



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

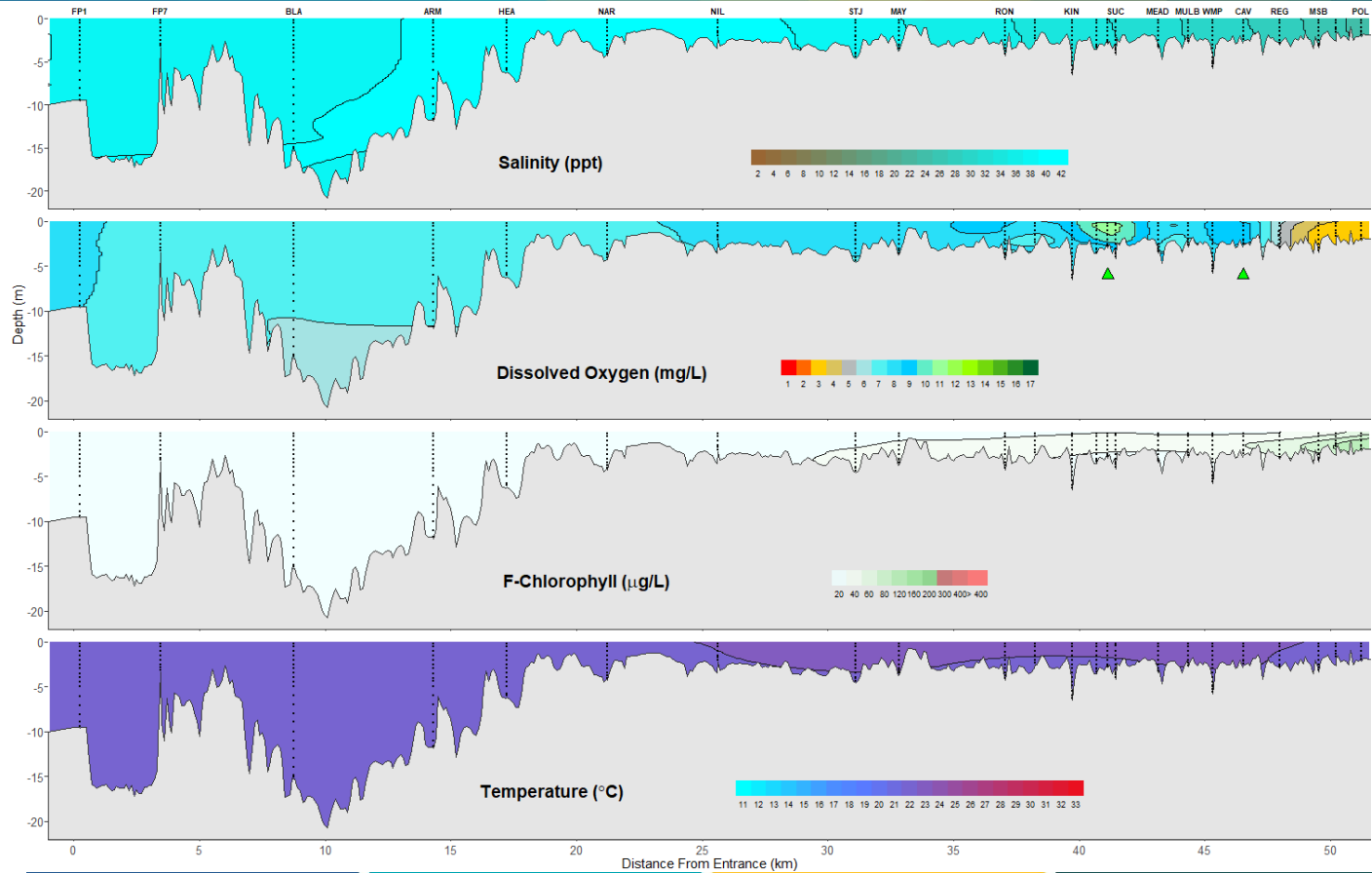
### Lower Swan Canning Estuary to Upper Swan Estuary

