



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

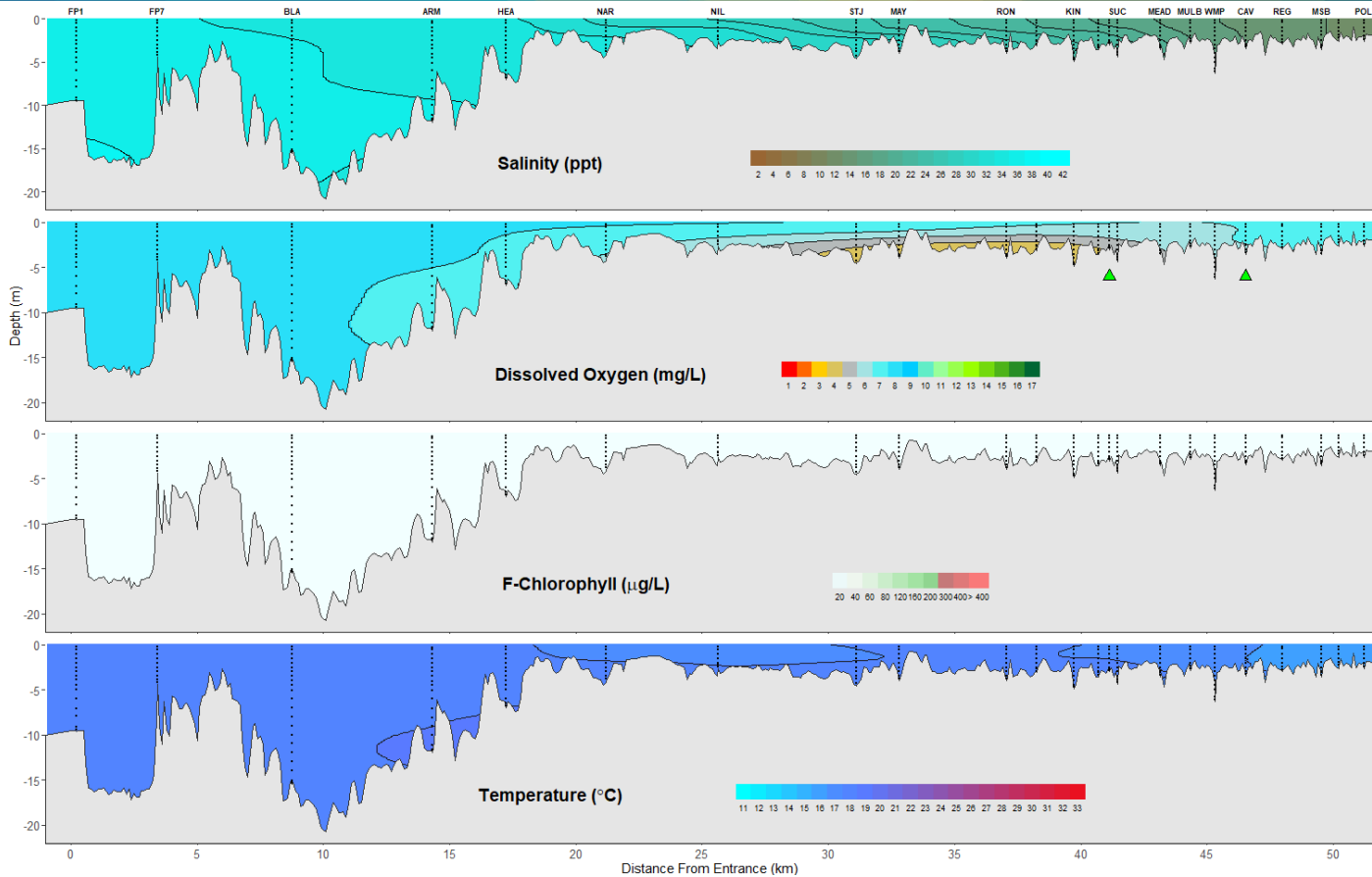
Lower Swan Canning Estuary to Upper Swan Estuary

