



# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

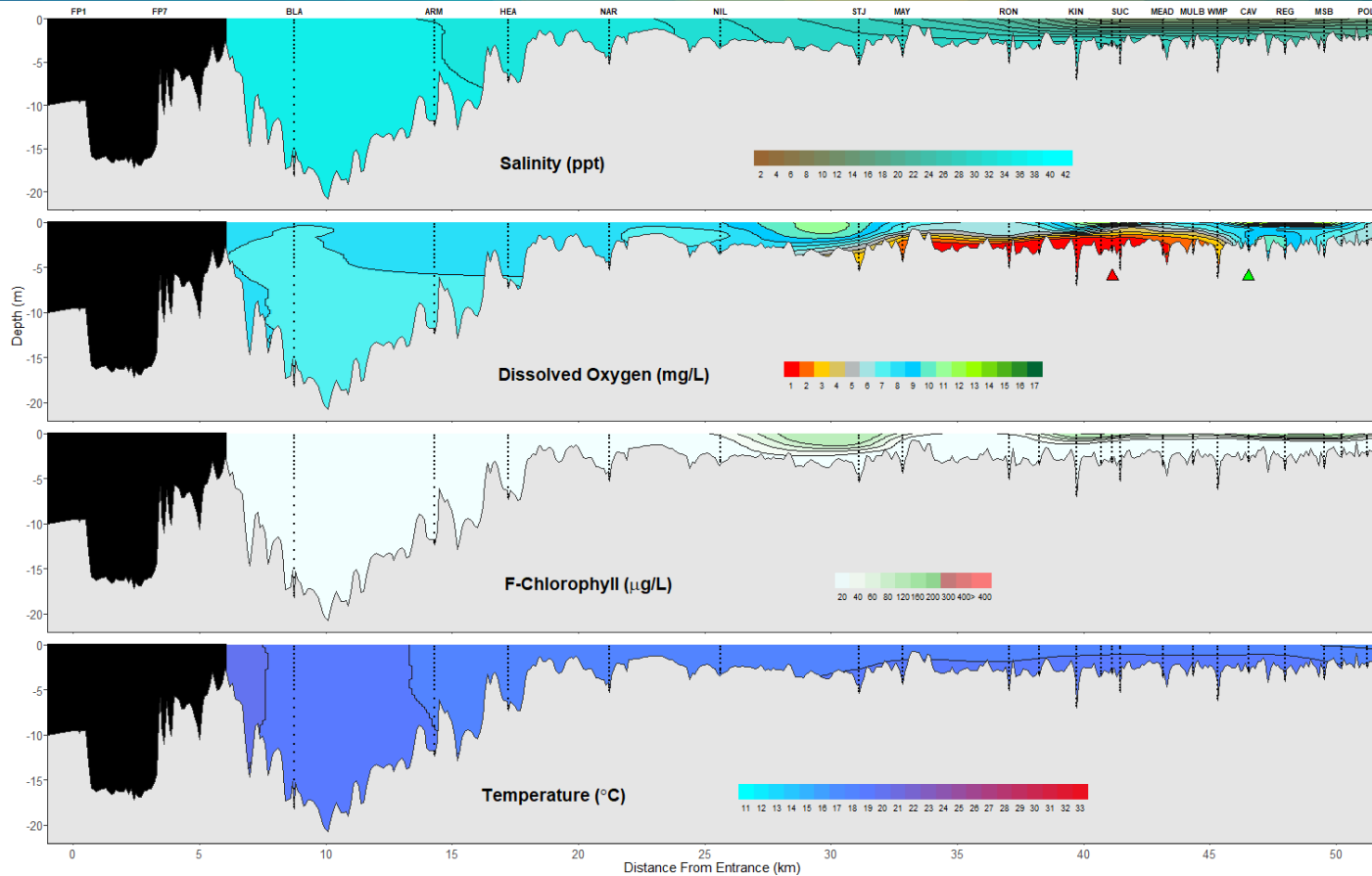
### Lower Swan Canning Estuary to Upper Swan Estuary

