

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

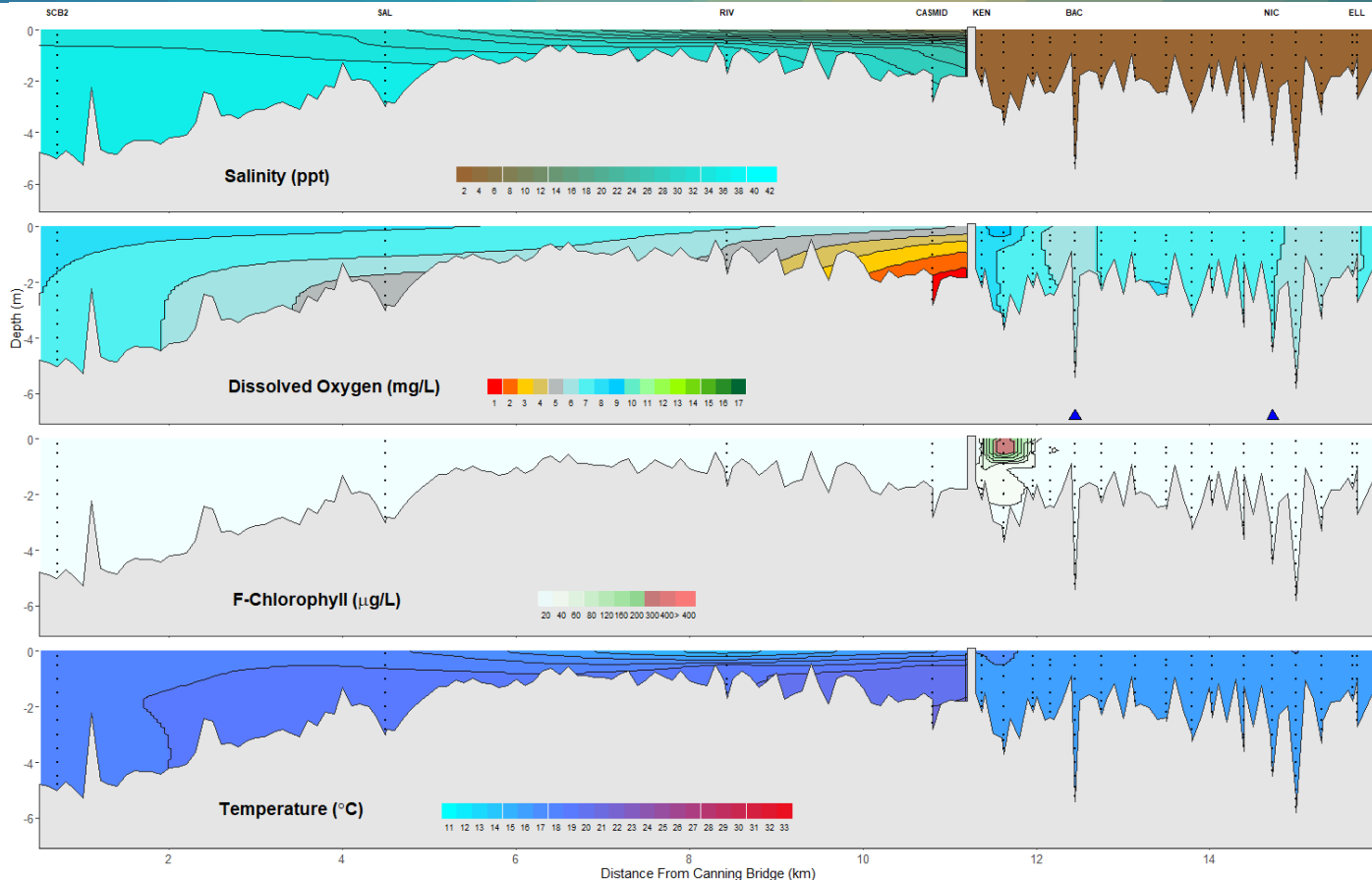
Canning Estuary and Lower Canning River

17 May 2022

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Canning Estuary and Lower Canning River - Water Quality Profiles – 17 May 2022



Date: 17 May 2022

Weather & tide conditions: Conditions were clear with a predominantly north-easterly breeze of up to 4 knots. The predicted tides at Barrack St were 1.32 m at 11:45 am (high tide) and 0.67 m at 10:18 pm (low tide). Perth recorded 19 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St and Nicholson Rd oxygenation plant were both operational but not triggered to provide oxygen in the 24 hours prior to sampling.

Canning Estuary (SCB2 to CASMID): Water was saline over hypersaline between SCB2 and SAL, and brackish over saline from RIV to CASMID. Waters were well oxygenated or oxygenated from SCB2 to RIV, and surface waters were hypoxic and bottom waters were anoxic at CASMID. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15 to 20.4 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh and waters were oxygenated and well oxygenated throughout. Chlorophyll fluorescence was high in surface waters at KENU300 indicating higher microalgal activity in that area. Water temperature ranged from 15.3 to 18.6 °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 (summer): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