



Department of Biodiversity,  
Conservation and Attractions



Biodiversity and  
Conservation Science

*We're working for  
Western Australia.*

# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

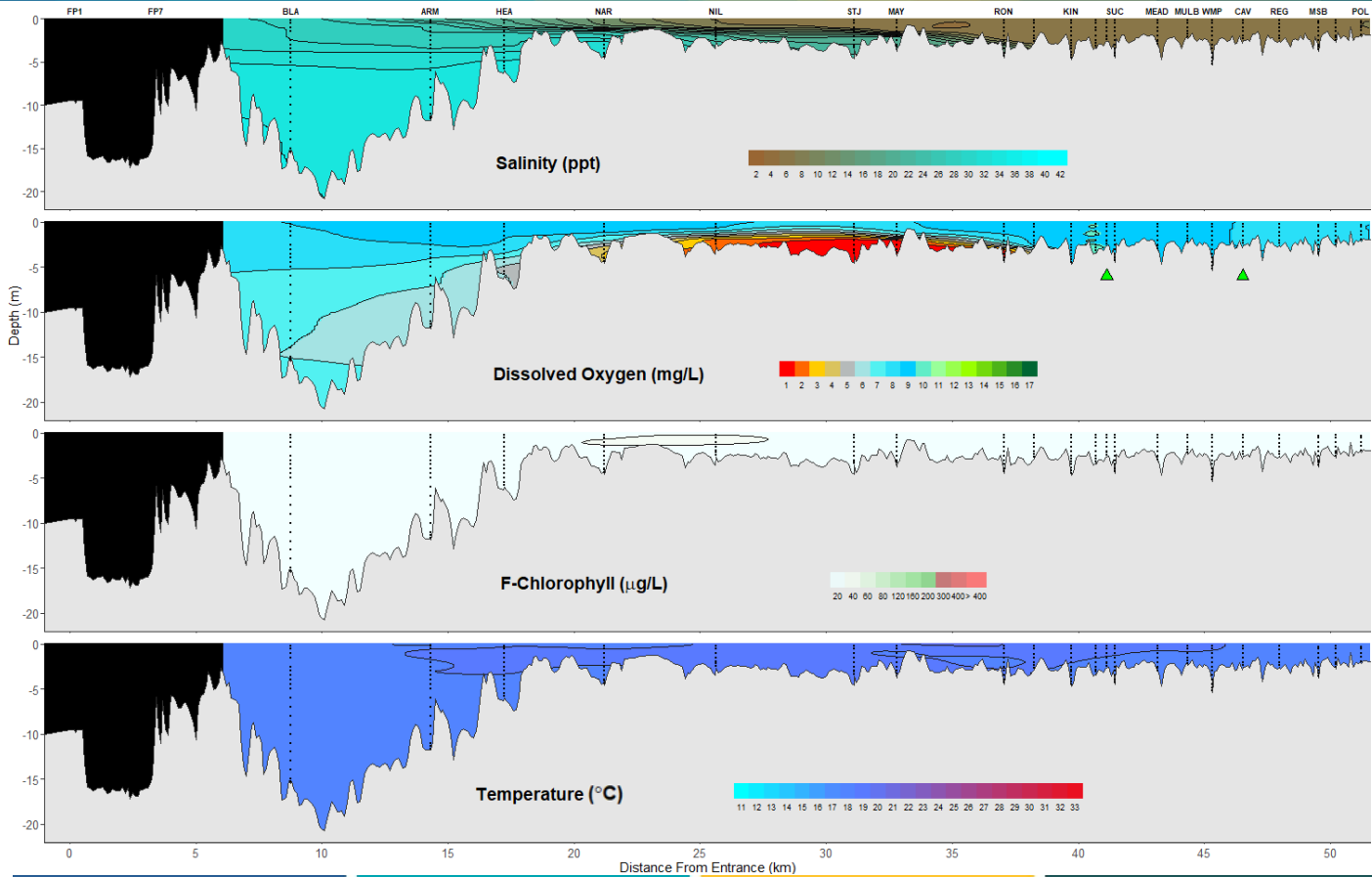
### Lower Swan Canning Estuary to Upper Swan Estuary

