Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

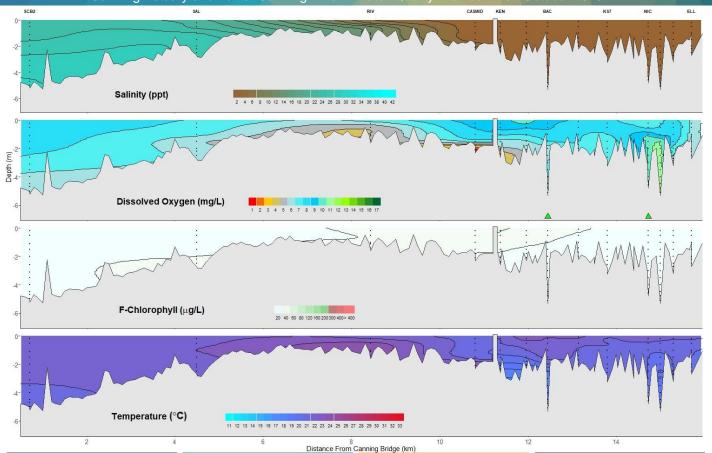
Canning Estuary and Lower Canning River

10th October 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 – 10th October 2023



Date: 10th October 2023

<u>Weather & tide conditions</u>: Conditions were clear with scattered clouds and a variable easterly breeze of up to 8.3 knots. The predicted tides at Barrack St were 0.9 m at 8:04 am (high tide) and 0.65 m at 4:41 pm (low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

NB: The Kent Street Weir was closed on 05 October 2023.

<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 brackish over saline at SCB2 and SAL, brackish at RIV and fresh at CASMID. Waters were oxygenated or well oxygenated, except bottom waters at CASMID which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 20.3 °C to 23.4 °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 KEN which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 17.3 °C to 22.4 °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 2023. Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 10th October 2023. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)