



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

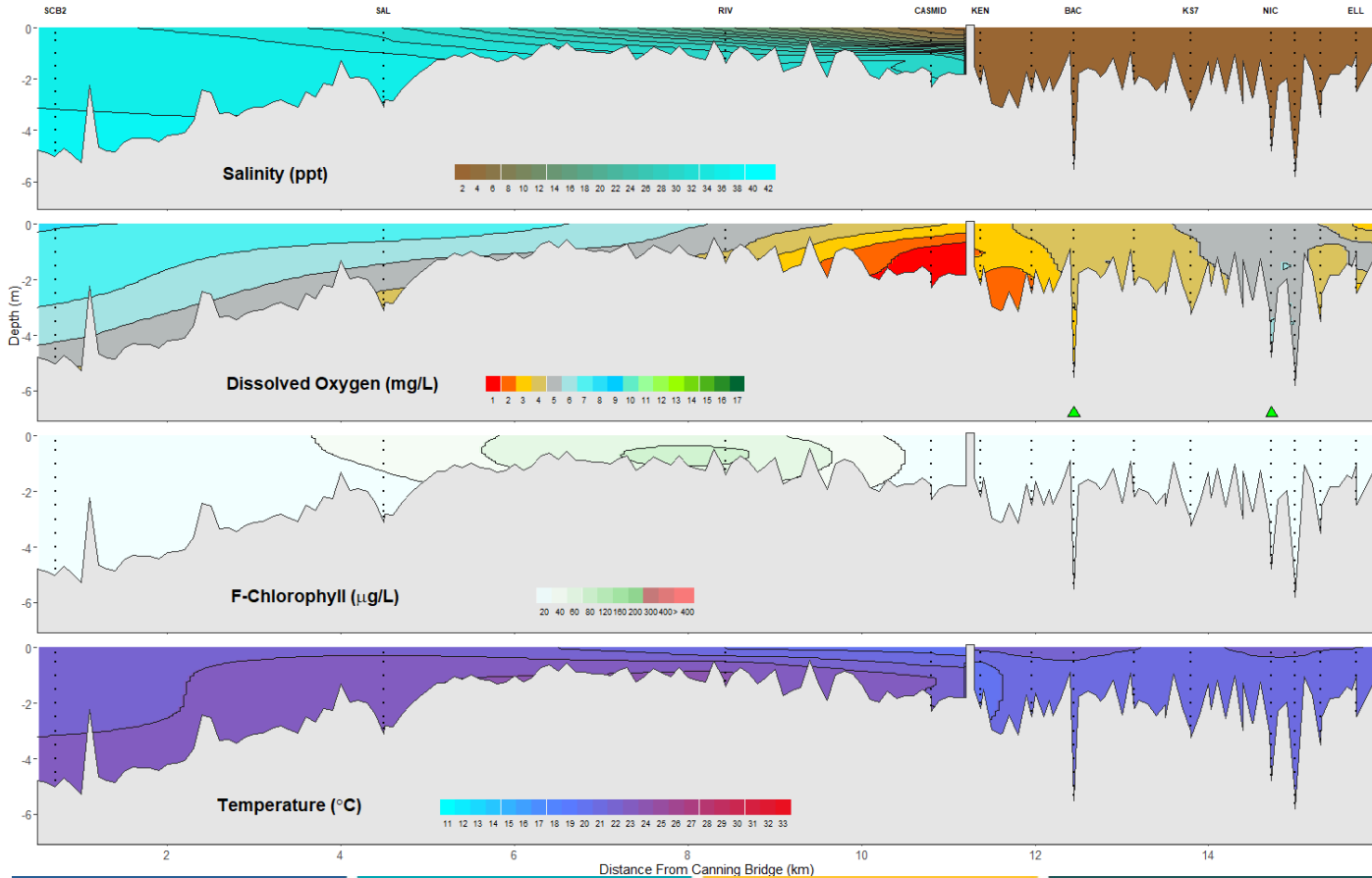
Canning Estuary and Lower Canning River

4th April 2023

Prepared by

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Canning Estuary and Lower Canning River - Water Quality Profiles - 4th April 2023



Date: 4th April 2023

Weather & tide conditions: Conditions were partly cloudy with and a predominantly southerly breeze of up to 5 knots. The predicted tides at Barrack St were 0.74 m at 5:32 am (low tide), 0.94 m at 12:00 pm (high tide) and 0.86m at 4:38pm (2nd low tide). Perth recorded 38.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology), all of this in one rainfall event across 30/31 March resulting in significant runoff and flow into the system.

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

Canning Estuary (SCB2 to CASMID): Waters were hypersaline at SCB2, saline over hypersaline at SAL and brackish over saline at RIV and fresh over saline at CASMID. Waters were oxygenated to well oxygenated between SCB2 and RIV and hypoxic to anoxic at CASMID. Chlorophyll fluorescence was low, except for a moderate signal detected throughout the water column at RIV. Water temperatures ranged from 20.0 °C to 23.1 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh, and waters were low in oxygen from KEN to NICIN, oxygenated from NIC to KS9 and low in the bottom waters between PAC and ELL. Chlorophyll fluorescence was low throughout and water temperatures ranged from 19.8 °C to 21.5 °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 (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