



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

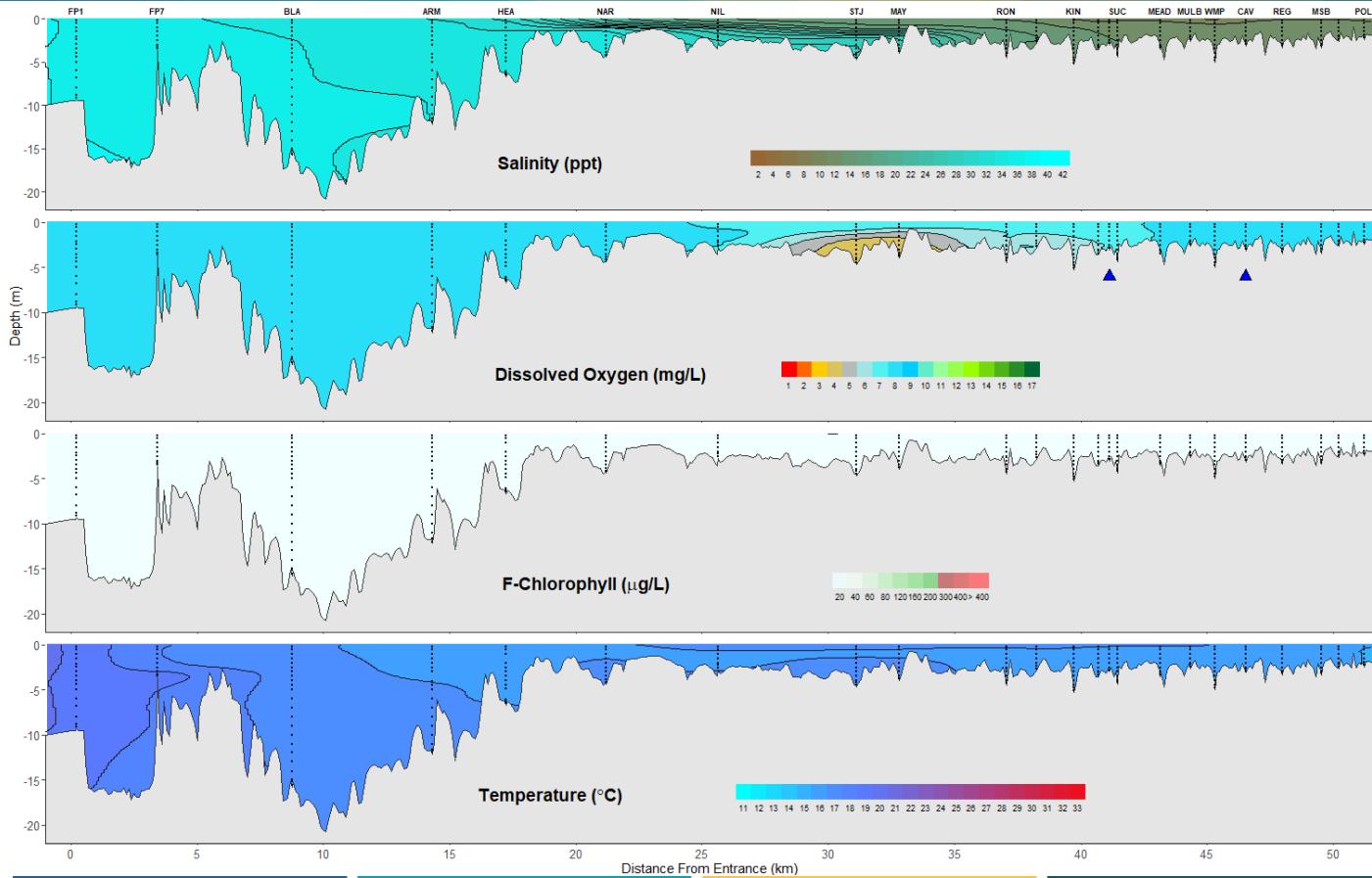
20 June 2022

Prepared by

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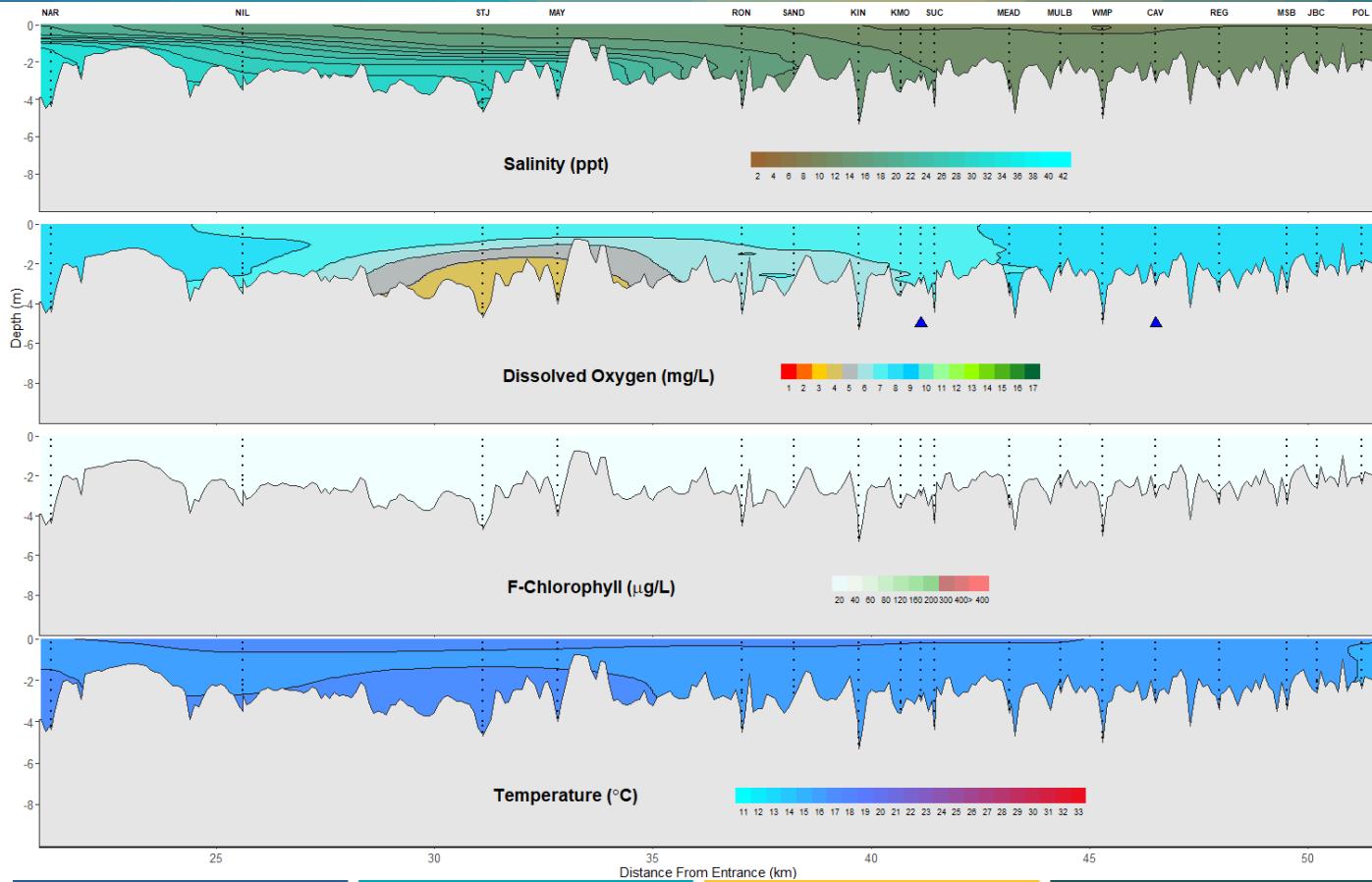


Swan Canning Estuary- Water Quality Profiles – 20 June 2022





Middle and Upper Swan Estuary- Water Quality Profiles – 20 June 2022





Date: 20 June 2022

Weather & tide conditions: Conditions were mostly overcast with a predominantly northerly breeze of up to 4 knots. The predicted tides at Barrack St were 0.77 m at 1:20 am (low tide) and 1.11 m at 1:06 pm (high tide). Perth recorded 30.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were not 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 at FP1, saline from FP7 to HEA and brackish over saline at NAR. Waters were well oxygenated throughout this zone. Chlorophyll fluorescence was low and water temperature ranged from 15.6 to 18.8 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline from NIL to MAY and brackish at RON. Surface waters were well oxygenated throughout and bottom waters were low in oxygen between STJ and MAY. Chlorophyll fluorescence was low throughout the zone and temperature ranged from 15.5 to 16.6 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish throughout and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low throughout the zone and temperature ranged from 15 to 16.4 °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 (no/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, 2022. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 20 June 2022*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)