8<sup>th</sup> April 2024

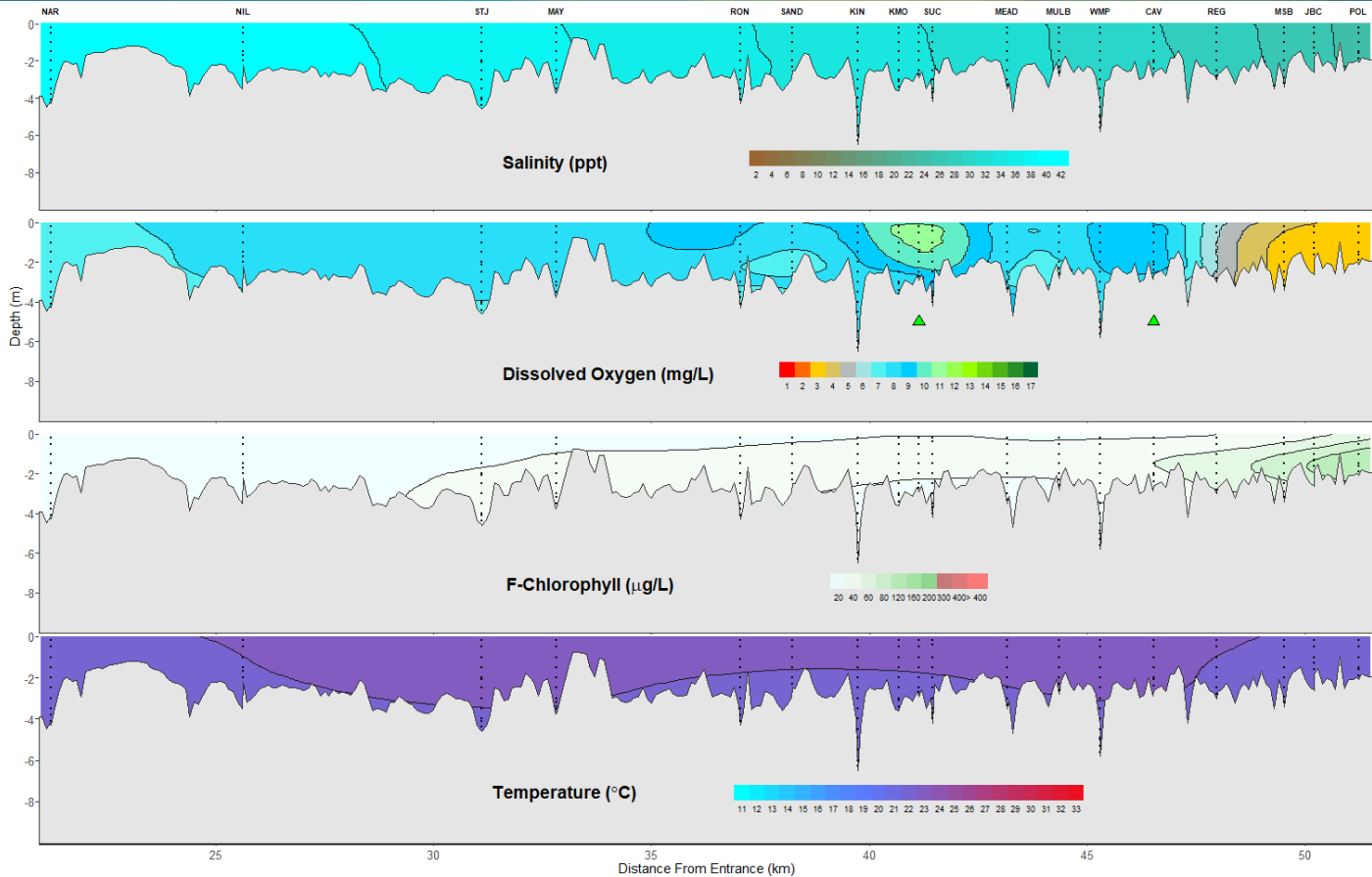
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## Swan Canning Estuary - Water Quality Profiles – 8<sup>th</sup> April 2024



## Swan Canning Estuary - Water Quality Profiles – 8<sup>th</sup> April 2024



Date: 8<sup>th</sup> April 2024

Weather & tide conditions: Conditions were clear with easterly winds of up to 16.3 knots. The predicted tides at Barrack St were 0.8 m at 5:23 am (low tide), 1.03 m at 11:49 am (high tide) and 0.8 m at 6:28 pm (2<sup>nd</sup> low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline, waters were oxygenated to well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 21.2 to 21.8 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was hypersaline from NIL to MAY and saline at RON. Waters were well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 21.7 to 22.6 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to MSB and brackish at JBC and POL. Waters were oxygenated or well oxygenated from SAND to REG and low in oxygen between MSB and POL. Chlorophyll fluorescence was moderate in sub-surface waters of KMO, REG and MSB, sub-surface to bottom waters of JBC and throughout the water column at POL. Water temperatures ranged from 21.6 to 23.1 °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>

**Recommended reference:** Department of Biodiversity, Conservation and Attractions, 2024. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 8<sup>th</sup> April 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)