

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

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

3rd October 2023

Prepared by

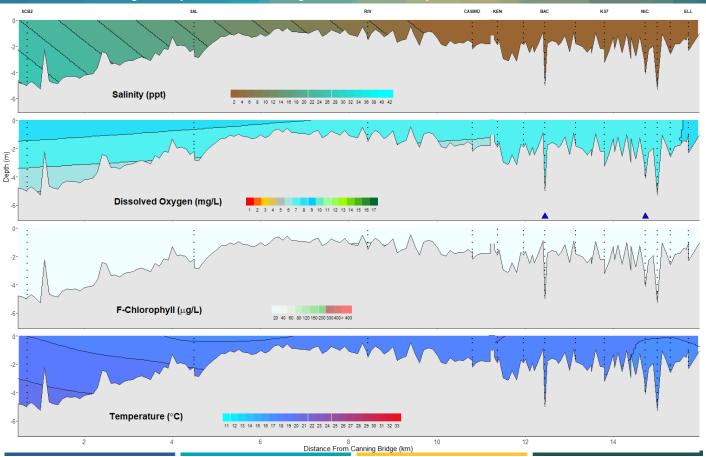
Rivers and Estuaries Science Biodiversity and Conservation Science Department of Biodiversity, Conservation and Attractions GOVERNMENT OF WESTERN AUSTRALIA

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



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Canning Estuary and Lower Canning River - Water Quality Profiles – 3rd October 2023





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Date: 3rd October 2023

<u>Weather & tide conditions</u>: Conditions were overcast with occasional showers and a southerly breeze of up to 5.2 knots. The predicted tides at Barrack St were 1.05 m at 12:44 am (high tide) and 0.6 m at 12:32 pm (low tide). Perth recorded 8.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

NB: The Kent Street Weir was opened on 30 September 2023.

<u>Oxygenation</u>: The Bacon St and Nicholson Rd oxygenation plants were not triggered to provide oxygen in the 24 hours prior to sampling.

<u>Canning Estuary (SCB2 to CASMID)</u>: The Canning Estuary was brackish over saline at SCB2, brackish at SAL, fresh over brackish at RIV and fresh at CASMID. Waters were oxygenated or well oxygenated, except for bottom waters of SCB2 which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 16.8 °C to 19.7 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh and waters were well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 16.5 °C to 18.1 °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:

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

Recommended reference: Department of Biodiversity, Conservation and Attractions 2023. *Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River* 3rd October 2023. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)