



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

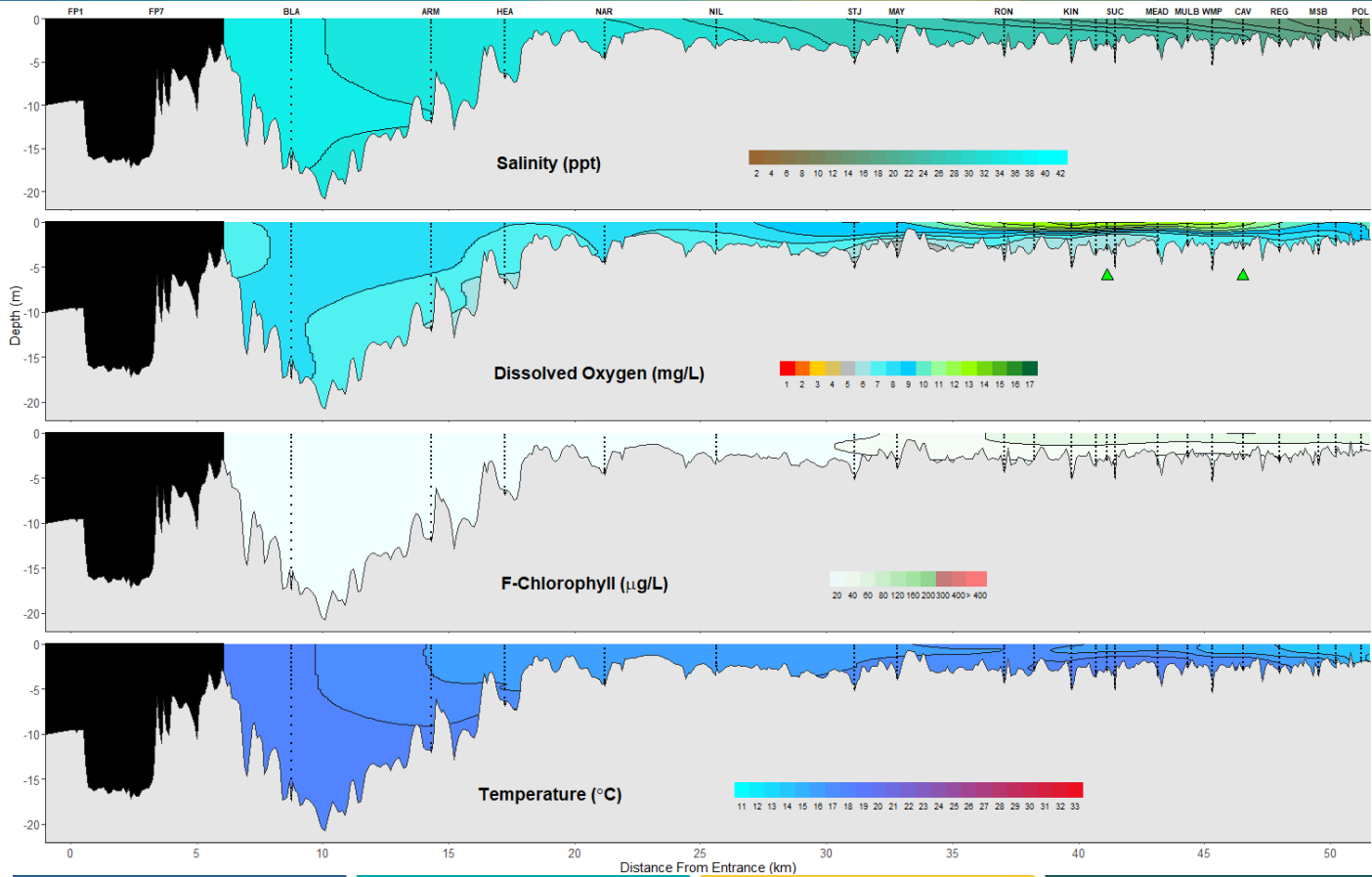
Lower Swan Canning Estuary to Upper Swan Estuary