8th May 2023

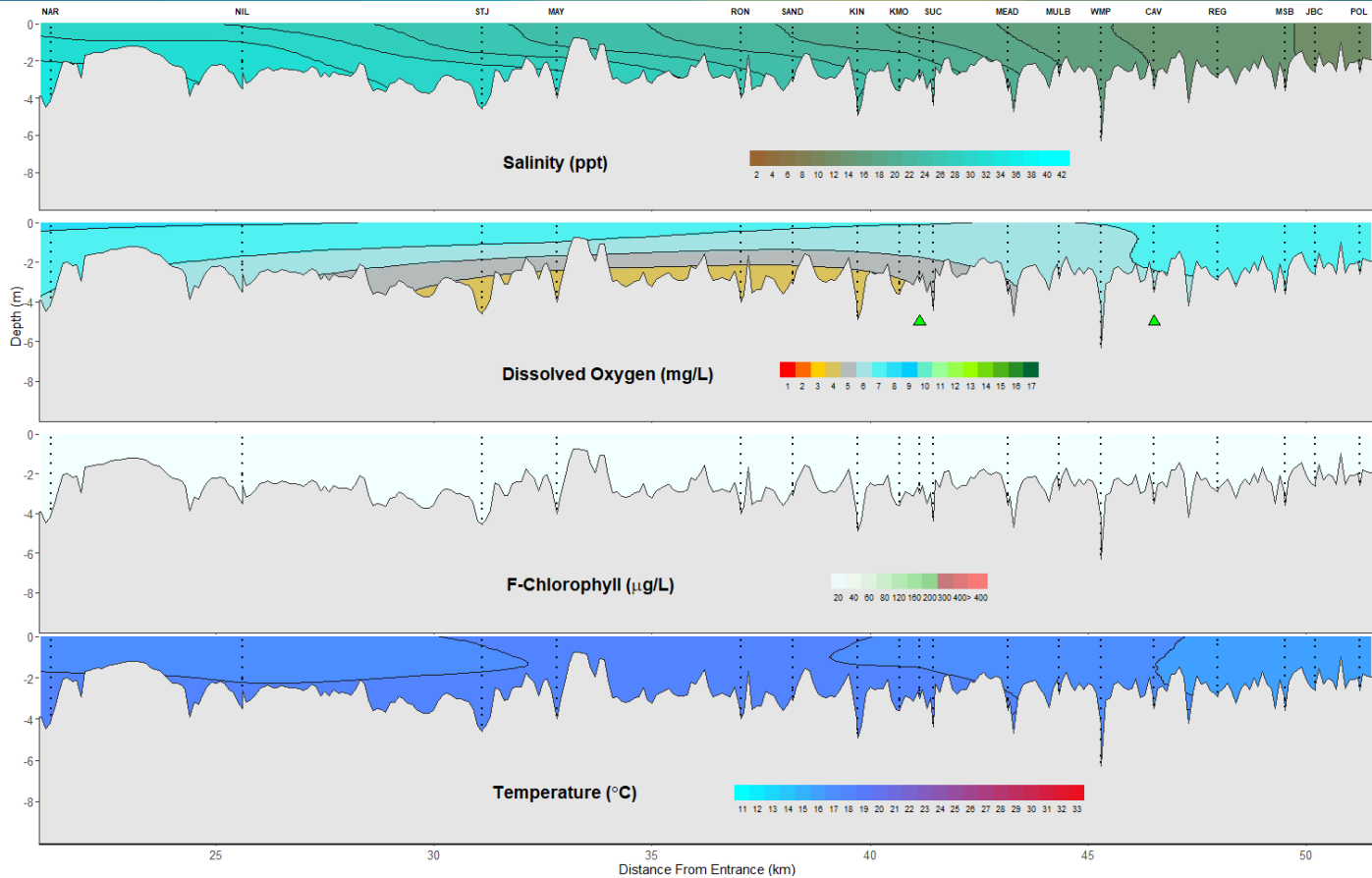
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Swan Canning Estuary - Water Quality Profiles – 8th May 2023



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Date: 8th May 2023

Weather & tide conditions: Conditions were cloudy with an easterly breeze of up to 18.8 knots. The predicted tides at Barrack St were 1.3 m at 12:33 pm (high tide) and 0.67 m at 11:30 pm (low tide). Perth recorded 6.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: Both the Guildford and Caversham oxygenation plants were operable and providing oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (FPI to NAR): The Lower Swan Canning Estuary was saline and waters were oxygenated to well oxygenated throughout. Chlorophyll fluorescence was low throughout and water temperatures ranged from 16.6 °C to 18.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL, brackish over saline at STJ and MAY, and brackish at RON. Waters were oxygenated to well oxygenated throughout, except for bottom waters from RON – STJ, which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 16.6 °C to 17.9 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish throughout and sites were oxygenated to well oxygenated apart from bottom waters from SAND - KMO, which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 15.6 °C to 17.9 °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 (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