

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

10 December 2024

Prepared by

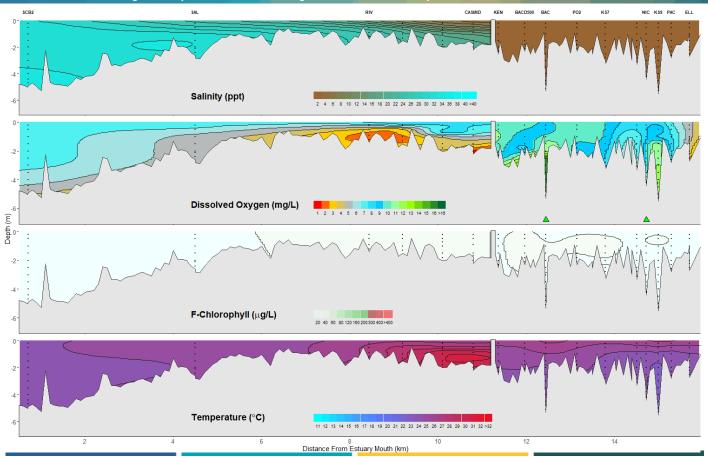
Rivers and Estuaries Science Biodiversity and Conservation Science Department of Biodiversity, Conservation and Attractions GOVERNMENT OF WESTERN AUSTRALIA

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



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Canning Estuary and Lower Canning River - Water Quality Profiles - 10 December 2024





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Date: 10 December 2024

<u>Weather & tide conditions</u>: Conditions were overcast with a predominately easterly breeze of up to 8.1 knots. The predicted tides at Barrack St were 0.71 m at 10:04 am (low tide) and 0.99 m at 8:11 pm (high tide). Perth recorded 0.2 mm 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 at SCB2, brackish over saline at SAL and brackish at RIV and CASMID. Waters were oxygenated or well oxygenated, except for bottom waters at RIV and CASMID which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 23.6 to 30.0 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Waters were oxygenated or well oxygenated, except bottom waters at ELL which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 22.5 to 26.0 °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 10 December 2024. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)