24th June 2024

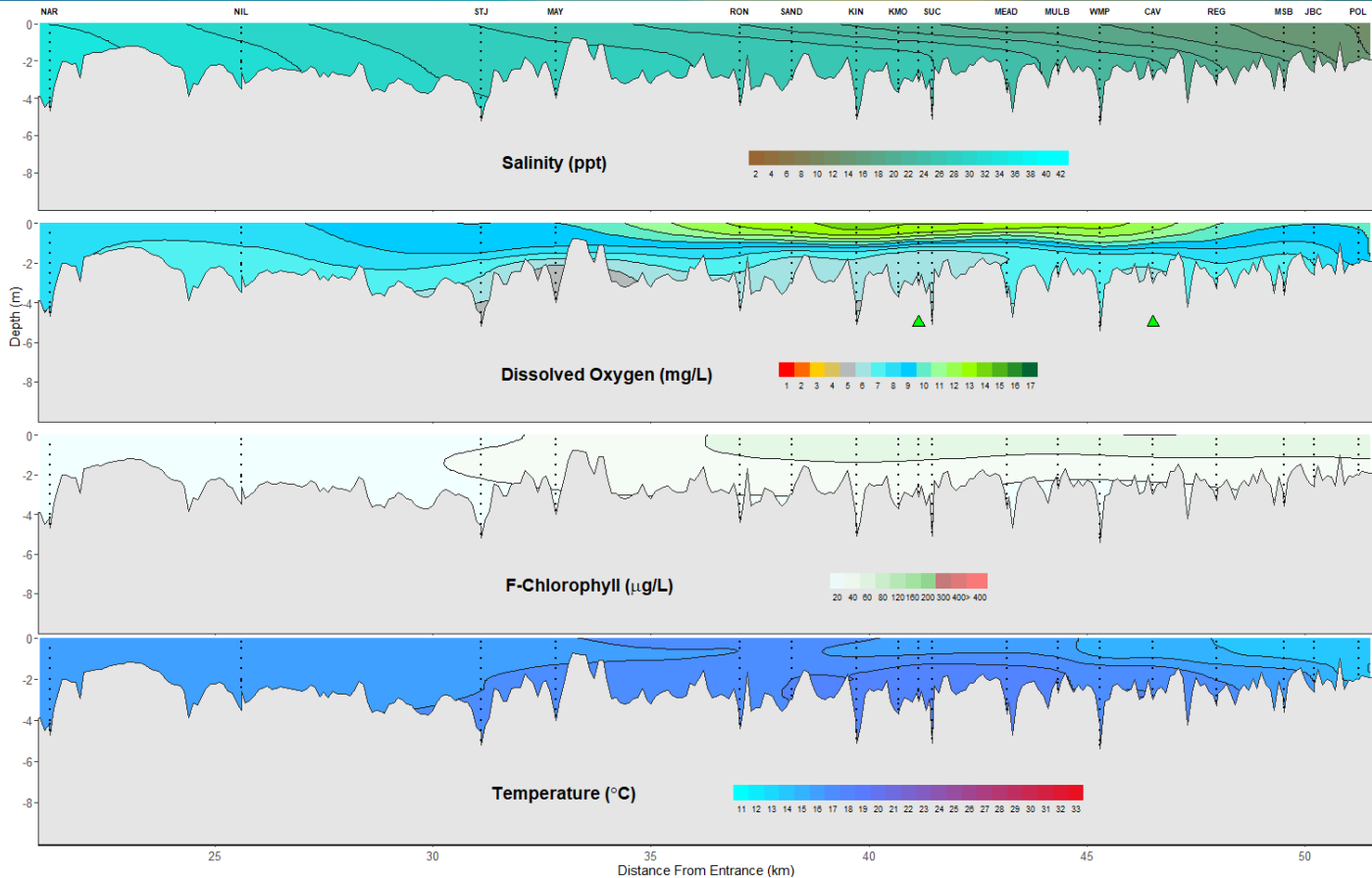
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Swan Canning Estuary - Water Quality Profiles – 24th June 2024



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Date: 24th June 2024

Weather & tide conditions: Conditions were mostly clear with minor cloud cover and a predominately southeasterly breeze of up to 6.4 knots. The predicted tides at Barrack St were 1.34 m at 12:23 pm (high tide), and 0.68 m at 11:09 pm (low tide). Perth recorded 6.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): All sites in the Lower Swan Canning Estuary were saline. Waters were well oxygenated or oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 15.6 to 17.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): Waters in the Middle Swan Estuary was saline, except for RON which was brackish over saline. All sites were oxygenated or well oxygenated, chlorophyll fluorescence was moderate near the surface at RON and low elsewhere. Water temperatures ranged from 15.1 to 16.8 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish over saline from SAND – KIN and brackish from KMO – POL. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence reached moderate levels in the surface layer at most sites, with the exception of MULB and JBC. Water temperatures ranged from 13.1 to 17.3 °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 (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