



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

7 November 2022

Prepared by

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



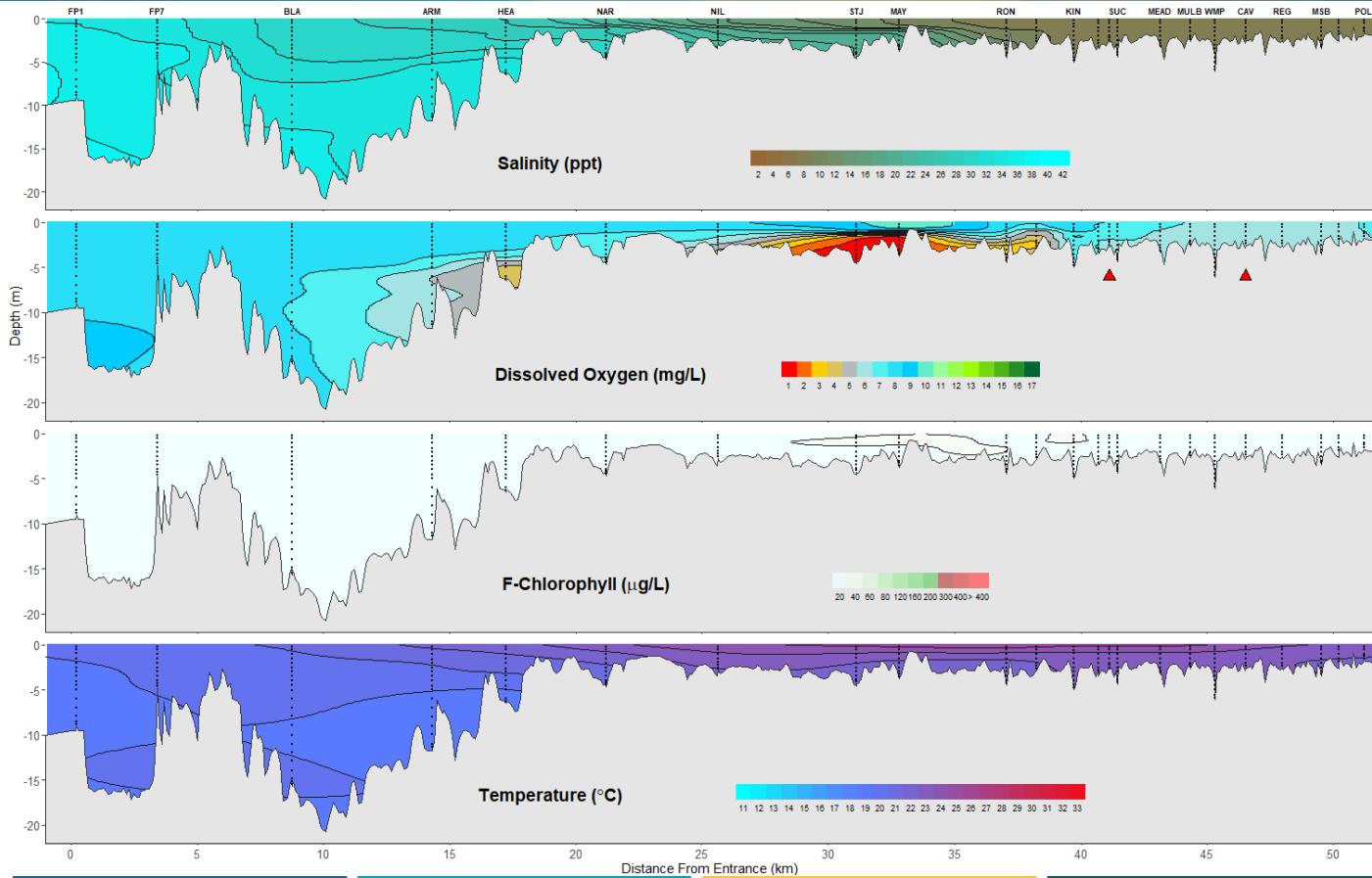
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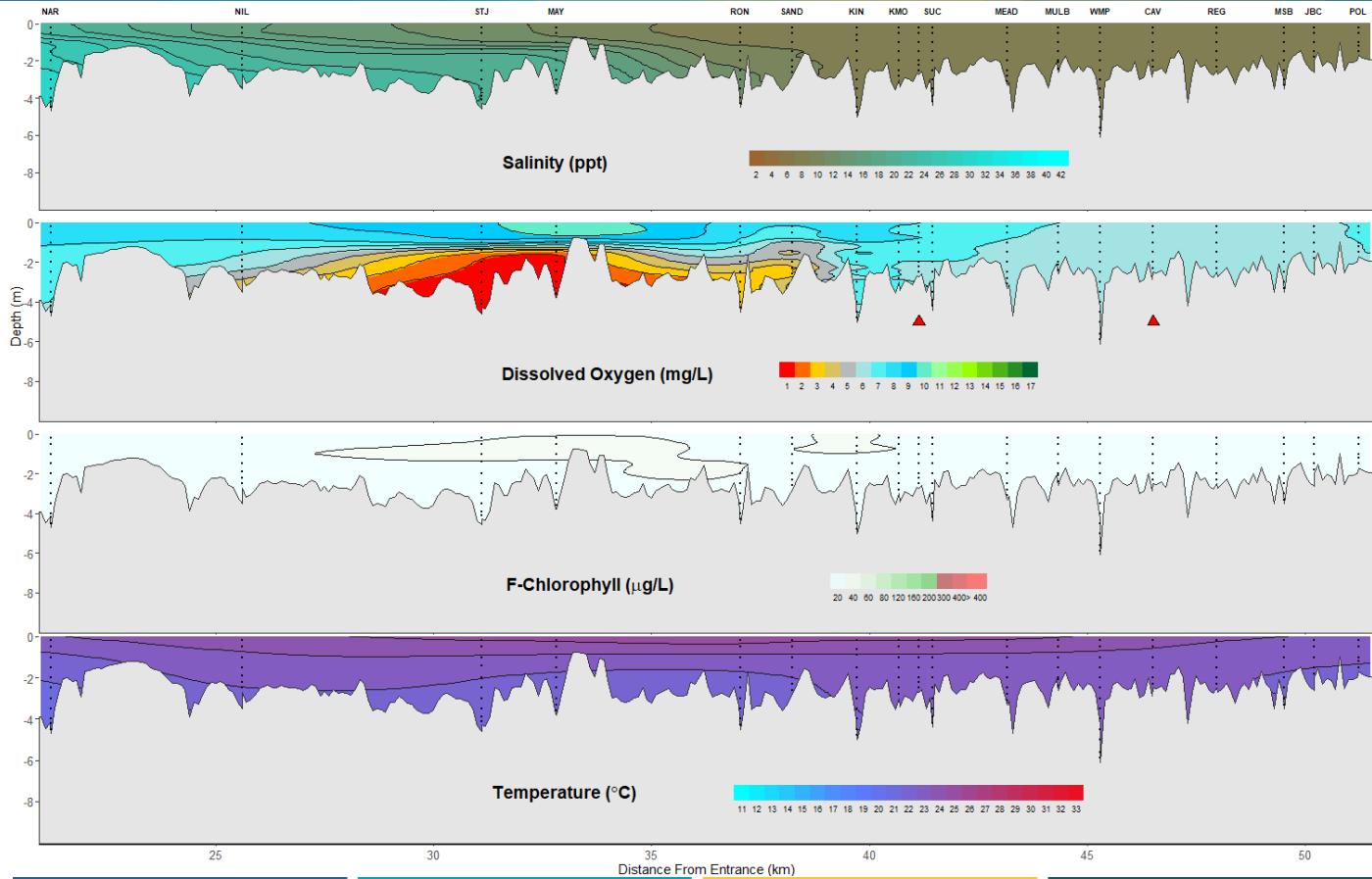
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Swan Canning Estuary - Water Quality Profiles - 7 November 2022



