

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

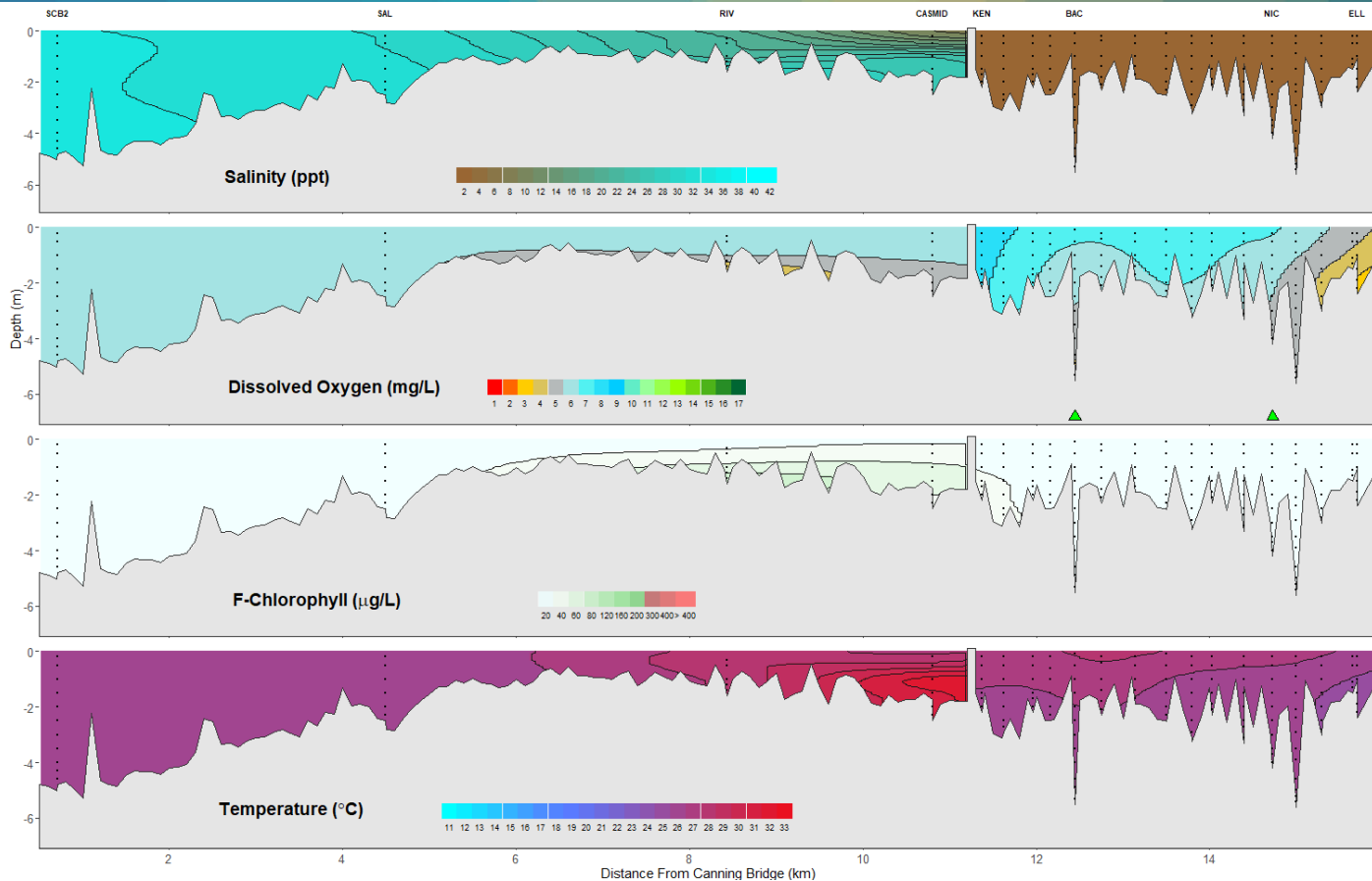
Canning Estuary and Lower Canning River

5 January 2022

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Canning Estuary and Lower Canning River - Water Quality Profiles – 5 January 2022



Date: 5 January 2022

NB: Monitoring delayed due to public holiday on 3 January 2022.

Weather & tide conditions: Conditions were clear with a easterly breeze of up to 5 knots. The predicted tides at Barrack St were 0.48 m at 10:49 am (low tide) and 1.09 m at 12:38 am (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St and Nicholson Rd oxygenation plants were both triggered to provide oxygen in the 24 hours prior to sampling.

Canning Estuary (SCB2 to CASMID): The Canning Estuary was saline from SCB2 to SAL and brackish over saline between RIV and CASMID. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at RIV. Chlorophyll fluorescence was low from SCB2 to SAL and moderate between RIV and CASMID indicating higher microalgal activity in that area. Water temperature ranged from 25.2 to 31.4 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were oxygenated or well oxygenated except at PAC and ELL which were low in oxygen. Bottom waters were low in oxygen at BAC, PAC and ELL. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 24.5 to 27.7 °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