



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

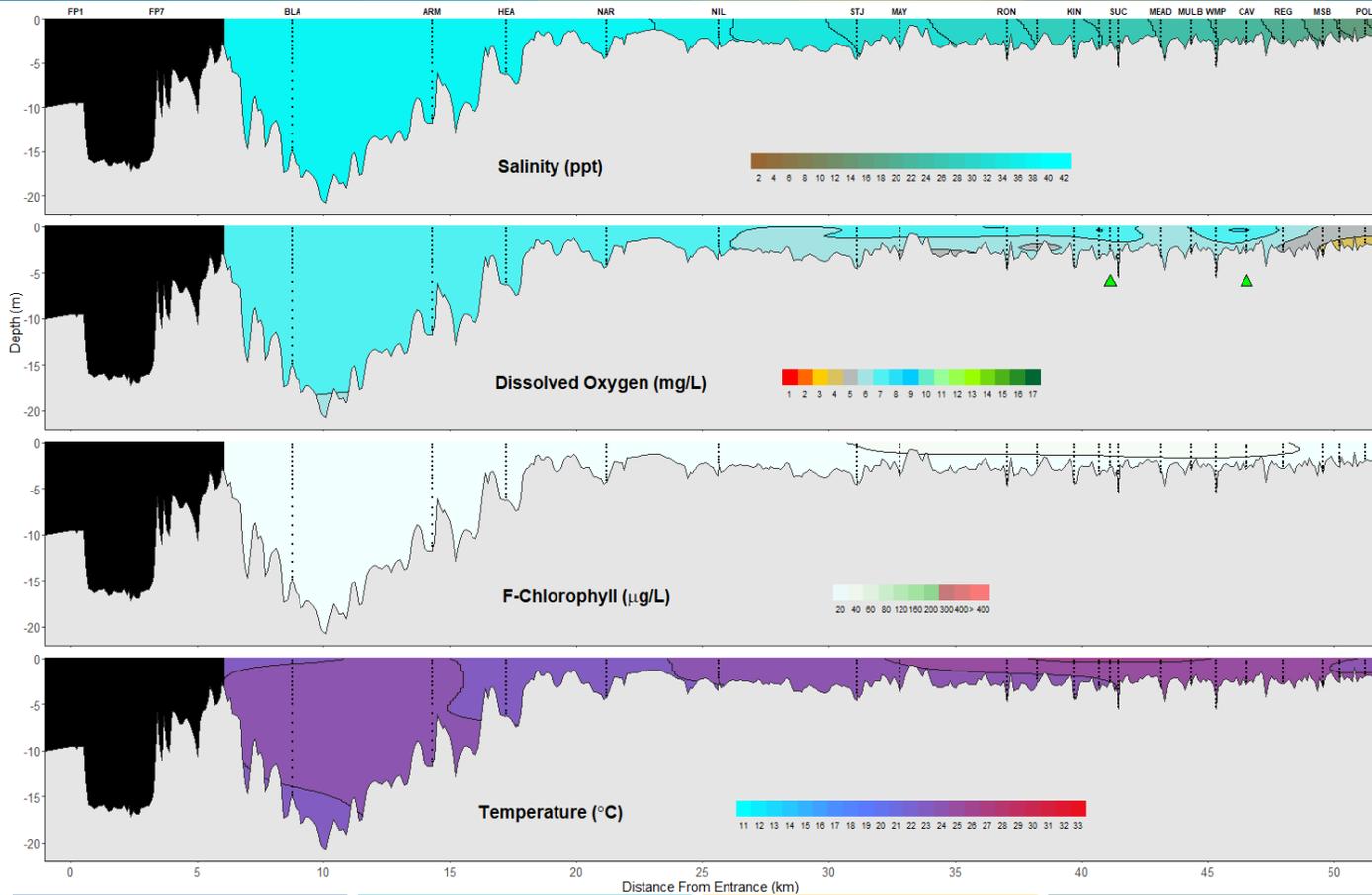
Lower Swan Canning Estuary to Upper Swan Estuary

