Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

3 May 2022

Prepared by

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Department of **Biodiversity, Conservation and Attractions**

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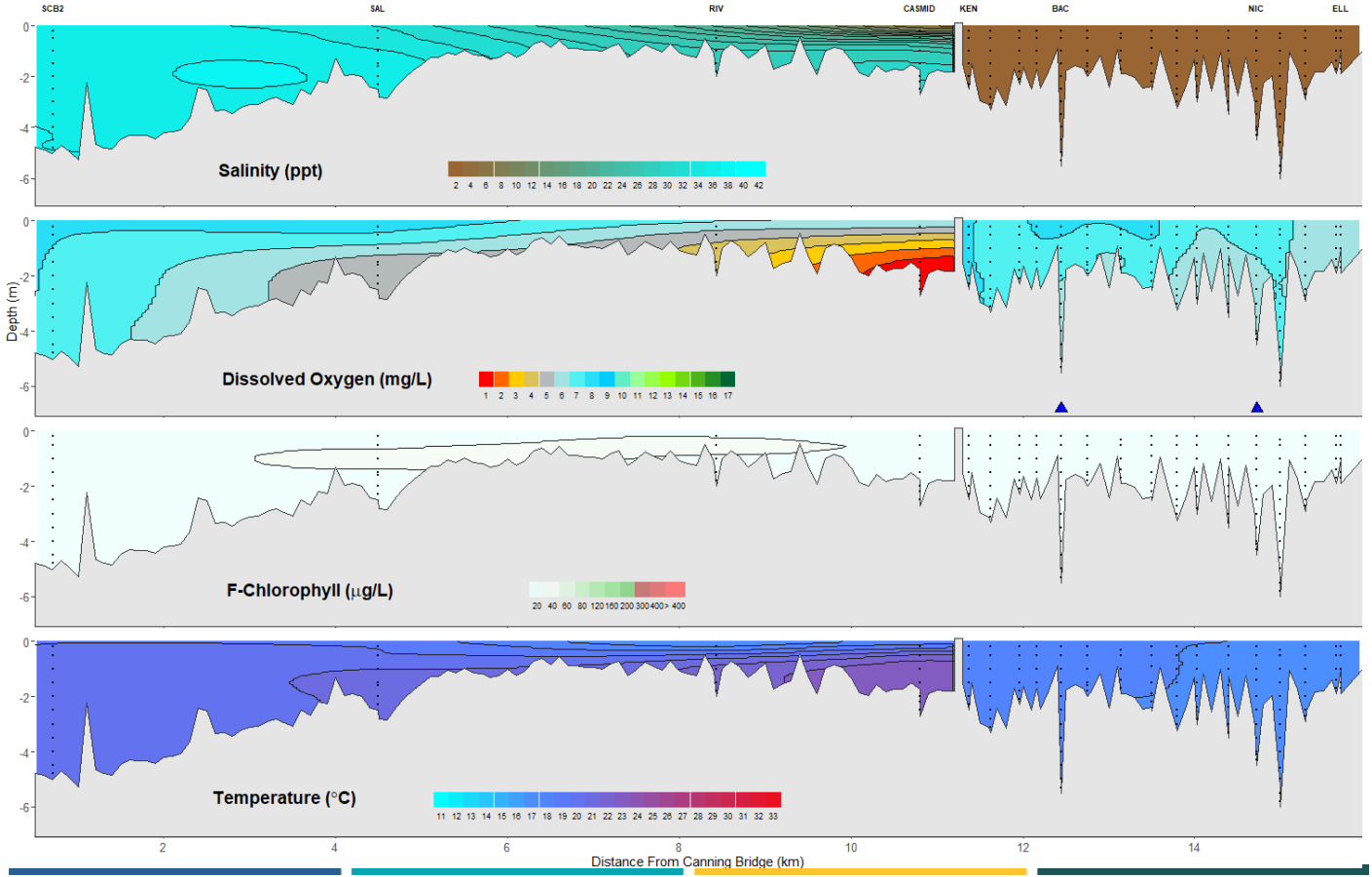
Canning Estuary and Lower Canning River - Water Quality Profiles – 3 May 2022



Date: 3 May 2022

Weather & tide conditions: Conditions were clear with a predominantly south-easterly breeze of up to 7 knots. The predicted tides at Barrack St were 1.24 m at 12:09 pm (high tide) and 0.76 m at 10:46 pm (low tide). Perth recorded 28.8mm 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): Water was hypersaline at SCB2, saline over hypersaline at SAL and brackish over saline from RIV to CASMID. Waters were well oxygenated or oxygenated at SCB2 and SAL. Surface waters were oxygenated at RIV and CASMID. Bottom waters were low in oxygen at RIV and anoxic at CASMID. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 17.1 to 22.6 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 16.4 to 18 °C.

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 (summer): low < 50 µg L^{-1}, moderate 50-150 µg L^{-1}, high 150-400 µg L^{-1}, extreme > 400 µg L^{-1}

Recommended reference: Department of Biodiversity, Conservation and Attractions 2022. *Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 3 May 2022.* Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)