

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

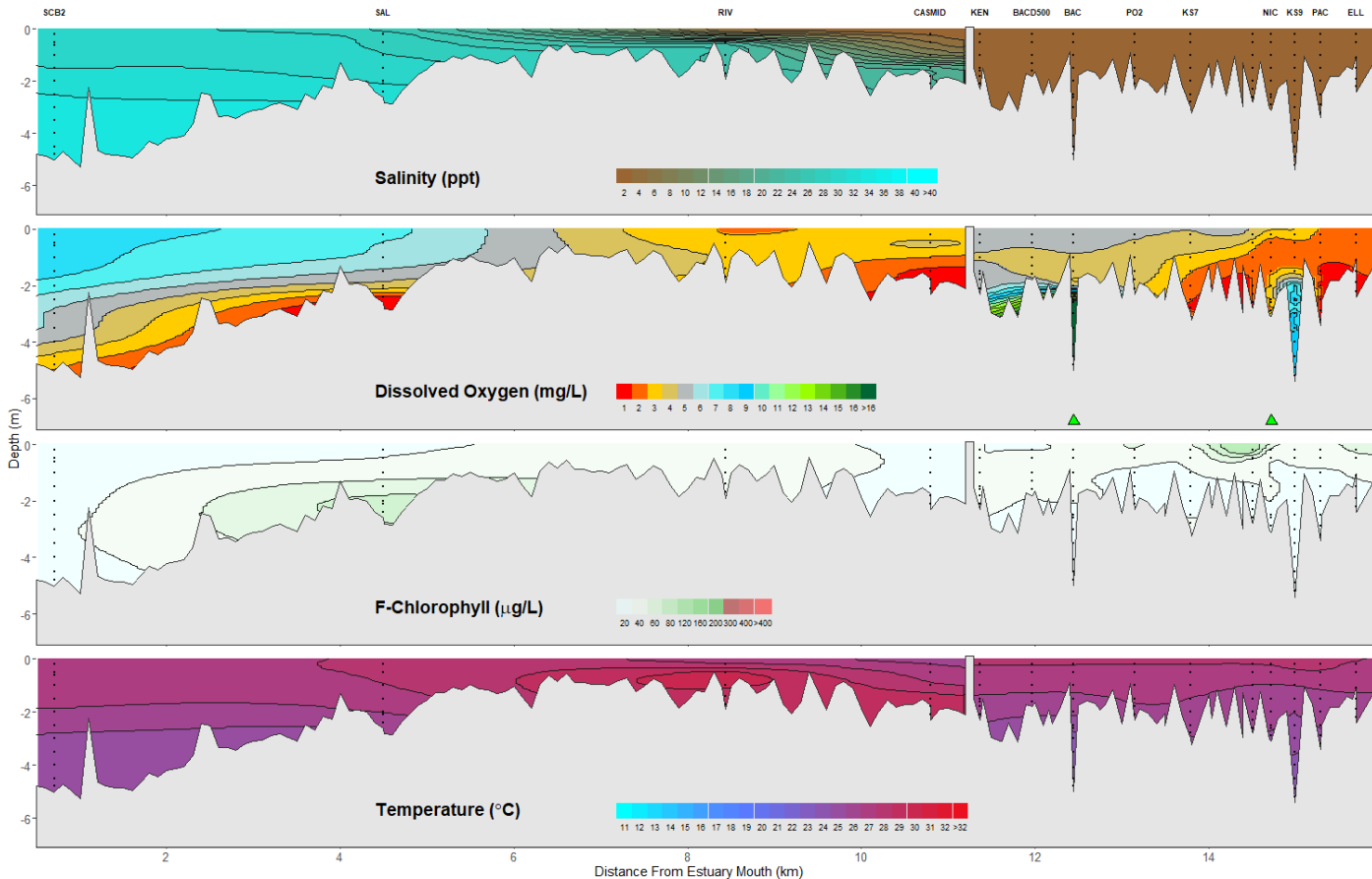
16 December 2025

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Canning Estuary and Lower Canning River - Water Quality Profiles – 16 December 2025



Date: 16 December 2025

Weather & tide conditions: Conditions were clear with a predominantly northerly breeze of up to 4.2 knots. The predicted tides at Barrack St were 0.59 m at 7:30 am (low tide) and 1.12 m at 8:37 pm (high tide). Perth recorded 15.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St and Nicholson Rd oxygenation plants were operating and providing oxygen in the 24 hours prior to sampling.

Canning Estuary (SCB2 to CASMID): The Canning Estuary was saline at SCB2 and SAL, brackish at RIV, and fresh over brackish at CASMID. SCB2 and SAL had well oxygenated surface waters with low oxygen/hypoxic bottom waters respectively. RIV and CASMID were low oxygen, with hypoxic bottom waters at CASMID. Chlorophyll fluorescence was low, except for moderate levels in bottom waters of SAL and sub-surface waters of RIV. Water temperatures ranged from 24.3 to 29.3 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Dissolved oxygen levels were generally low, with hypoxic waters detected from KS7 to ELL, and pockets of well oxygenated waters at the bottom of BAC and KS9. Chlorophyll fluorescence was low, with moderate levels in surface waters of NICIN. Water temperatures ranged from 23.8 to 27.9 °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 >35

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