



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

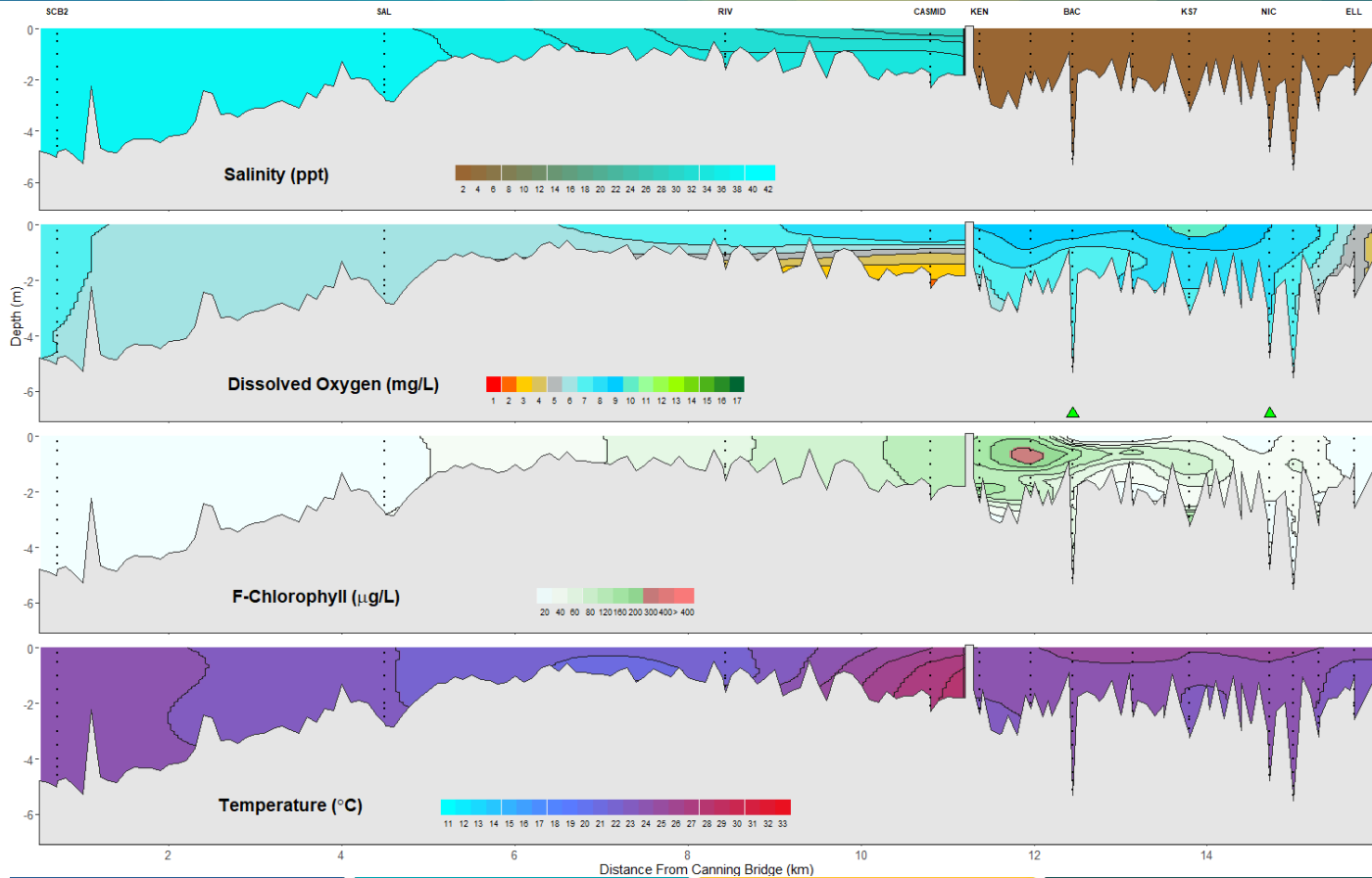
### Canning Estuary and Lower Canning River

8<sup>th</sup> March 2023

Prepared by

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## Canning Estuary and Lower Canning River - Water Quality Profiles - 8<sup>th</sup> March 2023



**Date:** 8<sup>th</sup> March 2023

**NB:** sampling was delayed a day due to the Labour Day public holiday on Monday 6<sup>th</sup> March.

**Weather & tide conditions:** Conditions were slightly overcast with a variable easterly breeze of up to 9 knots. The predicted tides at Barrack St were 0.69 m at 7:15 am (1<sup>st</sup> low tide), 0.87 m at 1:28 pm (high tide), and 0.81 m at 5:23 pm (2<sup>nd</sup> low tide). Perth recorded 1.2 mm of 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 and saline from RIV to CASMID. Waters were oxygenated throughout, except for the bottom waters at RIV and CASMID, which were hypoxic and low in oxygen, respectively. Chlorophyll fluorescence was low throughout, except for moderate fluorescence detected in the bottom waters of RIV and CASMID, and high chlorophyll fluorescence detected in the surface waters at CASMID. Water temperatures ranged from 21.2 °C to 26.9 °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. Chlorophyll fluorescence was moderate in the surface waters at KEN, BAC to KS7 and moderate in the bottom waters of BACD500, BAC, and KS7. High chlorophyll fluorescence was also detected in the bottom waters of KEN and the surface waters of BACD500. Water temperatures ranged from 22.4 °C to 24.7 °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](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>