

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

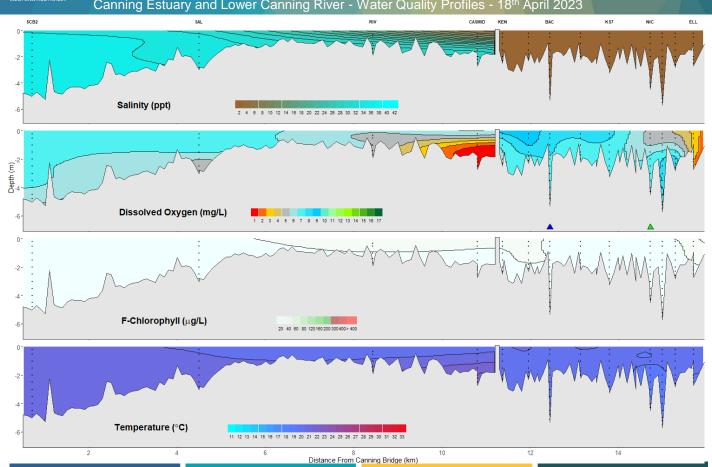
Canning Estuary and Lower Canning River

18th April 2023

Prepared by

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

Canning Estuary and Lower Canning River - Water Quality Profiles - 18th April 2023



Date: 18th April 2023

<u>Weather & tide conditions</u>: Conditions were sunny with a south easterly breeze of up to 6.6 knots. The predicted tides at Barrack St were 0.78 m at 5:01 am (low tide), 1 m at 11:21 am (high tide) and 0.85 m at 5:15 pm (second low tide). Perth recorded 21.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

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

<u>Canning Estuary (SCB2 to CASMID)</u>: Waters were saline at SCB2 and SAL, and brackish over saline from SHELL to CASMID. Waters were oxygenated to well oxygenated throughout apart from bottom waters of CASMID which were anoxic. Chlorophyll fluorescence was low, except for a moderate reading at the surface of RIV. Water temperatures ranged from 17.9 °C to 22.6 °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 throughout, and water temperatures ranged from 17.7 °C to 19 °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 2023. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 18th April 2023. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)