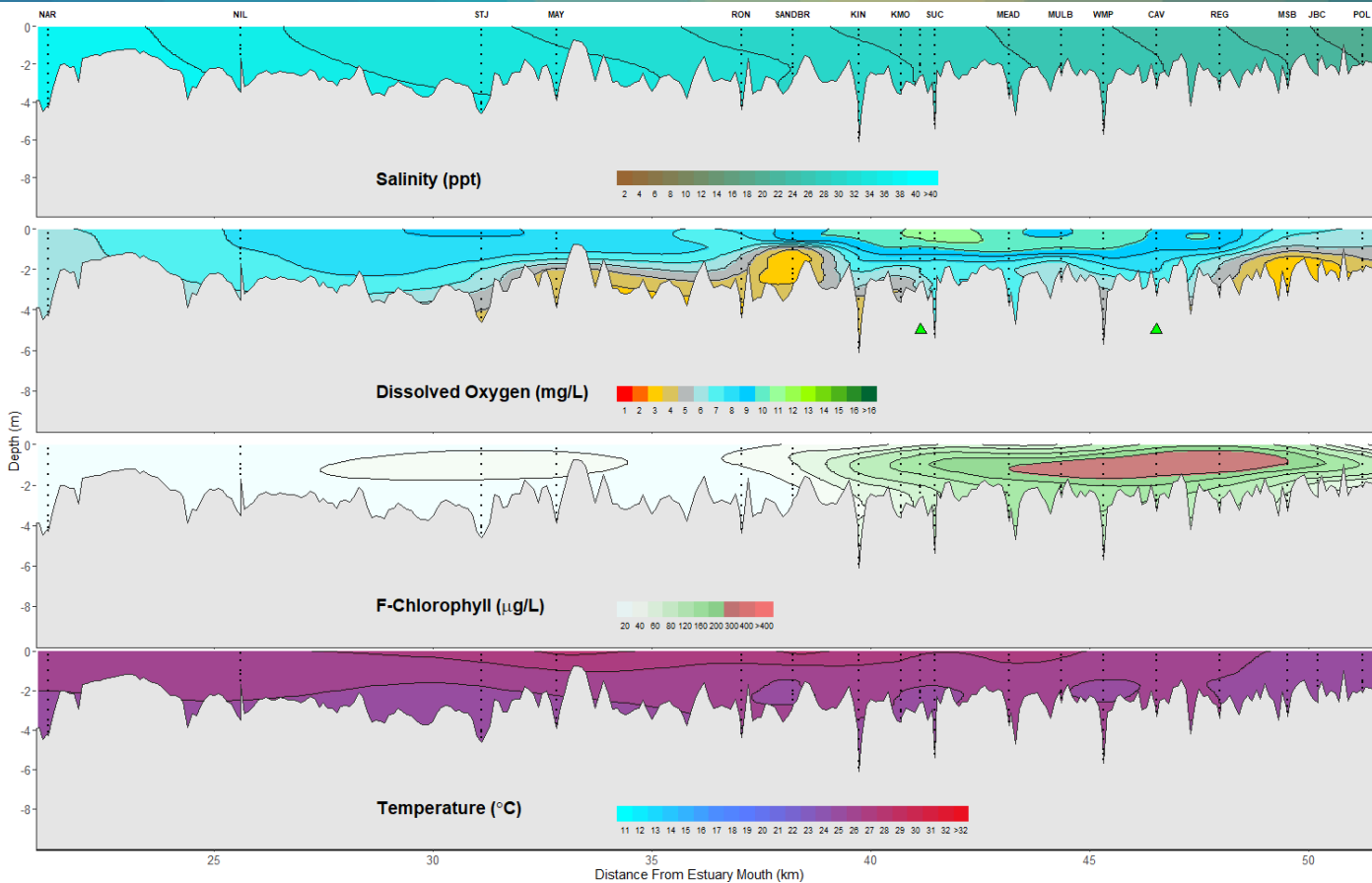
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Swan Canning Estuary - Water Quality Profiles – 24 March 2025



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Date: 24 March 2025

Weather & tide conditions: Conditions were clear with a north easterly breeze of up to 4.3 knots. The predicted tides at Barrack St were 0.61 m at 5:02 am and 1.15 m at 6:54 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (FPI to NAR): The Lower Swan Canning Estuary was hypersaline, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 23.1 to 25.2 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline. Water were oxygenated or well oxygenated, except for bottom waters between STJ and RON which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 24.9 to 27.1 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was saline from SANDBR to MULB, brackish over saline at WMP and brackish from CAV to POL. Waters were oxygenated or well oxygenated, except for bottom water at SANDBR and KIN and from MSB to POL which were low in oxygen. Chlorophyll fluorescence was moderate in surface waters at SANDBR, in subsurface waters between KIN and KMO and in subsurface and bottom waters at POL. Chlorophyll fluorescence was high in surface waters at SUC and from WMP and MSB, in subsurface waters at VIT, MULB and JBC and in subsurface and bottom waters at MEAD. Water temperatures ranged from 24.4 to 27.1 °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 >36
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 24 March 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)