



# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

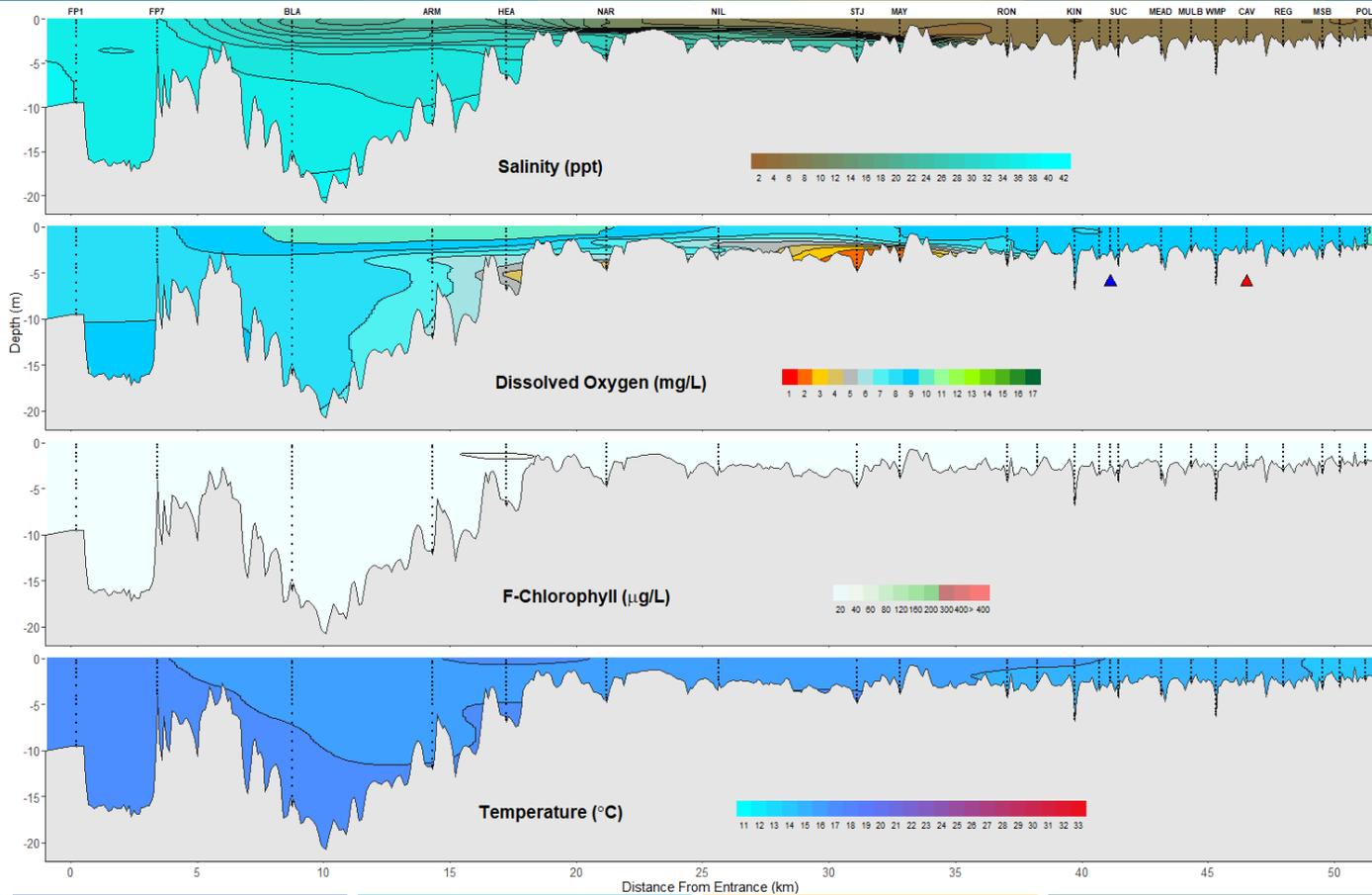
### Lower Swan Canning Estuary to Upper Swan Estuary

