



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

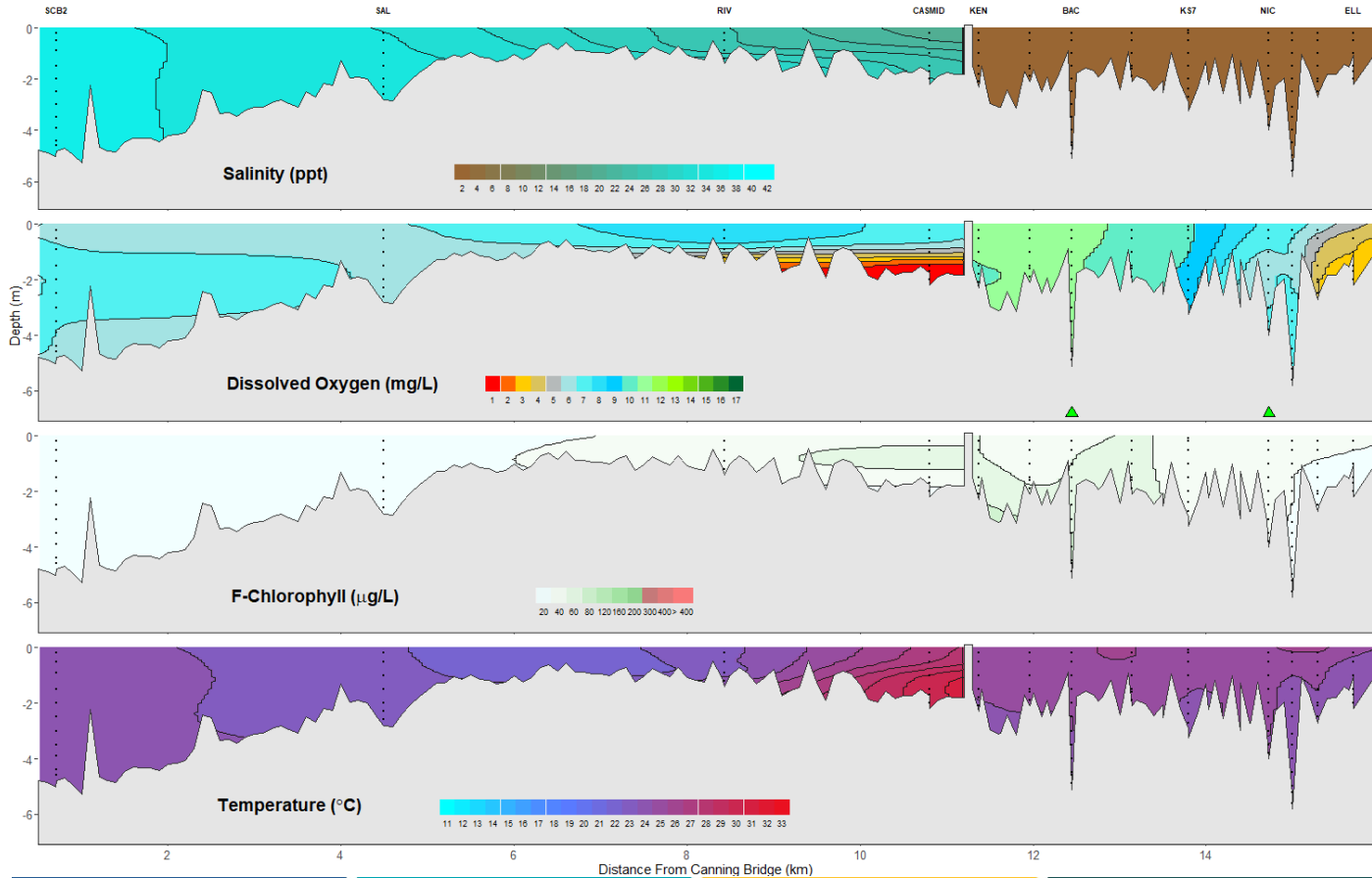
Canning Estuary and Lower Canning River

19th December 2023

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Canning Estuary and Lower Canning River - Water Quality Profiles – 19th December 2023



Date: 19th December 2023

Weather & tide conditions: Conditions were sunny with an easterly breeze of up to 10.4 knots. The predicted tides at Barrack St were 1.03 m at 1:17 am (high tide) and 0.57 m at 12:16 pm (low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

Canning Estuary (SCB2 to CASMID): The Canning Estuary was saline from SCB2 to RIV. RIV bottom waters were low in oxygen. Waters were brackish over saline at CASMID, with anoxic bottom waters. Chlorophyll fluorescence was moderate in surface waters at CASMID and low throughout the remainder of sites. Water temperatures ranged from 22.1 °C to 29.7 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were oxygenated to well oxygenated, with low oxygen conditions at PAC and ELL. Chlorophyll fluorescence was moderate in bottom waters of KEN and BAC, and the surface waters of NICIN. Water temperatures ranged from 23.3 °C to 25 °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 >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 (mod/high flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