



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

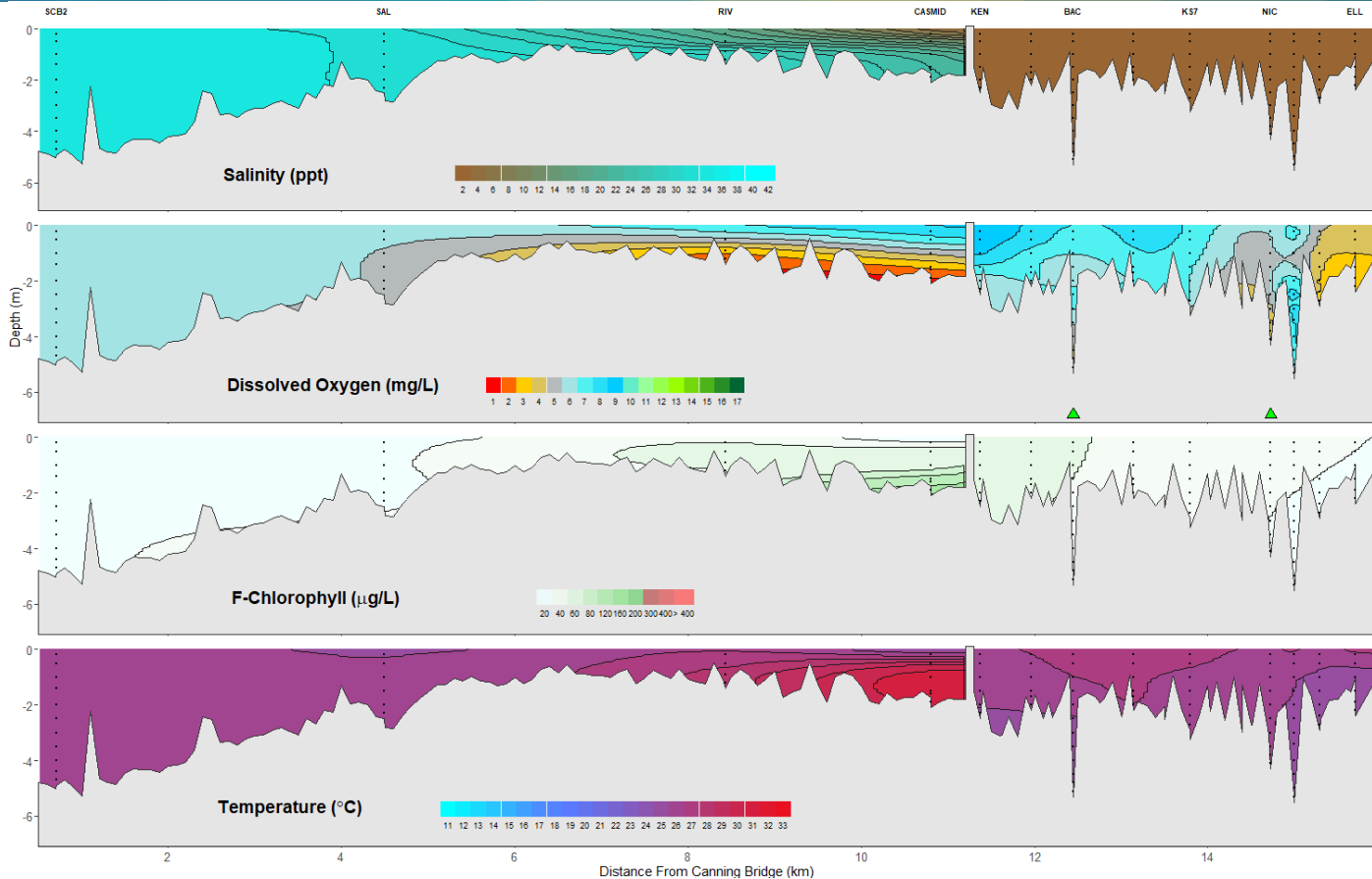
Canning Estuary and Lower Canning River

5th December 2023

Prepared by

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Canning Estuary and Lower Canning River - Water Quality Profiles – 5th December 2023



Date: 5th December 2023

Weather & tide conditions: Conditions were cloudy with a variable easterly breeze of up to 4.6 knots. The predicted tides at Barrack St were 0.65 m at 11:45 am (low tide) and 0.91 m at 10:46 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, brackish over saline at RIV and brackish at CASMID. Waters were oxygenated or well oxygenated, except bottom waters at RIV which were low in oxygen and CASMID which were hypoxic. Chlorophyll fluorescence was moderate in subsurface waters at RIV and subsurface to bottom waters at CASMID. Water temperatures ranged from 25.0 °C to 30.6 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters from KEN to KS9 were oxygenated or well oxygenated and low in oxygen at PAC and ELL. Bottom waters were low in oxygen at BAC, NIC, PAC and ELL. Chlorophyll fluorescence was moderate at KEN and BACD500. Water temperatures ranged from 24.2 °C to 26.7 °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