Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

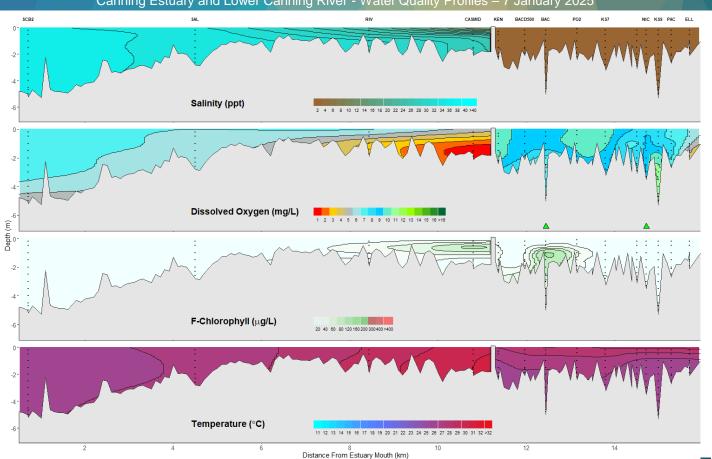
Canning Estuary and Lower Canning River

7 January 2025

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Canning Estuary and Lower Canning River - Water Quality Profiles - 7 January 2025



Date: 7 January 2025

<u>Weather & tide conditions</u>: Conditions were clear with a variable breeze of up to 5 knots. The predicted tides at Barrack St were 0.67 m at 8:25 am (low tide) and 1m at 18:30 pm (high tide). Perth recorded 1mm of 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 or well oxygenated, except bottom waters at RIV which were low in oxygen and anoxic at CASMID. Chlorophyll fluorescence was moderate in the surface waters at CASMID. Water temperatures ranged from 25.6 to 30.4 °C at the time of sampling.

<u>Lower Canning River (KEN to ELL)</u>: The Lower Canning River was fresh and waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was moderate in the subsurface and bottom waters at BAC. Water temperatures ranged from 24.9 to 28.6 °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}

<u>Chlorophyll fluorescence (low flow)</u>: 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 2024. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 7 January 2025. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)