



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

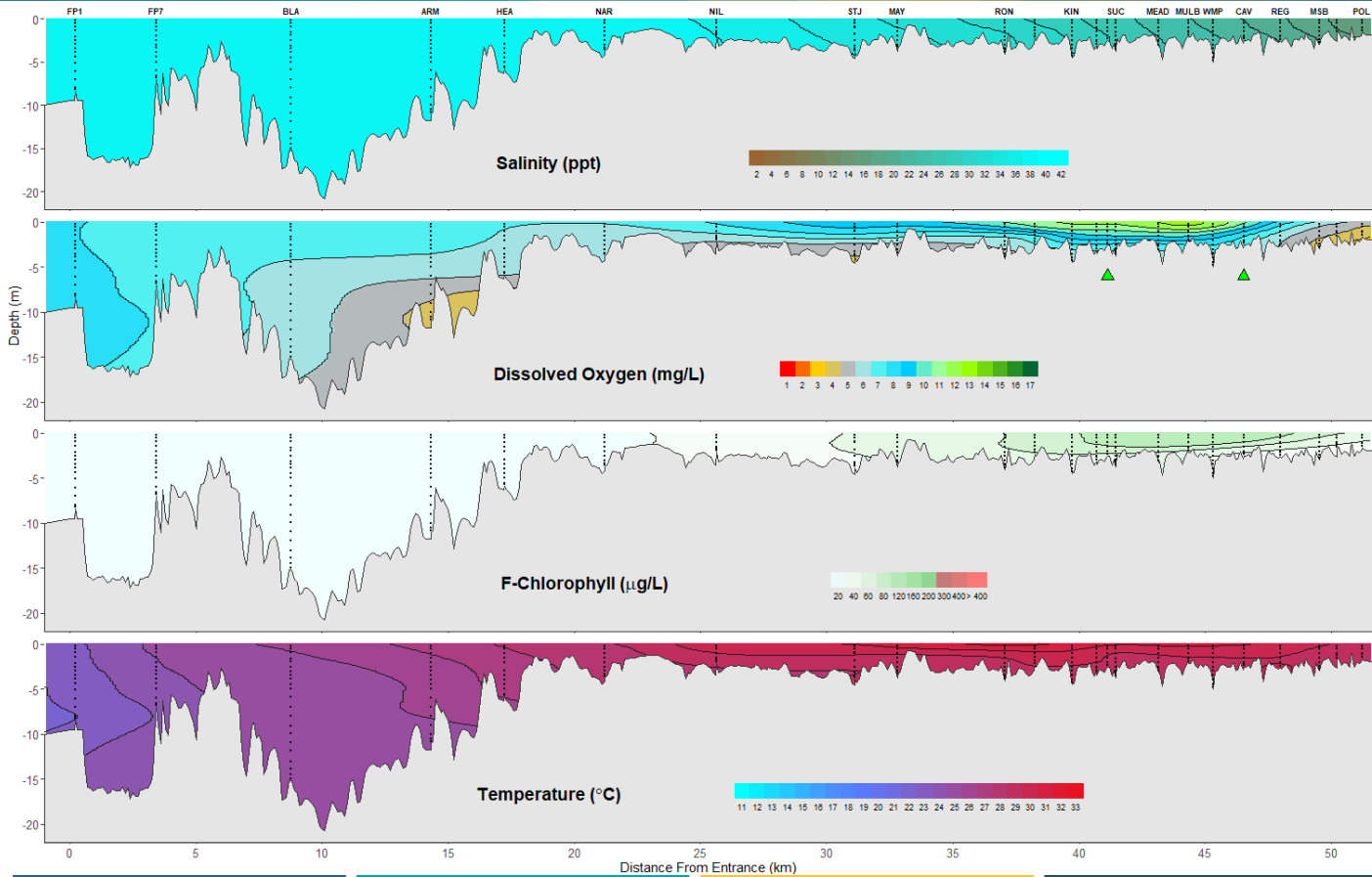
### Lower Swan Canning Estuary to Upper Swan Estuary

