



# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

### Lower Swan Canning Estuary to Upper Swan Estuary

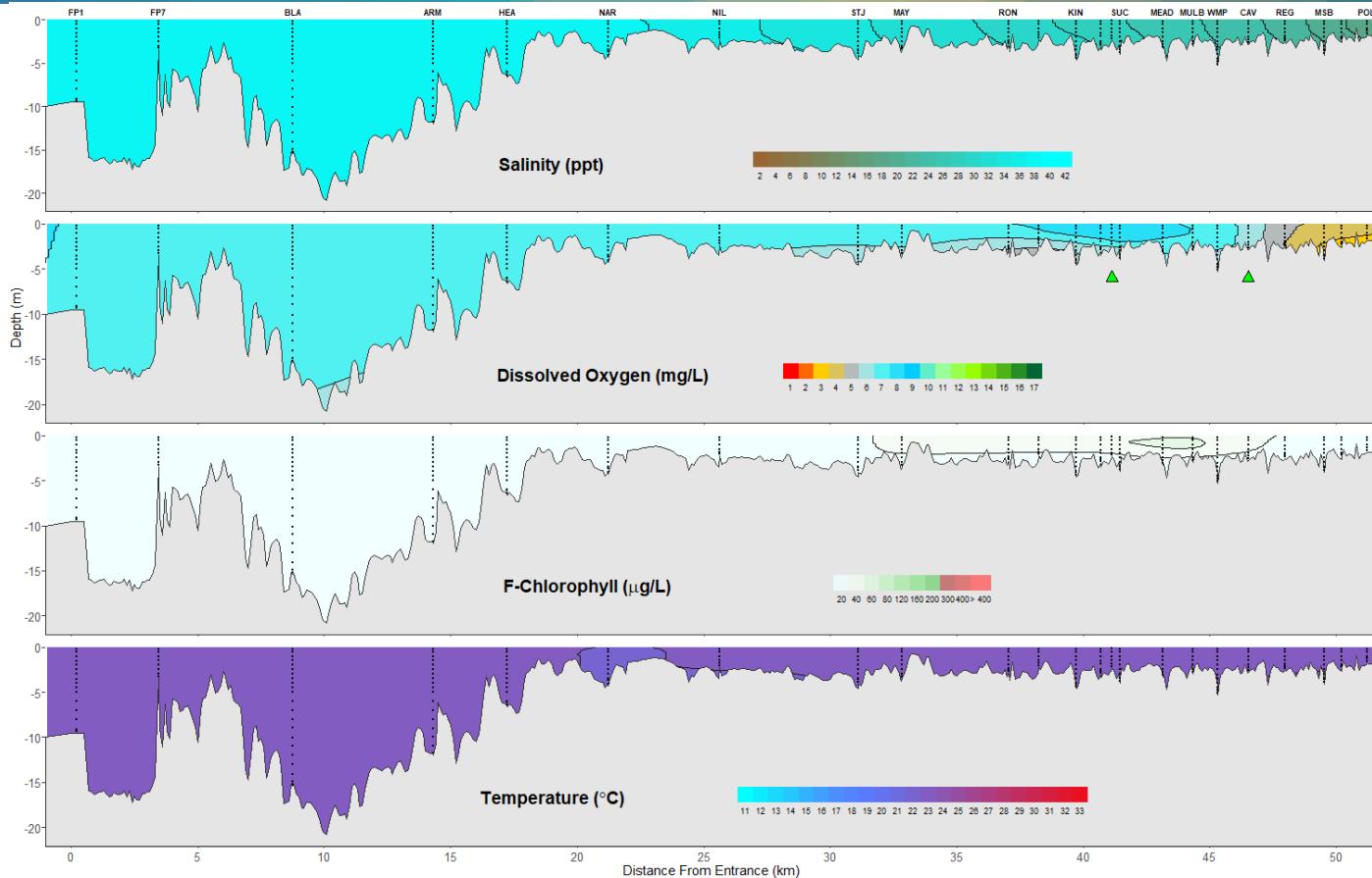
28 March 2022

Prepared by

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

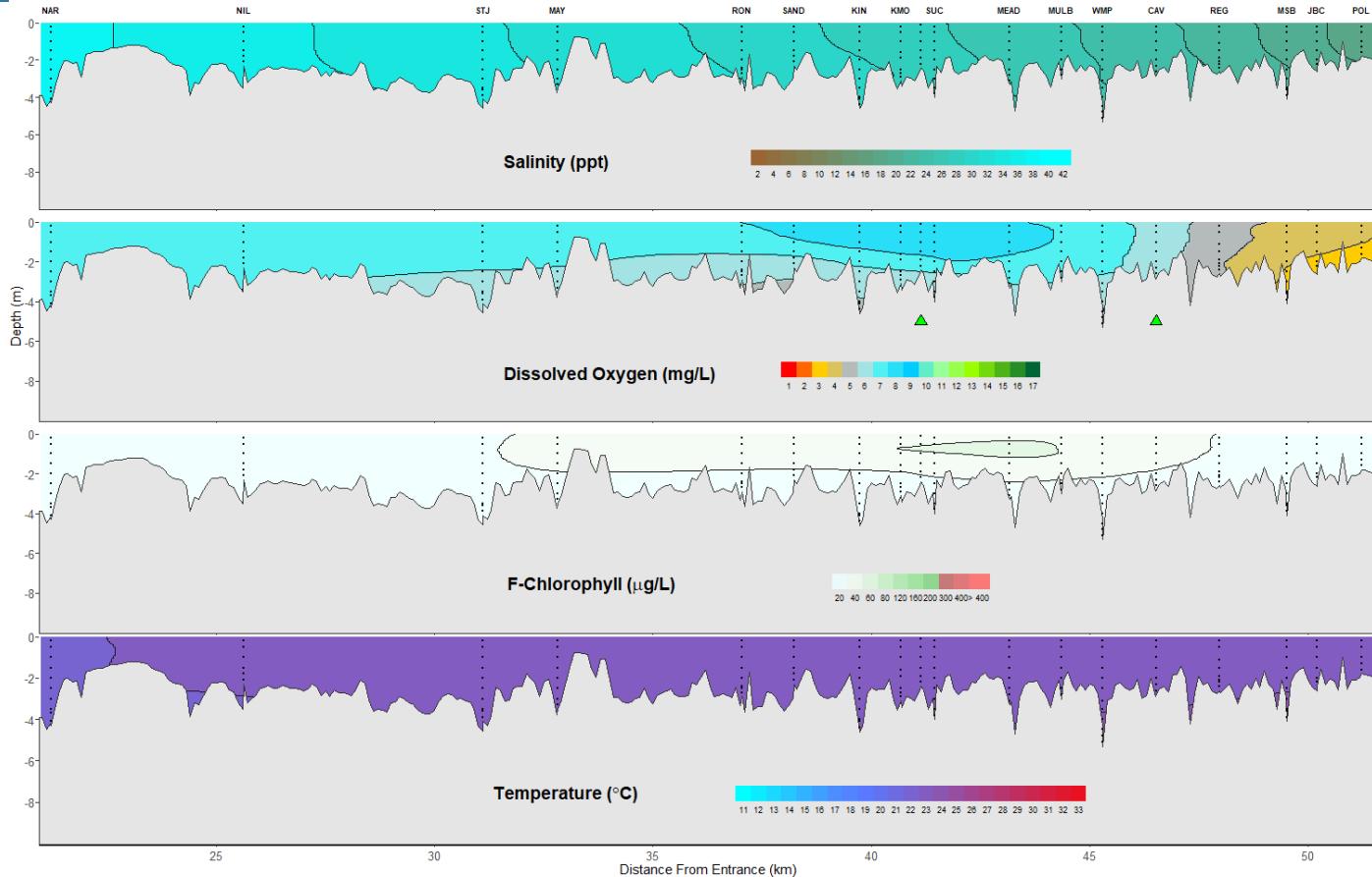


## Swan Canning Estuary- Water Quality Profiles – 28 March 2022





## Middle and Upper Swan Estuary- Water Quality Profiles – 28 March 2022





Date: 28 March 2022

Weather & tide conditions: Conditions were overcast with a variable breeze of up to 14 knots. The predicted tides at Barrack St were 0.59 m at 5:50 am (low tide) and 1.12 m at 8:40 pm (high tide). Perth recorded 1.8 mm of rain during the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 21.6 to 22.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was moderate at RON indicating higher microalgal activity in this area. Water temperature ranged from 22.2 to 23.0 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline between SAND and MEAD and brackish from MULB to POL. Waters were oxygenated or well oxygenated from SAND to CAV and low in oxygen from REG to POL. Chlorophyll fluorescence was moderate between MULB and WMP indicating higher microalgal activity in this area. Water temperature ranged from 22.2 to 23.2 °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, 2022. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 28 March 2022. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)