

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

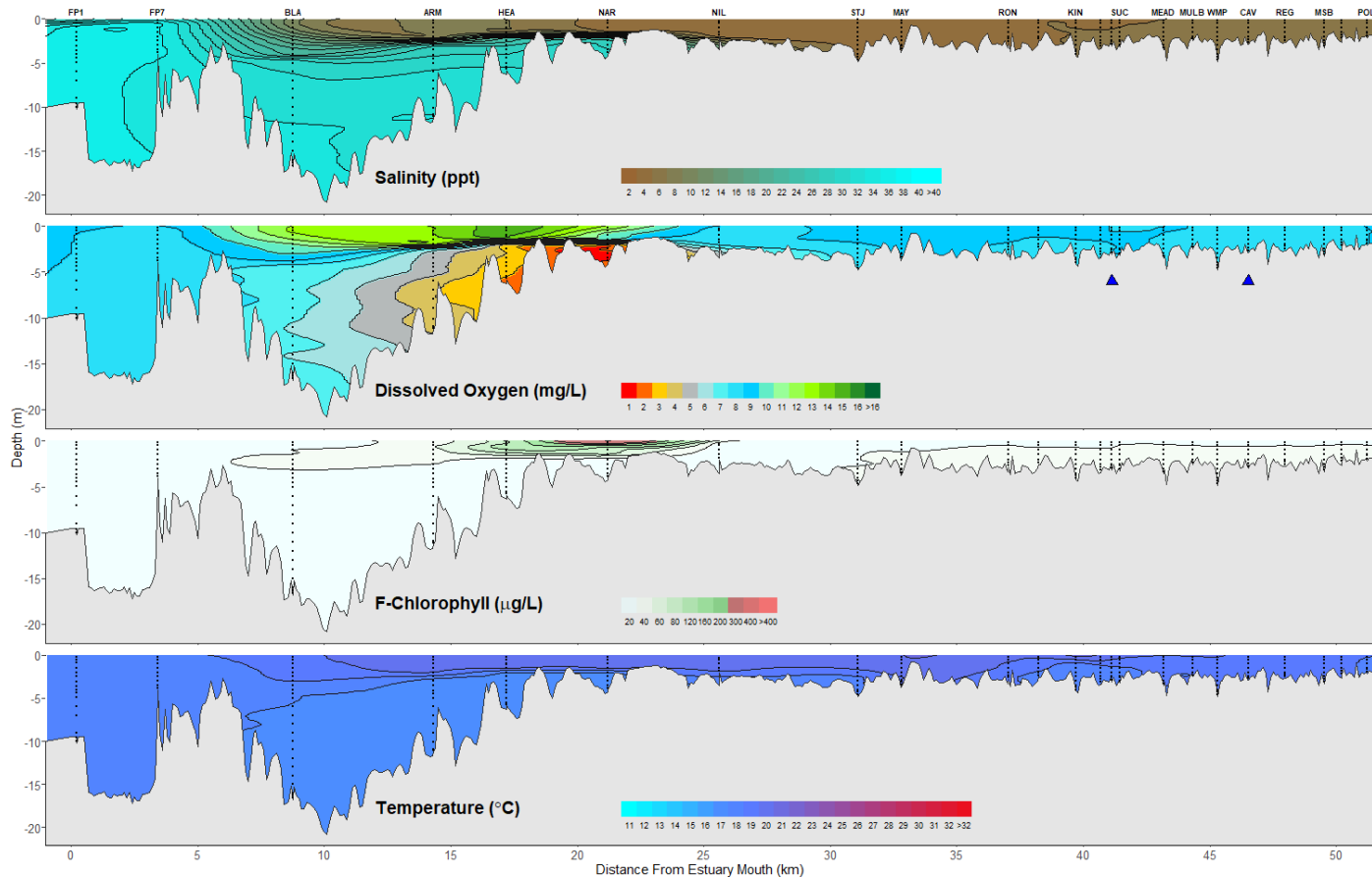
Lower Swan Canning Estuary to Upper Swan Estuary

