



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

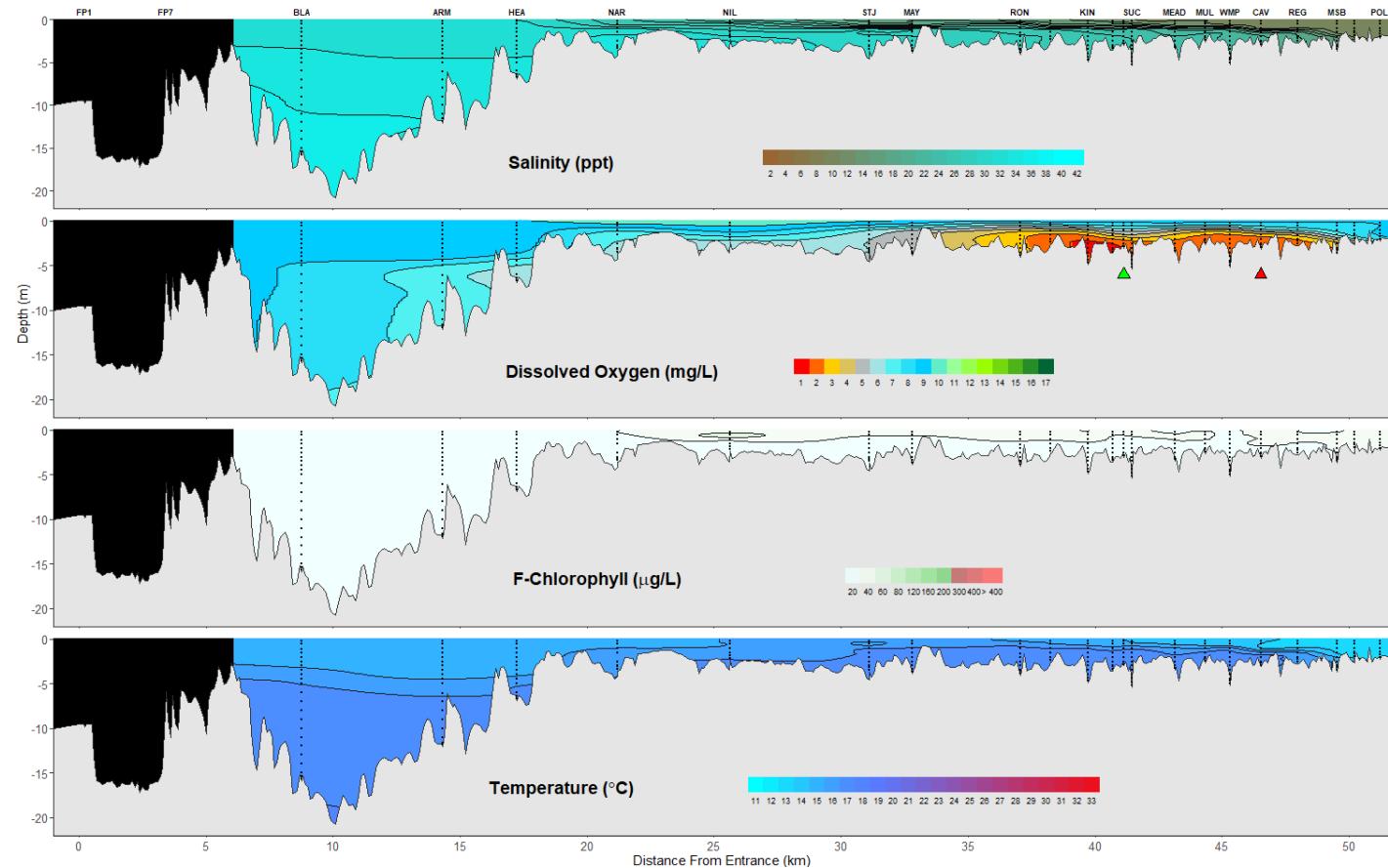
### Lower Swan Canning Estuary to Upper Swan Estuary

