Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

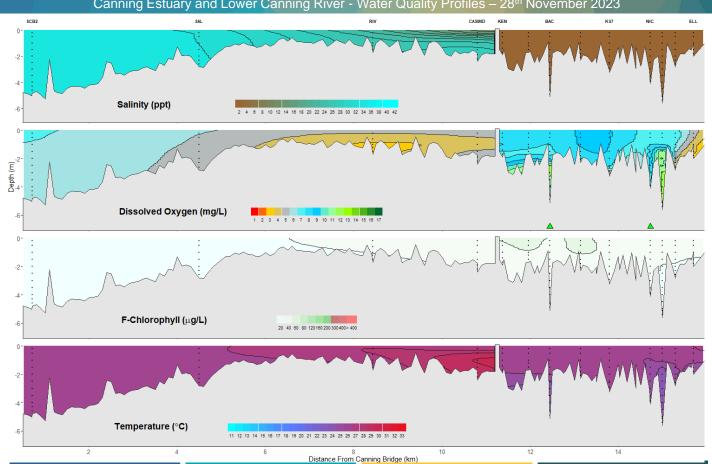
Canning Estuary and Lower Canning River

28th November 2023

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Canning Estuary and Lower Canning River - Water Quality Profiles – 28th November 2023



Date: 28th November 2023

<u>Weather & tide conditions</u>: Conditions were partly cloudy with a variable westerly breeze of up to 9.9 knots. The predicted tides at Barrack St were 0.49 m at 9:34 am (low tide) and 1.15 m at 11:02 pm (high tide). Perth recorded 0.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

<u>Oxygenation</u>: The Bacon St and Nicholson Rd oxygenation plants were triggered to provide oxygen in the 24 hours prior to sampling.

<u>Canning Estuary (SCB2 to CASMID)</u>: The Canning Estuary was saline from SCB2 to SAL, saline over brackish at RIV and brackish at CASMID. Waters were oxygenated or well oxygenated, except for bottom waters at RIV which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 25.2 °C to 29.1 °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, except for bottom waters at ELL which were low in oxygen. Chlorophyll fluorescence was low, except for surface waters at BACD500 and PO2 which had moderate fluorescence. Water temperatures ranged from 23.6 °C to 25.9 °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

Chlorophyll fluorescence (mod/high flow): 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 2023. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 28th November 2023. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)