



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

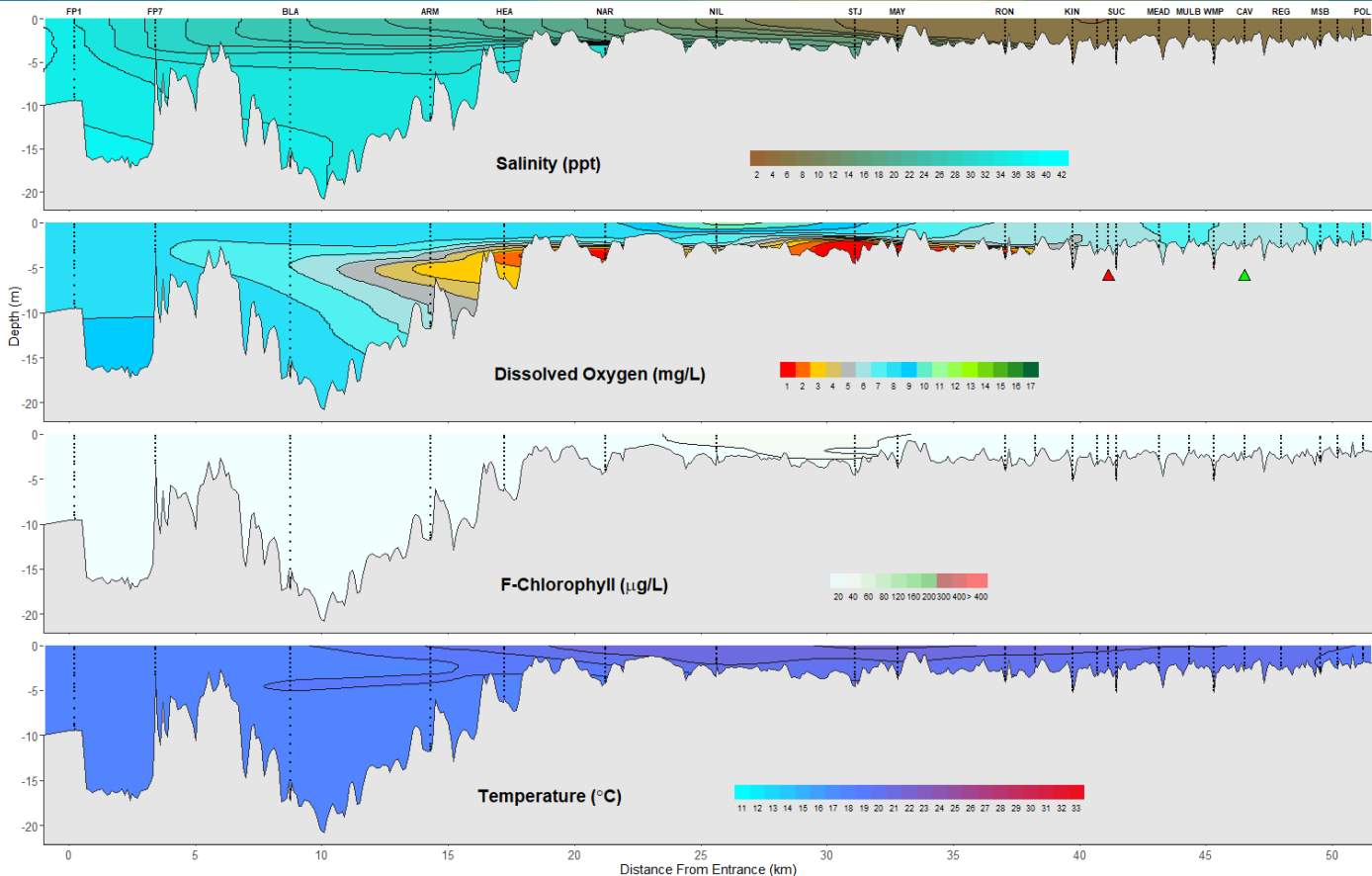
### Lower Swan Canning Estuary to Upper Swan Estuary

