



Department of Biodiversity,  
Conservation and Attractions



Biodiversity and  
Conservation Science

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Western Australia.

# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

### Lower Swan Canning Estuary to Upper Swan Estuary

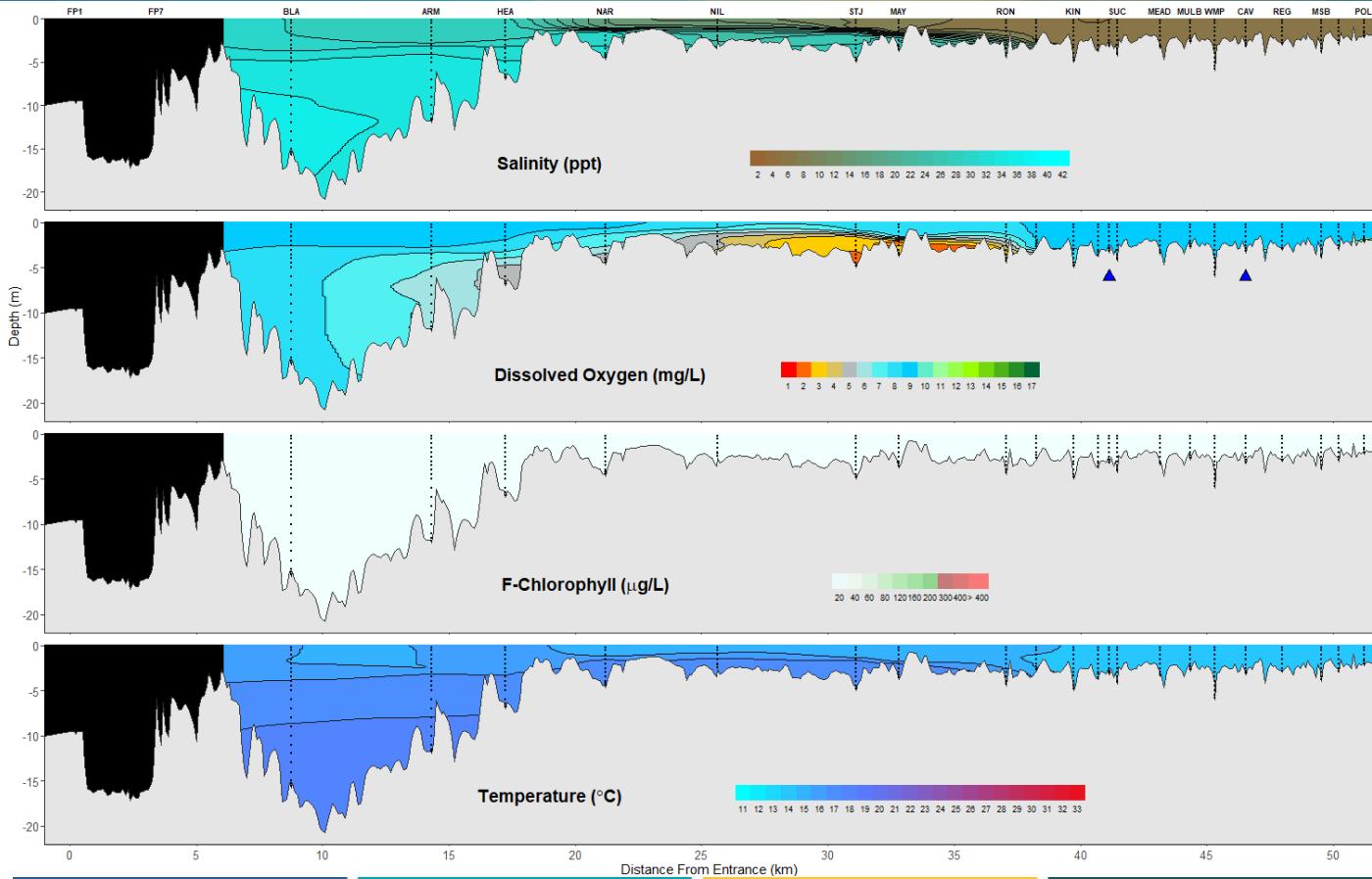
25 July 2022

Prepared by

Rivers and Estuaries Science  
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Department of Biodiversity, Conservation and Attractions