10<sup>th</sup> June 2024

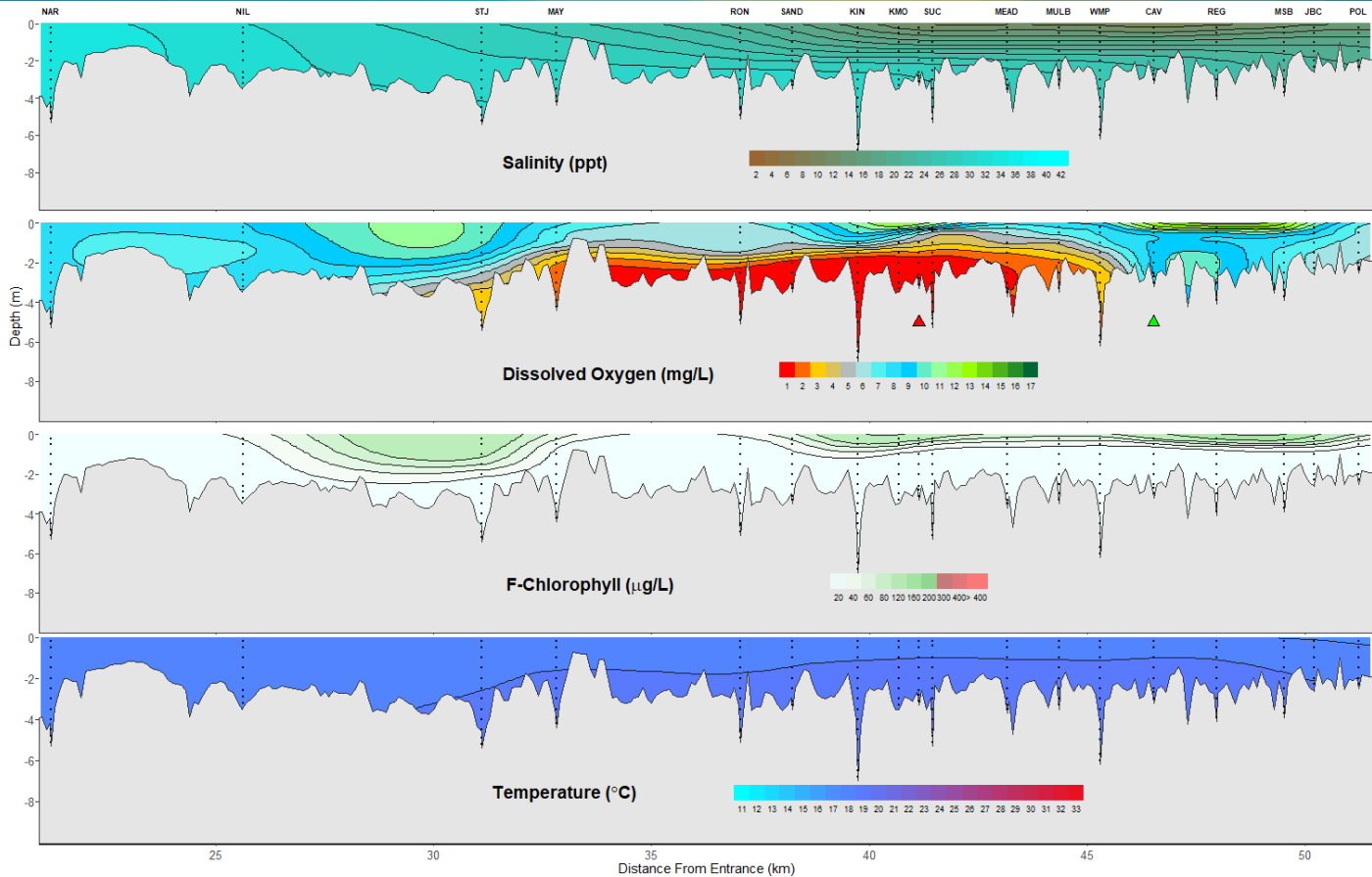
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## Swan Canning Estuary - Water Quality Profiles – 10<sup>th</sup> June 2024



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Date: 10<sup>th</sup> June 2024

Weather & tide conditions: Conditions were overcast with a predominately westerly breeze of up to 16 knots. The predicted tides at Barrack St were 0.72 m at 11:42 pm the previous day (low tide), and 1.28 m at 12:53 pm the day of (high tide). Perth recorded 36.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Caversham oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling, while the Guildford plant was offline and not operable during this window.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline, waters were well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 17.4 to 18.8 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline from NIL to MAY, and brackish over saline at RON. Surface waters were oxygenated to well oxygenation, while bottom waters were low in oxygen and at STJ, hypoxic at MAY and anoxic at RON. Chlorophyll fluorescence was moderate in surface and sub-surface waters of STJ, and low elsewhere. Water temperatures ranged from 17.2 to 18.8 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish over saline from SAND – KMO and from SUC – WMP, while VIT was fresh over saline and CAV – POL was brackish. Bottom and subsurface waters were anoxic from SAND – SUC, hypoxic at MEAD and MULB, and low in oxygen at WMP. Surface waters of all sites were oxygenated to well oxygenated. Chlorophyll fluorescence was moderate in surface waters from KIN – MULB and at CAV and JBC. High fluorescence was recorded at the surface of REG and MSB. Water temperatures ranged from 16.8 to 18.8 °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 (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>