



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

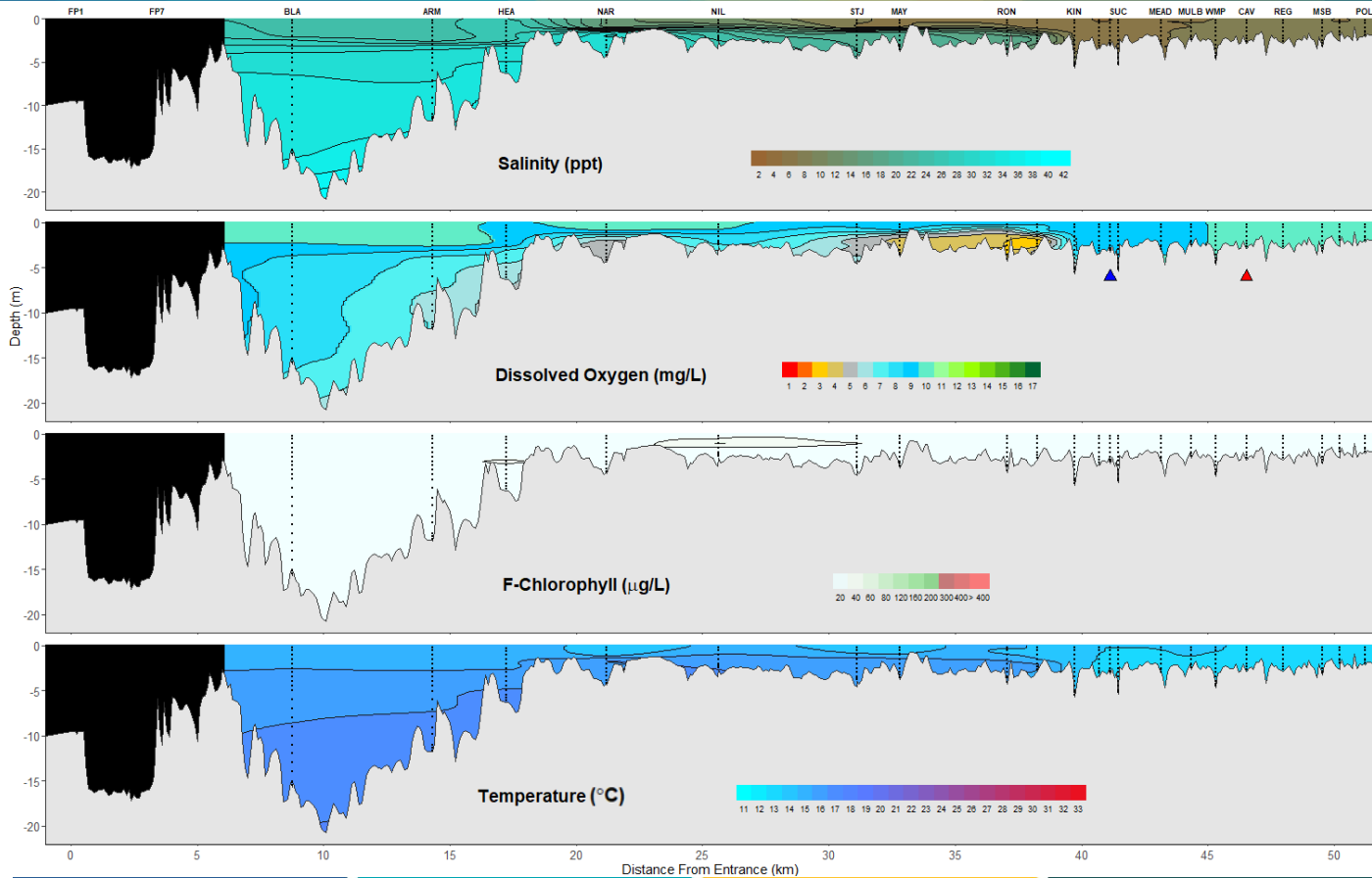
Lower Swan Canning Estuary to Upper Swan Estuary

