



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

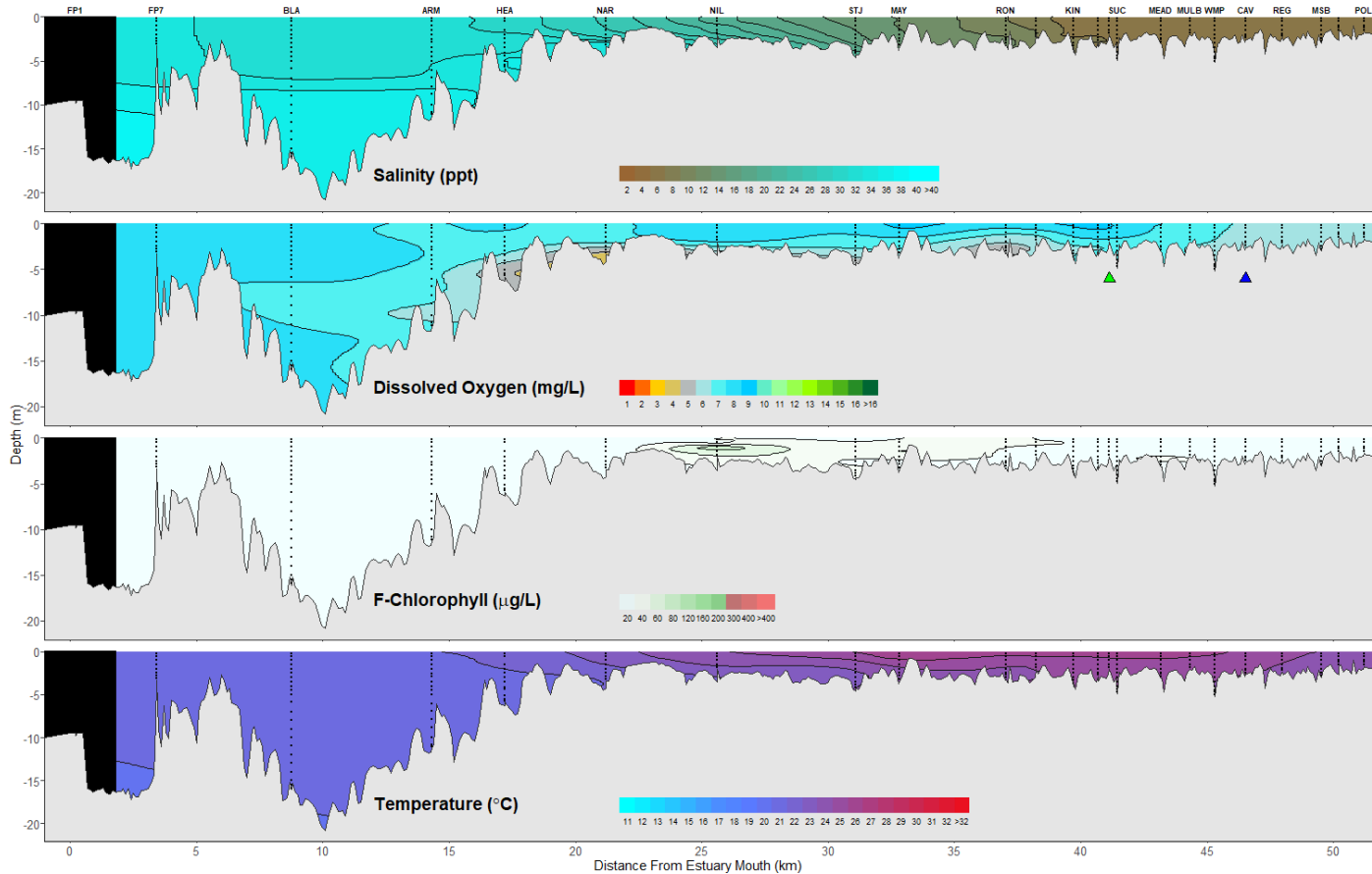
Lower Swan Canning Estuary to Upper Swan Estuary

