

Department of **Biodiversity**, **Conservation and Attractions** Biodiversity and Conservation Science We're working for Western Anstralia.

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

14 January 2025

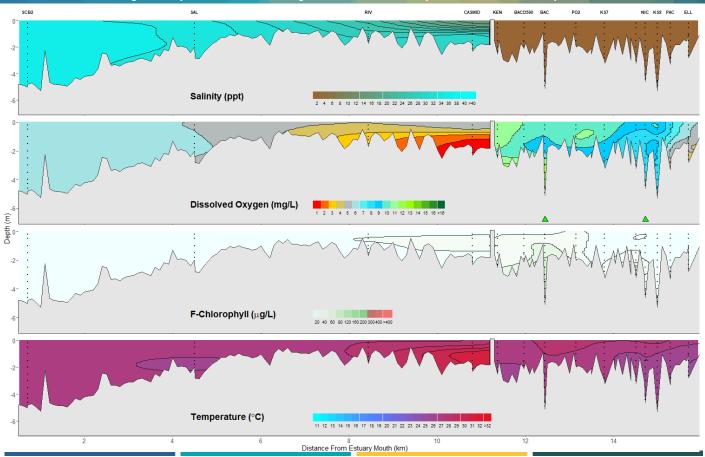
Prepared by

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Department of **Biodiversity**, **Conservation and Attractions** Biodiversity and Conservation Science

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Canning Estuary and Lower Canning River - Water Quality Profiles – 14 January 2025





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Date: 14 January 2025

<u>Weather & tide conditions</u>: Conditions were partly cloudy with a variable breeze of up to 12.0 knots. The predicted tides at Barrack St were 0.38 m at 6:48 am (low tide) and 1.17 m at 9:26 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 SAL and brackish over saline from RIV to CASMID. Waters were oxygenated, except for surface and bottom waters at RIV which was low in oxygen and bottom waters at CASMID which were anoxic. Chlorophyll fluorescence was low and water temperatures ranged from 25.9 to 30.7 °C at the time of sampling.

<u>Lower Canning River (KEN to ELL)</u>: The Lower Canning River was fresh. Waters were oxygenated or well oxygenated, except for bottom waters at ELL which were low in oxygen. Chlorophyll fluorescence was moderate in the subsurface waters at BAC and bottom waters at NICIN. Water temperatures ranged from 24.9 to 27.4 °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:

 $\begin{array}{l} \underline{Salinity} - fresh < 5, \ brackish 5-25, \ saline 25-35, \ hypersaline >35 \\ \underline{Dissolved \ oxygen} - \ well \ oxygenated >6 \ mg \ L^1, \ oxygenated >4-6 \ mg \ L^1, \ low \ oxygen >2-4 \ mg \ L^1, \ hypoxic \ 0.5-2 \ mg \ L^1, \ anoxic \ <0.5 \ mg \ L^1 \\ \underline{Chlorophyll \ fluorescence} \ (low \ flow): \ low \ <50 \ \mug \ L^1, \ moderate \ 50-150 \ \mug \ L^1, \ high \ 150-400 \ \mug \ L^1, \ extreme > 400 \ \mug \ L^1 \end{array}$

Recommended reference: Department of Biodiversity, Conservation and Attractions 2024. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 14 January 2025. Rivers and Estuaries Science (<u>https://www.dpaw.wa.gov.au/management/swan-canning-riverpark</u>)