

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

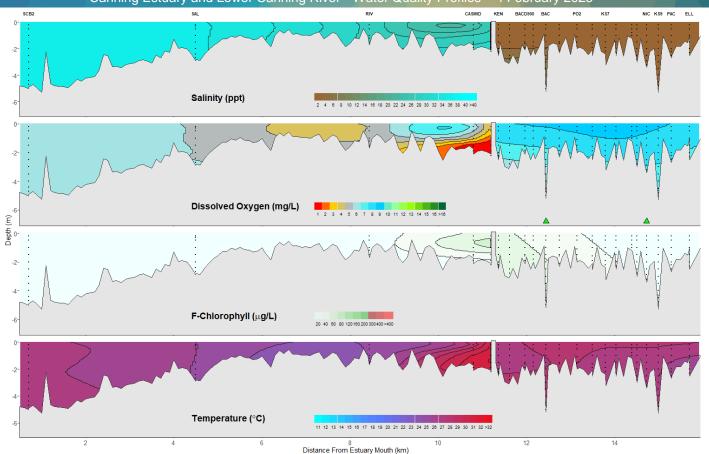
Canning Estuary and Lower Canning River

4 February 2025

Prepared by

Rivers and Estuaries Science
Biodiversity and Conservation Science
Department of Biodiversity, Conservation and Attractions

Canning Estuary and Lower Canning River - Water Quality Profiles – 4 February 2025



Date: 4 February 2025

<u>Weather & tide conditions</u>: Conditions were clear with a predominantly south-easterly breeze of up to 8.5 knots. The predicted tides at Barrack St were 0.67 m at 7:14 am (low tide) and 1.02 m at 4:16 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

<u>Canning Estuary (SCB2 to CASMID)</u>: The Canning Estuary was saline between SCB2 and RIV and brackish over saline at CASMID. Waters were oxygenated, except for bottom waters at CASMID which were anoxic. Chlorophyll fluorescence was moderate values in surface waters at CASMID. Water temperatures ranged from 24.0 to 30.6 °C at the time of sampling.

<u>Lower Canning River (KEN to ELL)</u>: The Lower Canning River was fresh, however salinities remained slightly elevated between KEN and PO2 due to the intrusion of saline waters around the Kent St Weir on 23 and 24 January 2025. Waters were oxygenated or well oxygenated, except for the bottom waters at KEN and BAC which were low in oxygen. Chlorophyll fluorescence was extreme in bottom waters at KEN. Water temperatures ranged from 25.3 to 28.1 °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

<u>Dissolved oxygen</u> – 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 μ g L⁻¹, moderate 50-150 μ g L⁻¹, high 150-400 μ g L⁻¹, extreme > 400 μ g L⁻¹

Recommended reference: Department of Biodiversity, Conservation and Attractions 2025. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 4 February 2025. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)