



Department of Biodiversity,  
Conservation and Attractions



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# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

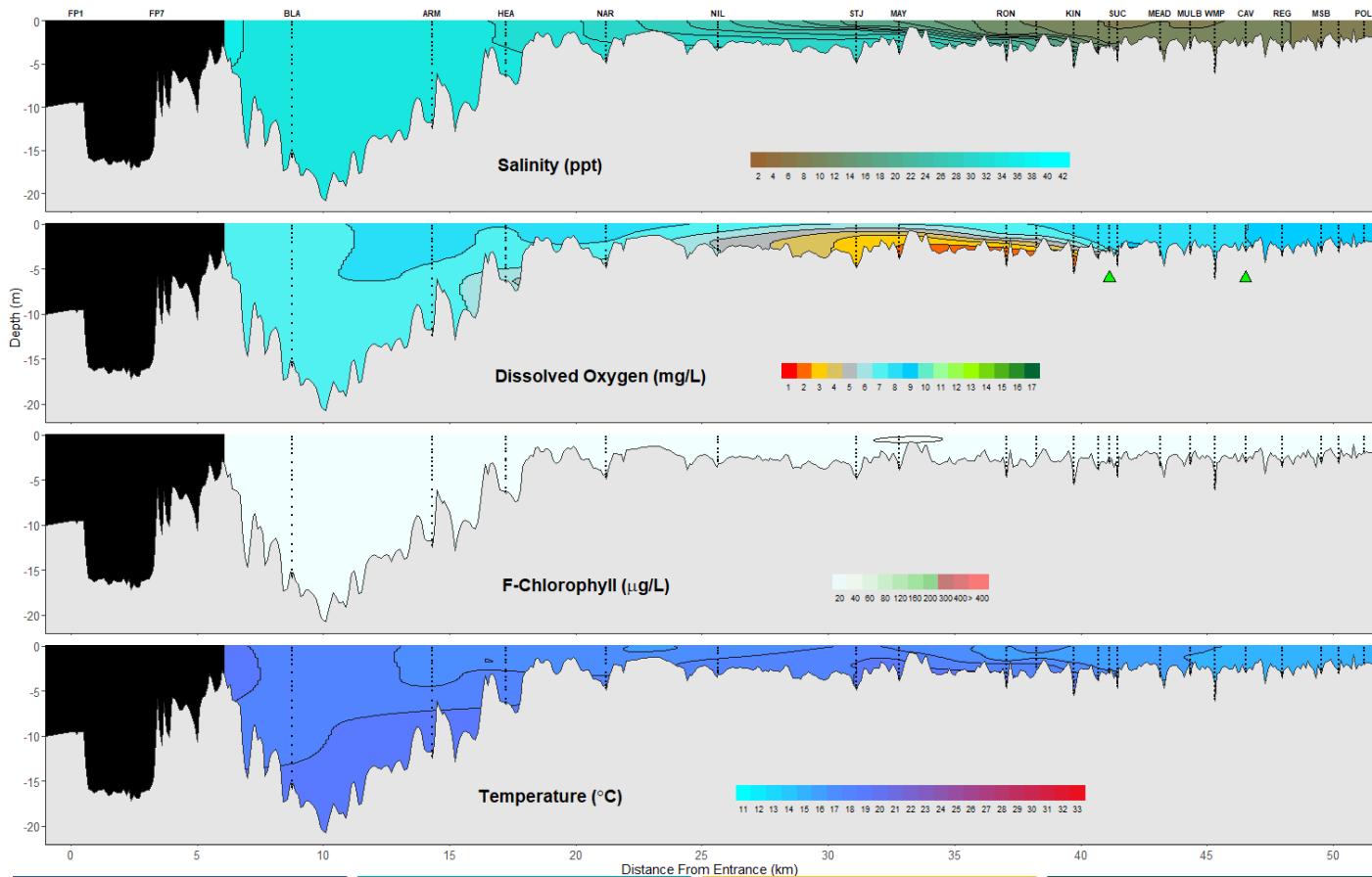
### Lower Swan Canning Estuary to Upper Swan Estuary