13<sup>th</sup> July 2020

Prepared by

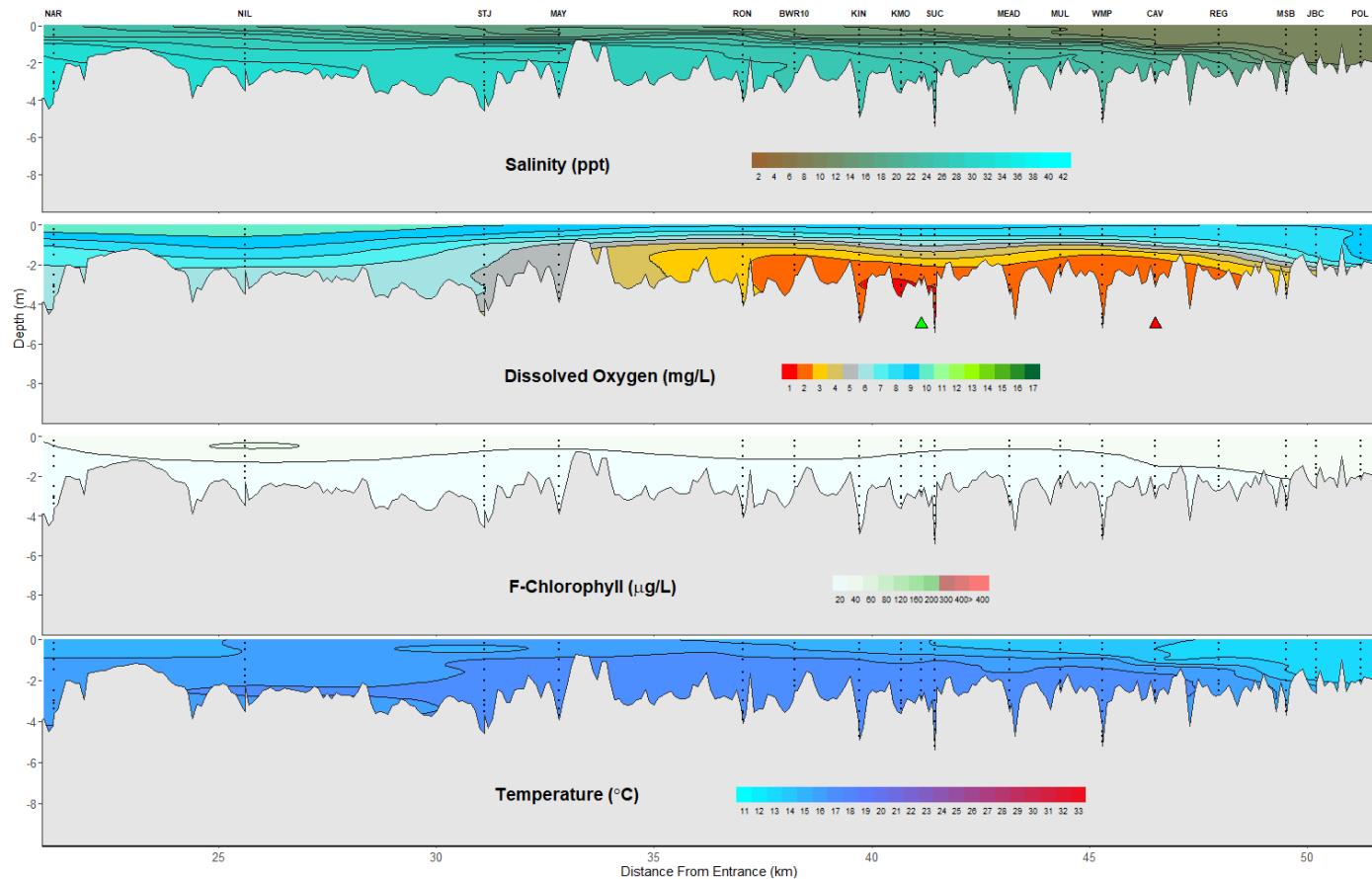
Rivers and Estuaries Science  
Biodiversity and Conservation Science  
Department of Biodiversity, Conservation and Attractions

## Swan Canning Estuary- Water Quality Profiles- 13<sup>th</sup> July 2020





## Middle and Upper Swan Estuary- Water Quality Profiles- 13<sup>th</sup> July 2020





Date: 13<sup>th</sup> July 2020

Weather & tide conditions: Conditions were overcast with a predominantly northerly breeze of up to 7 knots. The predicted tides at Barrack St were 0.98 m at 7:05 am (high tide) and 0.79 m at 8:41 pm (low tide). Perth recorded 21.0 mm of 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 operational during the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 14.1 to 16.7 °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 RON. Chlorophyll fluorescence was highest at NIL indicating higher microalgal activity in that area. Water temperature ranged from 14.8 to 16.4 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish over saline from BWR10 to KMO and brackish from VIT to POL. Surface waters were oxygenated or well oxygenated and bottom waters were hypoxic from BWR10 to REG and low in oxygen at MSB. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 12.4 to 16.5 °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 2020. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 13<sup>th</sup> July 2020. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)