



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

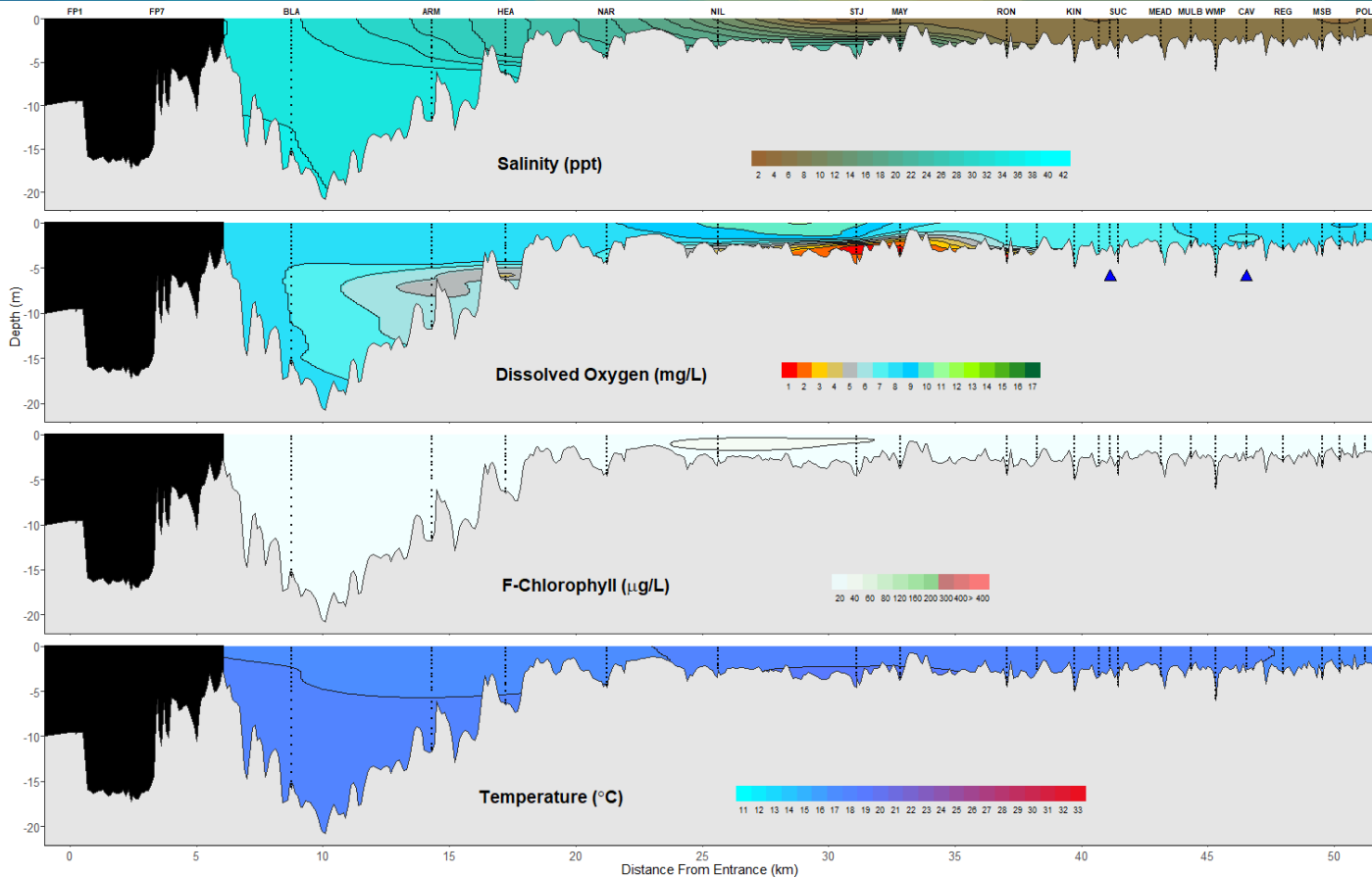
### Lower Swan Canning Estuary to Upper Swan Estuary