24 September 2024

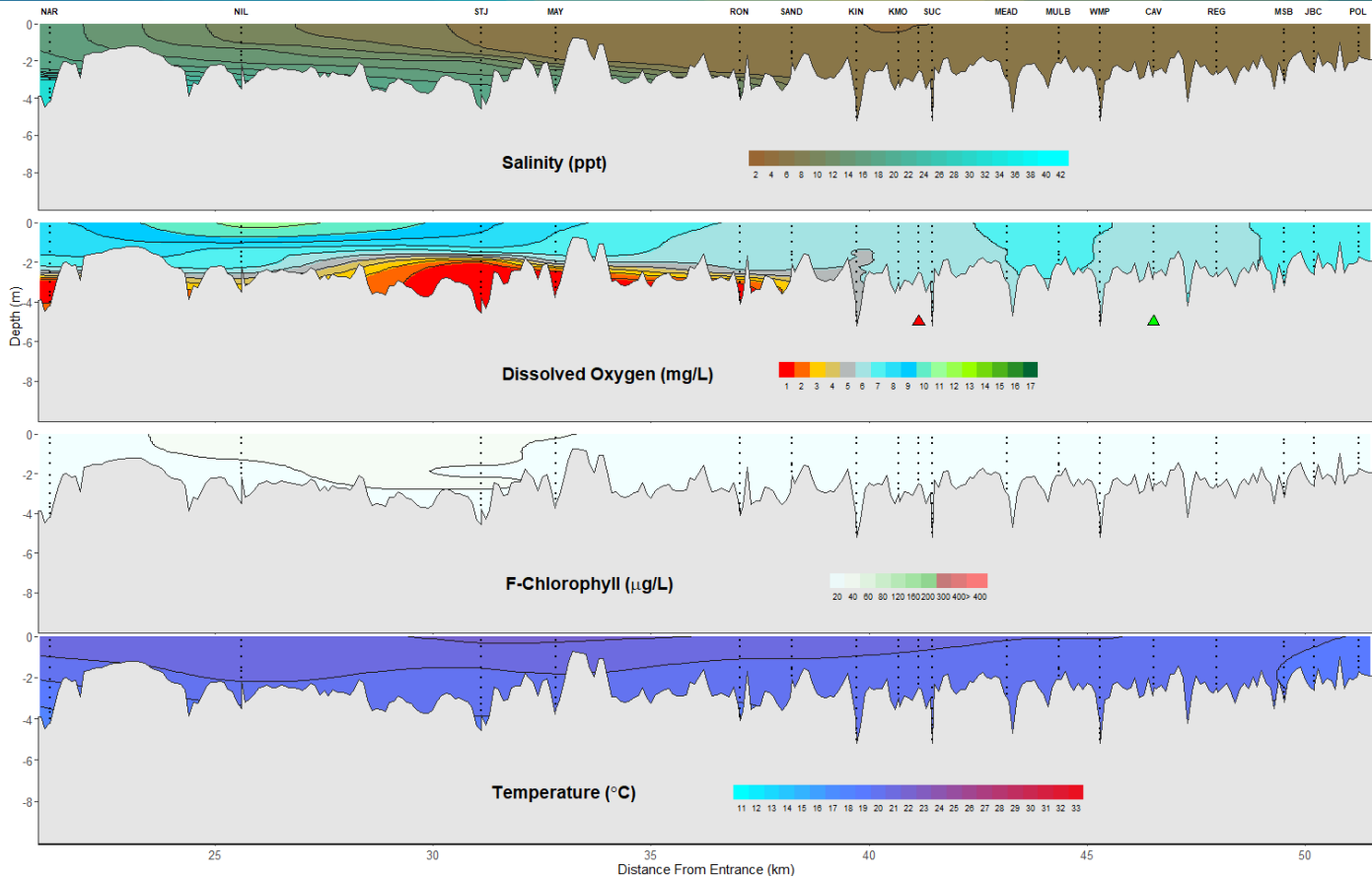
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## Swan Canning Estuary - Water Quality Profiles – 24 September 2024



## Swan Canning Estuary - Water Quality Profiles – 24 September 2024



Date: 24 September 2024

Weather & tide conditions: Conditions were partly cloudy with a predominately south-westerly breeze of up to 13.4 knots. The predicted tides at Barrack St were 1.07 m at 2:20 am (high tide) and 0.54 m at 3:34 pm (low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was inoperable and the Caversham oxygenation plant was 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 FP1 to FP7 and brackish over saline from BLA to NAR. Waters were oxygenated or well oxygenated, except subsurface waters at ARM which were low in oxygen and bottom waters at HEA which were hypoxic and NAR which were anoxic. Chlorophyll fluorescence was low and water temperatures ranged from 17.4 to 20.5 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish between NIL and STJ and fresh over brackish from MAY to RON. Waters were oxygenated or well oxygenated, except bottom waters from STJ to RON which were anoxic. Chlorophyll fluorescence was low and water temperatures ranged from 18.8 to 21.1 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 18.7 to 20.8 °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 < 60 µg L<sup>-1</sup>, moderate 60-160 µg L<sup>-1</sup>, high 160-400 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 24 September 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)