



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

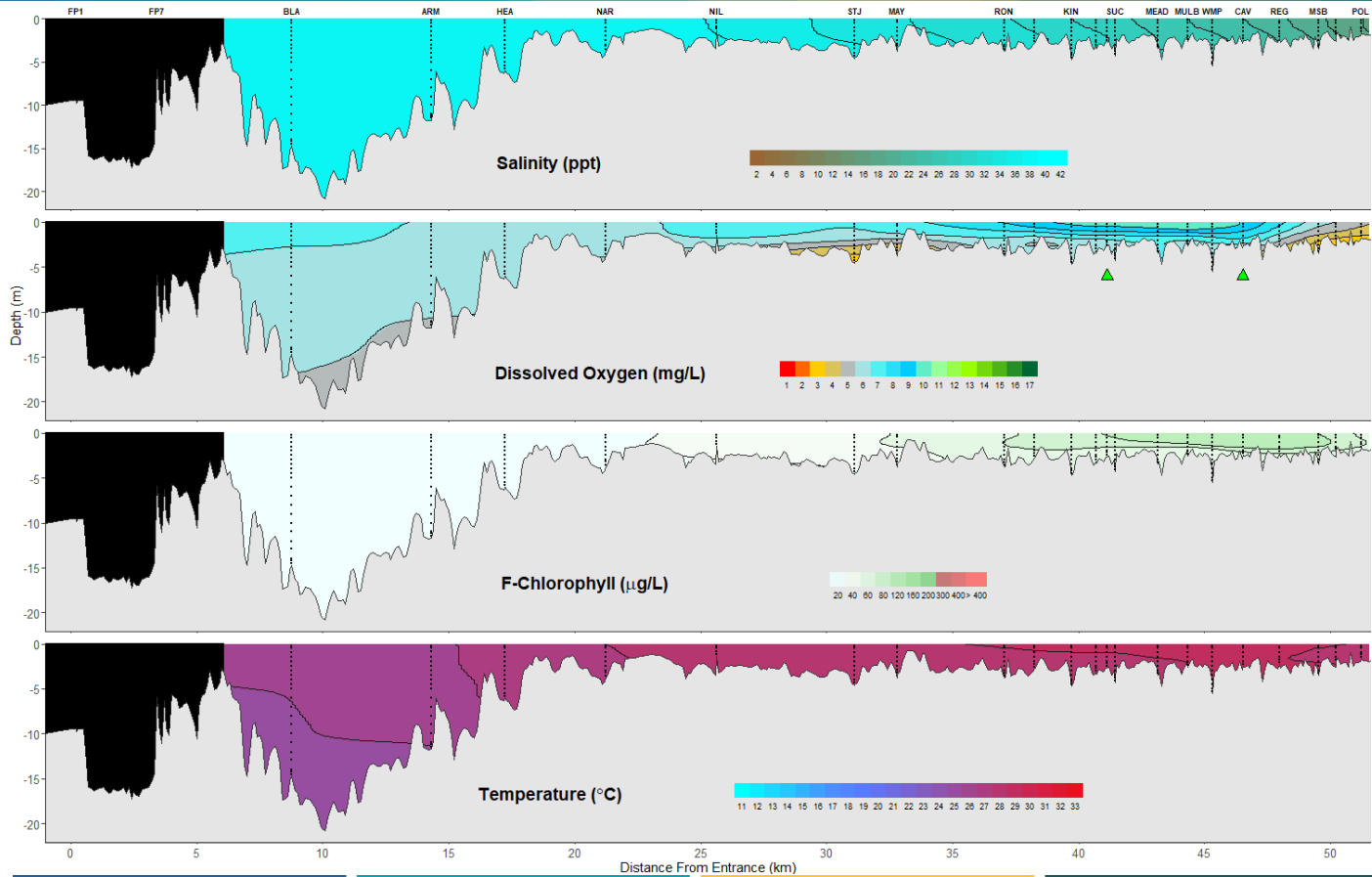
### Lower Swan Canning Estuary to Upper Swan Estuary

