

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

Swan Canning Estuary Water Quality Monitoring Project

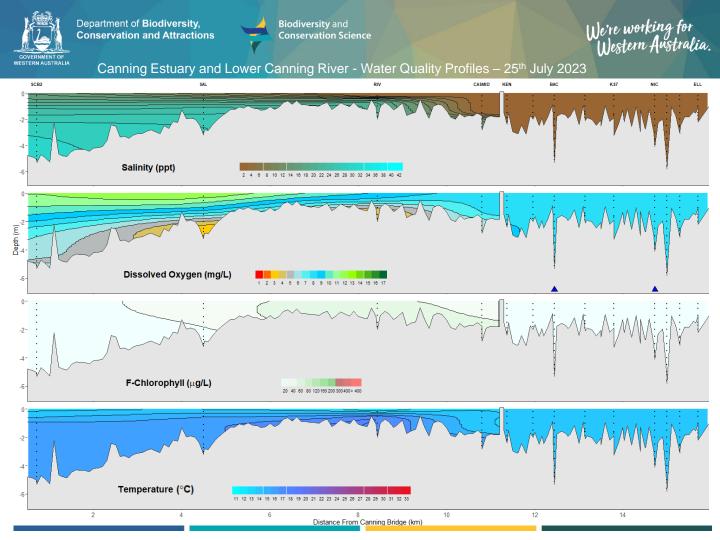
Weekly Water Quality Report

Canning Estuary and Lower Canning River

25th July 2023

Prepared by

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





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Date: 25th July 2023

<u>Weather & tide conditions</u>: Conditions were cloudy with a predominantly northerly breeze of up to 6.4 knots. The predicted tides at Barrack St were 1.01 m at 4:43 am (high tide) and 0.81 m at 8:07 pm (low tide). Perth recorded 11.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St and Nicholson Rd oxygenation plants were operable but 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 from SCB2 to SAL and fresh over brackish between RIV and CASMID. Waters were oxygenated or well oxygenated, except bottom waters of SAL and RIV which were low in oxygen. Chlorophyll fluorescence was low between SCB2 and SAL, low to moderate at CASMID and low to high at RIV. Water temperatures ranged from 12.8 °C to 16.8 °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 13.2 °C to 13.5 °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 25th July 2023.* Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)