20th March 2023

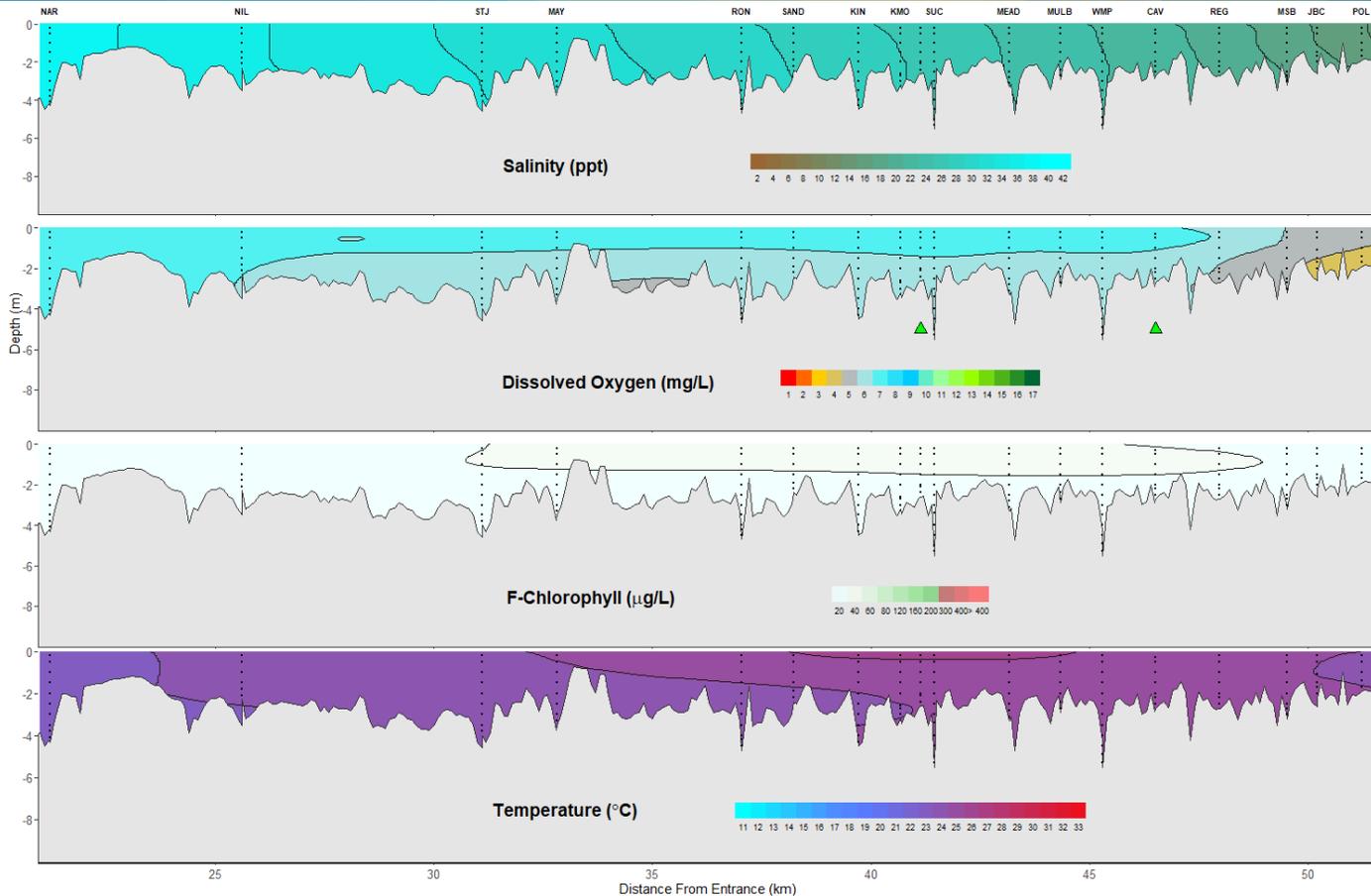
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Swan Canning Estuary - Water Quality Profiles - 20th March 2023



Middle and Upper Swan Estuary - Water Quality Profiles - 20th March 2023



Date: 20th March 2023

Weather & tide conditions: Conditions were sunny with a predominantly easterly breeze of up to 15 knots. The predicted tides at Barrack St were 0.62 m at 7:03 am (low tide) and 0.83m at 1:41 pm (high tide). Perth recorded 0.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline (36-37 ppt) and waters were oxygenated to well oxygenated. Chlorophyll fluorescence was low throughout and water temperatures ranged from 22.6 °C to 24.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline and waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was moderate in the surface waters of RON and low elsewhere. Water temperatures ranged from 23.2 to 24.7 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline between SAND and SUC, and brackish from MEAD to POL. Waters were oxygenated to well oxygenated throughout, except for bottom waters of MSB to POL which were low in oxygen. Chlorophyll fluorescence was moderate in the surface waters of KMO and low elsewhere. Water temperatures ranged from 23.8 °C to 25.6 °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 (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