



# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

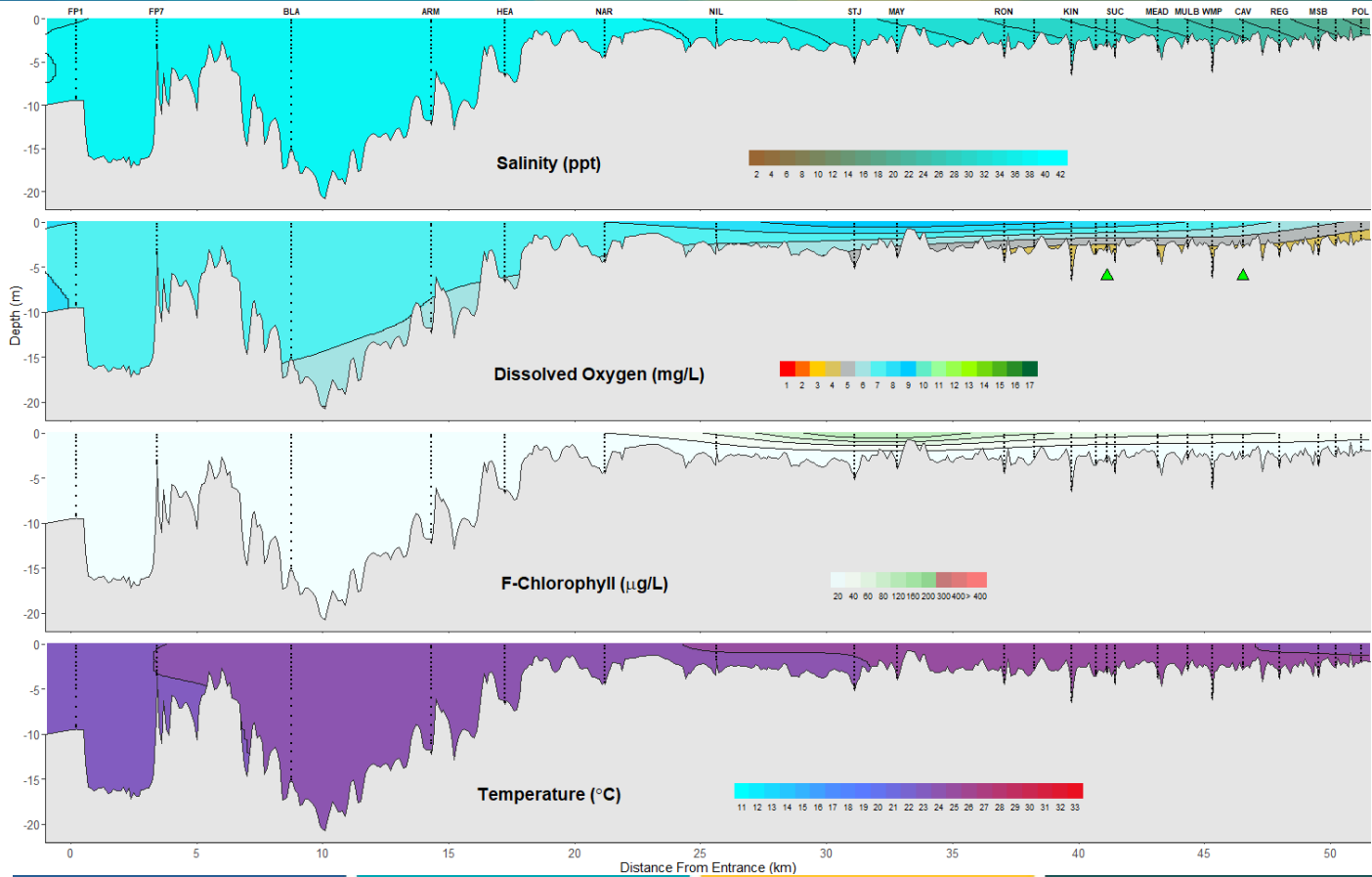
### Lower Swan Canning Estuary to Upper Swan Estuary

