



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

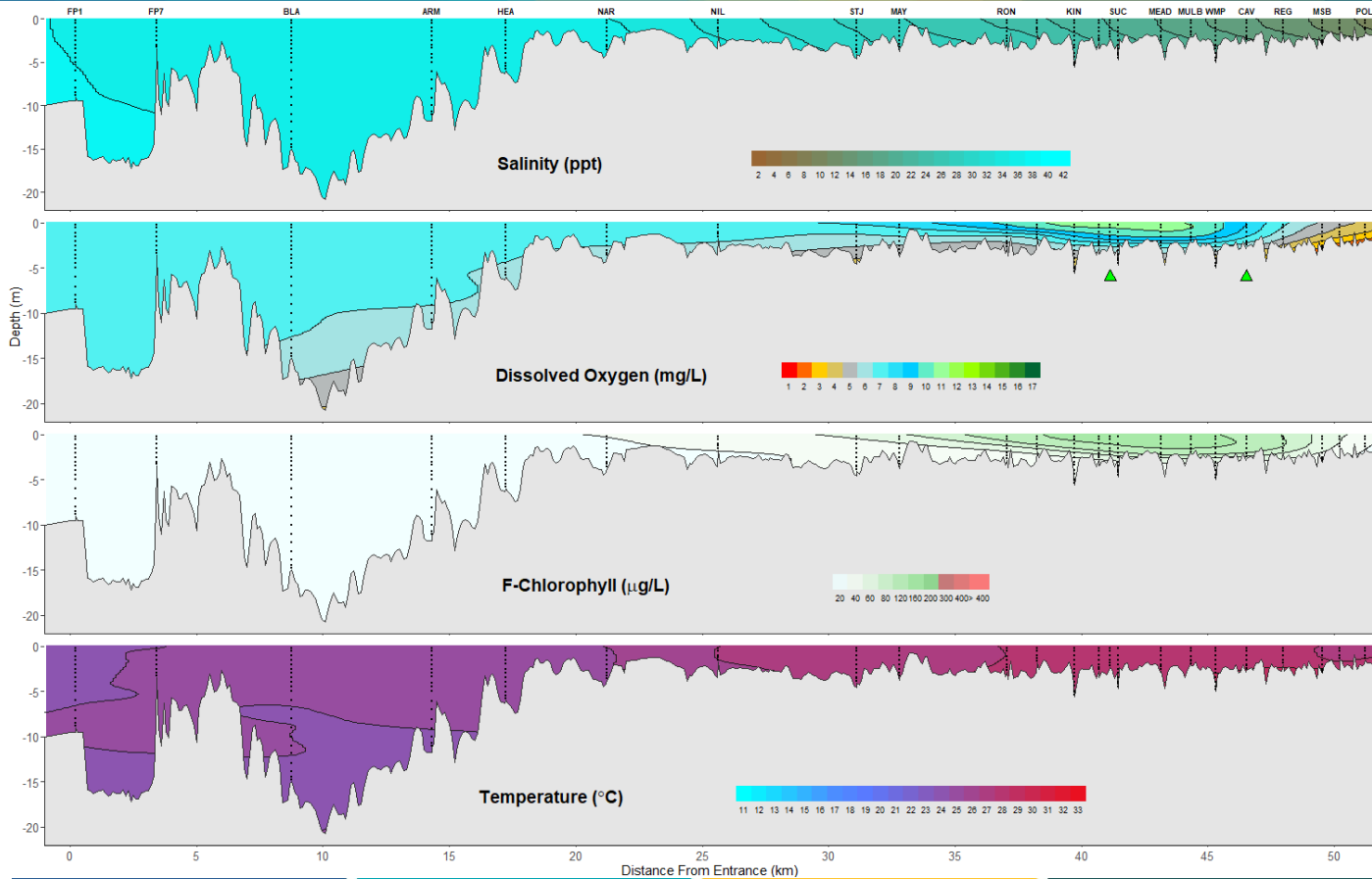
### Lower Swan Canning Estuary to Upper Swan Estuary

