

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

## Swan Canning Estuary Water Quality Monitoring Project

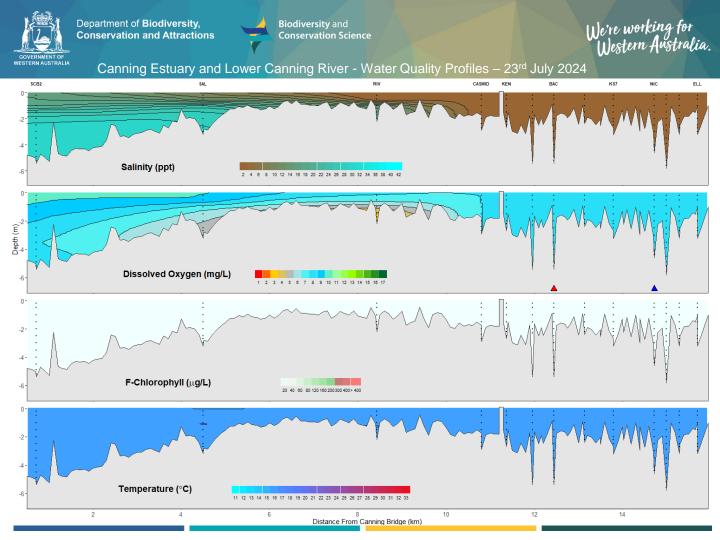
Weekly Water Quality Report

**Canning Estuary and Lower Canning River** 

23rd July 2024

Prepared by

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





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Date: 23rd July 2024

<u>Weather & tide conditions</u>: Conditions were cloudy with a variable breeze of up to 4.5 knots. The predicted tides at Barrack St were 1.27 m at 12:19 am (high tide) and 0.7 m at 10:25 pm (low tide). Perth recorded 76.6 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St oxygenation plant was not operable while the 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 at SCB2 and SAL, fresh over brackish at RIV and fresh at CASMID. Waters were oxygenated or well oxygenated, except for the bottom and midcolumn waters of RIV, which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 15.1 to 16.0 °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 15.3 to 15.5 °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:

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

Recommended reference: Department of Biodiversity, Conservation and Attractions 2024. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 23<sup>rd</sup> July 2024. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)