12<sup>th</sup> February 2024

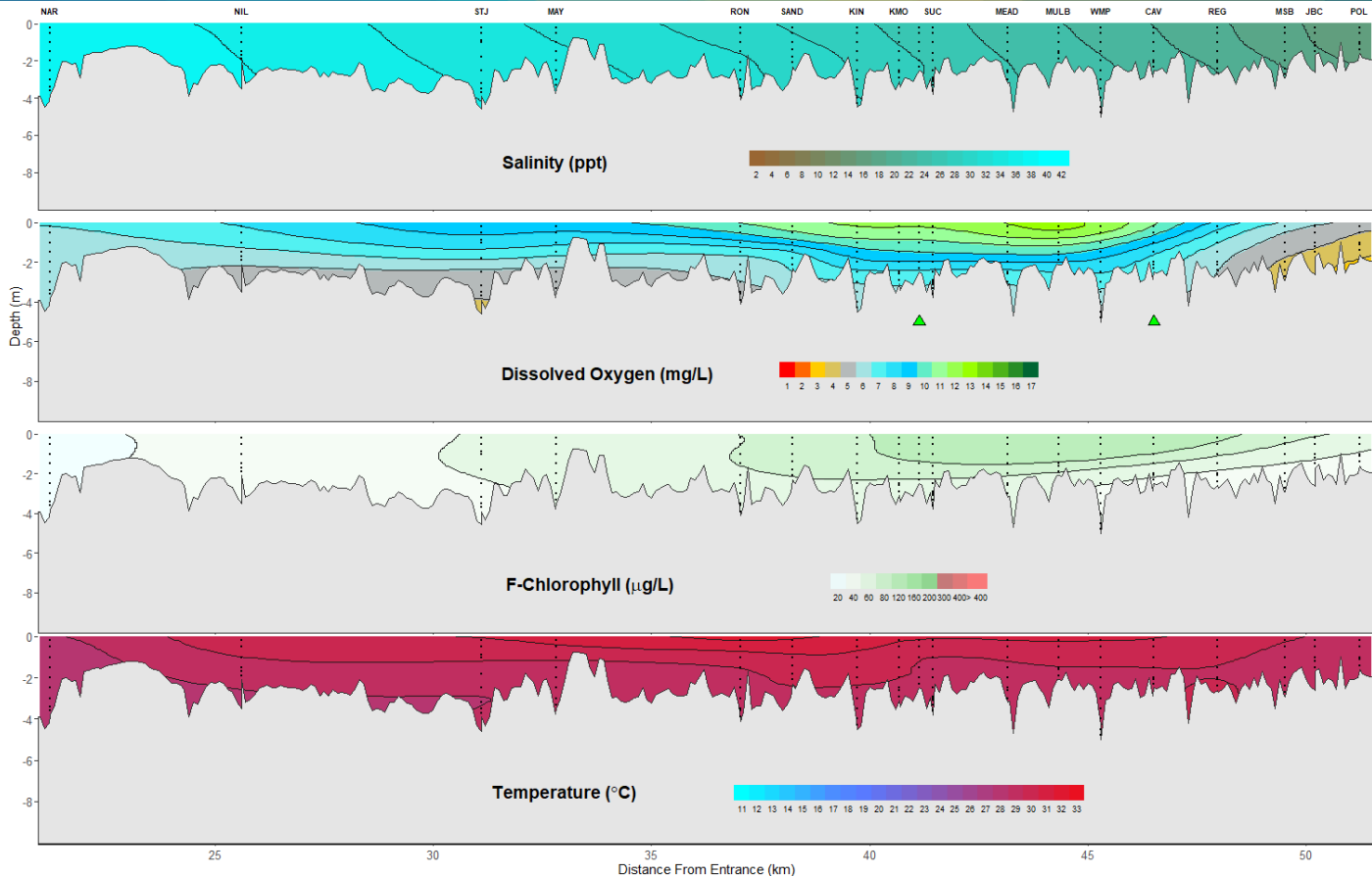
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## Swan Canning Estuary - Water Quality Profiles – 12<sup>th</sup> February 2024



## Swan Canning Estuary - Water Quality Profiles – 12<sup>th</sup> February 2024



Date: 12<sup>th</sup> February 2024

Weather & tide conditions: Conditions were sunny with a south easterly breeze turning south westerly of up to 10.4 knots. The predicted tides at Barrack St were 1.08 m at 12:26 am (high tide), 0.63 m at 9:08 pm (low tide) and 0.81 m at 3:14 pm (2<sup>nd</sup> 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 (FPI to NAR): The Lower Swan Canning Estuary was hypersaline and waters were oxygenated to well oxygenated, except for bottom waters of ARM which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 21.9 to 27.6 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was hypersaline at NIL and was saline from STJ to RON. Waters were oxygenated to well oxygenated, except for bottom waters of STJ which were low in oxygen. Chlorophyll fluorescence was moderate in subsurface waters of STJ and MAY and throughout the water column at RON. Water temperatures ranged from 28.0 to 31.6 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to VIT, brackish over saline at SUC and brackish from MEAD to POL. Waters were oxygenated to well oxygenated, except for bottom waters at MSB and POL which were low in oxygen. Chlorophyll fluorescence was extreme in surface waters of WMP and high in surface waters from SUC-MEA. Water temperatures ranged from 28.1 to 31 °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>