31<sup>st</sup> May 2021

Prepared by

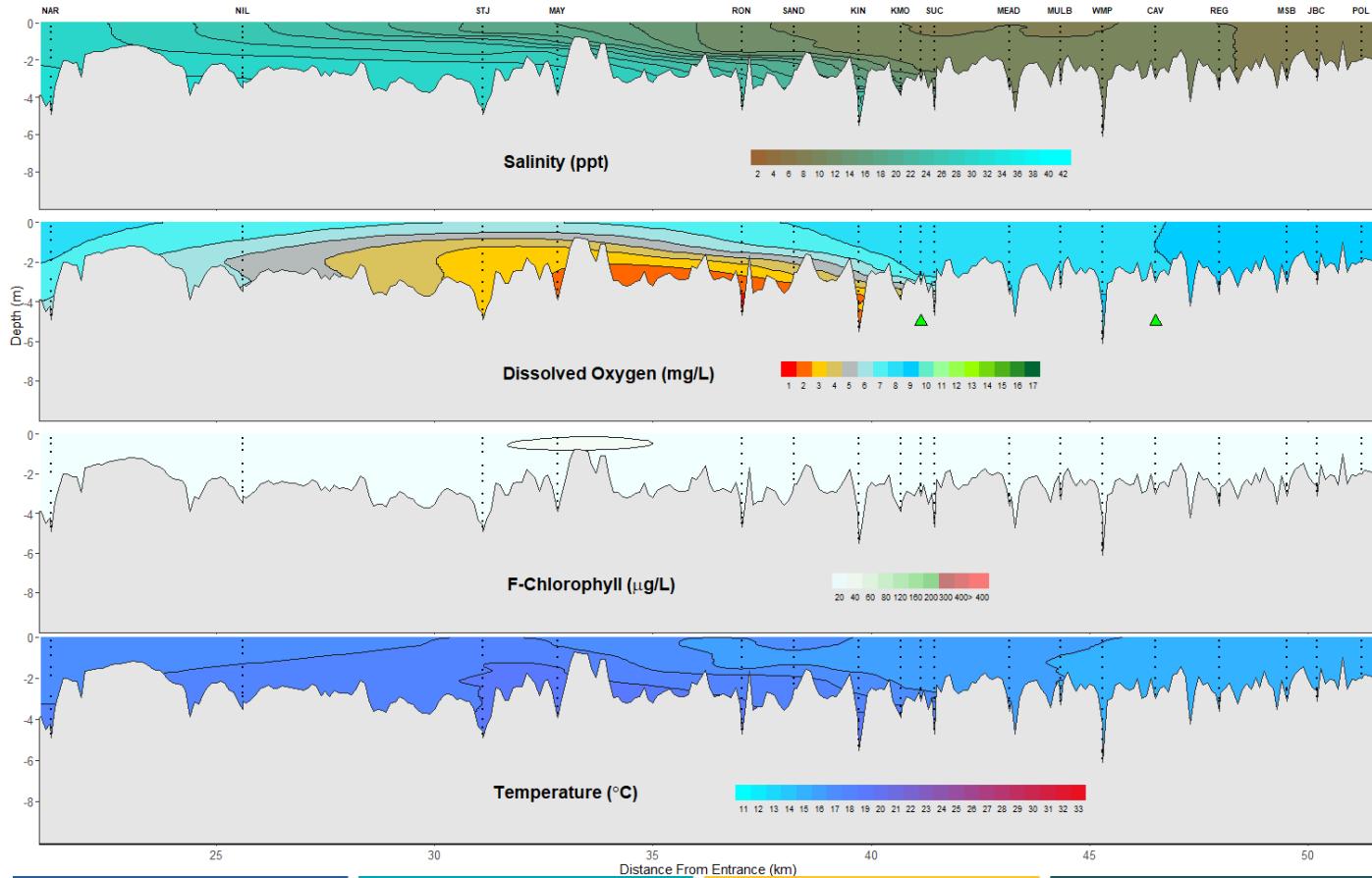
Rivers and Estuaries Science  
Biodiversity and Conservation Science  
Department of Biodiversity, Conservation and Attractions

## Swan Canning Estuary- Water Quality Profiles- 31st May 2021





## Middle and Upper Swan Estuary- Water Quality Profiles- 31<sup>st</sup> May 2021





Date: 31<sup>st</sup> May 2021

Weather & tide conditions: Conditions were clear with a southerly breeze of up to 10 knots. The predicted tides at Barrack St were 0.69 m at 12:58 am (low tide) and 1.23 m at 1:50 pm (high tide). Perth recorded 40.4 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were triggered to provide oxygen during the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 16.7 to 18.3 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at STJ and hypoxic from MAY to RON. Chlorophyll fluorescence was highest at MAY indicating higher microalgal activity in that area. Water temperature ranged from 15.3 to 18.3 °C.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish. Waters were oxygenated or well oxygenated except for bottom waters at SANDBR which were low in oxygen and between KIN and KMO which were hypoxic. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 14.6 to 18.4 °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 >6mg/L, oxygenated >4-6mg/L, low oxygen >2-4mg/L, hypoxic 0.5-2mg/L, anoxic <0.5mg/L

**Recommended reference:** Department of Biodiversity, Conservation and Attractions 2021. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 31<sup>st</sup> May 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)