



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Western Australia.

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

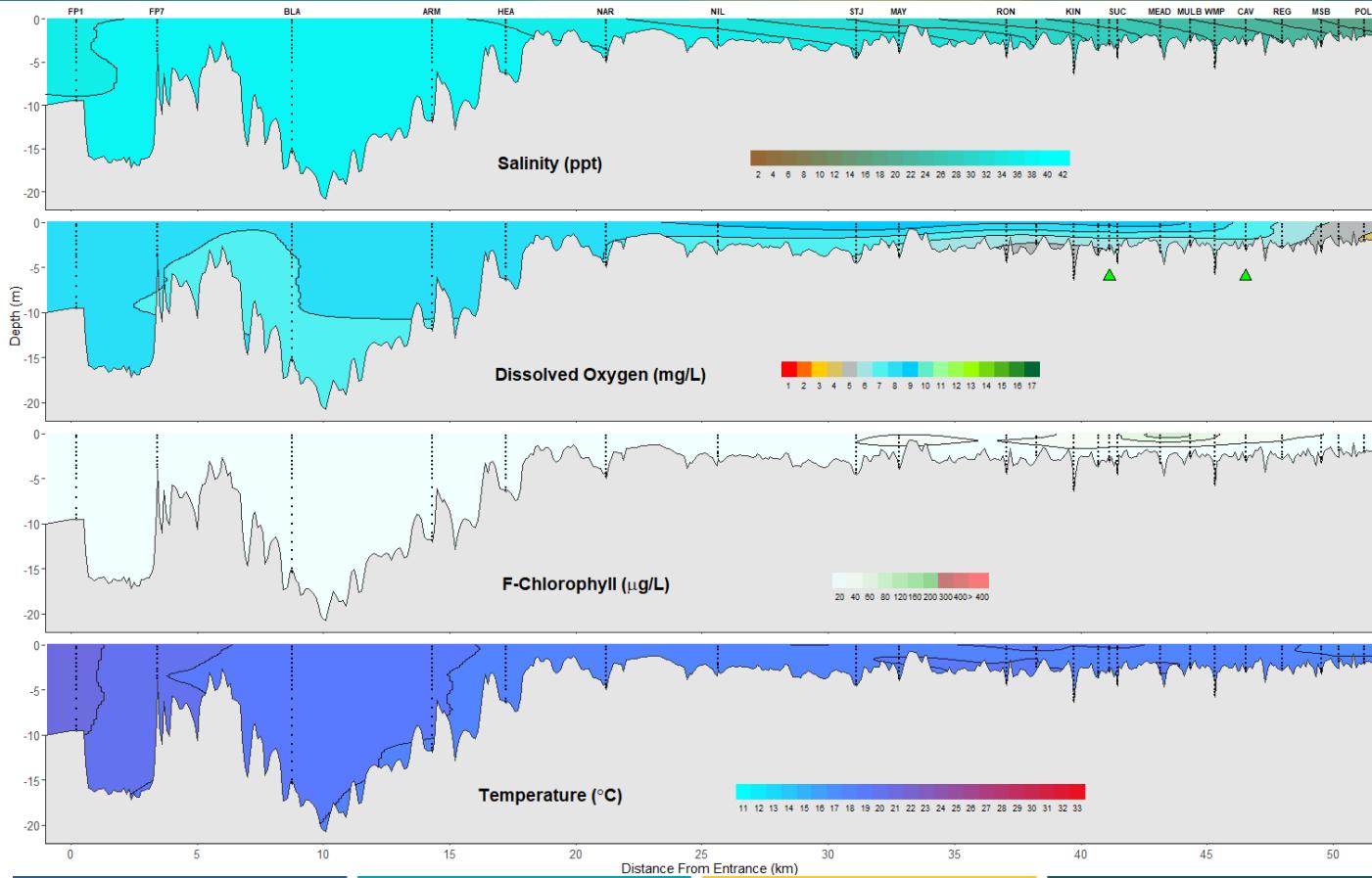
9 May 2022

Prepared by

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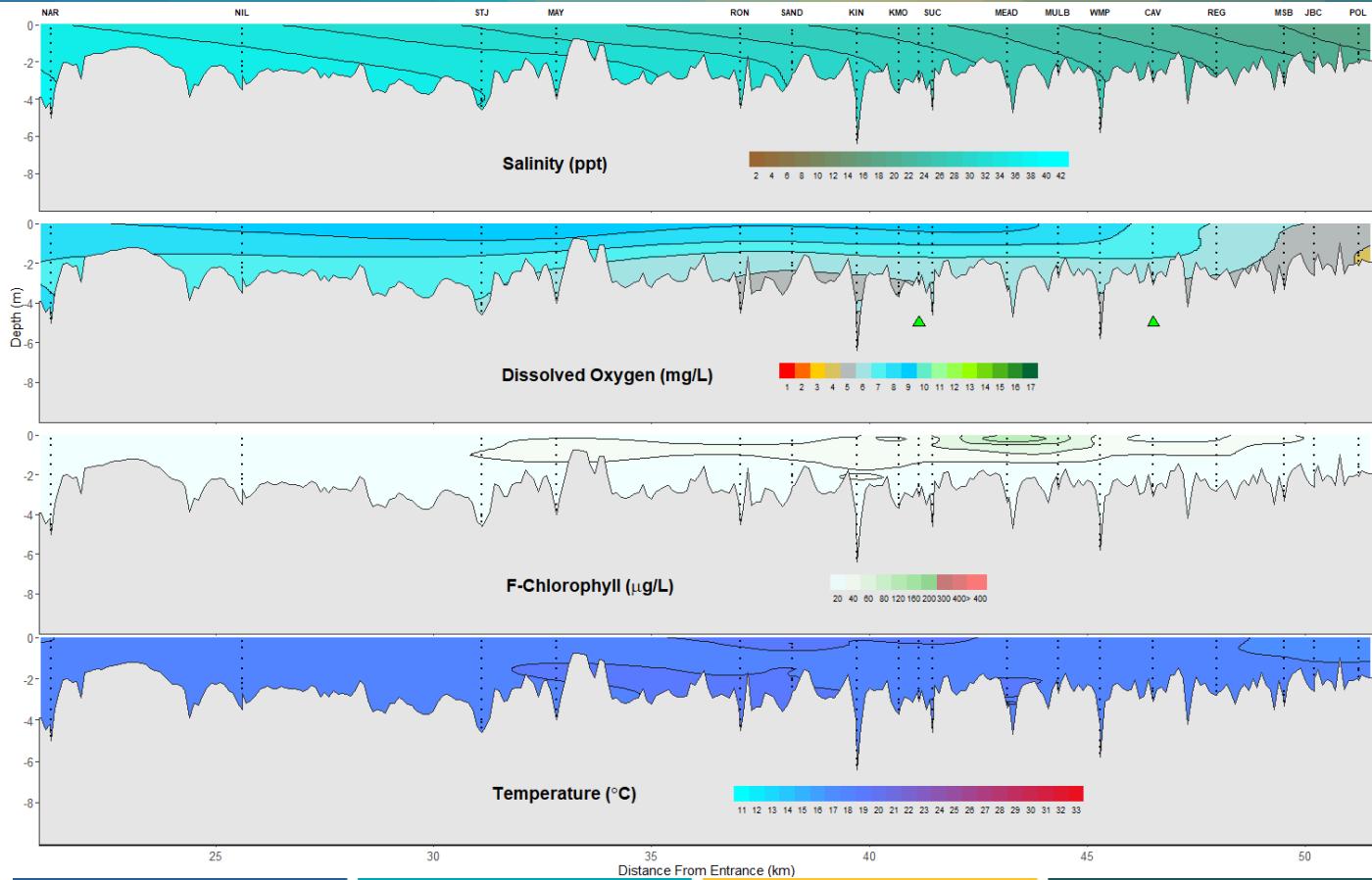


Swan Canning Estuary- Water Quality Profiles – 9 May 2022





Middle and Upper Swan Estuary- Water Quality Profiles – 9 May 2022





Date: 9 May 2022

Weather & tide conditions: Conditions were clear with a predominately south-easterly breeze of up to 7 knots. The predicted tides at Barrack St were 0.73 m at 2:47 am (low tide) and 1.14 m at 3:32 pm (high tide). Perth recorded no 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 (FP1 to NAR): The Lower Swan Canning Estuary was hypersaline from FP1 to HEA and saline over hypersaline at NAR. Waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 17 to 20.3 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low throughout this zone and water temperature ranged from 17.4 to 18.3 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to SUC, brackish over saline at MEAD and brackish from MULB to POL. Surface waters were oxygenated or well oxygenated while bottom waters were low in oxygen at POL. Chlorophyll fluorescence was moderate in surface waters from SUC to MULB indicating higher microalgal activity in that area. Water temperature ranged from 16.5 to 19 °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