

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

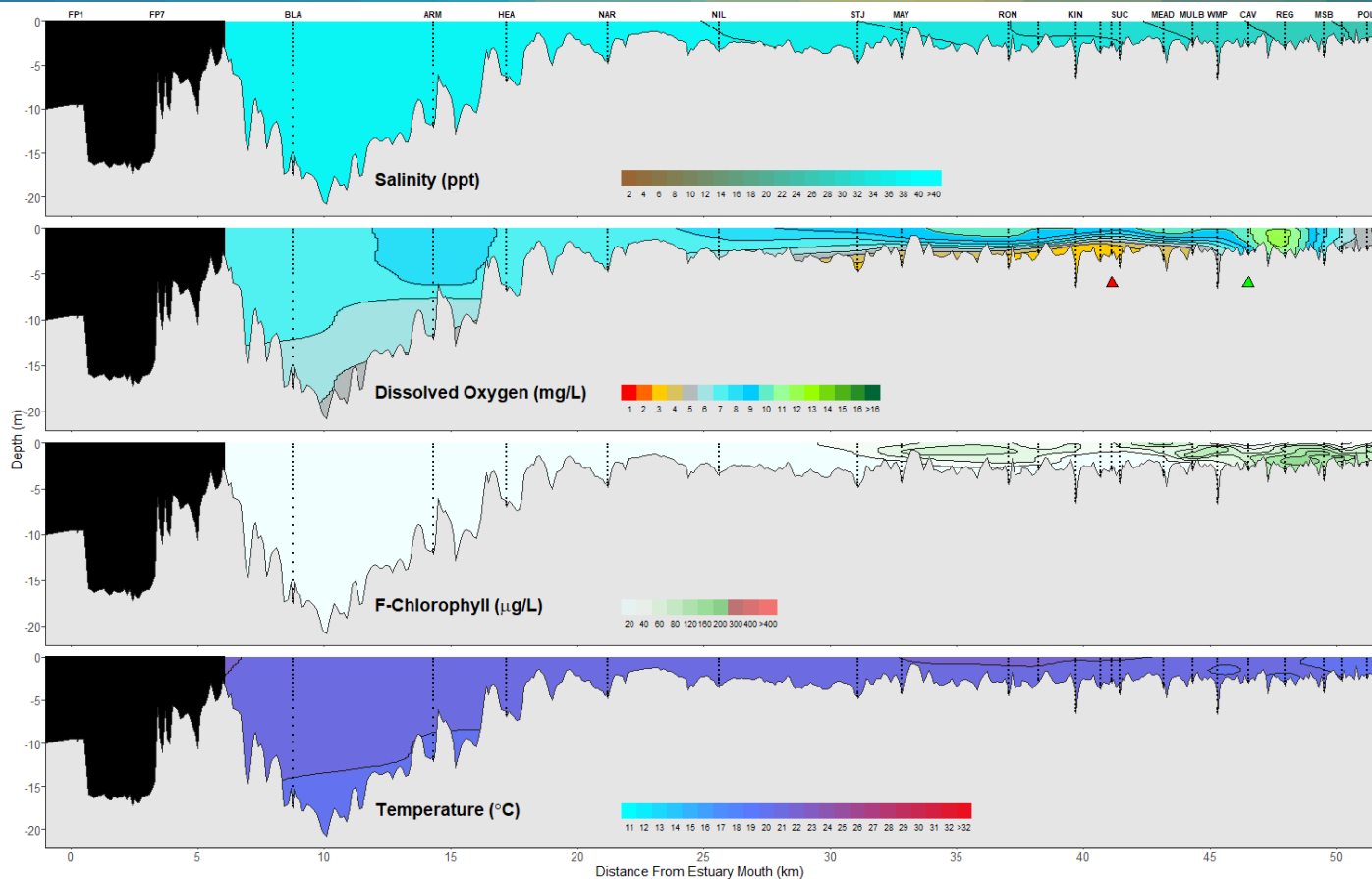
Lower Swan Canning Estuary to Upper Swan Estuary

