



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

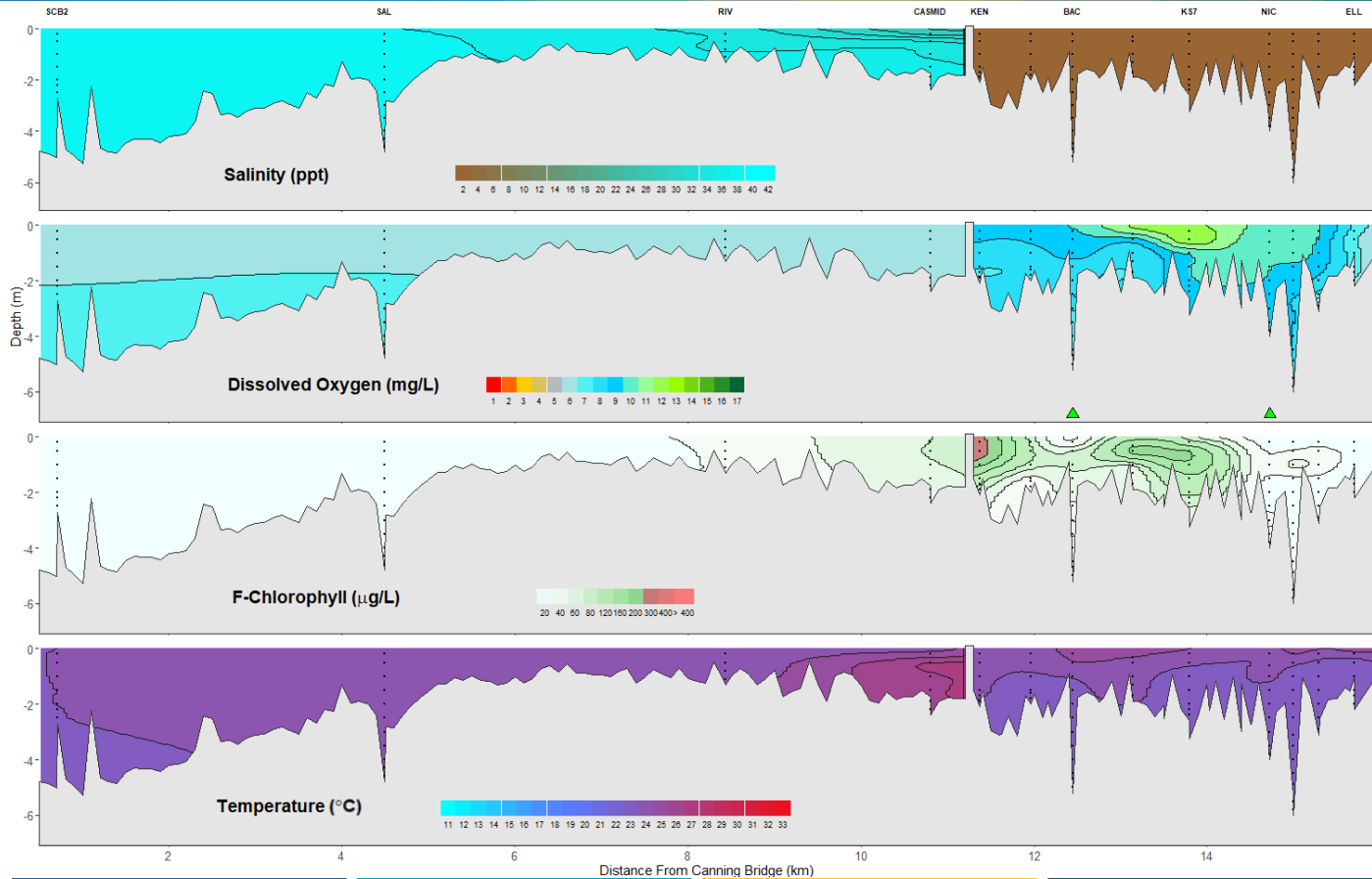
### Canning Estuary and Lower Canning River

21<sup>st</sup> March 2023

Prepared by

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



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

Weather & tide conditions: Conditions were sunny with scattered clouds and a predominantly easterly breeze of up to 6.4 knots. The predicted tides at Barrack St were 0.68 m at 7:07 am (low tide), 0.87 m at 12:51 pm (1<sup>st</sup> high tide) and 0.81 m at 5:00 pm (2<sup>nd</sup> low tide) and 1.03 m at 11:40 pm. Perth recorded 0.4 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 to well oxygenated throughout. Chlorophyll fluorescence was low, except for moderate signals detected in the mid to surface waters of CASMID. Water temperatures ranged from 23 °C to 26.1 °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 to high throughout the column at KEN and KS7, and moderate in the mid to surface waters of BAC. Water temperatures ranged from 22.7 °C to 24.3 °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).

Chlorophyll fluorescence was previously reported as moderate between 60-160 µg L<sup>-1</sup> and high as 160-400 µg L<sup>-1</sup> and has been updated to align with the Swan targets

**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 (low flow): low < 50 µg L<sup>-1</sup>, moderate 50-150 µg L<sup>-1</sup>, high 150-400 µg L<sup>-1</sup>, extreme > 400 µg L<sup>-1</sup>