



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

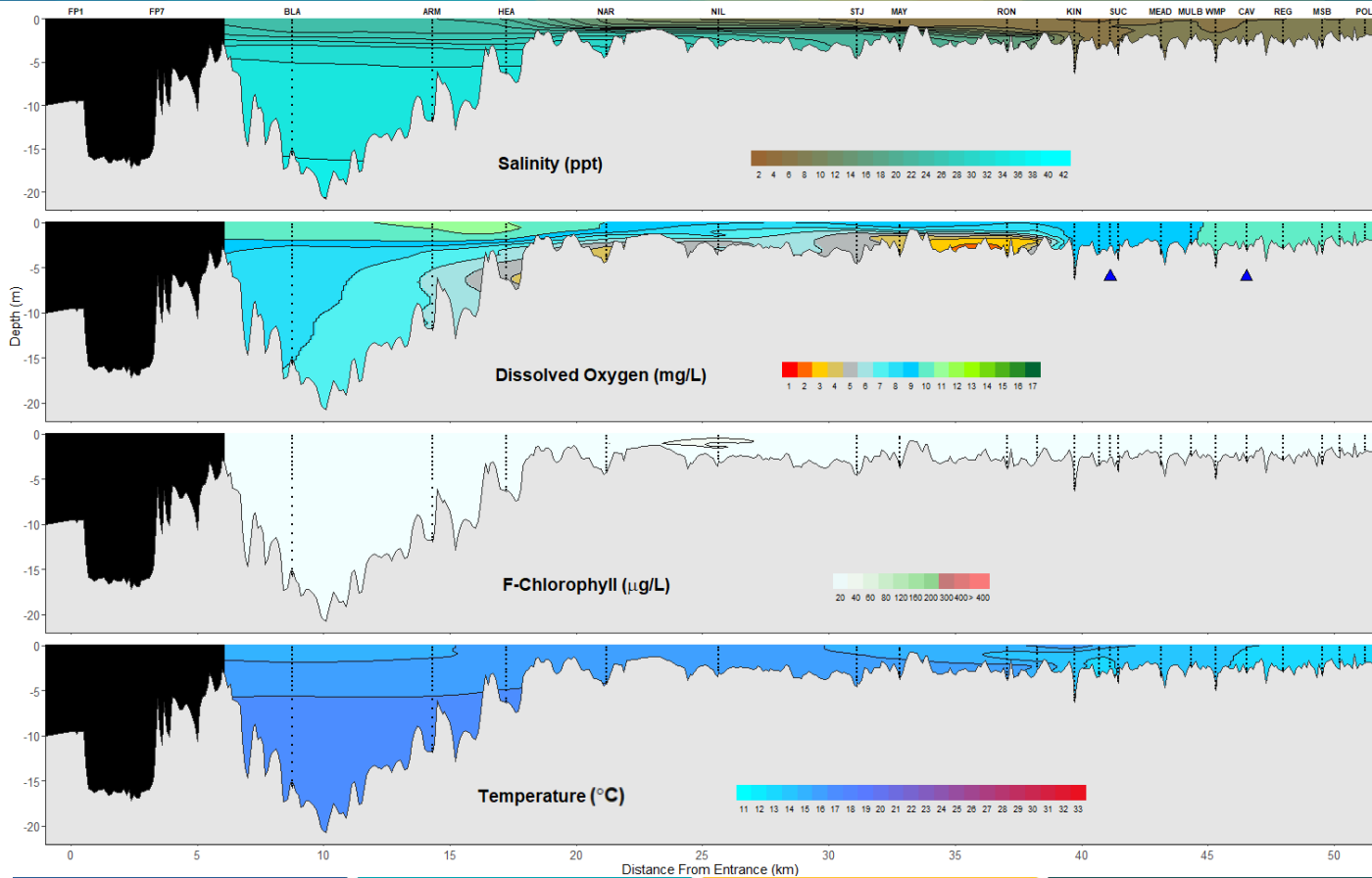
Lower Swan Canning Estuary to Upper Swan Estuary