2<sup>nd</sup> January 2024

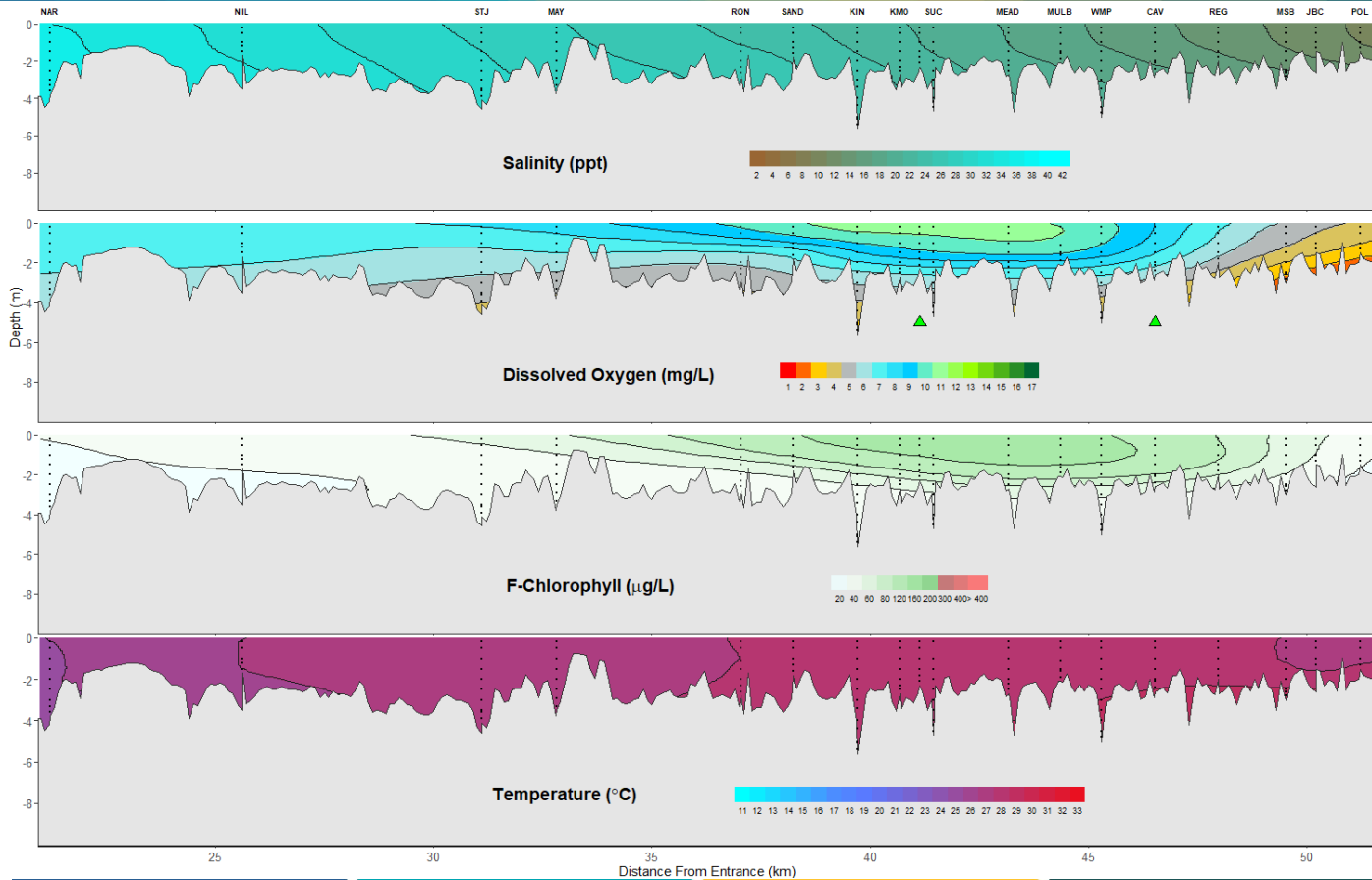
Prepared by

Rivers and Estuaries Science  
Biodiversity and Conservation Science  
Department of Biodiversity, Conservation and Attractions

## Swan Canning Estuary - Water Quality Profiles – 2<sup>nd</sup> January 2024



## Swan Canning Estuary - Water Quality Profiles – 2<sup>nd</sup> January 2024



Date: 2<sup>nd</sup> January 2024

Weather & tide conditions: Conditions were cloudy with an easterly to south easterly breeze of up to 12 knots. The predicted tides at Barrack St were 0.58 m at 7:25 am (low tide) and 0.90 m at 11:15 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 saline from BLA - NAR. Waters were oxygenated to well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 23.8 °C to 25 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline throughout NIL – MAY and brackish over saline at RON. Bottom waters of STJ and RON were low in oxygen and all other sites were oxygenated to well oxygenated. Chlorophyll fluorescence was moderate in subsurface and bottom waters at RON. Water temperatures ranged from 26 °C to 27.3 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary waters were brackish. Bottom and subsurface waters were low in oxygen from sites POL – MSB, and at WMP, SUC, KIN and SAND. The remainder of the sites were oxygenated to well oxygenated. Chlorophyll fluorescence was moderate in sites from REG-CAV, WMP-MULB, SUC-VIT, and SAND. Surface waters of WMP, MEAD, KMO and KIN were high in chlorophyll fluorescence. Water temperatures ranged from 26.7°C to 28.4 °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>