



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

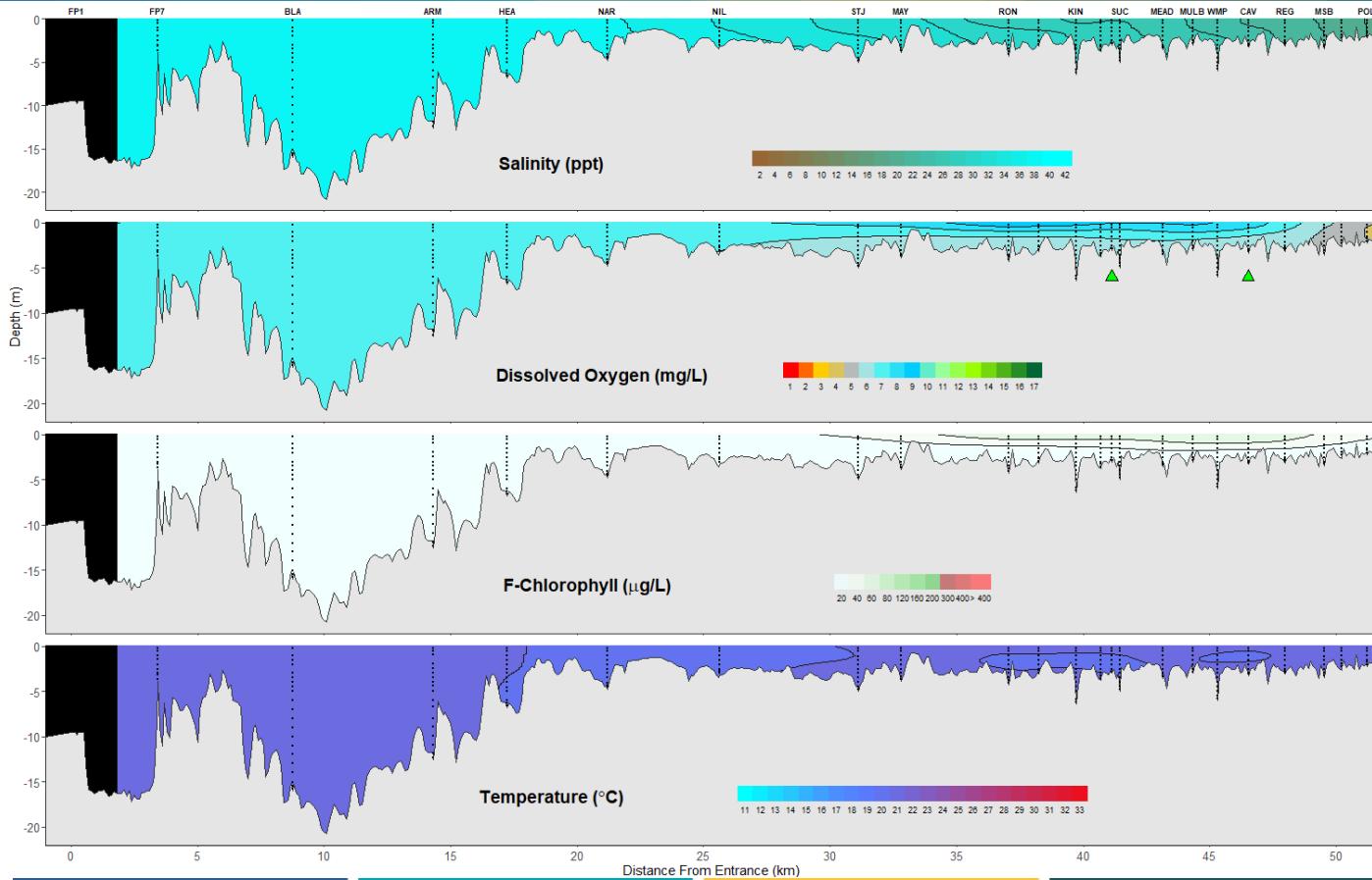
26 April 2022

Prepared by

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Swan Canning Estuary- Water Quality Profiles – 26 April 2022