18 November 2024

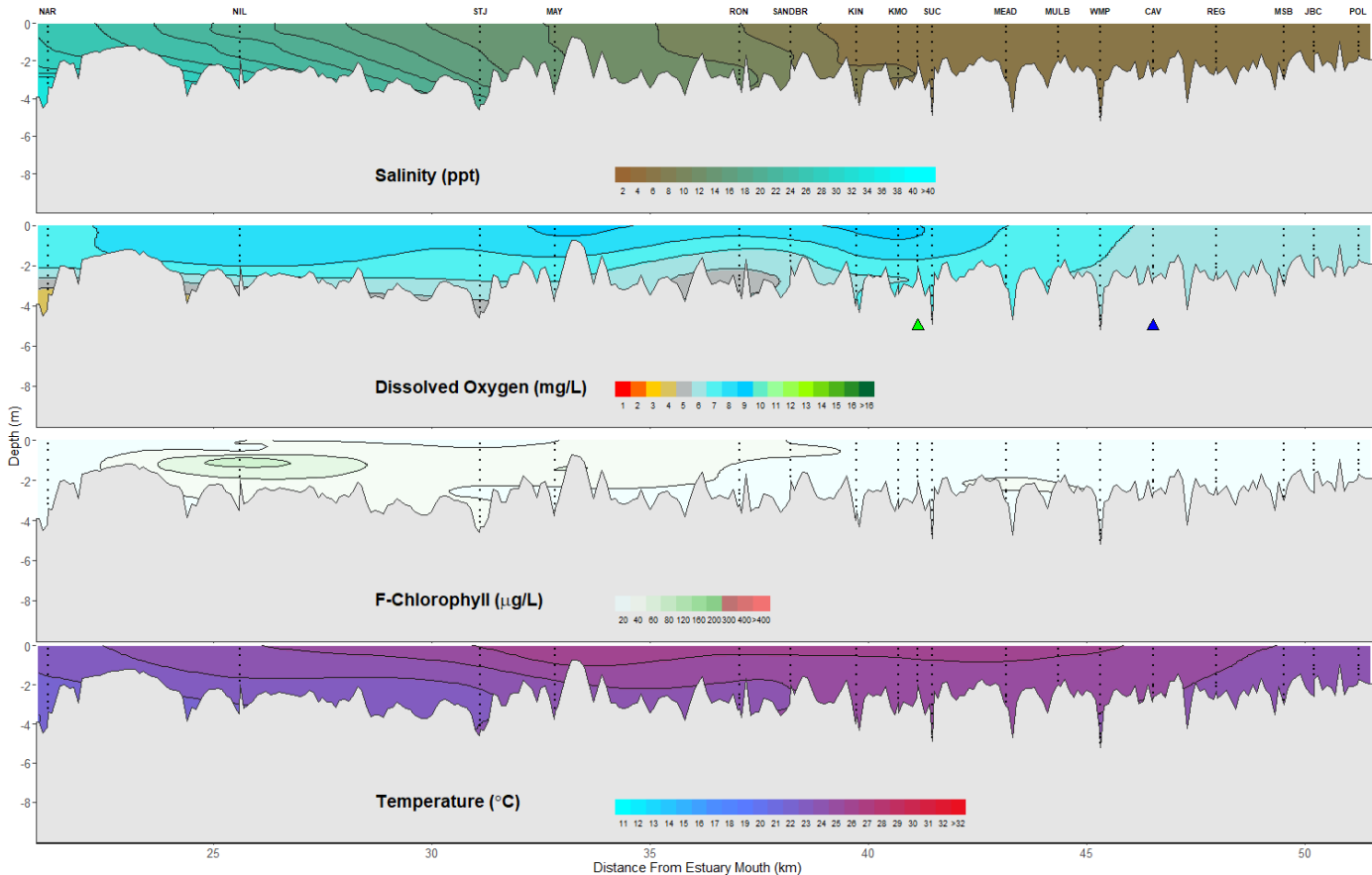
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Swan Canning Estuary - Water Quality Profiles – 18 November 2024



Swan Canning Estuary - Water Quality Profiles – 18 November 2024



Date: 18 November 2024

Weather & tide conditions: Cloud cover increased throughout the day with an easterly breeze of up to 10 knots. The predicted tide at Barrack St was 0.46 m at 10:49 am (low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was triggered to provide oxygen and the Caversham oxygenation plant was 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 saline. Waters were oxygenated or well oxygenated, except for bottoms waters at NAR which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 20.2 to 22.5 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was moderate in subsurface waters at NIL and water temperatures ranged from 22.6 to 25.8 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish at SANDBR and KIN, fresh over brackish at KMO, fresh at VIT and SUC, brackish from MEAD to WMP and fresh between CAV and POL. Waters were oxygenated or well oxygenated, chlorophyll fluorescence was low and water temperatures ranged from 23.4 to 26.2 °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

Recommended reference: Department of Biodiversity, Conservation and Attractions, 2024. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 18 November 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)