



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

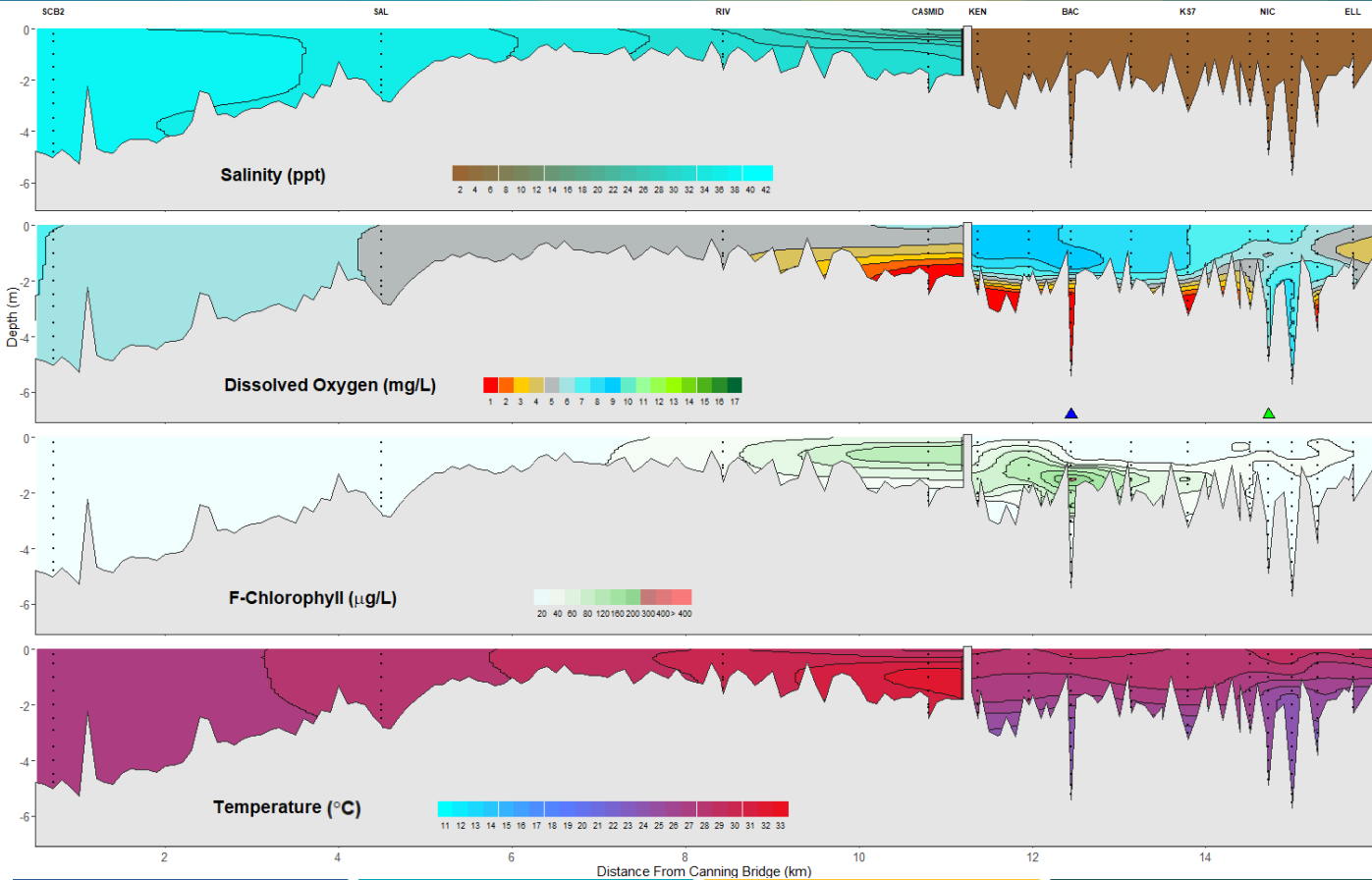
Canning Estuary and Lower Canning River

24th January 2023

Prepared by

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Department of Biodiversity, Conservation and Attractions

Canning Estuary and Lower Canning River - Water Quality Profiles – 24th January 2023



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Distance From Canning Bridge (km)

Date: 24th January 2023

Weather & tide conditions: Conditions were sunny with a predominantly south easterly breeze of up to 7.9 knots. The predicted tides at Barrack St were 1.14 m at 12:20 am (high tide) and 0.53 m at 10:22am (low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

Canning Estuary (SCB2 to CASMID): Waters were saline between SCB2 and RIV, and brackish over saline at CASMID. Waters were oxygenated or well oxygenated throughout, except at the bottom waters of CASMID where oxygen was low to hypoxic. Chlorophyll fluorescence was low between SCB2 to RIV, and low at CASMID in the bottom waters and moderate in the surface waters. Water temperatures ranged from 26.3 to 31.3°C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh, and waters were oxygenated or well oxygenated throughout, except at the bottom waters between KEN to KS7, which were low in oxygen to anoxic. Chlorophyll fluorescence was low throughout, except at KEN and KS7 where bottom waters showed a moderate signal, and moderate to high at BAC. Water temperatures ranged from 22.4 to 28.7 °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