

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

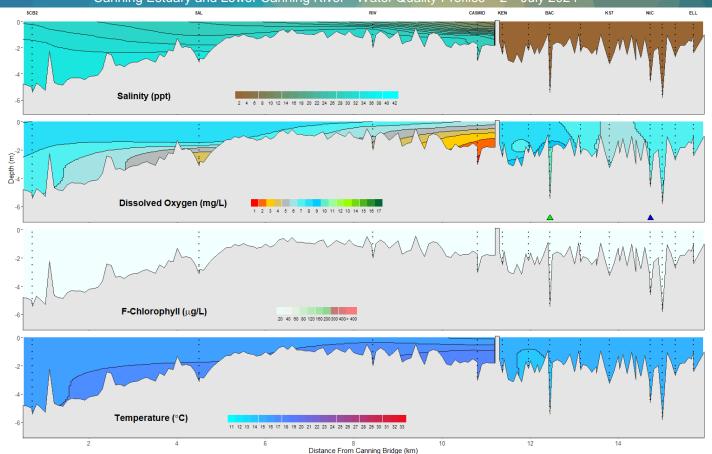
Canning Estuary and Lower Canning River

2nd July 2024

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Canning Estuary and Lower Canning River - Water Quality Profiles – 2nd July 2024



Date: 2nd July 2024

<u>Weather & tide conditions</u>: Conditions were sunny with a variable breeze of up to 6.9 knots. The predicted tides at Barrack St were 1.25 m at 8:09 am (high tide), and 0.71 m at 7:30 pm (low tide). Perth recorded 27.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling, whereas the Nicholson Rd plant was operable but not triggered to provide oxygen during this window.

<u>Canning Estuary (SCB2 to CASMID)</u>: The Canning Estuary was saline through SCB2 – SAL and brackish over saline from RIV - CASMID. Surface waters were oxygenated or well oxygenated, bottom waters at SAL and RIV were low in oxygen, while CASMID recorded hypoxic/anoxic oxygen levels. Chlorophyll fluorescence was low and water temperatures ranged from 15.3 to 17.4 °C at the time of sampling.

<u>Lower Canning River (KEN to ELL)</u>: The Lower Canning River was fresh, and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 13.9 to 14.6 °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 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 2nd July 2024. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)