Middle and Upper Swan Estuary - Water Quality Profiles - 7 November 2022





Date: 7 November 2022

Weather & tide conditions: Conditions were cloudy with a light, predominately westerly breeze of up to 11 knots. The predicted tides at Barrack St were 0.62 m at 6:47 am (low tide) and 0.74 m at 12:35 pm (high tide). Perth recorded 0.6 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: Both the Guildford and Caversham oxygenation plants were inoperable during the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was saline from FP1 to HEA, and brackish over saline at NAR. Waters were oxygenated or well oxygenated throughout except for bottom waters at HEA which were low in oxygen. Chlorophyll fluorescence was low throughout this zone and water temperature ranged from 18.2 to 22.7 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish throughout. Waters were oxygenated or well oxygenated throughout except for bottom waters at STJ and MAY which were anoxic and hypoxic, respectively. Bottom waters at RON were also low in oxygen. Chlorophyll fluorescence was low throughout this zone and water temperature ranged from 21.5 to 25.2 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish and waters were well oxygenated throughout except for bottom waters at SAND which were low in oxygen. Chlorophyll fluorescence was low and temperature ranged from 21.7 to 24.2 °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 (mod/high flow): low < 60 µg L⁻¹, moderate 60-160 µg L⁻¹, high 160-400 µg L⁻¹, extreme > 400 µg L⁻¹

Recommended reference: Department of Biodiversity, Conservation and Attractions, 2022. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 7 November 2022. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)