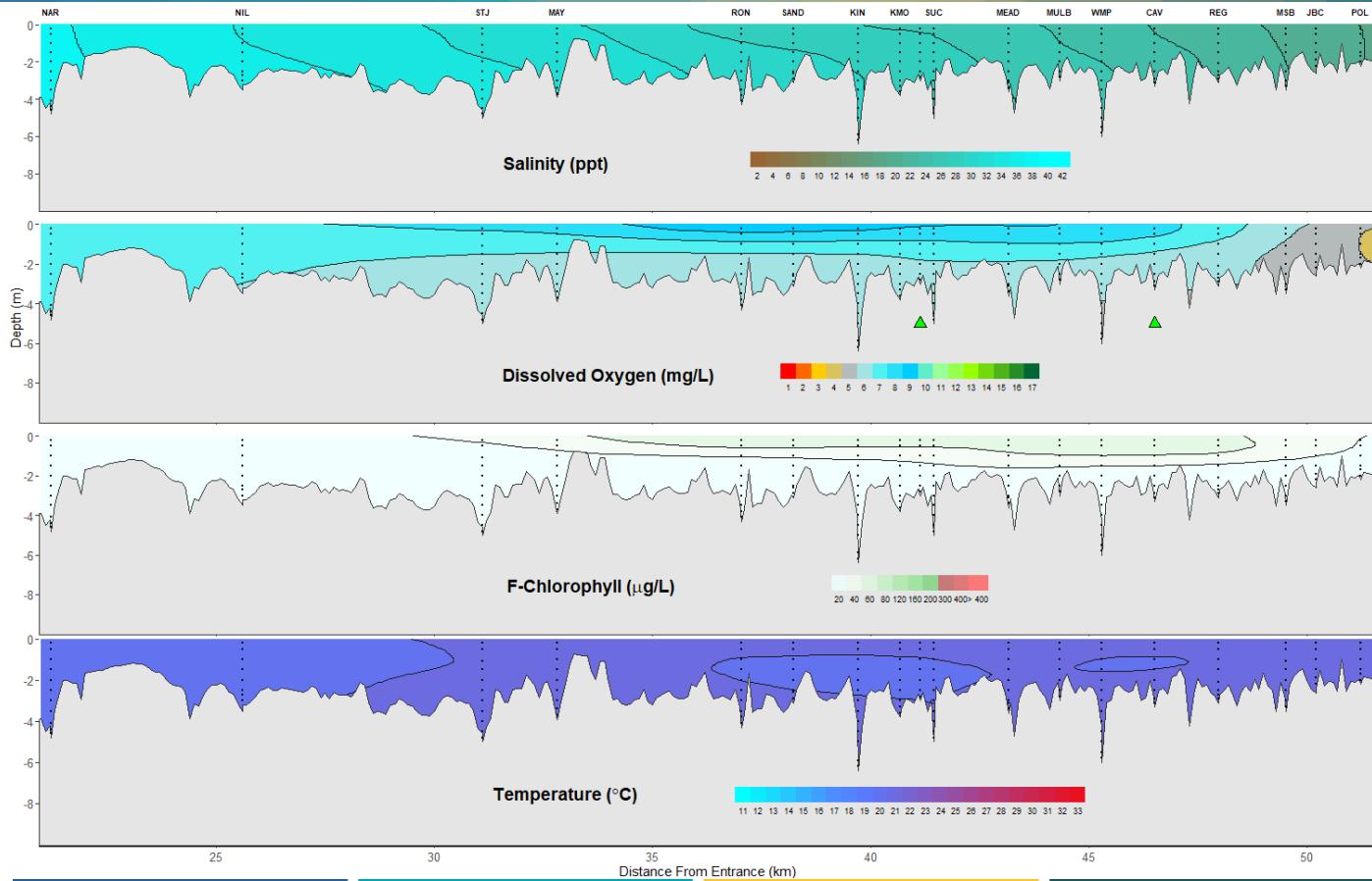
Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

We're working for
Western Australia.

Middle and Upper Swan Estuary- Water Quality Profiles – 26 April 2022





Date: 26 April 2022

NB: Sampling delayed due to public holiday (25 April 2022).

Weather & tide conditions: Conditions were mostly cloudy with a predominantly westerly breeze of up to 11 knots. The predicted tides at Barrack St were 0.72 m at 4:23 am (low tide), 0.97 m at 12:38 pm (high tide) and 0.97 m at 1:45 pm (second low tide). Perth recorded 18.8 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (FP2.2 to NAR): The Lower Swan Canning Estuary was hypersaline, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 19.6 to 20.4 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was moderate in surface water at RON indicating higher microalgal activity in that area. Water temperature ranged from 19.7 to 20.3 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to SUC, brackish over saline from MEAD to MULB and brackish from WMP to POL. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was moderate in surface water at CAV indicating higher microalgal activity in that area. Water temperature ranged from 19.9 to 20.4 °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 (summer): 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, 2022. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 26 April 2022. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)