



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

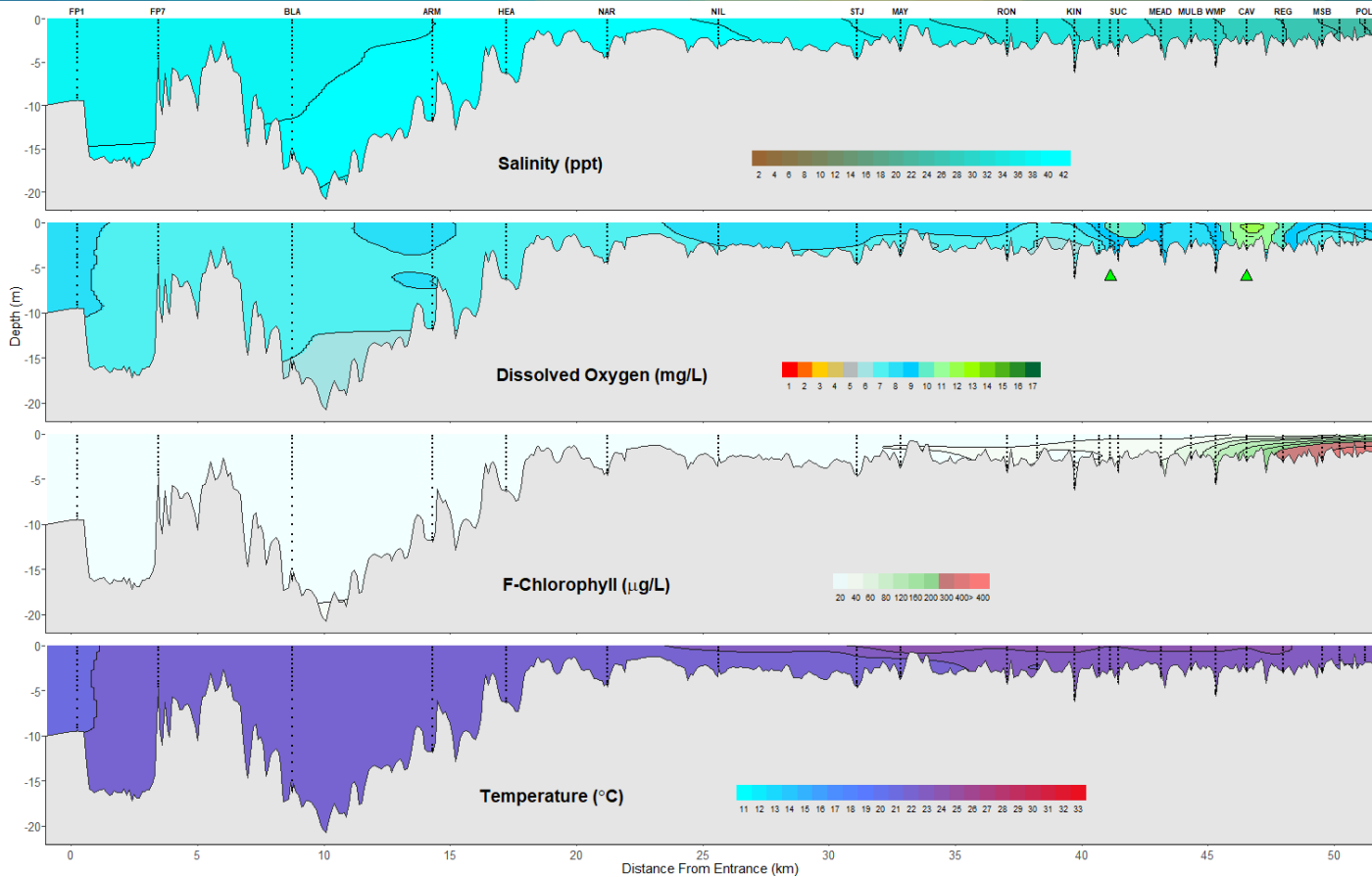
Lower Swan Canning Estuary to Upper Swan Estuary

