Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Canning Estuary and Lower Canning River

9 March 2022

Prepared by

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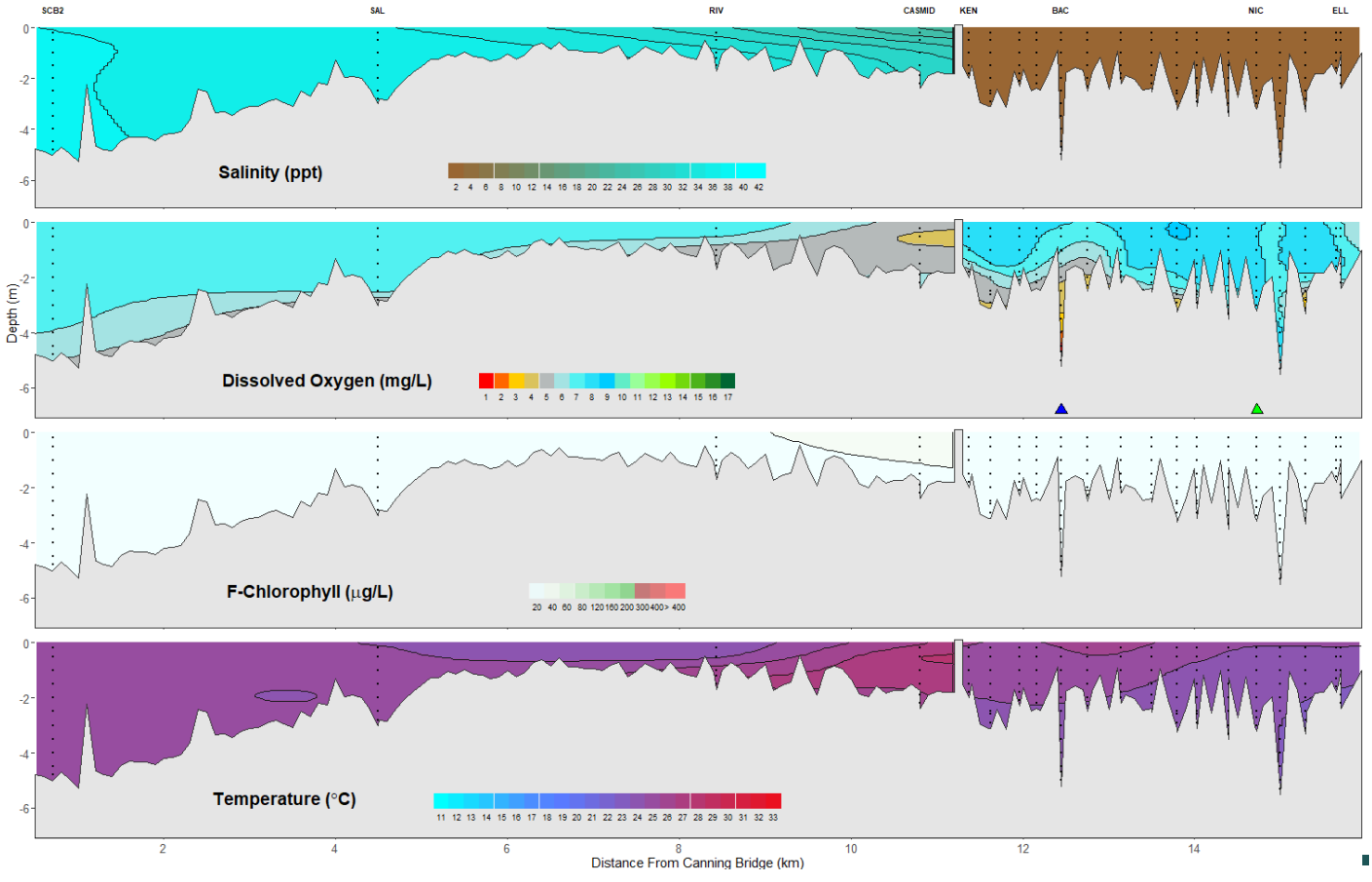
Canning Estuary and Lower Canning River - Water Quality Profiles – 9 March 2022



Date: 9 March 2022

Weather & tide conditions: Conditions were clear with an easterly breeze of up to 9 knots. The predicted tides at Barrack St were 0.63 m at 5:26 am (low tide) and 1.07 m at 3:15 pm (high tide). Perth recorded 3 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St oxygenation plant was not triggered and the Nicholson Rd oxygenation plant was triggered to provide oxygen during the 24 hours prior to sampling.

Canning Estuary (SCB2 to CASMID): The Canning Estuary was saline from SCB2 to RIV and brackish over saline at CASMID. Waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 23.5 to 27.4 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were oxygenated or well oxygenated and bottom waters were hypoxic at BAC. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 22.6 to 25.2 °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 2021. *Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 9 March 2022.* Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)