

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

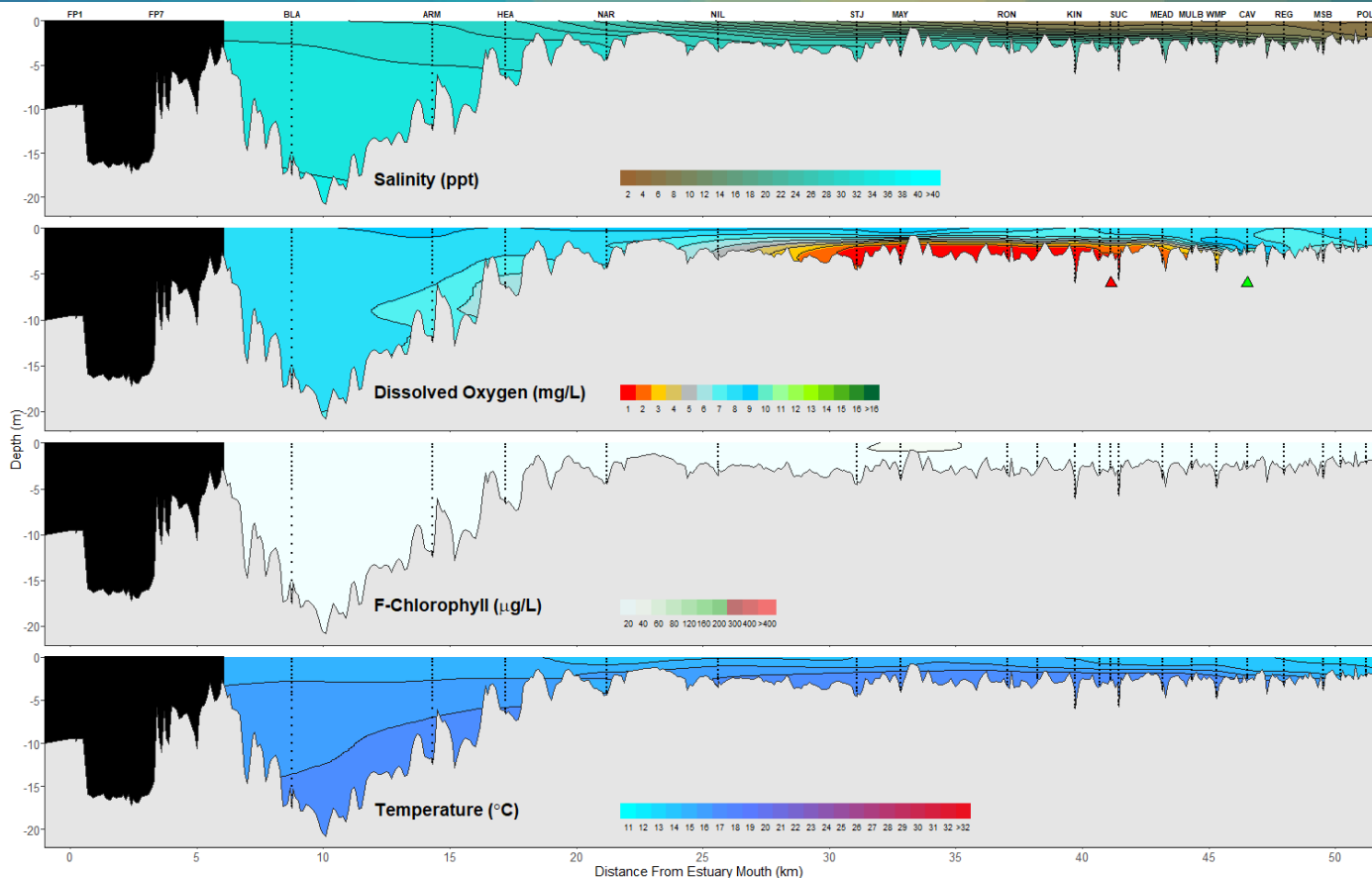
Lower Swan Canning Estuary to Upper Swan Estuary

