

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

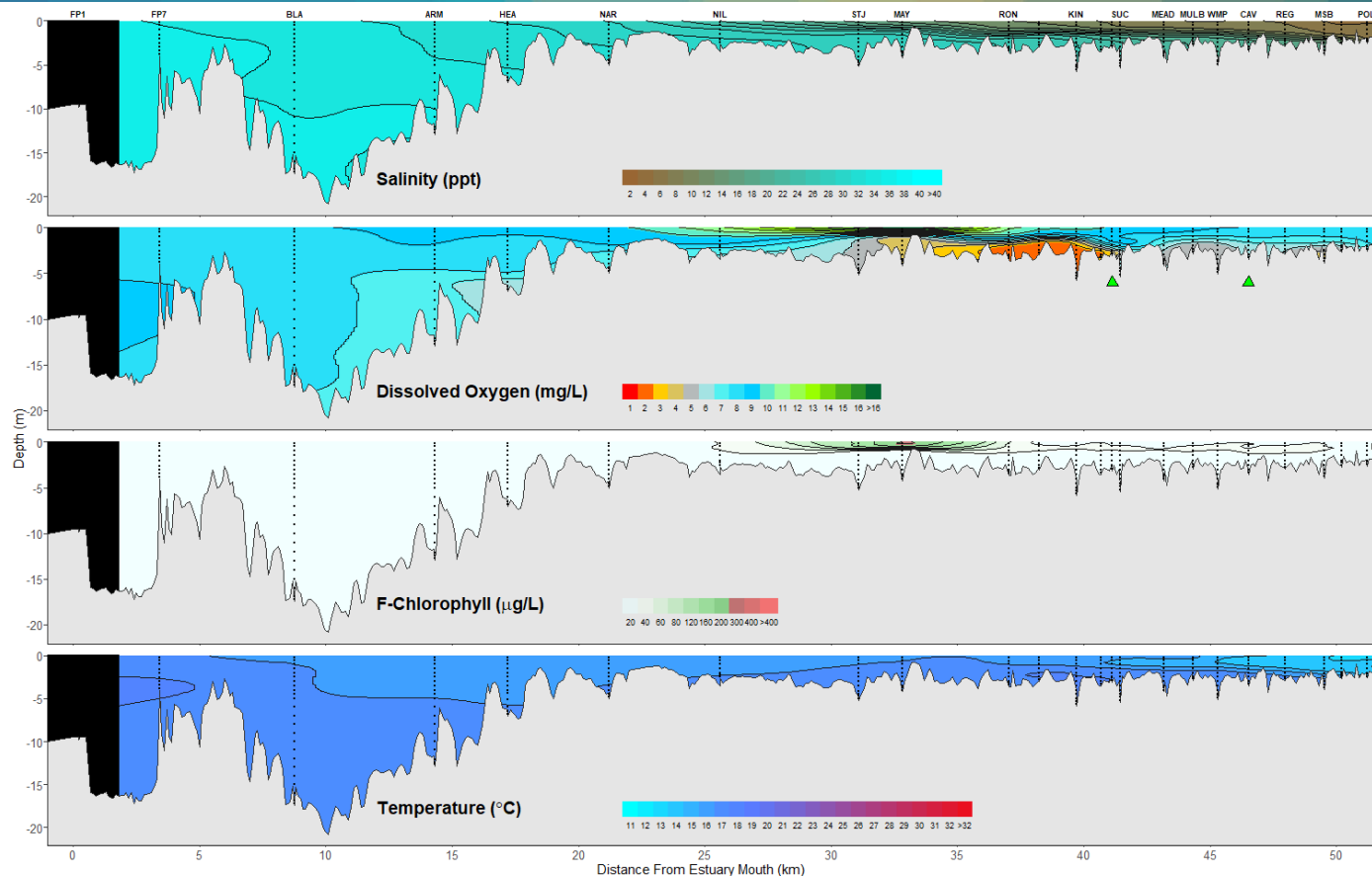
Lower Swan Canning Estuary to Upper Swan Estuary

