## Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

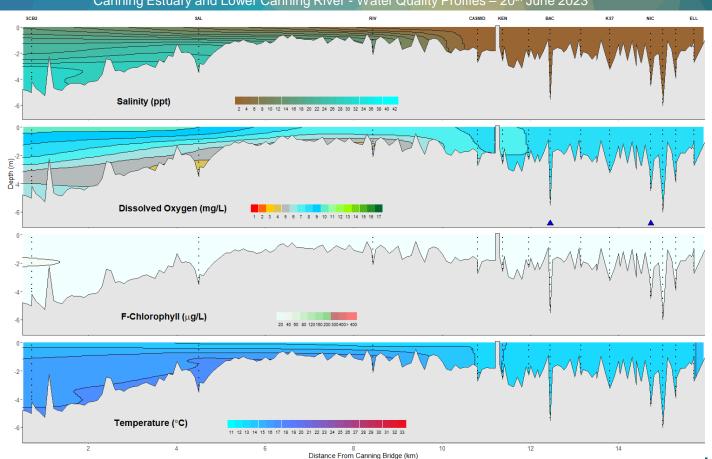
**Canning Estuary and Lower Canning River** 

20th June 2023

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## Canning Estuary and Lower Canning River - Water Quality Profiles - 20th June 2023



Date: 20th June 2023

<u>Weather & tide conditions</u>: Conditions were cloudy with occasional showers and a light south easterly breeze of up to 5.2 knots. The predicted tides at Barrack St were 1.30 m (high tide) at 11:51 am, and 0.74 m (low tide) at 10:44 pm. Perth recorded 27.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St and 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>: Waters were brackish over saline at SCB2 and SAL, fresh over brackish at RIV, and fresh at CASMID. Waters were oxygenated to well oxygenated, except for bottom waters SAL which were low in oxygen. Chlorophyll fluorescence was low throughout, and water temperatures ranged from 12.5 °C to 16.2 °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 low and water temperatures ranged from 12.6 °C to 13 °C.

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 (mod/high flow)</u>: low < 60  $\mu$ g L<sup>-1</sup>, moderate 60-160  $\mu$ g L<sup>-1</sup>, high 160-400  $\mu$ 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 20<sup>th</sup> June 2023. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)