



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

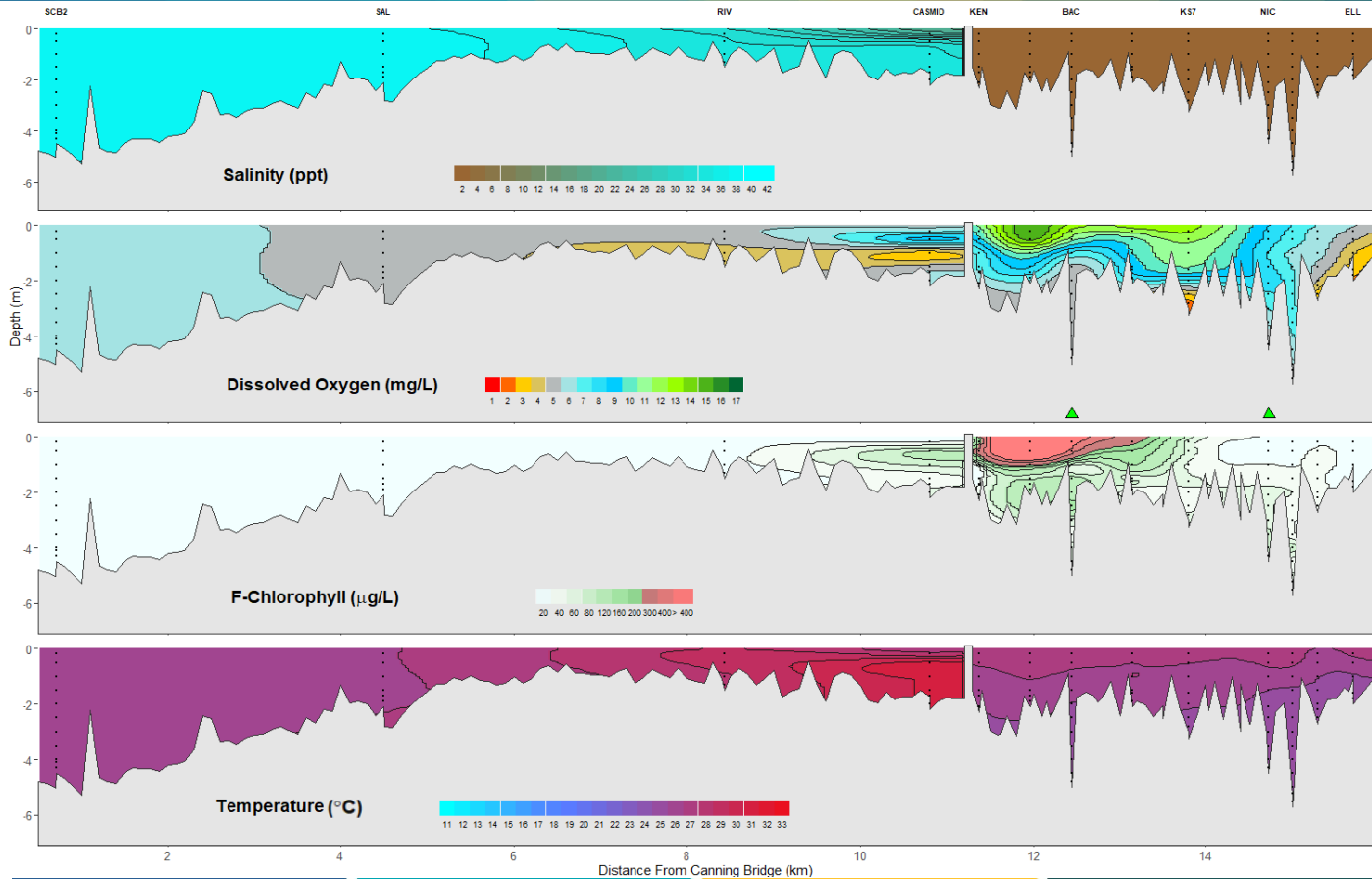
## Canning Estuary and Lower Canning River

21<sup>st</sup> February 2023

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## Canning Estuary and Lower Canning River - Water Quality Profiles – 21<sup>st</sup> February 2023



Date: 21<sup>st</sup> February 2023

Weather & tide conditions: Conditions were sunny with a variable easterly breeze of up to 8.3 knots. The predicted tide at Barrack St was 0.59 m at 8:57 am. Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

Canning Estuary (SCB2 to CASMID): Waters were hypersaline between SCB2 and SAL, saline at RIV and brackish over saline at CASMID. Waters were oxygenated throughout, except for the bottom waters of RIV and mid-column of CASMID, which had low oxygen. Chlorophyll fluorescence was low between SCB2 and RIV, and low to moderate at CASMID. Water temperatures ranged from 25.5 °C to 30.6 °C at the time of sampling.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh, and surface waters were oxygenated or well oxygenated throughout, while the bottom waters of ELL and NIC were low in oxygen, and KS7 was anoxic to low. Chlorophyll fluorescence was low at KS7 and ELL, high in the surface waters of KEN, moderate to high in the mid-column to surface waters of BAC, and moderate in the bottom waters of NIC. Water temperatures ranged from 24.2 °C to 27.0 °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](http://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<sup>-1</sup>, oxygenated >4-6 mg L<sup>-1</sup>, low oxygen >2-4 mg L<sup>-1</sup>, hypoxic 0.5-2 mg L<sup>-1</sup>, anoxic <0.5 mg L<sup>-1</sup>  
Chlorophyll fluorescence (mod/high flow): low < 60 µg L<sup>-1</sup>, moderate 60-160 µg L<sup>-1</sup>, high 160-400 µg L<sup>-1</sup>, extreme > 400 µg L<sup>-1</sup>