7th August 2023

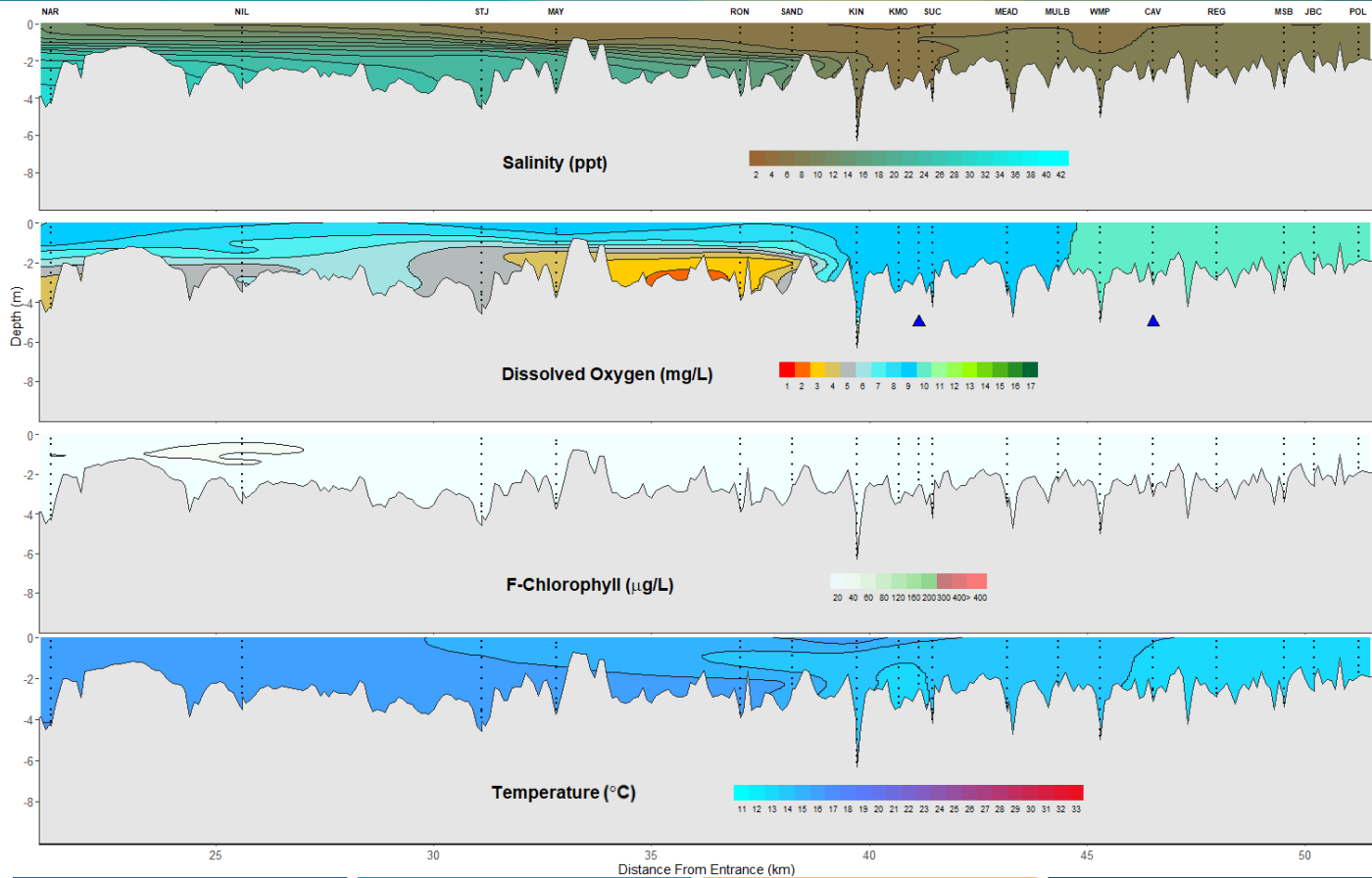
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Swan Canning Estuary - Water Quality Profiles – 7th August 2023



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Date: 7th August 2023

Weather & tide conditions: Conditions were overcast with a predominantly northerly breeze of up to 4.8 knots. The predicted tides at Barrack St were 0.97 m at 3:50 am (high tide) and 0.77 m at 6:46 pm (low tide). Perth recorded 3.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both operable but not triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was brackish over saline. Waters were oxygenated or well oxygenated, except bottom waters at NAR which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 14.7 °C to 16.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish. Waters were oxygenated or well oxygenated, except bottom waters between MAY and RON which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 13.8 °C to 15.7 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh over brackish from SAND to SUC and brackish between MEAD and POL. Waters were oxygenated or well oxygenated, except bottom waters at KIN and SAND which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 12.7 °C to 15.7 °C.

NB: Profile plots are visual interpolations of measured parameters only. Detailed data are available at 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⁻¹, oxygenated >4-6 mg L⁻¹, low oxygen >2-4 mg L⁻¹, hypoxic 0.5-2 mg L⁻¹, anoxic <0.5 mg L⁻¹
Chlorophyll fluorescence (mod/high flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