27<sup>th</sup> March 2023

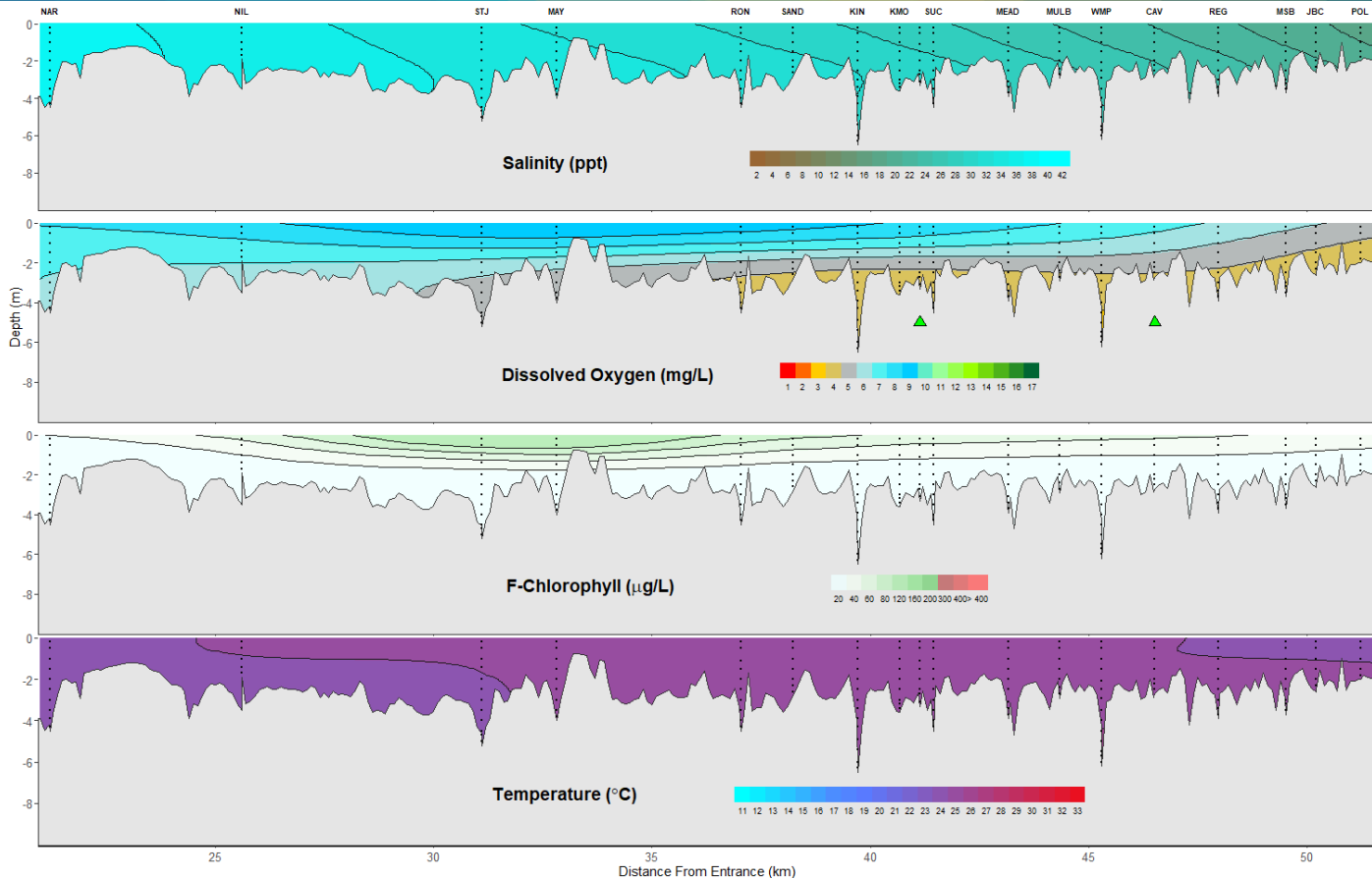
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## Swan Canning Estuary - Water Quality Profiles - 27<sup>th</sup> March 2023



## Middle and Upper Swan Estuary - Water Quality Profiles - 27<sup>th</sup> March 2023



**Date:** 27<sup>th</sup> March 2023

**Weather & tide conditions:** Conditions were cloudy with a predominantly south easterly breeze of up to 12 knots. The predicted tides at Barrack St were 0.64 m at 4:00 am (low tide) and 1.14m at 2:27 pm (high tide). Perth recorded 1.4 mm of 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 (FPI to NAR):** The Lower Swan Canning Estuary was hypersaline (35-37 ppt) and waters were oxygenated to well oxygenated. Chlorophyll fluorescence was low throughout and water temperatures ranged from 22.5 °C to 23.6 °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 except for bottom waters of MAY and RON, which were low in oxygen. Chlorophyll fluorescence was high in the surface waters of STJ and MAY and low elsewhere. Water temperatures ranged from 23.5 to 24.6 °C at the time of sampling.

**Upper Swan Estuary (SAND to POL):** The Upper Swan Estuary was saline between SAND and MEAD, brackish over saline from MULB to WMP and brackish from CAV to POL. Waters were oxygenated to well oxygenated throughout, except for bottom waters of SAND to VIT and MULB, WMP, MSB, JBC and POL which were low in oxygen. Chlorophyll fluorescence was moderate in the surface waters of MSB, CAV, KMO, KIN and SAND and low elsewhere. Water temperatures ranged from 23.5 °C to 25.1 °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>