



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

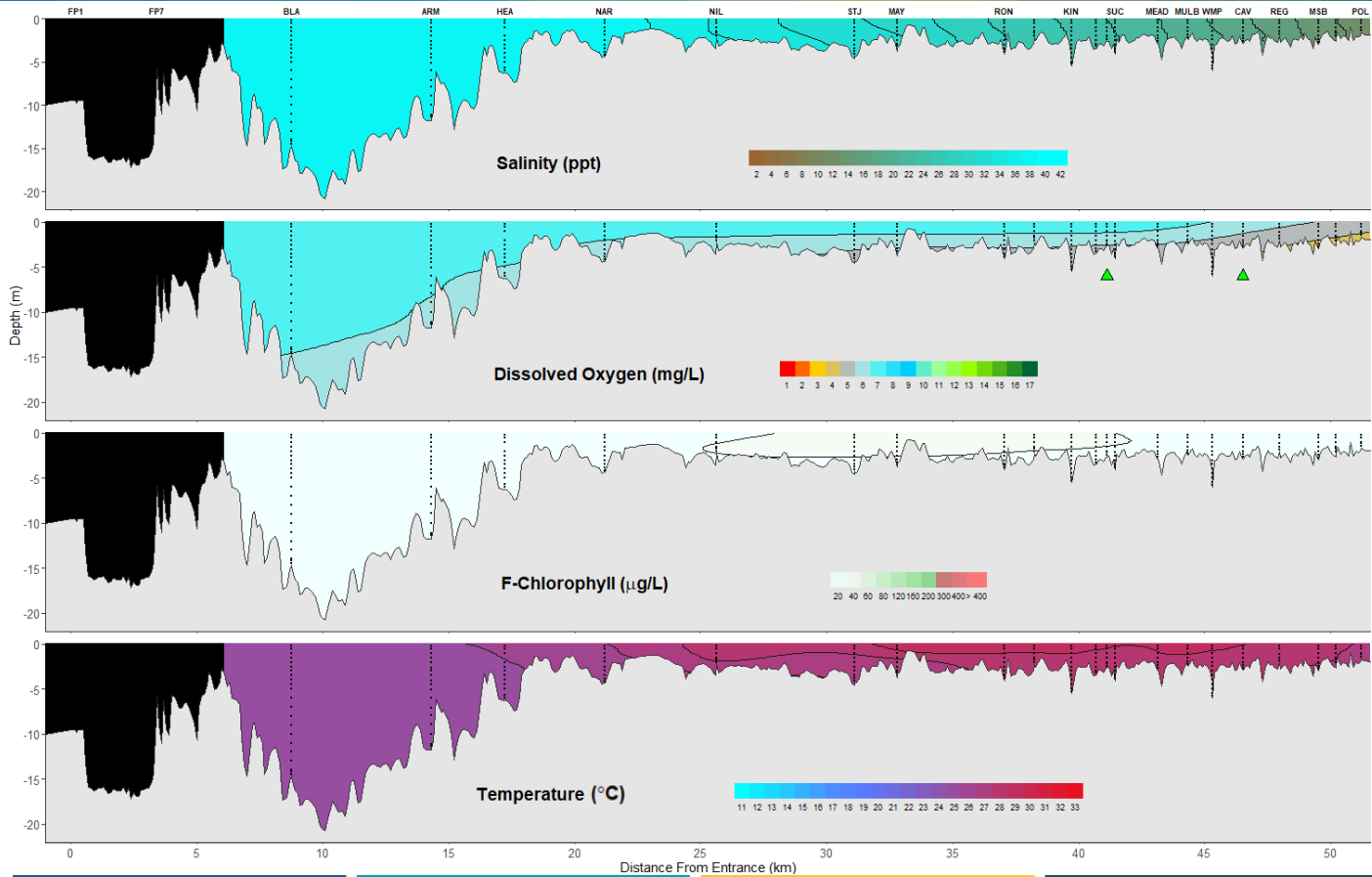
### Lower Swan Canning Estuary to Upper Swan Estuary

