

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

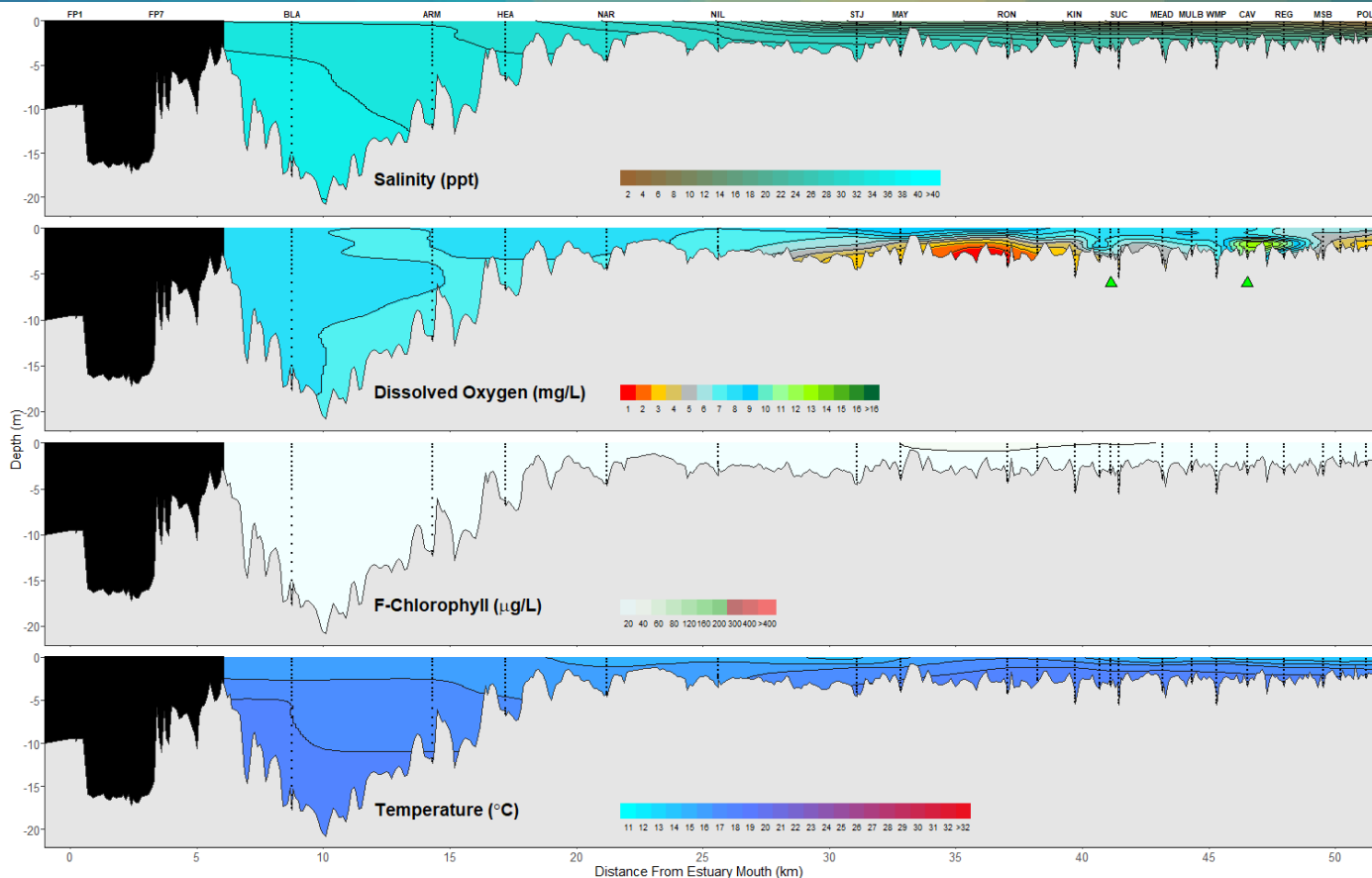
Lower Swan Canning Estuary to Upper Swan Estuary

