Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

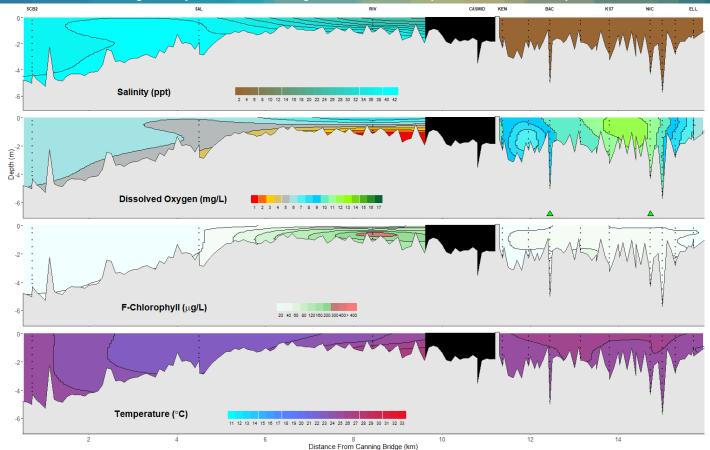
Canning Estuary and Lower Canning River

6th February 2024

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Canning Estuary and Lower Canning River - Water Quality Profiles - 6th February 2024



Date: 6th February 2024

<u>Weather & tide conditions</u>: Conditions were sunny with a predominantly easterly breeze of up to 7 knots. The predicted tides at Barrack St were 0.52 m at 6:57 am (low tide) and 1.14 m at 8:24 pm (high tide). Perth recorded 0.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

NB: The recorded tide was extremely low (0.2 m) and, as a result, CASMID could not be profiled.

<u>Oxygenation</u>: The Bacon St oxygenation plant and the Nicholson Rd oxygenation plant were 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 brackish over saline at RIV. Surface waters were oxygenated or well oxygenated and bottom waters were hypoxic at RIV. Chlorophyll fluorescence was high in subsurface and bottom waters at RIV. Water temperatures ranged from 22.0 to 30.3 °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 at all sites with dissolved oxygen concentrations exceeding 10.0 mg/L at NIC and KS7. Chlorophyll fluorescence was low and water temperatures ranged from 24.0 to 26.2 °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 (mod/high flow)</u>: low < 50 μ g L⁻¹, moderate 50-150 μ g L⁻¹, high 150-400 μ g L⁻¹, extreme > 400 μ g L⁻¹

Recommended reference: Department of Biodiversity, Conservation and Attractions 2024. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 6th February 2024. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)