

## Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

**Canning Estuary and Lower Canning River** 

23rd May 2023

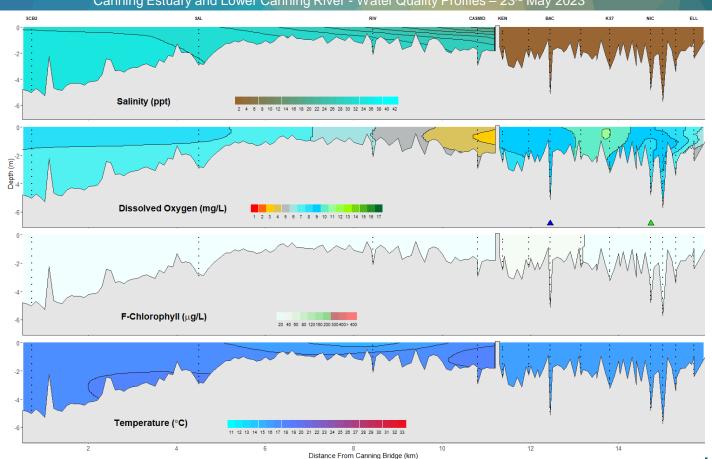
Prepared by

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



We're working for Western Australia.

## Canning Estuary and Lower Canning River - Water Quality Profiles – 23rd May 2023



Date: 23rd May 2023

<u>Weather & tide conditions</u>: Conditions were overcast with a predominantly north easterly breeze of up to 3.8 knots. The predicted tides at Barrack St were 0.73 m (low tide) at 11:31 pm the night before, and 1.28 m (high tide) at 12:41 pm on the day. Perth recorded 0 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St oxygenation plants was operable but not triggered to provide oxygen in the 24 hours prior to sampling, while the Nicholson Rd oxygenation plant was operable and provided oxygen in the 24 hours prior to sampling.

<u>Canning Estuary (SCB2 to CASMID)</u>: Waters were saline between SCB2 and RIV, and brackish over saline at CASMID. Waters were oxygenated to well oxygenated from SCB2 to RIV, while CASMID was low in oxygen. Chlorophyll fluorescence was low throughout, and water temperatures ranged from 14.4 °C to 17.3 °C at the time of sampling.

<u>Lower Canning River (KEN to ELL)</u>: The Lower Canning River was fresh, and waters were oxygenated to well oxygenated throughout. Chlorophyll fluorescence was moderate in the bottom waters of BAC and low elsewhere. Water temperatures ranged from 15.1 °C to 15.6 °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  $L^{-1}$ 

<u>Chlorophyll fluorescence (low flow)</u>: low < 50  $\mu$ g L<sup>-1</sup>, moderate 50-150  $\mu$ g L<sup>-1</sup>, high 150-400  $\mu$ g L<sup>-1</sup>, extreme > 400  $\mu$ g L<sup>-1</sup>

Recommended reference: Department of Biodiversity, Conservation and Attractions 2023. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 23<sup>rd</sup> May 2023. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)