8 July 2025

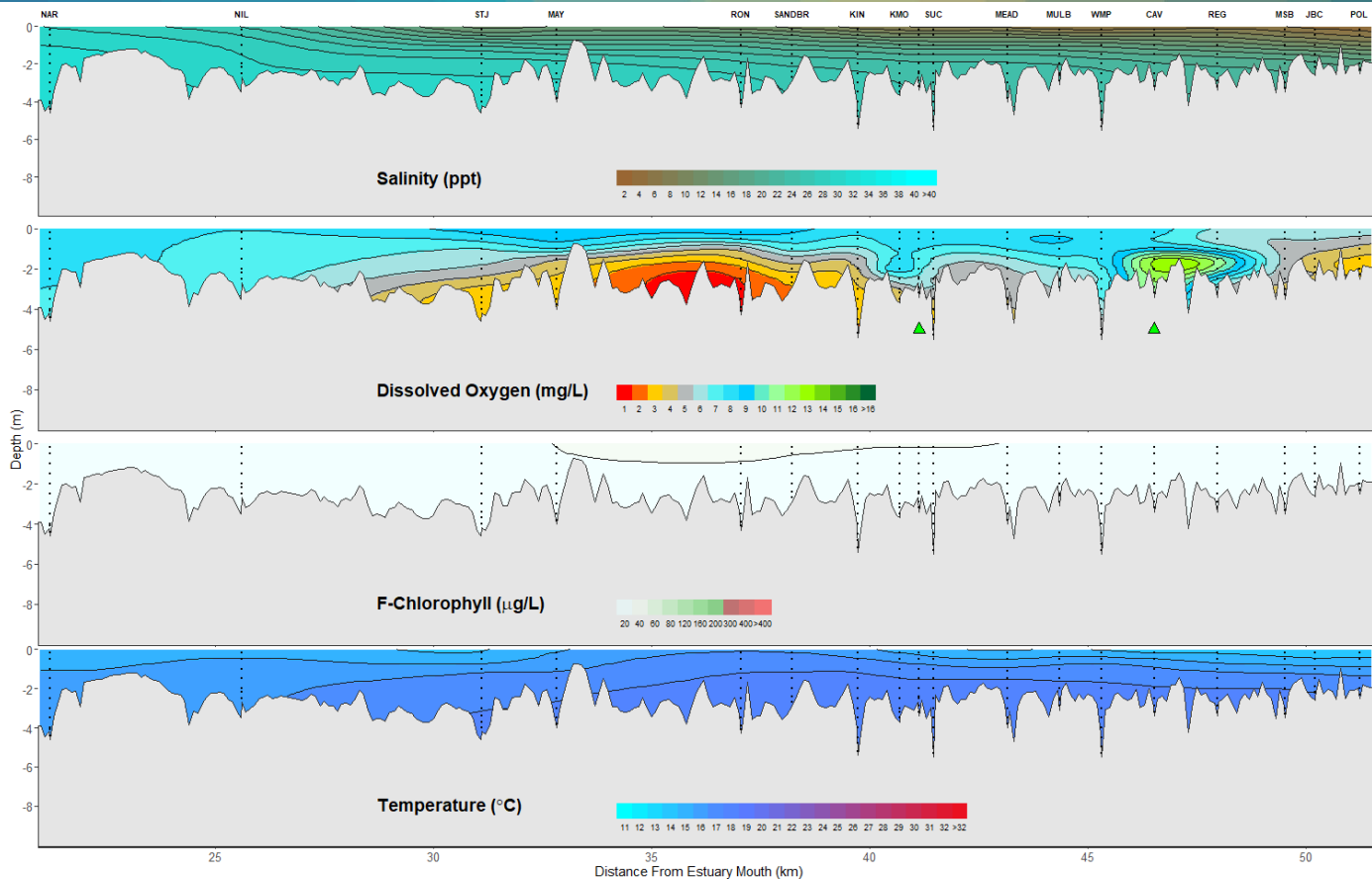
Prepared by

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

Swan Canning Estuary - Water Quality Profiles – 8 July 2025



Swan Canning Estuary - Water Quality Profiles – 8 July 2025



Date: 8 July 2025

Weather & tide conditions: Conditions were overcast with a predominantly northerly breeze of up to 5.4 knots. The predicted tides at Barrack St were 1.28 m at 9:06 pm (high tide) and 0.78 m at 8:04 pm (low tide). Perth recorded 17.4 mm of rainfall in the 8 days prior to sampling (Bureau of Meteorology)*.

*Sampling was postponed by one day due to inclement weather on Monday 7th July.

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 saline, waters were well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 14.5 to 17.2 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL and brackish over saline from STJ to RON. Waters were oxygenated or well oxygenated, except for subsurface and bottom waters from STJ to MAY which were low in oxygen and RON which was hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 13.9 to 17.4 °C.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish at SANDBR, brackish over saline at KIN and brackish from KMO to POL. Waters were oxygenated or well oxygenated, except for subsurface and bottom waters at SANDBR, KMO, SUC, MEAD and between JBC and POL which were low in oxygen and KIN which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 13.5 to 17.5 °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 8 July 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)