

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

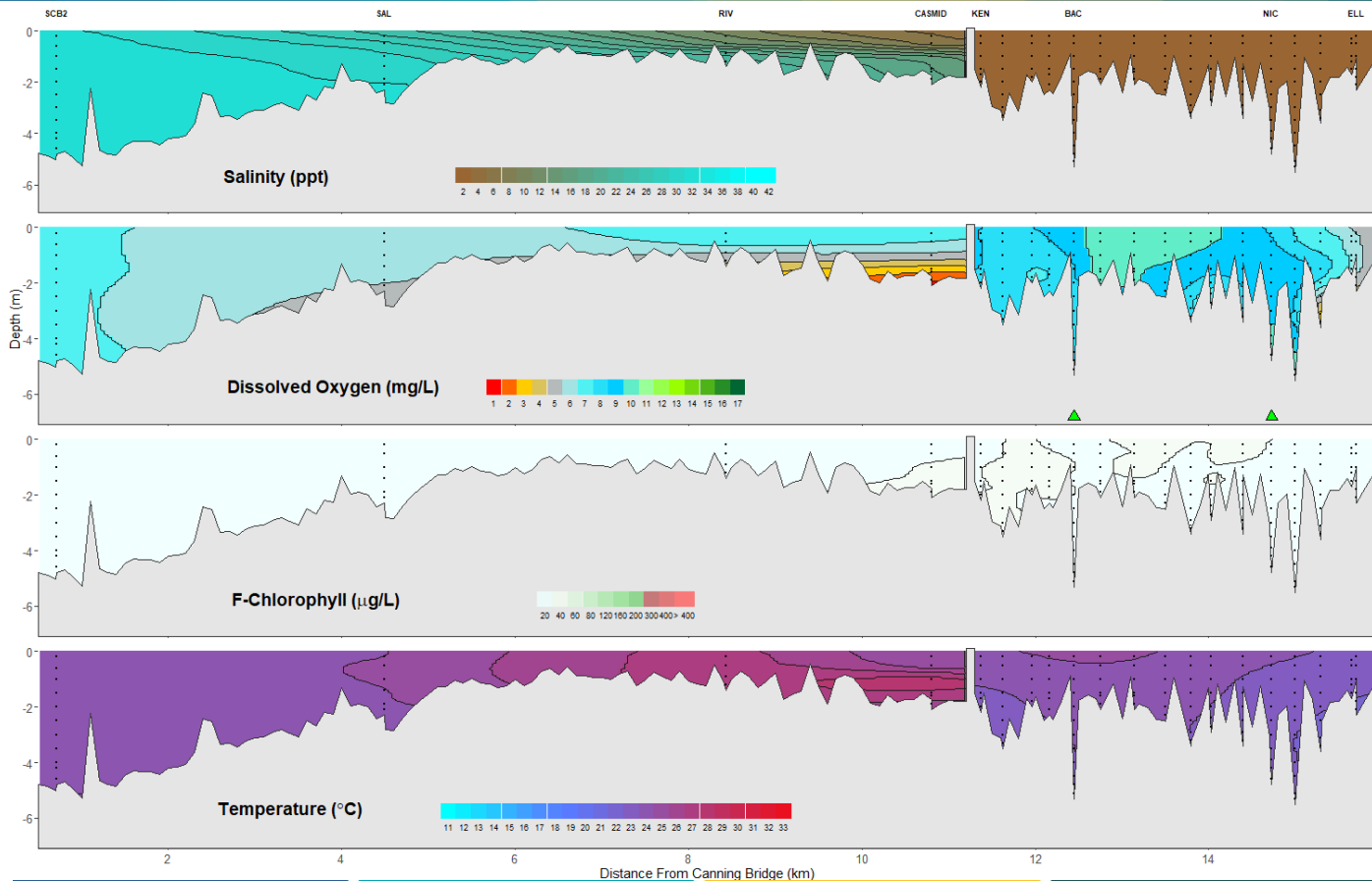
Canning Estuary and Lower Canning River

21 December 2021

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Canning Estuary and Lower Canning River - Water Quality Profiles – 21 December 2021



Date: 21 December 2021

Weather & tide conditions: Conditions were overcast with a variable breeze of up to 7 knots. The predicted tides at Barrack St were 0.53 m at 9:46 am (low tide) and 1.12 m at 11:49 pm (high tide). Perth recorded 2.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

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

Canning Estuary (SCB2 to CASMID): The Canning Estuary was saline at SCB2 and SAL, brackish at RIV and fresh over brackish at CASMID. Waters were oxygenated or well oxygenated except bottom waters at CASMID which were hypoxic. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 23.3 to 27.4 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Waters were oxygenated or well oxygenated except bottom waters at PAC which were low in oxygen. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 21.4 to 24.3 °C.

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