



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

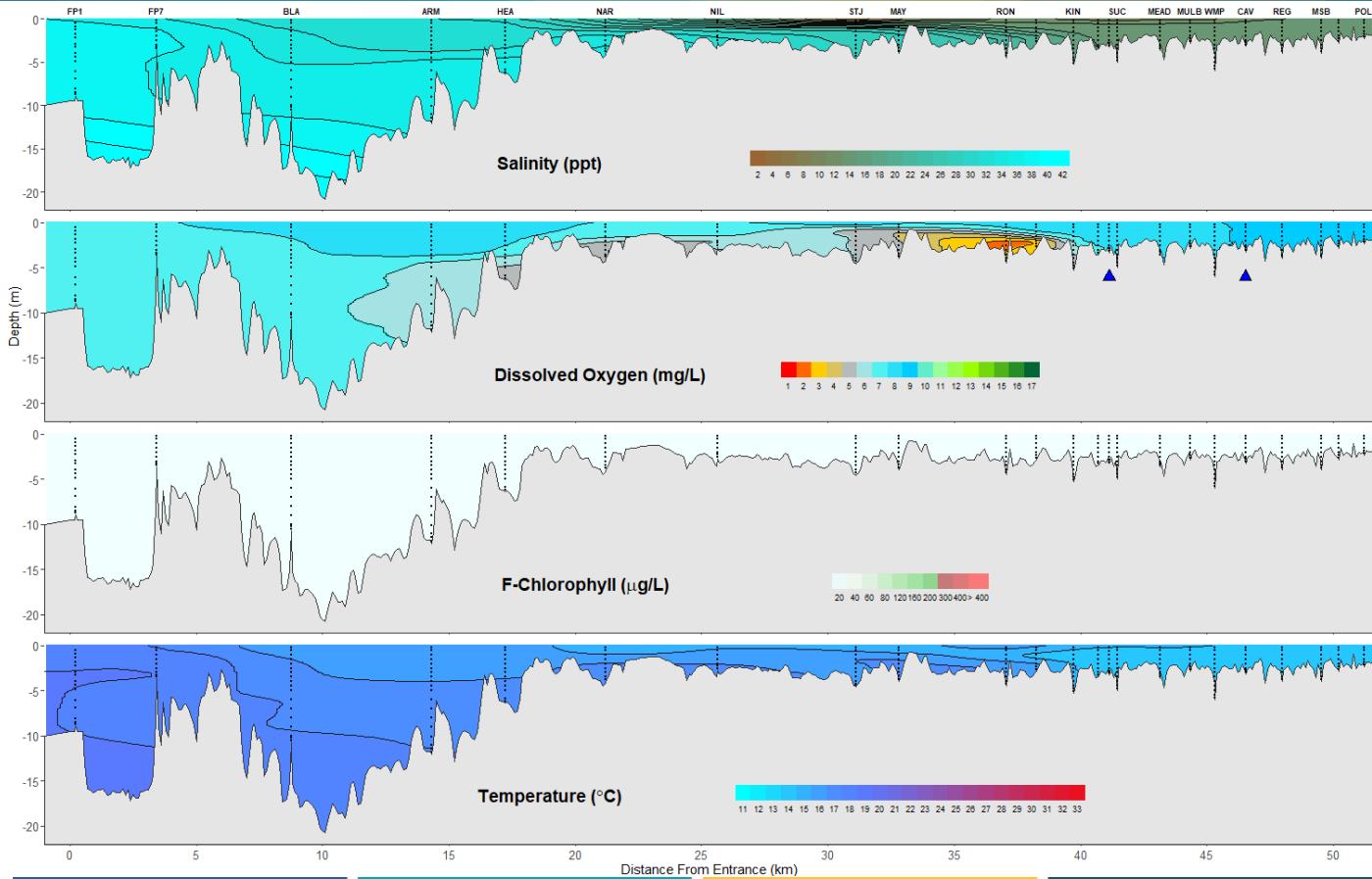
18 July 2022

Prepared by

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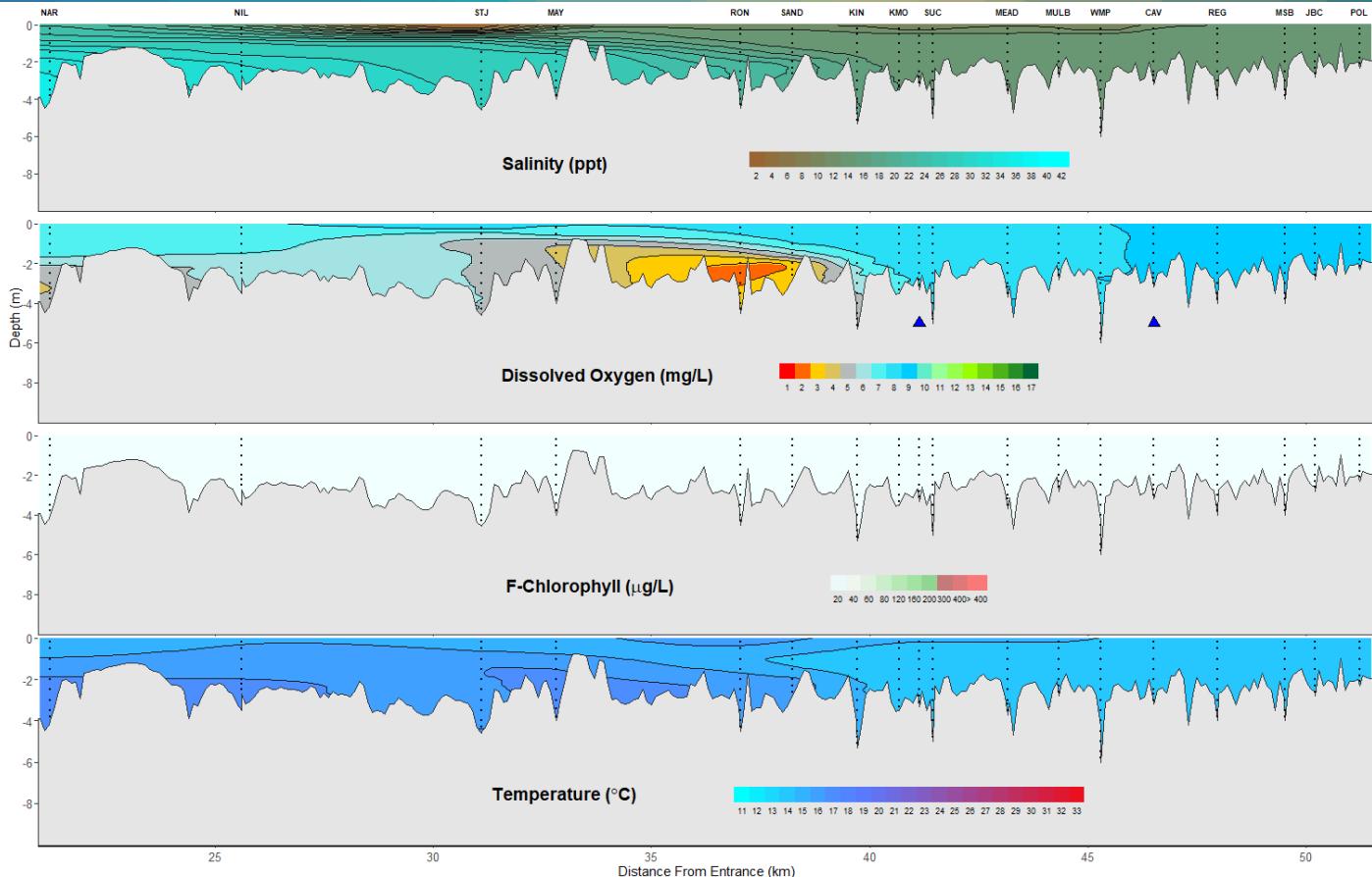


Swan Canning Estuary- Water Quality Profiles – 18 July 2022





Middle and Upper Swan Estuary- Water Quality Profiles – 18 July 2022





Date: 18 July 2022

Weather & tide conditions: Conditions were overcast with a predominantly north easterly breeze of up to 7 knots. The predicted tides at Barrack St were 1.07 m at 12:56 pm (high tide) and 0.82 m at 10:45 pm (low tide). Perth recorded 33.6 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both operable but not triggered to provide oxygen during the 24 hours prior to sampling.

Lower Swan Canning Estuary (FPI to NAR): The Lower Swan Canning Estuary was saline except for NAR which was brackish over saline. Waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was low and water temperature ranged from 14.6 to 18.2 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline throughout. Waters were oxygenated or well oxygenated, except for bottom waters at RON which were low in oxygen. Chlorophyll fluorescence was low and water temperature ranged from 14 to 16.1 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish throughout. Waters were oxygenated or well oxygenated throughout, except for bottom waters at SAND which were low in oxygen. Chlorophyll fluorescence was low and temperature ranged from 13.2 to 15.7 °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 18 July 2022*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)