14 July 2025

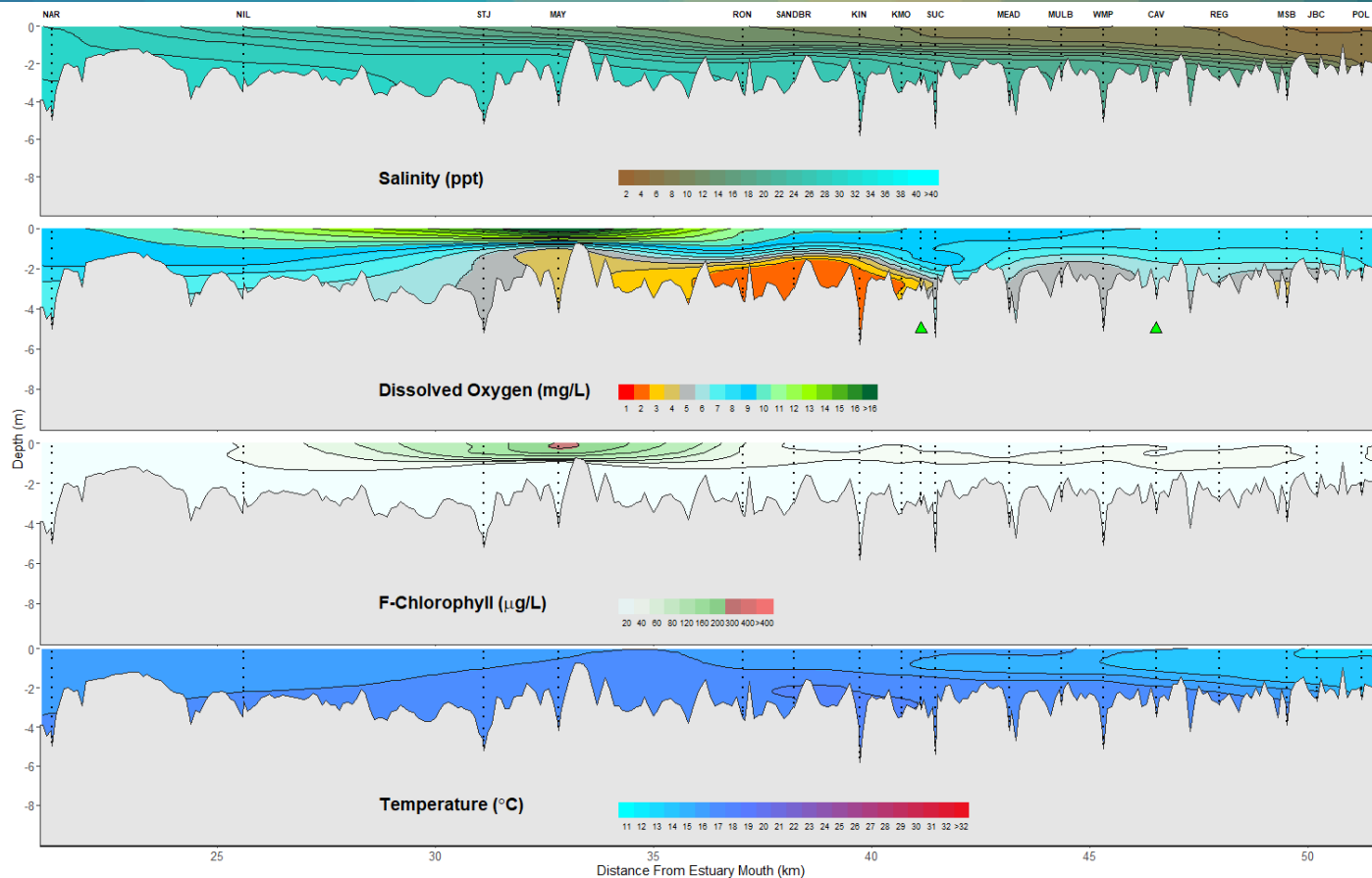
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Swan Canning Estuary - Water Quality Profiles – 14 July 2025



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Date: 14 July 2025

Weather & tide conditions: Conditions were mostly clear with a predominantly south-westerly breeze of up to 8.1 knots. The predicted tides at Barrack St were 1.22 m at 12:50 pm (high tide) and 0.79 m at 10:26 pm (low tide). Perth recorded 25.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

NB: FP1 was unable to be sampled due to heavy swells.

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

Lower Swan Canning Estuary (FP7 to NAR): The Lower Swan Canning Estuary was saline, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 15.1 to 17.2 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline. Waters were oxygenated or well oxygenated, except for bottom waters at MAY which were low in oxygen and at RON which were hypoxic. Chlorophyll fluorescence was low, except for the surface waters at STJ and MAY, which were moderate and high respectively. Water temperatures ranged from 15.2 to 16.9 °C.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish over saline at SANDBR and brackish between KIN and POL. Waters were oxygenated or well oxygenated, except for subsurface and bottom waters from SANDBR to KMO which were hypoxic and at VIT and MSB which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 12.7 to 17.1 °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 >36 ppt

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 14 July 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)