31<sup>st</sup> July 2023

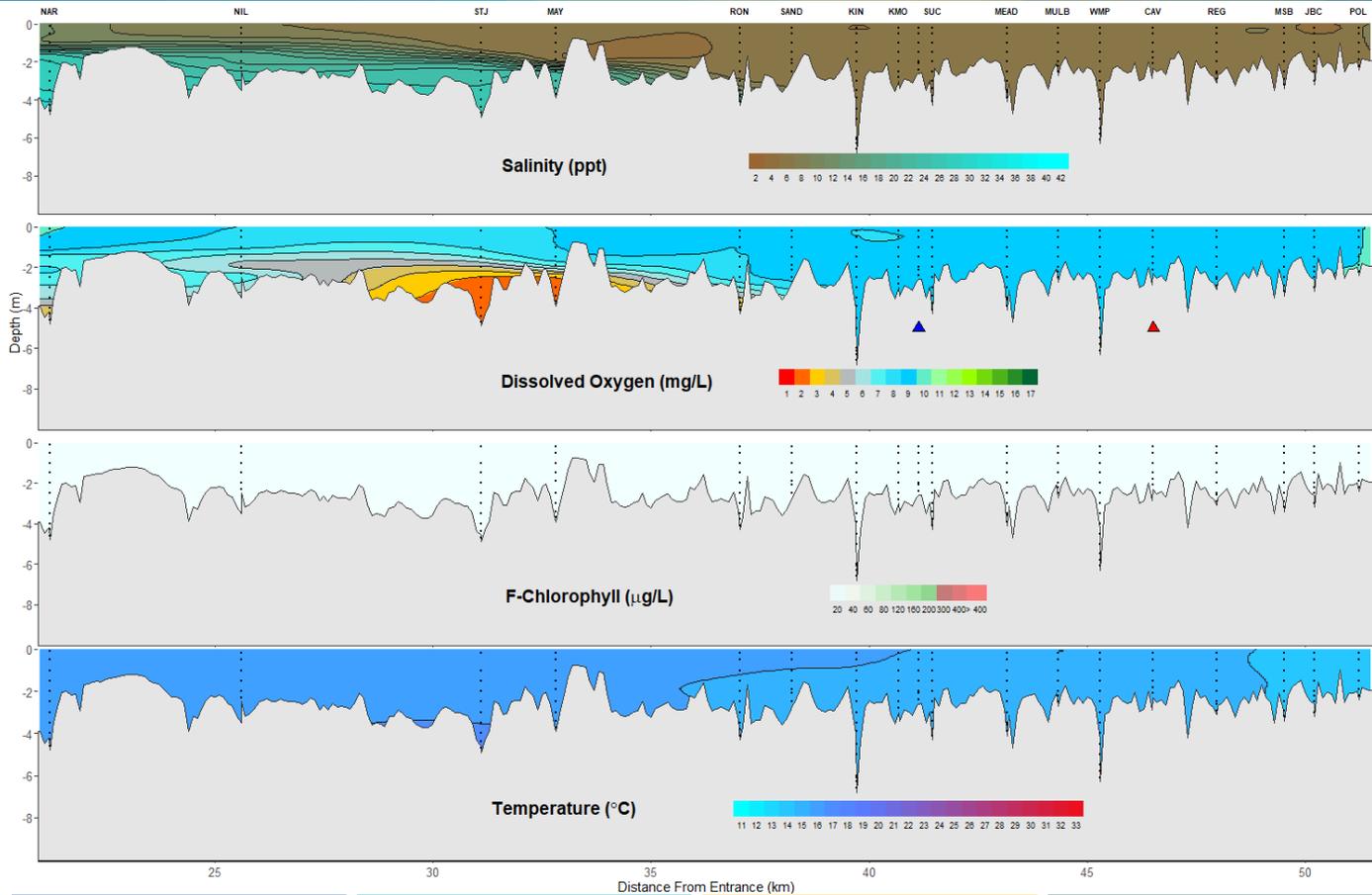
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## Swan Canning Estuary - Water Quality Profiles – 31<sup>st</sup> July 2023



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Date: 31<sup>st</sup> July 2023

Weather & tide conditions: Conditions were sunny with a predominantly north easterly breeze of up to 4.2 knots. The predicted tides at Barrack St were 1.29 m at 9:46 am (high tide) and 0.59 m at 8:36 pm (low tide). Perth recorded 50.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was operable but not triggered to provide oxygen in the 24 hours prior to sampling. The Caversham oxygenation plant was offline in the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was hypersaline at FP1, saline over hypersaline at FP2.2 and FP7, brackish over hypersaline at BLA and brackish over saline from ARM to NAR. Waters were oxygenated to well oxygenated, except for bottom waters at NAR which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 15.5 °C to 16.5 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish. Surface waters were oxygenated to well oxygenated and bottom waters were hypoxic from RON to STJ. Chlorophyll fluorescence was low and water temperatures ranged from 14.8 °C to 16.1 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh at SAND and from KMO to SUC, fresh over brackish at KIN, MULB, WMP and JBC and brackish at MEAD, CAV to MSB and at POL. Waters were oxygenated to well oxygenated, except for bottom waters at KIN which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 13.5 °C to 15.9 °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>