



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

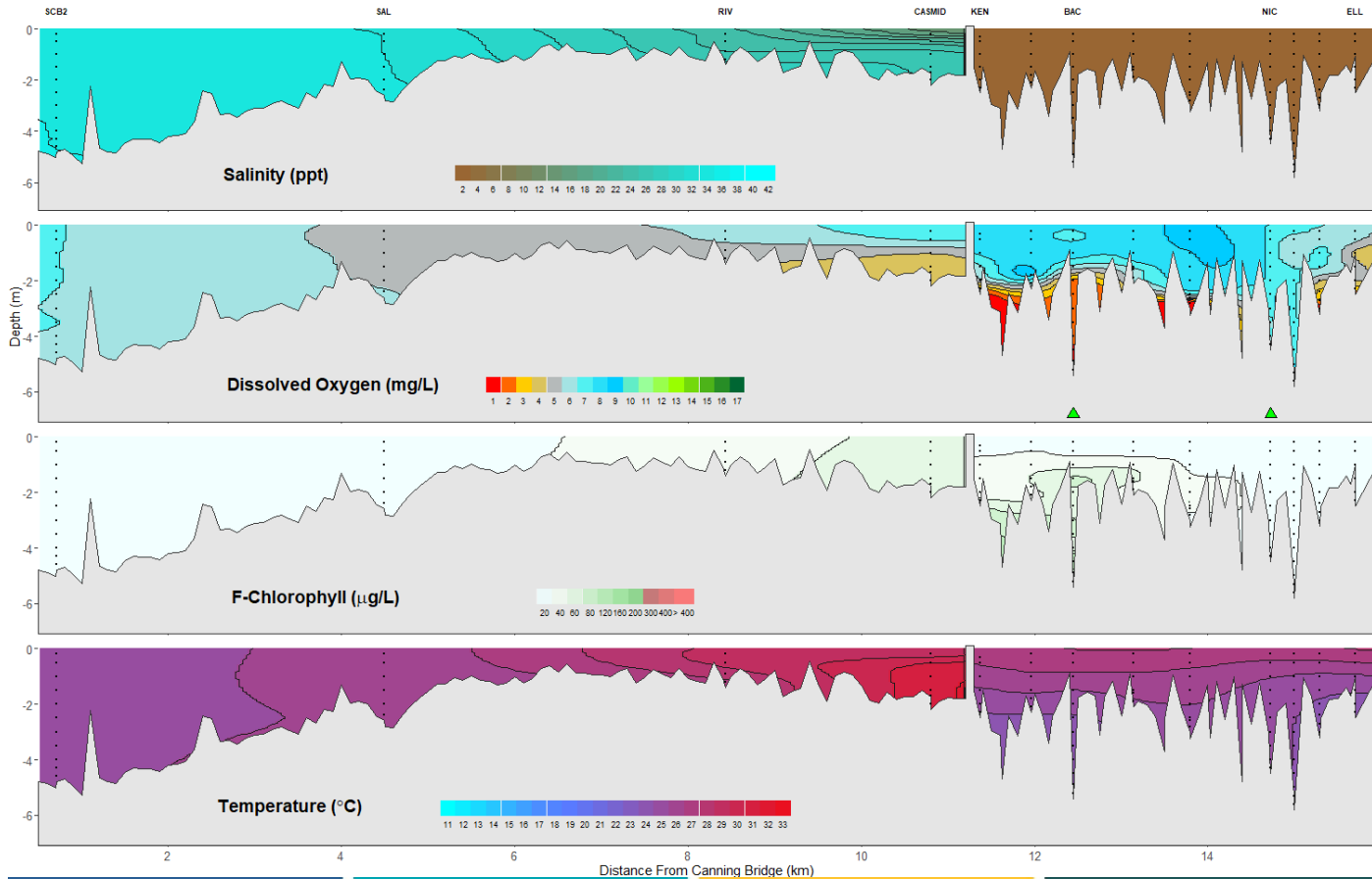
Canning Estuary and Lower Canning River

10th January 2023

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Canning Estuary and Lower Canning River - Water Quality Profiles - 10th January 2023



Date: 10th January 2023

Weather & tide conditions: Conditions were sunny with a variable breeze of up to 7 knots. The predicted tide at Barrack St was 0.56 m at 10:00 am (low 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): Waters were saline between SCB2 and SAL and brackish over saline between RIV and CASMID. Waters were oxygenated or well oxygenated throughout, except for bottom waters at CASMID, which were low in oxygen. Chlorophyll fluorescence was low from SCB2 to RIV and moderate at CASMID, indicating higher microalgal activity in that area. Water temperatures ranged from 24.6 to 30.7°C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh throughout. Waters were mostly oxygenated or well oxygenated, except for bottom waters at KEN and PAC which were hypoxic, bottom waters at BAC and KS7 which were anoxic, and bottom waters ELL which were low in oxygen. Chlorophyll fluorescence was low throughout, except at KEN and BAC where it was moderate, indicating higher microalgal activity in that area. Water temperatures ranged from 23.5 to 27.5 °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 (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