

## Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

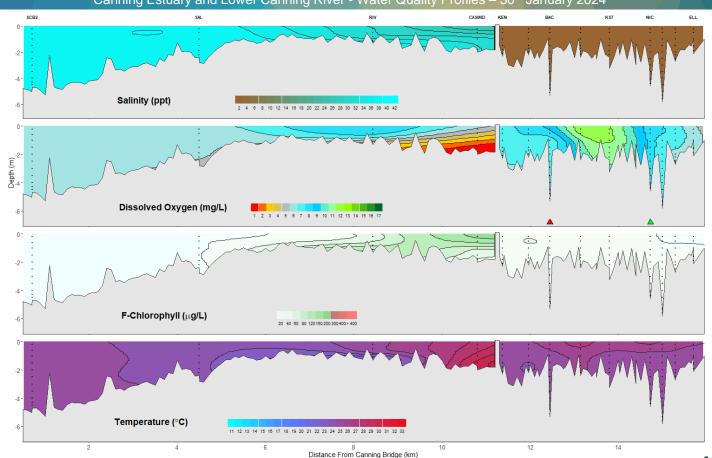
**Canning Estuary and Lower Canning River** 

30th January 2024

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## Canning Estuary and Lower Canning River - Water Quality Profiles - 30th January 2024



Date: 30th January 2024

<u>Weather & tide conditions</u>: Conditions were sunny with a predominantly easterly breeze of up to 11.4 knots. The predicted tides at Barrack St were 0.65 m at 8:27 am (low tide) and 0.85 m at 4:23 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St oxygenation plant was inoperable 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 hypersaline from SCB2 to SAL and saline between RIV and CASMID. Waters were oxygenated or well oxygenated, except for bottom waters at CASMID which were anoxic. Chlorophyll fluorescence was high in bottom waters at RIV and in surface waters at CASMID. Water temperatures ranged from 21.6 to 29.3 °C at the time of sampling.

<u>Lower Canning River (KEN to ELL)</u>: The Lower Canning River was fresh. Waters were oxygenated or well oxygenated with dissolved oxygen concentrations exceeding 10.0 mg/L at KS7 and in surface waters at PO2. Chlorophyll fluorescence was moderate in surface waters at BACD500. Water temperatures ranged from 24.0 to 26.3 °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:

Salinity - fresh <5, brackish 5-25, saline 25-35, hypersaline >35

<u>Dissolved oxygen</u> – 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  $L^{-1}$ 

 $\frac{Chlorophyll \ fluorescence \ (mod/high \ flow)}{L^{-1}, moderate 50-150 \ \mu g \ L^{-1}, high 150-400 \ \mu g \ L^{-1}, extreme > 400 \ \mu g \ L^{-1}$ 

Recommended reference: Department of Biodiversity, Conservation and Attractions 2023. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 30<sup>th</sup> January 2024. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)