21 July 2025

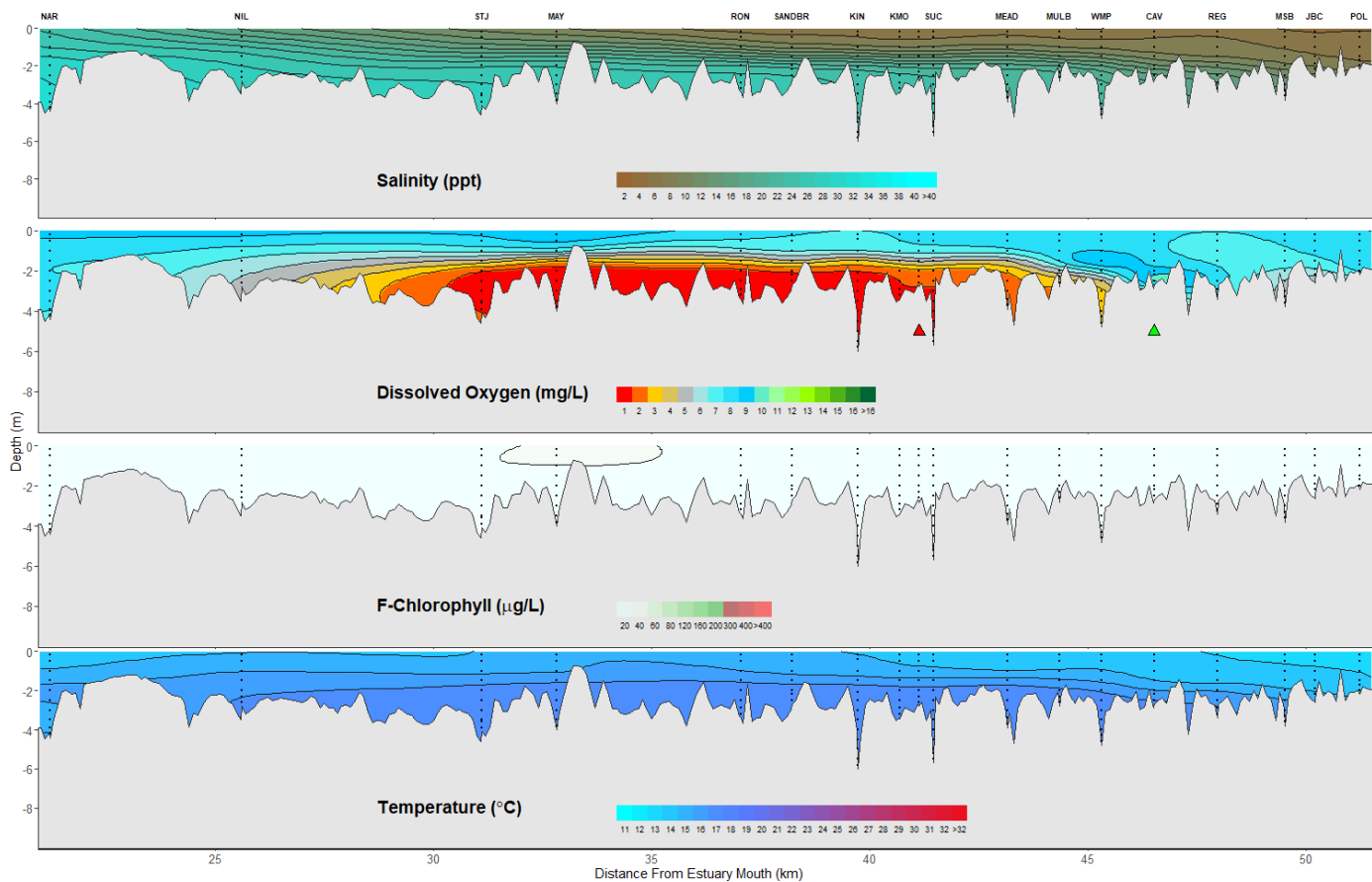
Prepared by

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

Swan Canning Estuary - Water Quality Profiles – 21 July 2025



Swan Canning Estuary - Water Quality Profiles – 21 July 2025



Date: 21 July 2025

Weather & tide conditions: Conditions were partly cloudy with a predominantly north-westerly breeze of up to 4.8 knots. The predicted tides at Barrack St were 1.26 m at 7:49 am (high tide) and 0.65 m at 7:26 pm (low tide). Perth recorded 37.7 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was inoperable and the Caversham oxygenation plant was 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 from BLA to HEA and brackish over saline at NAR. Waters were oxygenated or well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 13.7 to 16.4 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline from NIL to MAY and brackish at RON. Waters were oxygenated or well oxygenated, except for subsurface and bottom waters between STJ and RON which were hypoxic or anoxic. Chlorophyll fluorescence was low and water temperatures ranged from 13.9 to 16.8 °C.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish throughout. Waters were oxygenated or well oxygenated, except for subsurface and bottom waters from SANDBR to MEAD which were hypoxic and MULB to WMP which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 11.4 to 16.9 °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 21 July 2025*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)