

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

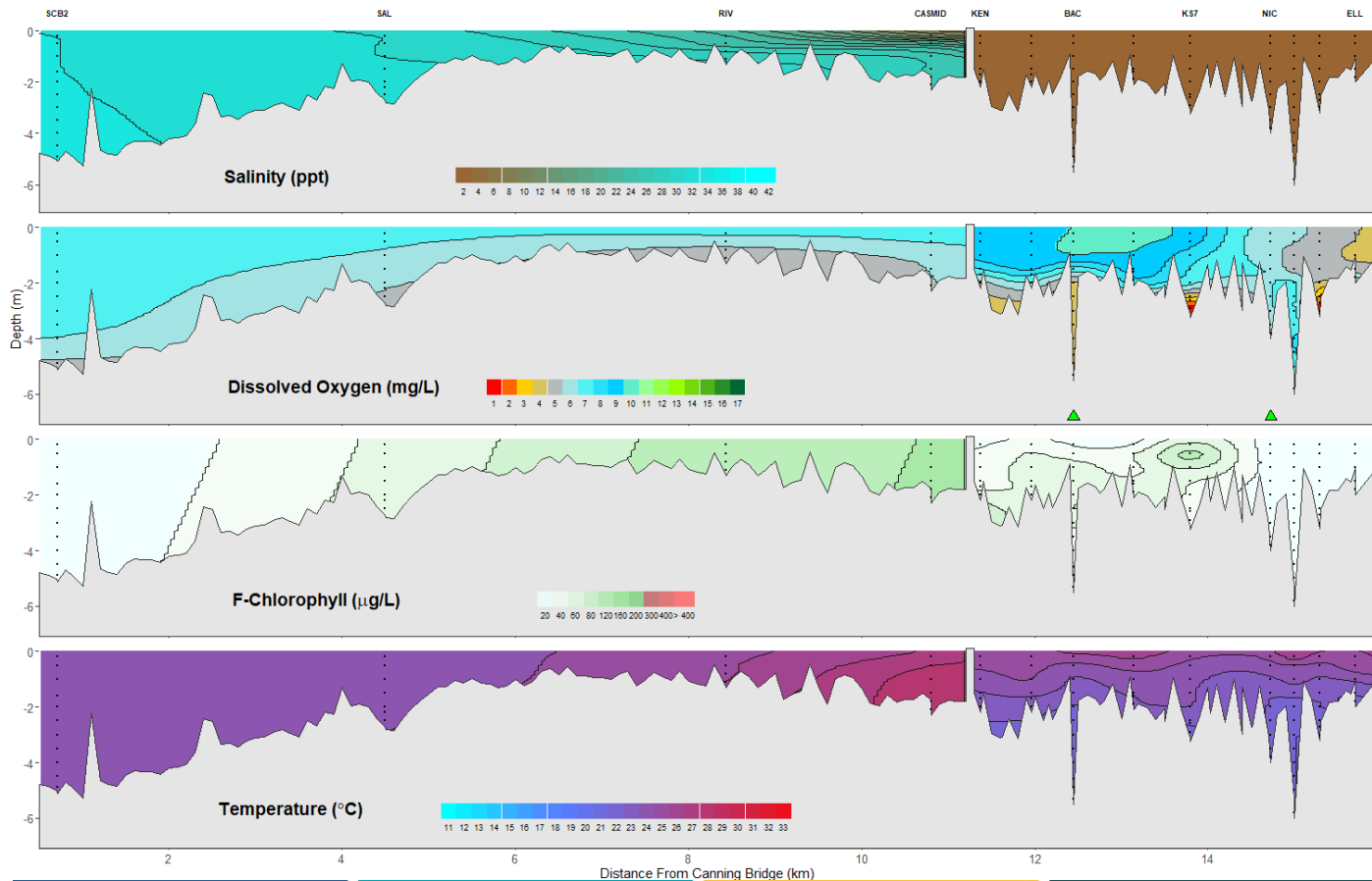
Canning Estuary and Lower Canning River

20th December 2022

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Canning Estuary and Lower Canning River - Water Quality Profiles - 20th December 2022



Date: 20th December 2022

Weather & tide conditions: Conditions were sunny with a predominantly easterly breeze of up to 8.5 knots. The predicted tides at Barrack St were 0.59 m at 6:46 am (low tide) and 1.12 m at 20:48 pm (high tide). Perth recorded 1 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

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

Canning Estuary (SCB2 to CASMID): Waters were saline at SCB2 and SAL, and brackish over saline at RIV and CASMID. Waters were oxygenated or well oxygenated throughout, except for the bottom waters of RIV, which were low in oxygen. Chlorophyll fluorescence was moderate at bottom waters of SAL, and extreme within surface waters of CASMID. Water temperatures ranged from 23.1 to 27.7°C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh throughout. Waters were oxygenated or well oxygenated throughout, except for bottom to mid-column waters of BAC and mid-column waters of ELL, which were low in oxygen. Bottom waters at KS7 were anoxic. Chlorophyll fluorescence was moderate from BAC to KS7 and low elsewhere. Water temperatures ranged from 21.1 to 24.7 °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 < 60 µg L⁻¹, moderate 60-160 µg L⁻¹, high 160-400 µg L⁻¹, extreme > 400 µg L⁻¹