12 May 2025

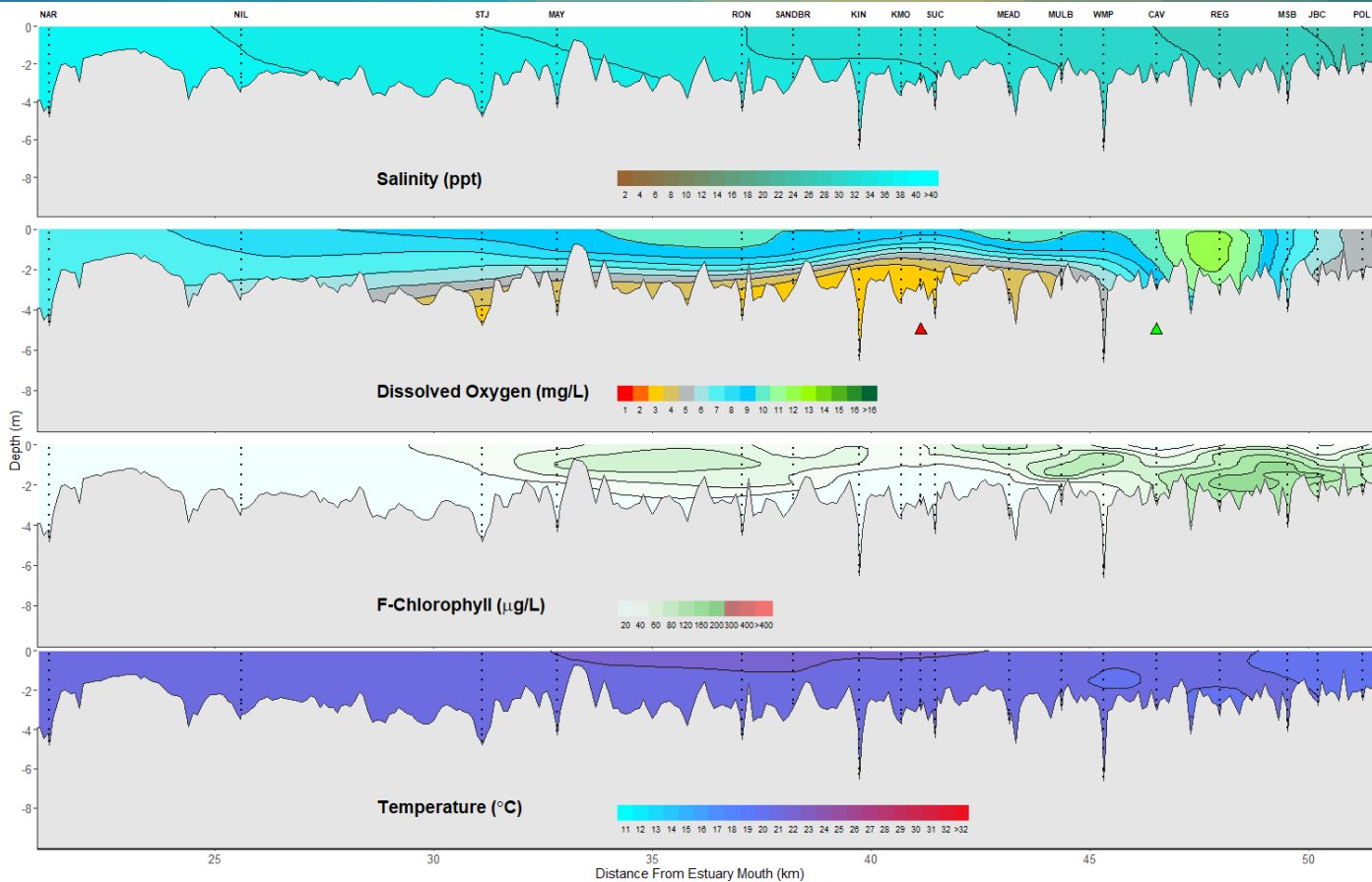
Prepared by

Rivers and Estuaries Science
Biodiversity and Conservation Science
Department of Biodiversity, Conservation and Attractions

Swan Canning Estuary - Water Quality Profiles – 12 May 2025



Swan Canning Estuary - Water Quality Profiles – 12 May 2025



Date: 12 May 2025

Weather & tide conditions: Conditions were clear with a variable breeze of up to 6.9 knots. The predicted tides at Barrack St were 0.89 m at 2:06 am (low tide), 1.26 m at 10:41 am (high tide), and 0.79 m at 8:22 pm (2nd low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Caversham oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling, whereas the Guilford plant was offline during this window of time.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline, and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low, and water temperatures ranged from 19.9 to 20.8 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline over hypersaline at NIL and saline elsewhere. Waters were oxygenated or well oxygenated, except for bottom waters of STJ to RON, which were low in oxygen. Chlorophyll fluorescence was moderate in sub-surface waters of MAY and RON and low elsewhere. Water temperatures ranged from 20.3 to 21.2 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was saline. Waters were oxygenated or well oxygenated except for bottom waters from SANDBR to MEAD, which were low in oxygen. Chlorophyll fluorescence was high in sub-surface waters from REG to JBC, and moderate readings were detected at all sites upstream of MEAD. Water temperatures ranged from 19.6 to 21.2 °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 12 May 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)