



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

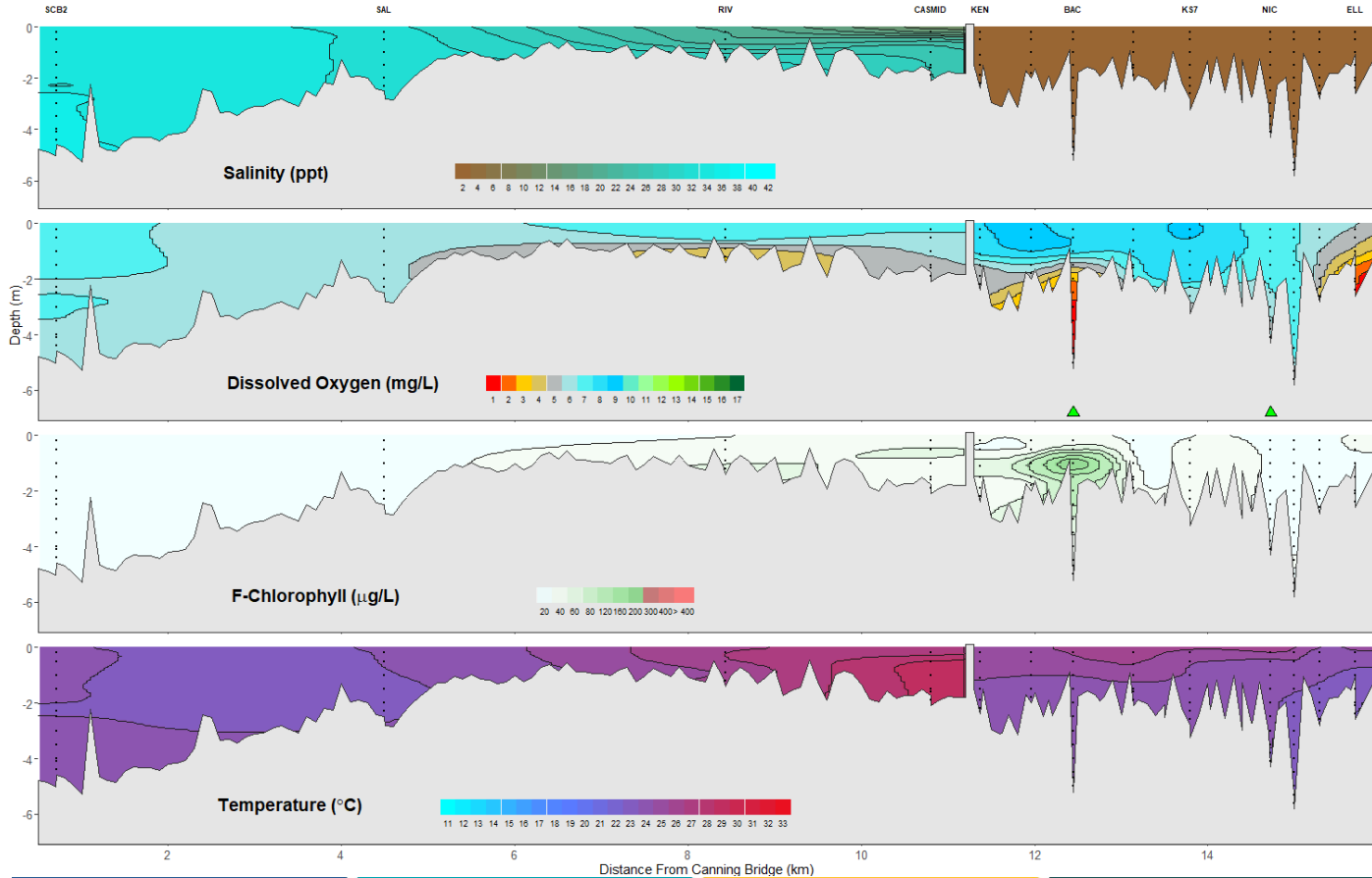
Canning Estuary and Lower Canning River

12th December 2023

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Canning Estuary and Lower Canning River - Water Quality Profiles – 12th December 2023



Date: 12th December 2023

Weather & tide conditions: Conditions were sunny with a variable easterly breeze of up to 6.8 knots. The predicted tides at Barrack St were 0.50 m at 8:22 am (low tide) and 1.19 m at 10:20 pm (high 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 SAL and brackish over saline from RIV to CASMID. Waters were oxygenated or well oxygenated except bottom waters at RIV which were low in oxygen. Chlorophyll fluorescence was low. Water temperatures ranged from 22.8 °C to 28.3 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were oxygenated or well oxygenated, subsurface waters at BAC and ELL were low in oxygen and bottom waters at BAC were hypoxic or anoxic and hypoxic at ELL. Chlorophyll fluorescence was moderate in subsurface waters at KEN, BACD500 and moderate to high at BAC. Water temperatures ranged from 22.1 °C to 25.4 °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