25th March 2024

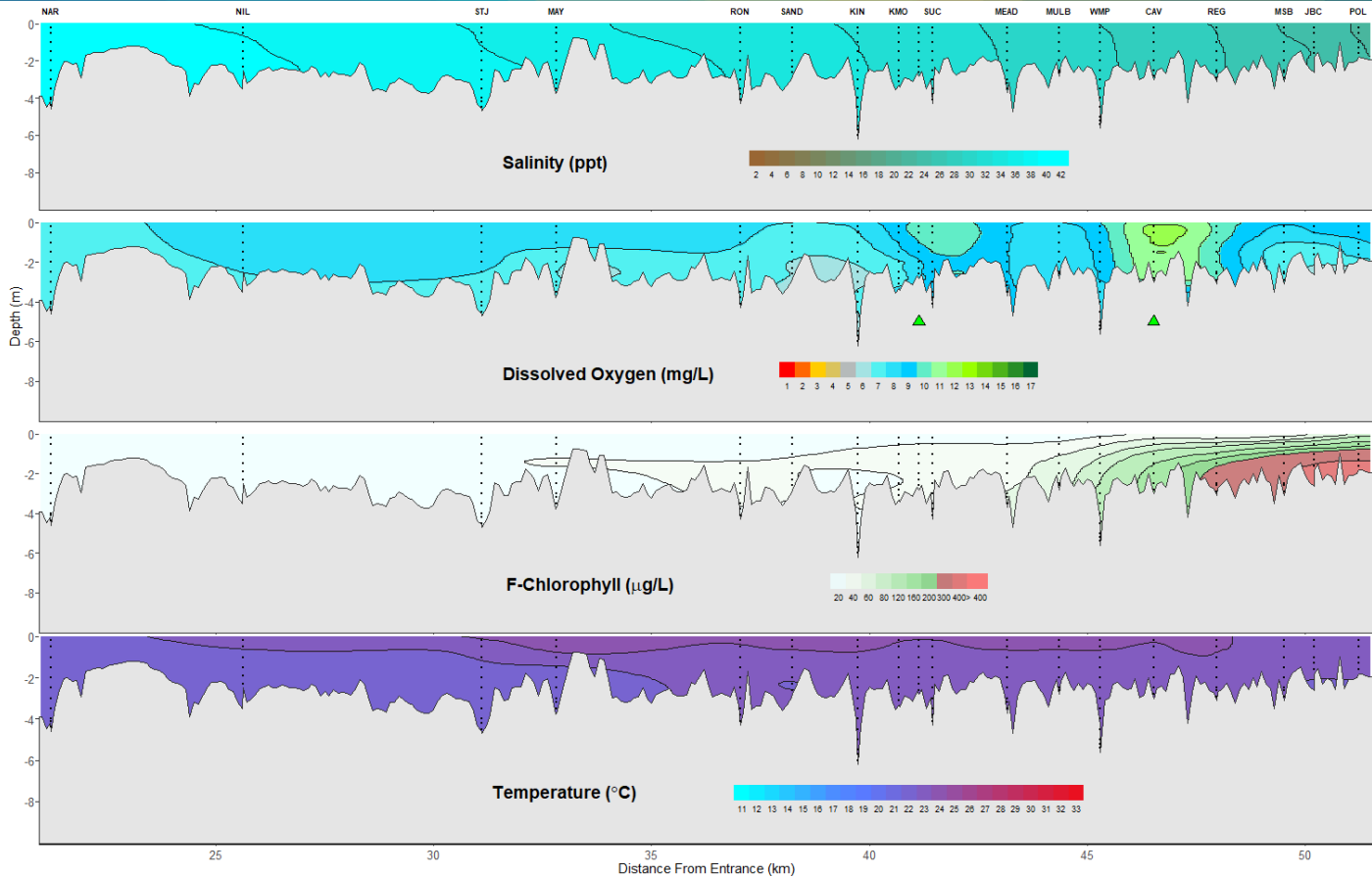
Prepared by

Rivers and Estuaries Science
Biodiversity and Conservation Science
Department of Biodiversity, Conservation and Attractions

Swan Canning Estuary - Water Quality Profiles – 25th March 2024



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Date: 25th March 2024

Weather & tide conditions: Conditions were clear with variable breeze of up to 8.0 knots. The predicted tides at Barrack St were 0.76 m at 5:48 am (low tide), 0.97 m at 12:24 pm (high tide) and 0.83 m at 5:52 pm (2nd low tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was hypersaline and waters were oxygenated to well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 21.0 to 21.9 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was hypersaline at NIL and STJ, saline over hypersaline at MAY and saline at RON. Waters were oxygenated to well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 21.2 to 23.8 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline between SAND and REG and brackish from MSB to POL. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low from SAND to VIT, low to moderate between SUC and WMP and high in subsurface and bottom waters from CAV to POL. Water temperatures ranged from 22.0 to 23.9 °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 (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

Recommended reference: Department of Biodiversity, Conservation and Attractions, 2024. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 25th March 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)