24th July 2023

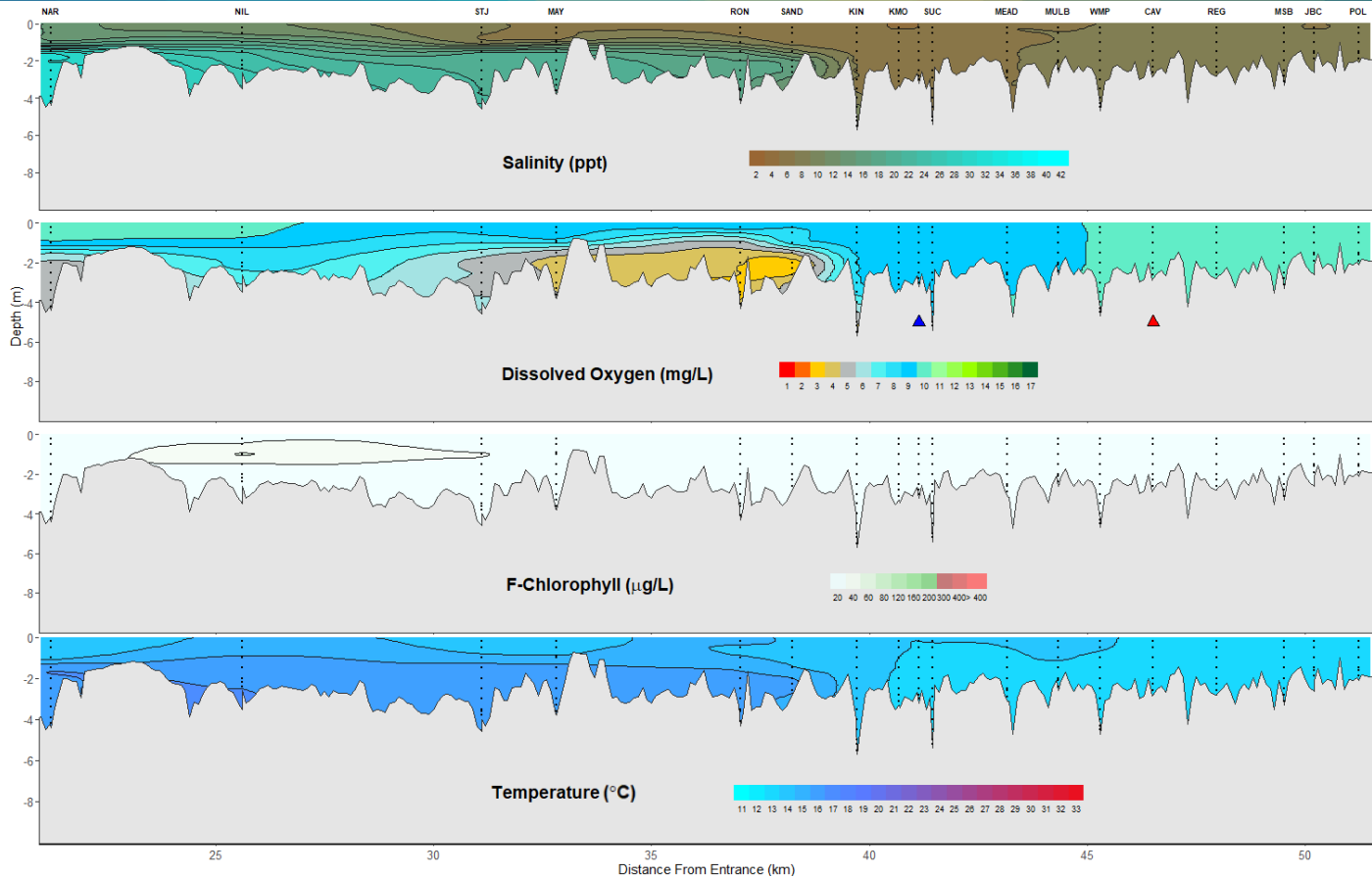
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Swan Canning Estuary - Water Quality Profiles – 24th July 2023



Swan Canning Estuary - Water Quality Profiles – 24th July 2023



Date: 24th July 2023

Weather & tide conditions: Conditions were sunny with a predominantly north easterly breeze of up to 9 knots. The predicted tides at Barrack St were 0.95 m at 7:17 am (high tide), 1 m at 12:48 pm (2nd high tide) and 0.81 at 8:21 pm (low tide). Perth recorded 10.6 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was operable but not triggered to provide oxygen in the 24 hours prior to sampling. The Caversham oxygenation plant was offline 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 to well oxygenated, except for bottom waters at MAY which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 13.5 °C to 16.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish. Surface waters were oxygenated to well oxygenated between NIL and RON and bottom waters were low in oxygen at MAY and RON. Chlorophyll fluorescence was low and water temperatures ranged from 13.9 °C to 16 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish at SAND and from MEAD to POL, fresh over saline at KIN and fresh over brackish between KMO and SUC. Surface waters were oxygenated to well oxygenated between SAND and POL and bottom waters were low in oxygen at SAND and hypoxic at KIN. Chlorophyll fluorescence was low and water temperatures ranged from 12.1 °C to 16.6 °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.

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