



Department of Biodiversity,
Conservation and Attractions



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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

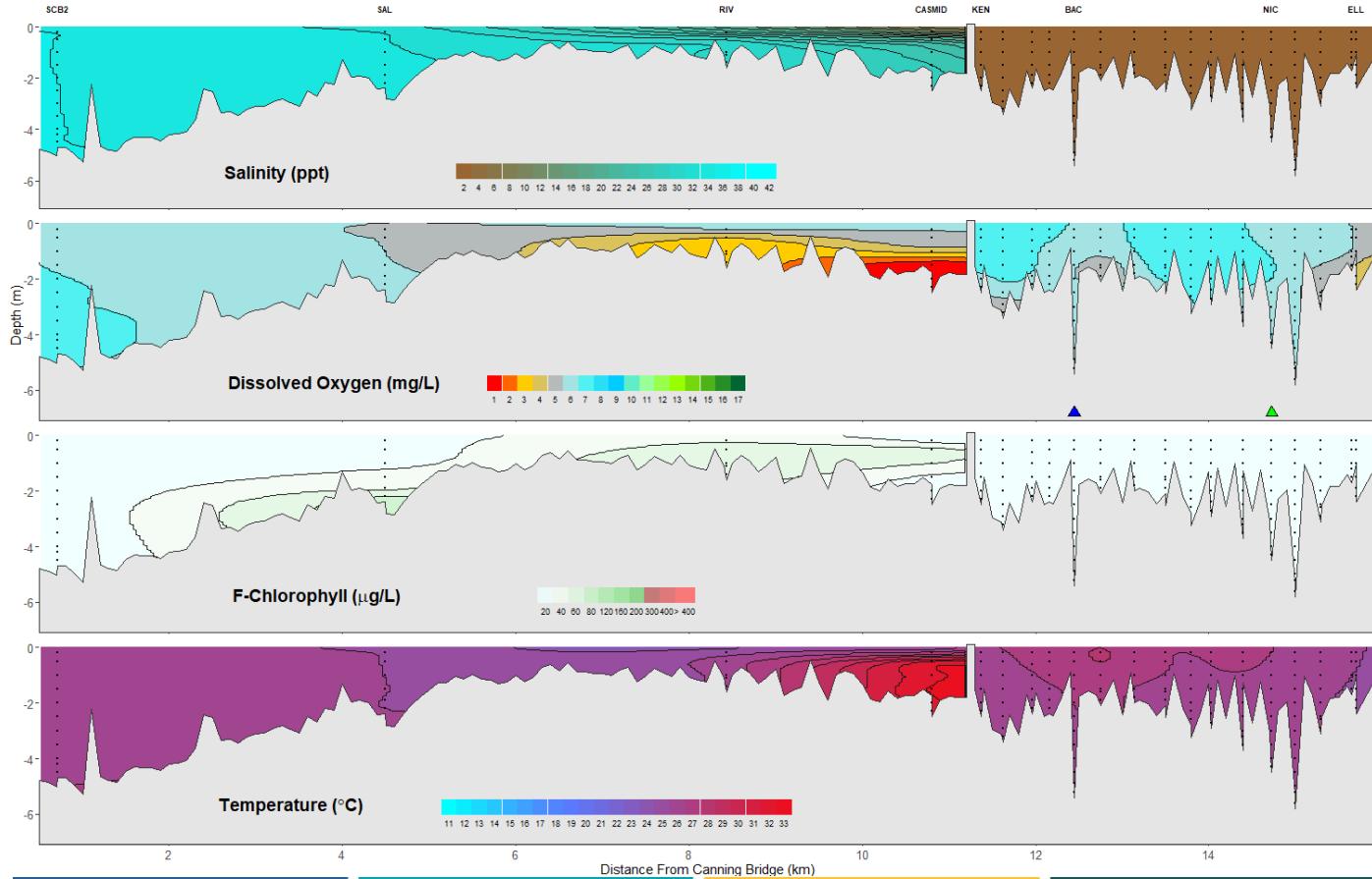
25 January 2022

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Canning Estuary and Lower Canning River - Water Quality Profiles – 25 January 2022





Date: 25 January 2022

Weather & tide conditions: Conditions were overcast with a south easterly breeze of up to 5 knots. The predicted tides at Barrack St were 0.65 m at 8:18 am (low tide) and 0.97 m at 5:40 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

Canning Estuary (SCB2 to CASMID): The Canning Estuary was saline from SCB2 to SAL and brackish over saline from RIV to CASMID. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at RIV and anoxic at CASMID. Chlorophyll fluorescence was moderate between SAL and RIV indicating higher microalgal activity in that area. Water temperature ranged from 24.9 to 32.2 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at KENU300, BACU300, PAC and ELL. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 24.6 to 27.2 °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

Recommended reference: Department of Biodiversity, Conservation and Attractions 2021. *Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 25 January 2022. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)