



Department of Biodiversity,
Conservation and Attractions



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Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

8 August 2022

Prepared by

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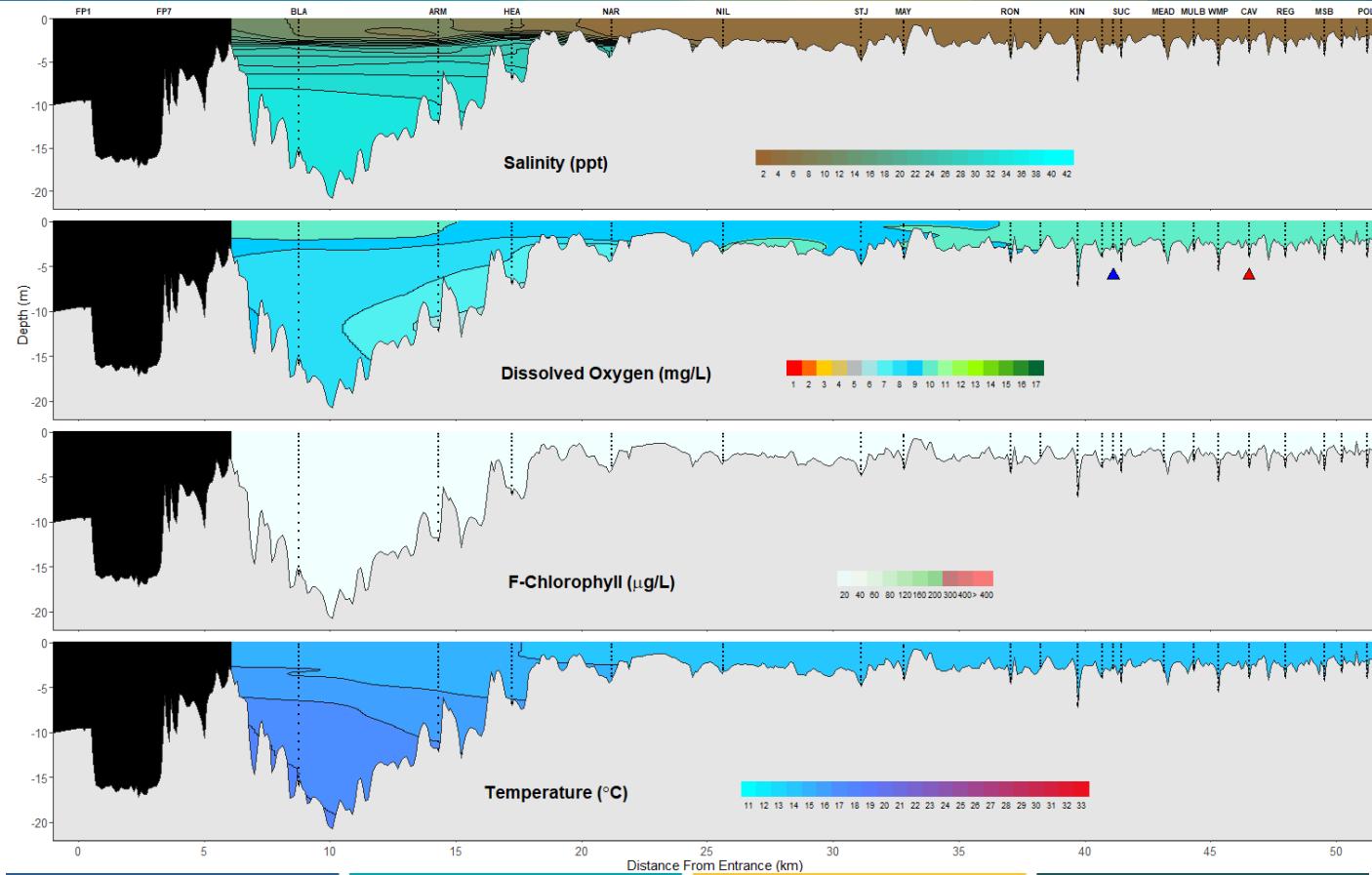
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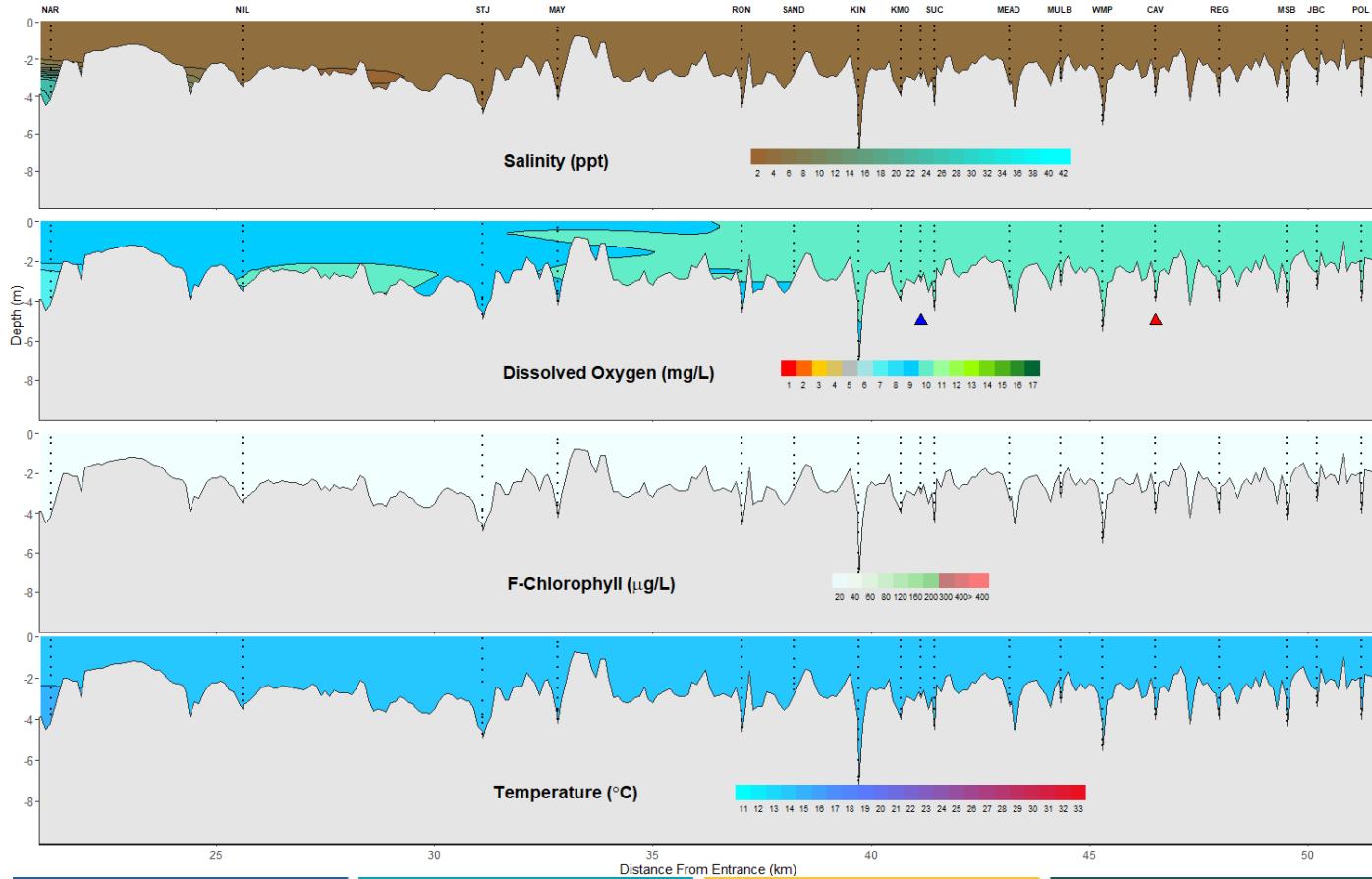
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Swan Canning Estuary- Water Quality Profiles – 8 August 2022





Middle and Upper Swan Estuary- Water Quality Profiles – 8 August 2022





Date: 8 August 2022

Weather & tide conditions: Conditions were overcast with a moderate north easterly breeze of up to 12 knots. The predicted tides at Barrack St were 1.18 m at 7:28 am (high tide) and 0.62 m at 6:56 pm (low tide). Perth recorded 73.2 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was operable but not triggered to provide oxygen and the Caversham oxygenation plant was offline during the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was brackish over saline from BLA to HEA and fresh over brackish at NAR. Waters were oxygenated or well oxygenated throughout, chlorophyll fluorescence was low and water temperature ranged from 13.2 to 17 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was fresh and waters were well oxygenated throughout. Chlorophyll fluorescence was low and water temperature ranged from 13.2 to 13.3 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh and waters were well oxygenated throughout. Chlorophyll fluorescence was low and temperature ranged from 13 to 13.2 °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 8 August 2022. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)