



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

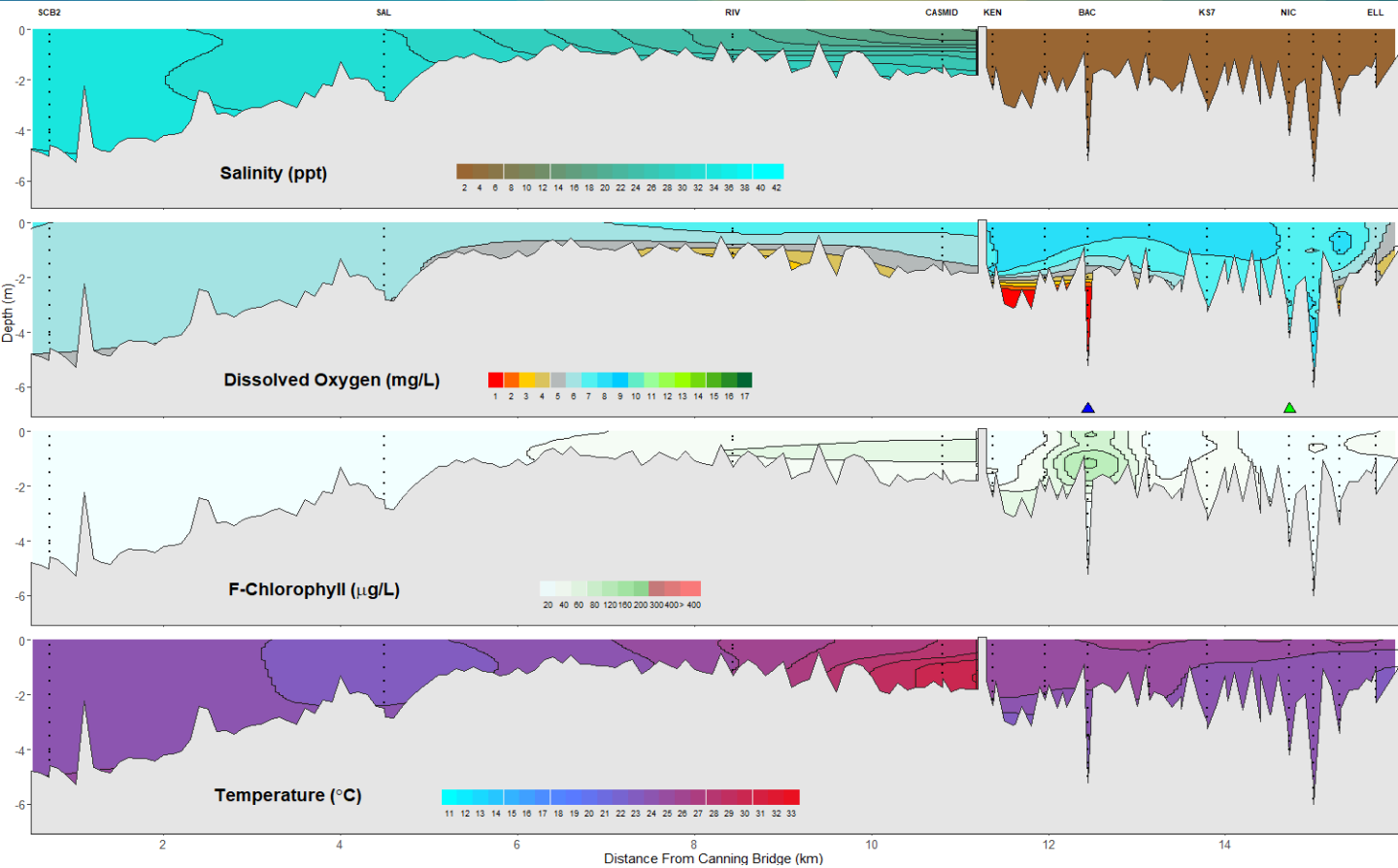
Canning Estuary and Lower Canning River

4th January 2023

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



Date: 4th January 2023

Weather & tide conditions: Conditions were sunny with a predominantly easterly breeze of up to 9.5 knots. The predicted tides at Barrack St were 0.52 m at 8:00 am (low tide) and 1.14 m at 21:11 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: Only the Nicholson Rd oxygenation plant was triggered to operate within 24 hours prior to sampling. The Bacon St plant was functional but not required to be operated.

Canning Estuary (SCB2 to CASMID): Waters were saline at SCB2 and SAL, brackish over saline at RIV, and brackish at CASMID. Waters were oxygenated or well oxygenated throughout, except for the bottom waters of RIV, which were low in oxygen. Chlorophyll fluorescence was low throughout. Water temperatures ranged from 23.8 to 29.5°C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh throughout. Most sites were oxygenated or well oxygenated throughout, excepting the bottom to mid-column waters of BAC, which were anoxic, and the bottom waters of KEN and PAC which were low in oxygen. Chlorophyll fluorescence was low throughout, except the surface and mid-column waters at BAC where it was moderate. Water temperatures ranged from 22.8 to 25.3 °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