Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

18th July 2023

Prepared by

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Department of **Biodiversity, Conservation and Attractions**

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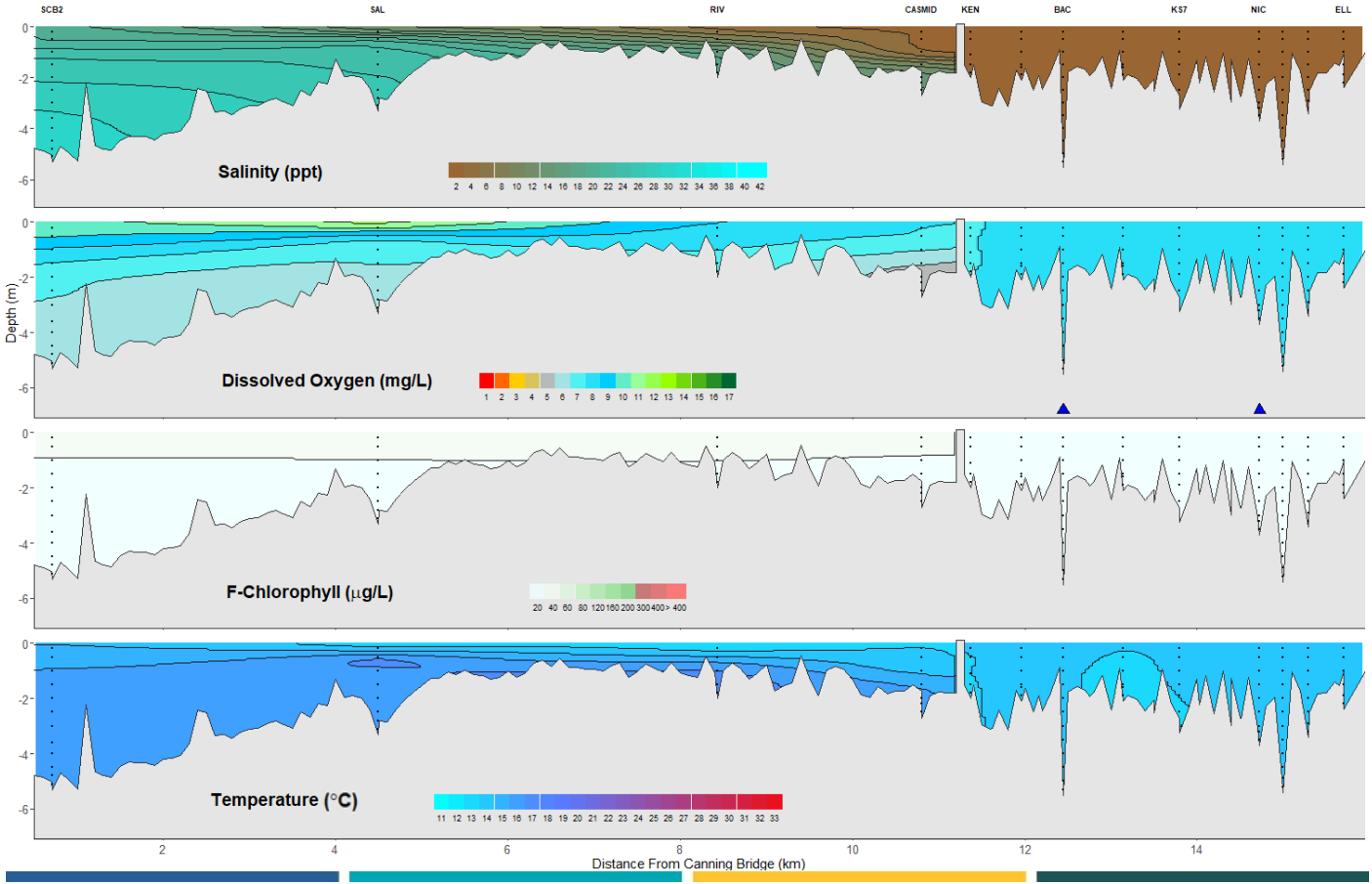
Canning Estuary and Lower Canning River - Water Quality Profiles – 18th July 2023



Date: 18th July 2023

Weather & tide conditions: Conditions were cloudy with a variable northerly breeze of up to 6.4 knots. The predicted tides at Barrack St were 1.25 m (high tide) at 9:07 am and 0.63 m (low tide) at 7:01 pm. Perth recorded 7.6 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St and Nicholson Rd oxygenation plants were operable but not triggered to provide oxygen in the 24 hours prior to sampling.

Canning Estuary (SCB2 to CASMID): The Canning Estuary was brackish over saline at SCB2 and SAL, brackish at RIV and fresh over brackish at CASMID. Waters were oxygenated to well oxygenated, chlorophyll fluorescence was low and water temperatures ranged from 12.8 °C to 16.5 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh and waters were well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 12.8 °C to 13.7 °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
Dissolved oxygen – 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 < 60 µg L^{-1}, moderate 60-160 µg L^{-1}, high 160-400 µg L^{-1}, extreme > 400 µg 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 July 2023.* Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)