

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

4 June 2025

Prepared by

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



Distance From Estuary Mouth (km)



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Date: 4 June 2025

<u>Weather & tide conditions</u>: Conditions were cloudy with periods of heavy rain and a northernly breeze of up to 9.5 knots. The predicted tides at Barrack St were 1.09 m at 10:41 am (high tide) and 0.89 m at 10:31 pm (low tide). Perth recorded 69.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St oxygenation plant and the Nicholson Rd oxygenation plant 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 fresh over saline at RIV and CASMID. Waters were oxygenated or well oxygenated, except bottom waters at SAL and RIV which were low in oxygen and CASMID which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 16.7 to 18.5 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 17.4 to 17.8 °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 2025. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 4 June 2025. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)