22 September 2025

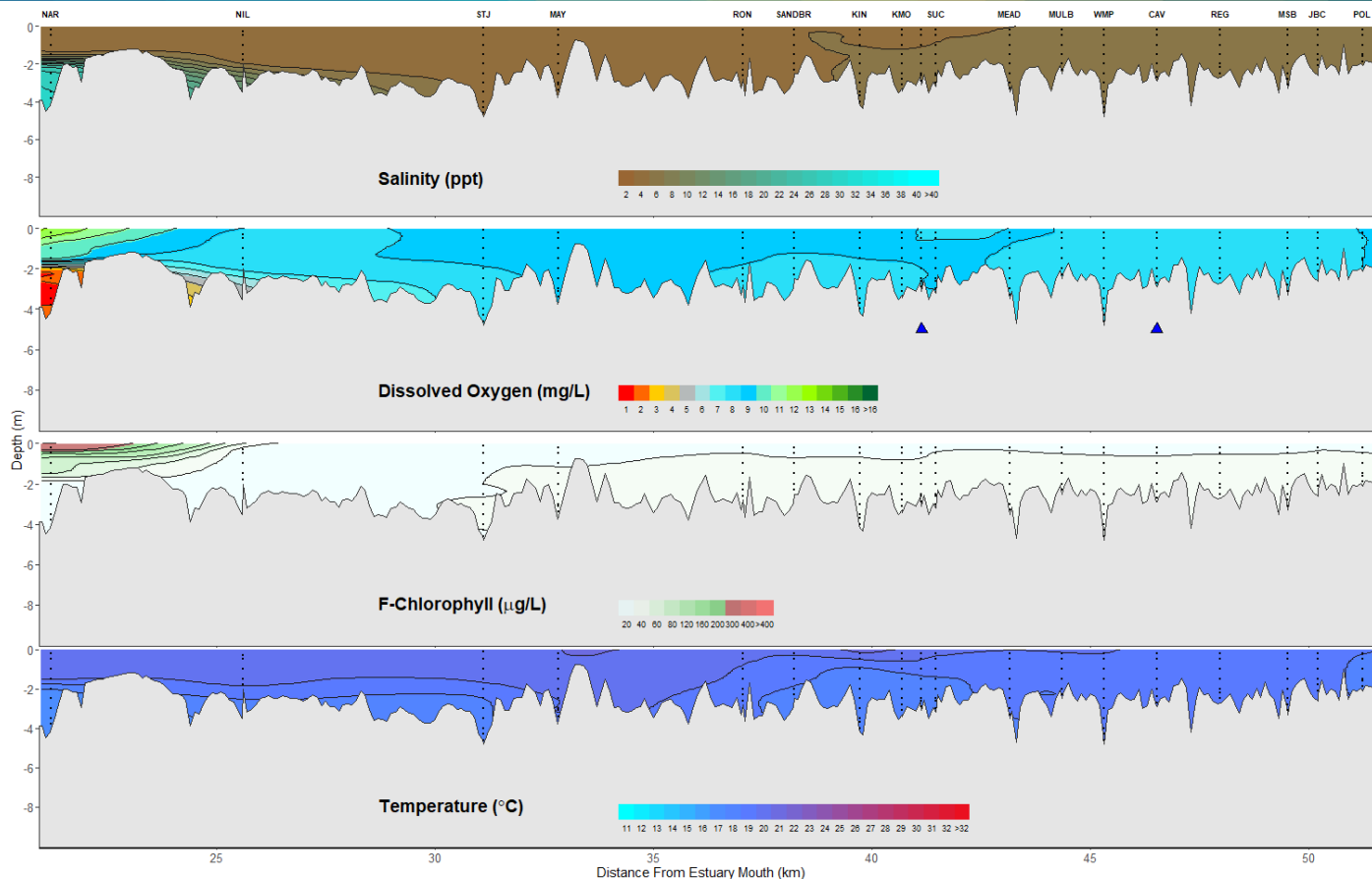
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Swan Canning Estuary - Water Quality Profiles – 22 September 2025



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Date: 22 September 2025

Weather & tide conditions: Conditions were clear with an easterly breeze of up to 10.2 knots. The predicted tides at Barrack St were 0.78 m at 5:30 am (low tide), 0.91 m at 11:51 am (high tide), and 0.76 m at 5:19 pm (second low tide). Perth recorded 18.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were operable but not triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was saline from FP1 to FP7, brackish over saline from BLA to HEA, and fresh over saline at NAR. Surface waters were oxygenated to well oxygenated, while bottom waters from ARM to NAR ranged from low in oxygen to hypoxic. Chlorophyll fluorescence was moderate to high at HEA and NAR. Water temperatures ranged from 16.5 to 19.7 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was fresh and well oxygenated throughout. Chlorophyll fluorescence was low and water temperatures ranged from 17.9 to 19.9 °C.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was fresh and well oxygenated throughout. Chlorophyll fluorescence was low and water temperatures ranged from 17.6 to 20.1 °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 22 September 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)