

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

21st May 2024

Prepared by

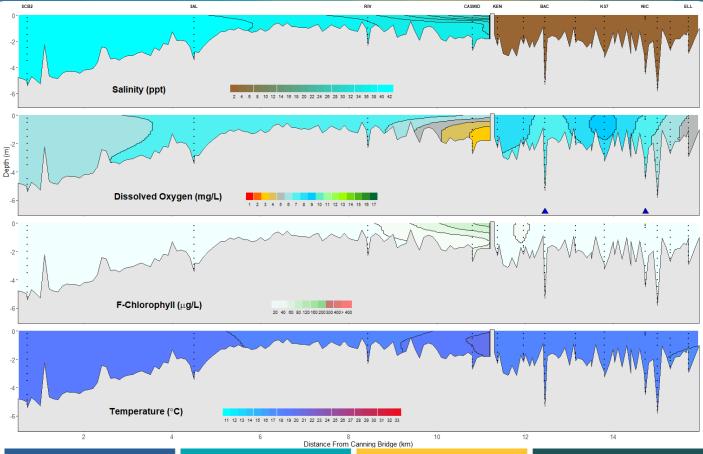
Rivers and Estuaries Science Biodiversity and Conservation Science Department of Biodiversity, Conservation and Attractions GOVERNMENT OF WESTERN AUSTRALIA

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



We're working for Western Australia.







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

Date: 21st May 2024

<u>Weather & tide conditions</u>: Conditions were cloudy with a north-westerly breeze of up to 1.2 knots. The predicted tides at Barrack St were 0.91 m at 1:34 am (low tide), 1.23 m at 9:52 am (high tide), and 0.83 m at 7:09 pm (second low tide). Perth recorded zero rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St. plant and the Nicholson Rd. were operable this week but not triggered to provide oxygen in the 24 hours prior to sampling.

<u>Canning Estuary (SCB2 to CASMID)</u>: The Canning Estuary was hypersaline from SCB2 to RIV and saline at CASMID. Waters were oxygenated or well oxygenated, except at CASMID where oxygen ranged from oxygenated at the surface to low at depth. Chlorophyll fluorescence was low except for moderate levels recorded at CASMID. Water temperatures ranged from 16.2 to 19 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh, and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 16.8 to 18.3 °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 21st May 2024. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)