20<sup>th</sup> February 2023

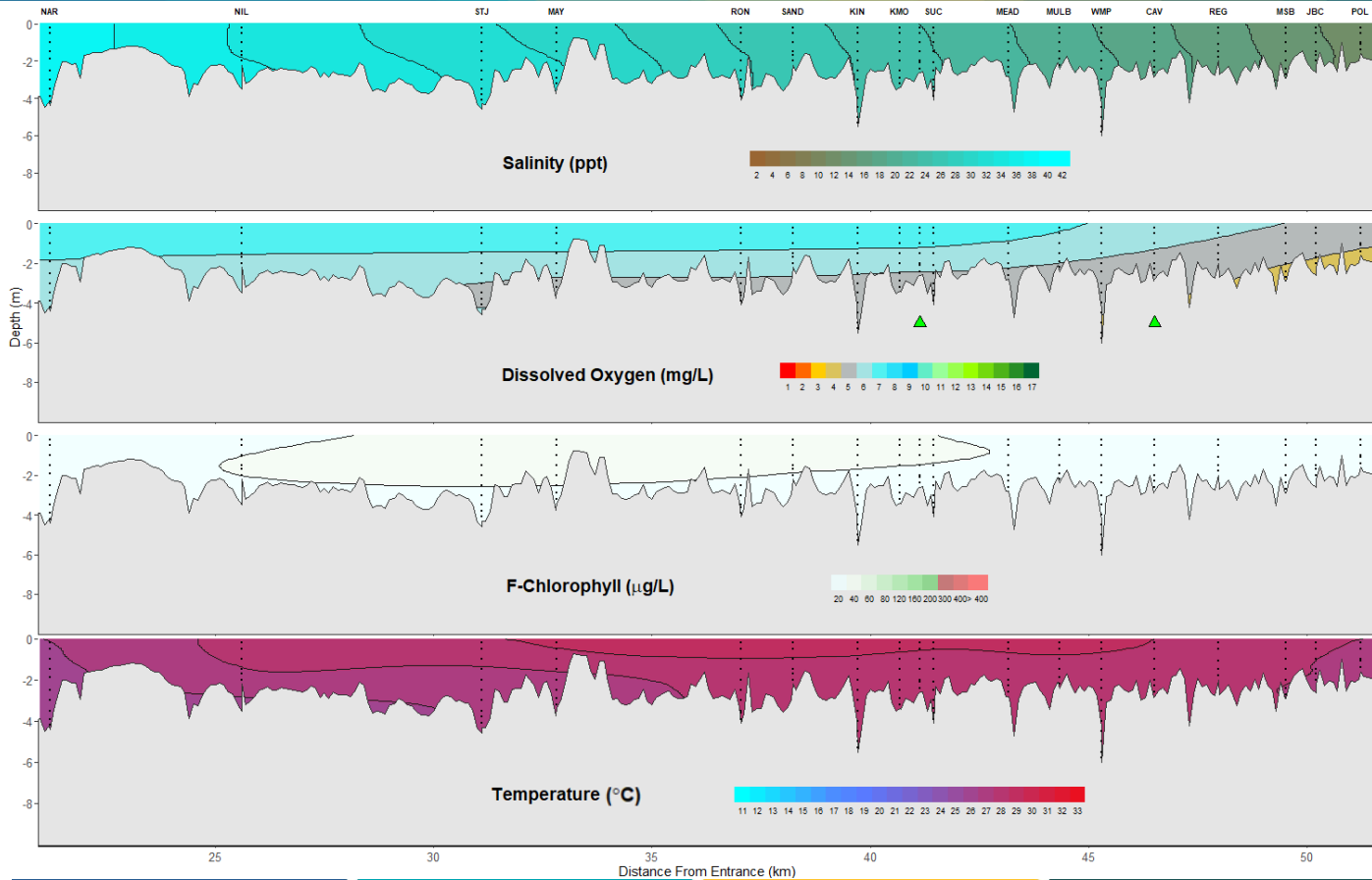
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## Swan Canning Estuary - Water Quality Profiles - 20<sup>th</sup> February 2023



## Middle and Upper Swan Estuary - Water Quality Profiles – 20<sup>th</sup> February 2023



**Date:** 20<sup>th</sup> February 2023

**Weather & tide conditions:** Conditions were sunny with a predominantly easterly breeze of up to 9.7 knots. The predicted tides at Barrack St were of 0.53 m at 8:45 am (low tide) and 1.14 m at 8:38 pm (high tide) . Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

**Oxygenation:** The Guildford and Caversham oxygenation plants were both operable and providing oxygen in the 24 hours prior to sampling.

**Lower Swan Canning Estuary (BLA to NAR):** The Lower Swan Canning Estuary was hypersaline and oxygenated to well oxygenated throughout. Chlorophyll fluorescence was low throughout and water temperatures ranged from 24.2 °C to 25.9 °C at the time of sampling.

**Middle Swan Estuary (NIL to RON):** The Middle Swan Estuary was saline, and waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was low throughout and water temperatures ranged from 26.1 to 28.4 °C at the time of sampling.

**Upper Swan Estuary (SAND to POL):** The Upper Swan Estuary was brackish over saline at SAND, and brackish from KIN to POL. Surface waters were oxygenated or well oxygenated throughout, while the bottom waters of WMP, CAV, MSB, JBC and POL were low in oxygen. Chlorophyll fluorescence was low throughout, except for a moderate signal in the mid-column of KMO. Water temperatures ranged from 26.6 °C to 28.9 °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 (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>