

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

Swan Canning Estuary Water Quality Monitoring Project

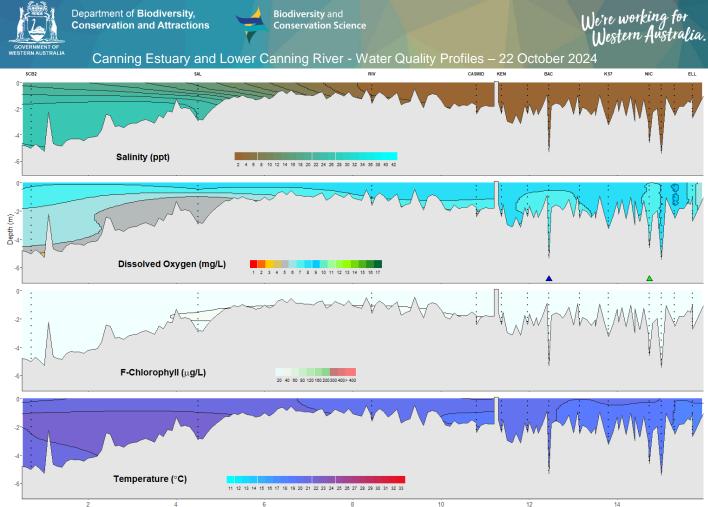
Weekly Water Quality Report

Canning Estuary and Lower Canning River

22 October 2024

Prepared by

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



Distance From Canning Bridge (km)



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Date: 22 October 2024

<u>Weather & tide conditions</u>: Conditions were partly cloudy, with a variable breeze of up to 5.8 knots. The predicted tides at Barrack St were 1.1 m at 1:04 am (high tide) and 0.51 m at 1:21 am (low tide). Perth recorded 14.0 mm rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St oxygenation plant was operable, but not triggered to provide oxygen and the Nicholson Rd oxygenation plant was 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 and fresh from RIV to CASMID. Waters were oxygenated or well oxygenated, except bottom waters at CASMID which was low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 18.4 to 21.5 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh, waters were well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 17.7 to 19.7 °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:

 $\begin{array}{l} \underline{Salinity} - fresh < 5, \ brackish \ 5-25, \ saline \ 25-35, \ hypersaline \ >35 \\ \underline{Dissolved \ oxygen} - \ well \ oxygen ated \ >6 \ mg \ L^1, \ oxygen ated \ >4-6 \ mg \ L^1, \ low \ oxygen \ >2-4 \ mg \ L^1, \ hypoxic \ 0.5-2 \ mg \ L^1, \ anoxic \ <0.5 \ mg \ L^1 \\ \underline{Chlorophyll \ fluorescence \ (mod/high \ flow)}; \ low \ < 60 \ \mug \ L^1, \ moderate \ 60-160 \ \mug \ L^1, \ high \ 160-400 \ high \ L^1, \ high \ 160-400 \ hight \ L^1, \ high \ 160-400 \ hight \ L^1, \ hight \ 160-400 \ hight \ L^1, \ hight \ hig$

Recommended reference: Department of Biodiversity, Conservation and Attractions 2024. *Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 22 October 2024.* Rivers and Estuaries Science (<u>https://www.dpaw.wa.gov.au/management/swan-canning-riverpark</u>)