18<sup>th</sup> September 2023

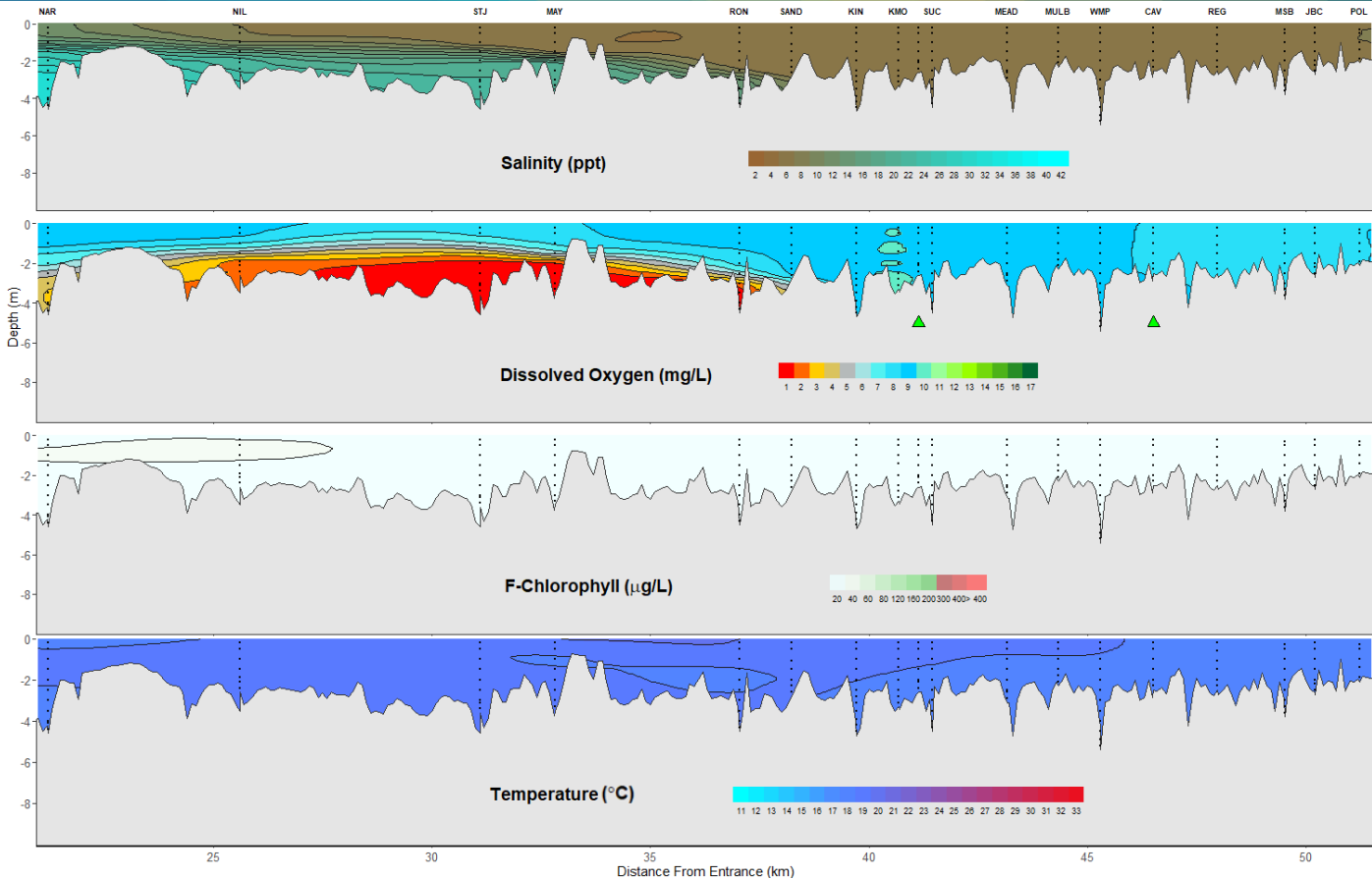
Prepared by

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

## Swan Canning Estuary - Water Quality Profiles – 18<sup>th</sup> September 2023



# Swan Canning Estuary - Water Quality Profiles – 18<sup>th</sup> September 2023



Date: 18<sup>th</sup> September 2023

Weather & tide conditions: Conditions were cloudy with a predominantly westerly breeze of up to 10.6 knots. The predicted tides at Barrack St were 0.71 m at 7:23 am (low tide), 0.81 m at 1 pm (high tide) and 0.73 m at 5:37 pm (2<sup>nd</sup> low tide). Perth recorded 22 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants provided oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline at BLA and brackish over saline between ARM and NAR. Surface waters were oxygenated or well oxygenated, except bottom waters at NAR which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 16.9 °C to 18.7 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was fresh over brackish. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen or anoxic. Chlorophyll fluorescence was low, except surface waters at STJ which were moderate. Water temperatures ranged from 17.7 °C to 19.0 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish, except at JBC and between KMO and SUC which were fresh over brackish and between SAND and KIN which was fresh. Waters were well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 16.8 °C to 18.7 °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>