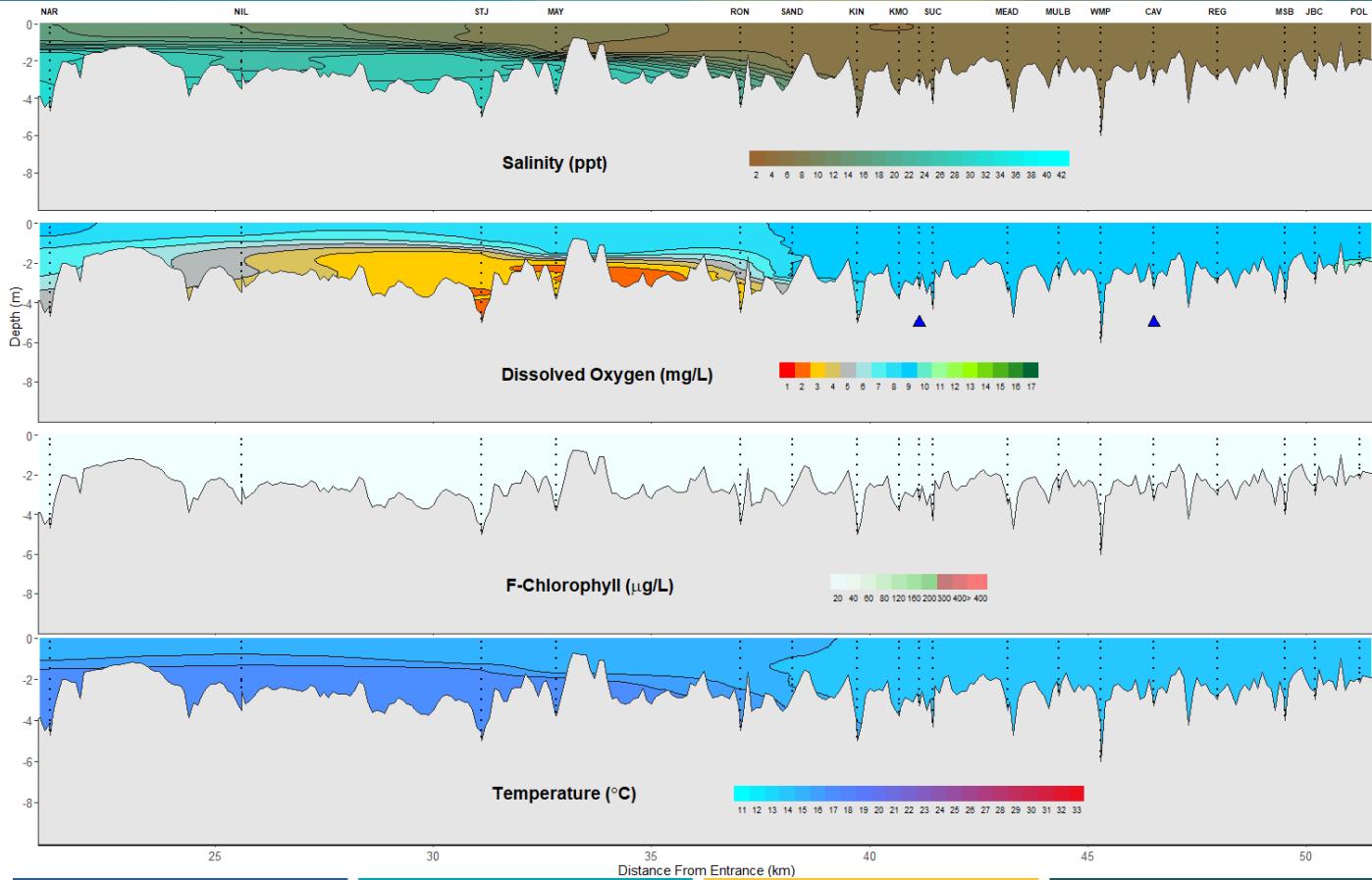


## Swan Canning Estuary- Water Quality Profiles – 25 July 2022





## Middle and Upper Swan Estuary- Water Quality Profiles – 25 July 2022





Date: 25 July 2022

Weather & tide conditions: Conditions were overcast with a predominantly north easterly breeze of up to 10 knots. The predicted tides at Barrack St were 1.2 m at 8:29 am (high tide) and 0.71 m at 7:50 pm (low tide). Perth recorded 56.4 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both operable but not 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 from BLA to HEA and brackish over saline at NAR. Waters were oxygenated or well oxygenated throughout, chlorophyll fluorescence was low and water temperature ranged from 14.4 to 17.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish at NIL and brackish over saline from STJ to RON. Waters were oxygenated or well oxygenated, except for bottom waters at STJ which were hypoxic, and between MAY and RON which were low in oxygen. Chlorophyll fluorescence was low and water temperature ranged from 14.1 to 16.6 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish and waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was low and temperature ranged from 13.3 to 15 °C at the time of sampling.

**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 (no/low 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>

**Recommended reference:** Department of Biodiversity, Conservation and Attractions, 2022. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 25 July 2022*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)