



# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

### Lower Swan Canning Estuary to Upper Swan Estuary

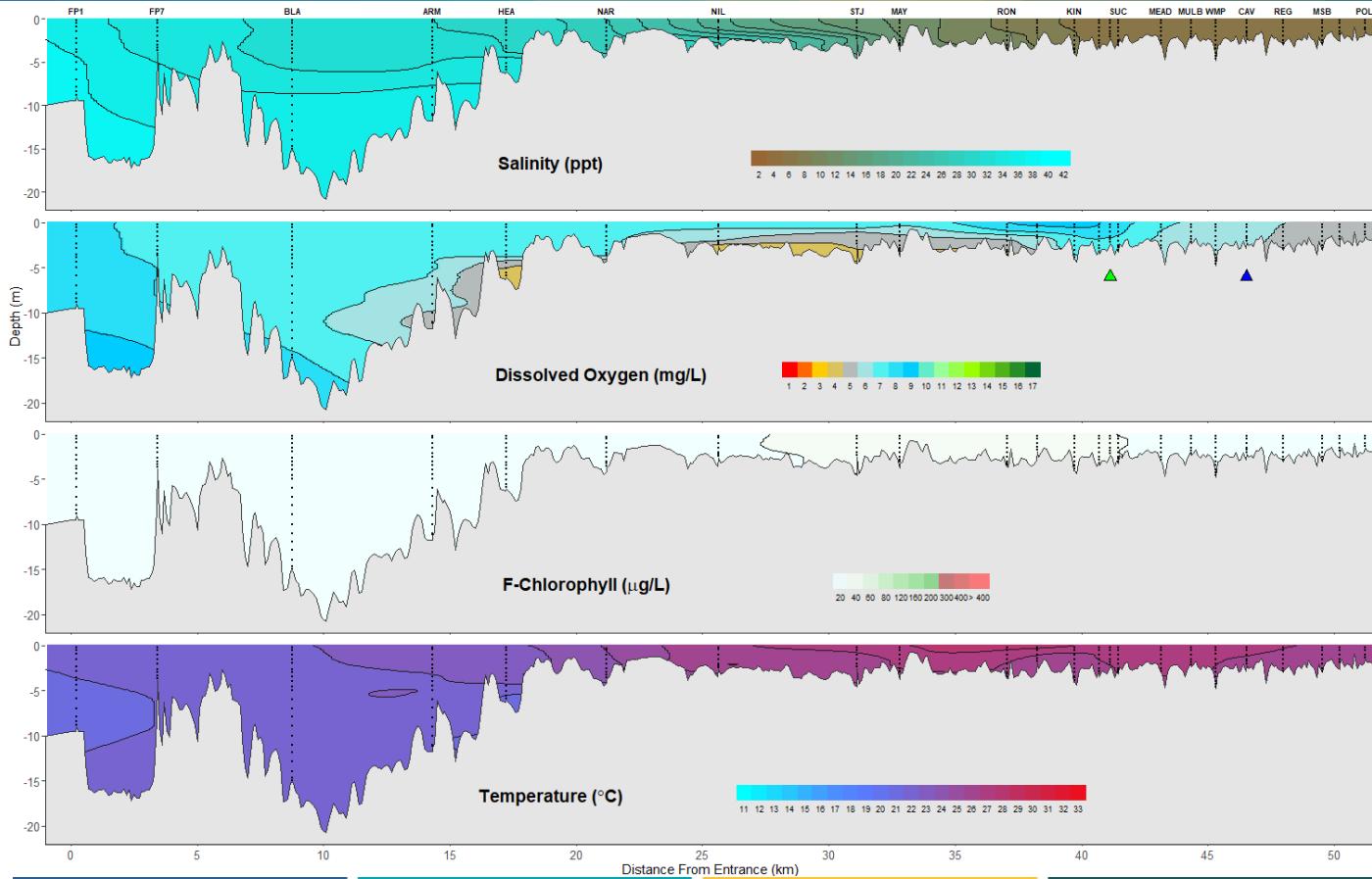
6 December 2021

Prepared by

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



## Swan Canning Estuary- Water Quality Profiles – 6 December 2021





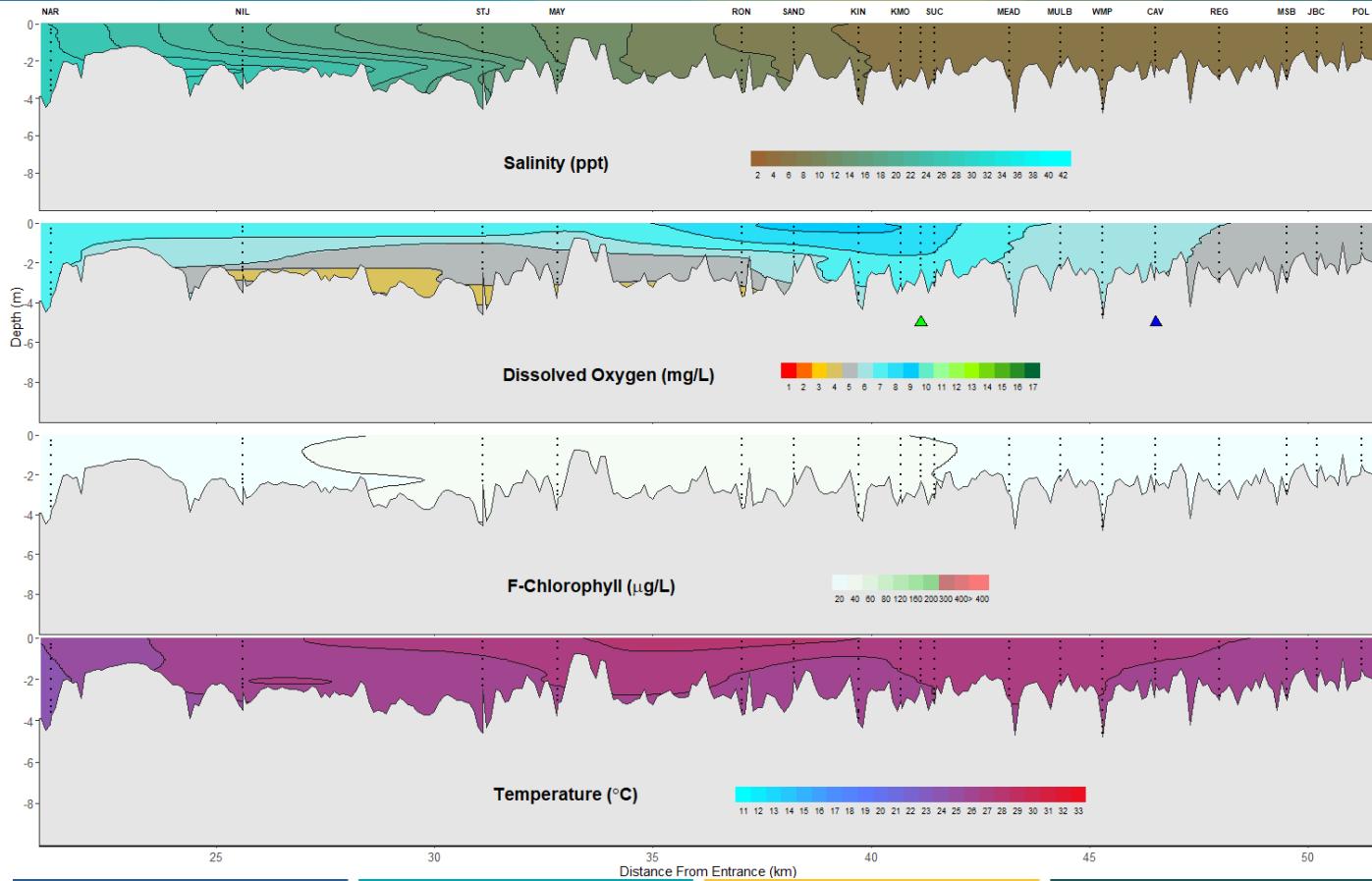
Department of Biodiversity,  
Conservation and Attractions



Biodiversity and  
Conservation Science

We're working for  
Western Australia.

## Middle and Upper Swan Estuary- Water Quality Profiles – 6 December 2021





Date: 6 December 2021

Weather & tide conditions: Conditions were clear with an easterly breeze of up to 10 knots. The predicted tide at Barrack St was 0.43 m at 10:29 am (low tide). Perth recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was triggered to provide oxygen and the Caversham oxygenation plant was not triggered to provide oxygen during the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was saline, surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at HEA. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 20.5 to 24.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline at NIL and brackish from STJ to RON. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at NIL and RON. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 25.4 to 27.2 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 25.4 to 27.2 °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 (summer):** 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>

**Recommended reference:** Department of Biodiversity, Conservation and Attractions 2021. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 6 December 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)