

# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

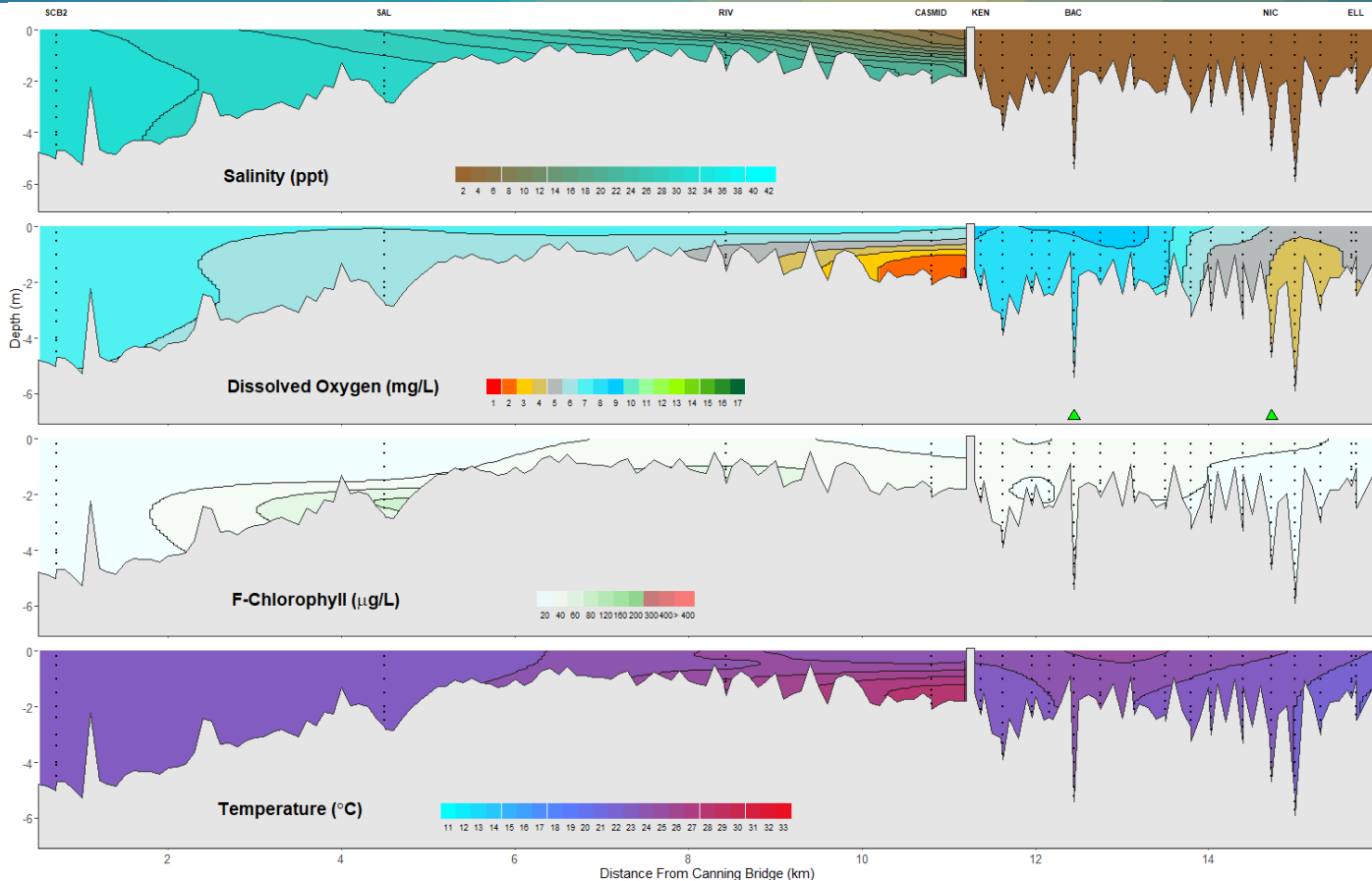
### Canning Estuary and Lower Canning River

14 December 2021

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# Canning Estuary and Lower Canning River - Water Quality Profiles – 14 December 2021



Date: 14 December 2021

Weather & tide conditions: Conditions were clear with a variable breeze of up to 10 knots. The predicted tides at Barrack St were 0.64 m at 7:31 am (low tide) and 1.03 m at 8:38 pm (high 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): The Canning Estuary was saline at SCB2 and SAL, brackish at RIV and fresh over brackish at CASMID. Waters were oxygenated or well oxygenated except bottom waters at CASMID which were hypoxic. Chlorophyll fluorescence was low except at SAL which was moderate indicating higher microalgal activity in that area. Water temperature ranged from 22.1 to 27.3 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were oxygenated or well oxygenated except from KS9 to PAC and at ELL which were low in oxygen. Bottom waters were low in oxygen from NIC to PAC and at ELL. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 20.8 to 24.8 °C.

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 (summer): 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>