19<sup>th</sup> February 2024

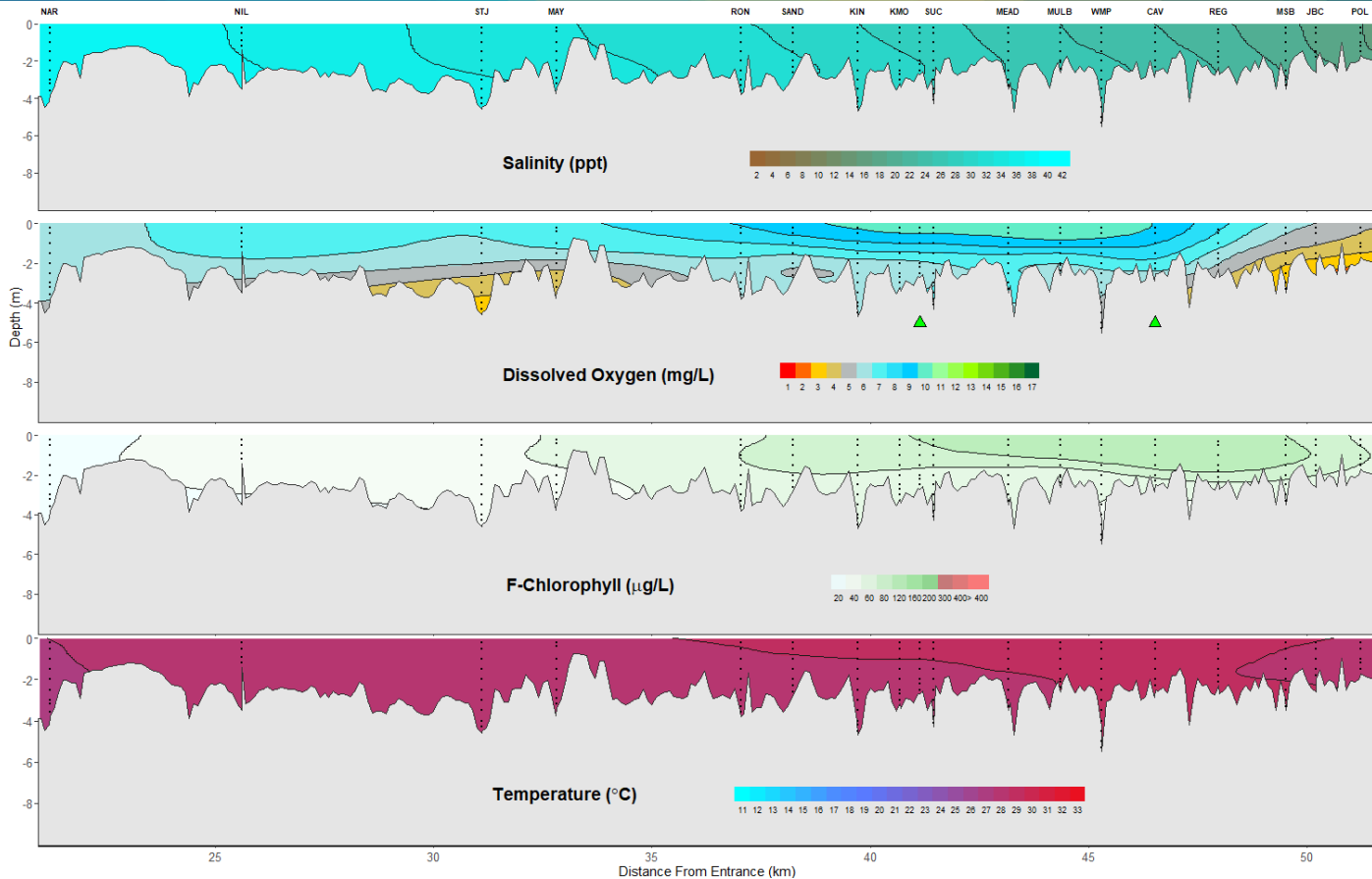
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## Swan Canning Estuary - Water Quality Profiles – 19<sup>th</sup> February 2024



## Swan Canning Estuary - Water Quality Profiles – 19<sup>th</sup> February 2024



Date: 19<sup>th</sup> February 2024

Weather & tide conditions: Conditions were sunny with a predominantly south easterly breeze of up to 8 knots. The predicted tides at Barrack St were 0.45 m at 4:15 am (low tide) and 1.09 m at 6:00 pm (high 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 and waters were oxygenated to well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 24.9 to 26.9 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was hypersaline at NIL and saline from STJ to RON. Waters were oxygenated to well oxygenated, except bottom waters at STJ and MAY which were low in oxygen. Chlorophyll fluorescence was moderate throughout the water column at RON. Water temperatures ranged from 27.3 to 27.9 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to MEAD, brackish over saline from MULB to WMP and brackish between CAV and POL. Waters were oxygenated or well oxygenated, except bottom waters between MSB and POL which were low in oxygen. Chlorophyll fluorescence was moderate in surface, subsurface and/or bottom waters at all sites. Water temperatures ranged from 27.4 to 28.8 °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 (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 19<sup>th</sup> February 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)