4<sup>th</sup> September 2023

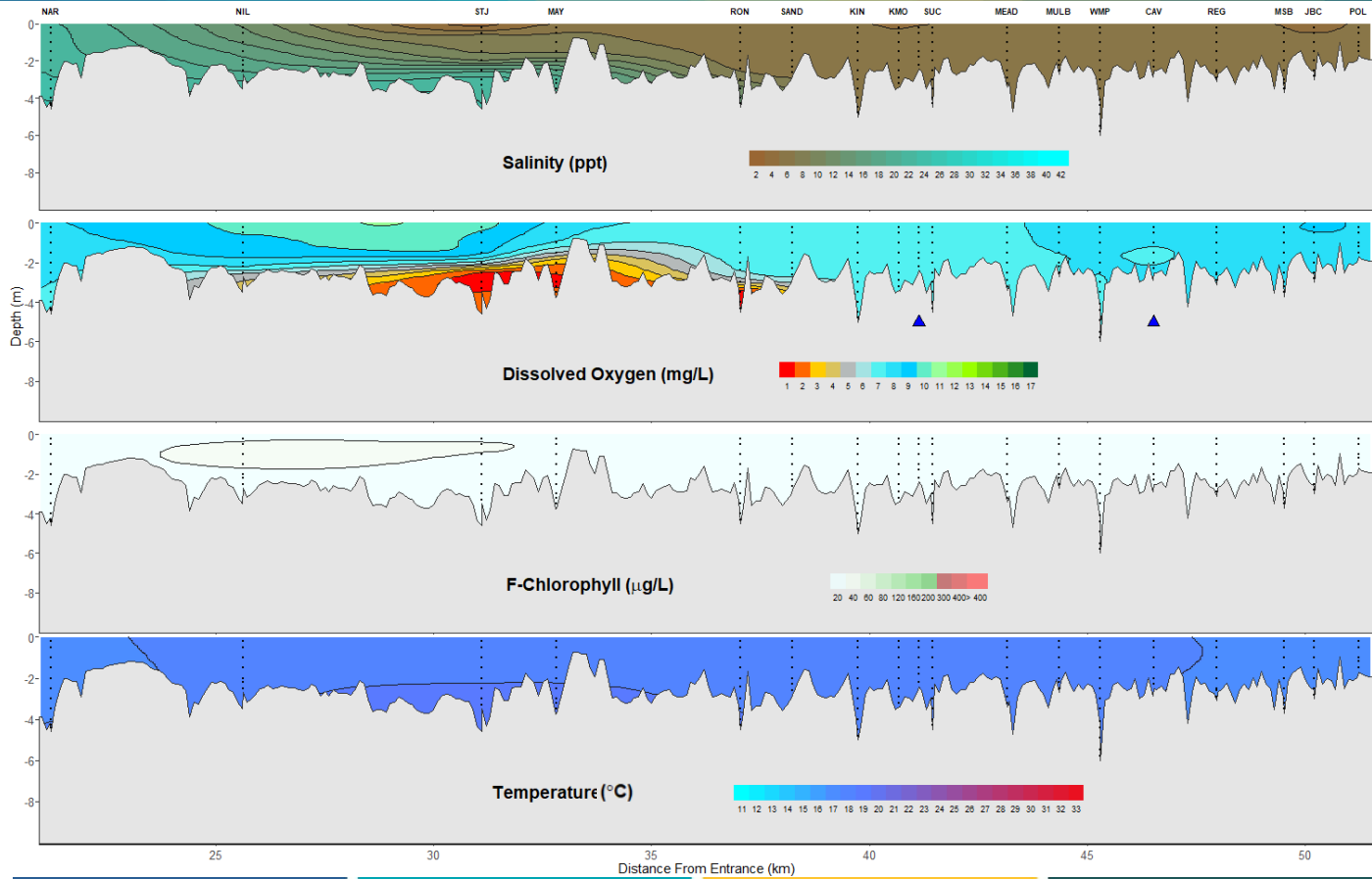
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## Swan Canning Estuary - Water Quality Profiles – 4<sup>th</sup> September 2023



## Swan Canning Estuary - Water Quality Profiles – 4<sup>th</sup> September 2023



Date: 4<sup>th</sup> September 2023

Weather & tide conditions: Conditions were cloudy with a predominantly westerly breeze of up to 10.9 knots. The predicted tides at Barrack St were 0.95 m at 12:47 am (high tide), 0.69 m at 12:10 pm (low tide) and 0.7 m at 1:43 pm (2<sup>nd</sup> high tide). Perth recorded 16.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both operable but not triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline from BLA to ARM, brackish over saline at HEA and brackish at NAR. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 16.3 °C to 17.6 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish. Waters were oxygenated or well oxygenated, except for bottom waters between STJ and RON which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 17.1 °C to 18.7 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish, except for surface waters at KIN, KMO and SUC and from MSB to JBC which were fresh. Waters were well oxygenated, chlorophyll fluorescence was low and water temperatures ranged from 14.6 °C to 17.9 °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 (mod/high 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>