Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

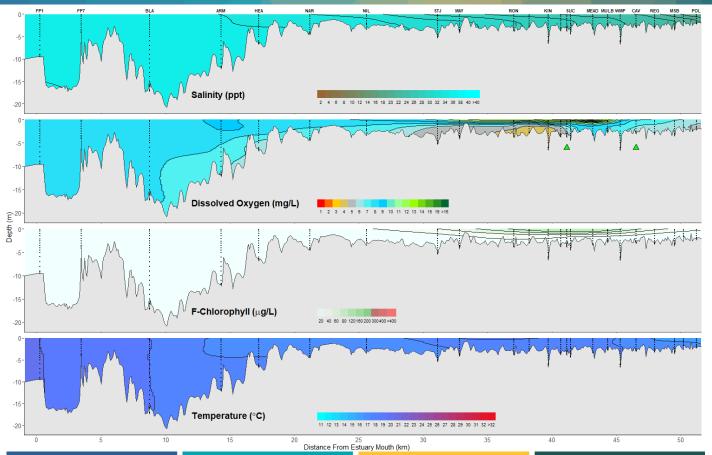
Lower Swan Canning Estuary to Upper Swan Estuary

16 June 2025

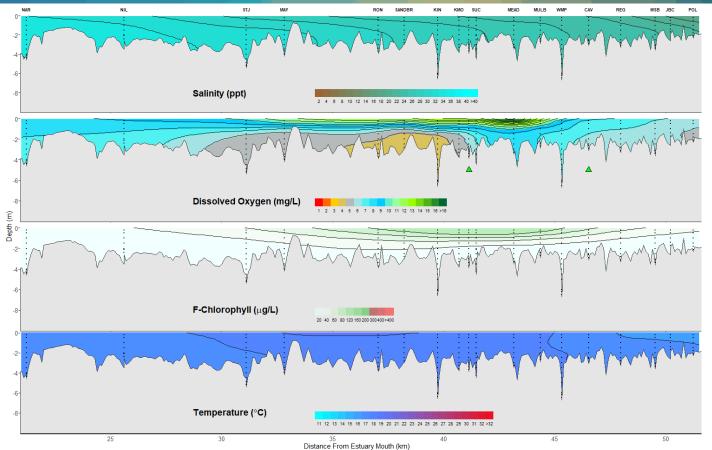
Prepared by

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

Swan Canning Estuary - Water Quality Profiles – 16 June 2025



Swan Canning Estuary - Water Quality Profiles – 16 June 2025



Date: 16 June 2025

Weather & tide conditions: Conditions were overcast with an east-south-east breeze of up to 2.6 knots. The predicted tides at Barrack St were 1.25 m at 1:32 pm (high tide). Perth recorded 4.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guilford and Caversham oxygenation plants were 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, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 16.6 to 19.0 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline. Waters were oxygenated or well oxygenated, except for bottom waters at RON which were low in oxygen. Chlorophyll fluorescence was moderate in surface waters at MAY and RON and water temperatures ranged from 16.5 to 18.2 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish over saline from SANDBR to MEAD and brackish from MULB to POL. Waters were oxygenated or well oxygenated, except for subsurface and bottom waters at SANDBR and KIN which were low in oxygen. Chlorophyll fluorescence was moderate in surface waters from SANDBR to WMP and high in surface waters at KIN, KMO, SUC and MEAD. Water temperatures ranged from 15.1 to 18.2 °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 ug 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 16 June 2025. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)