



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

13 September 2021

Prepared by

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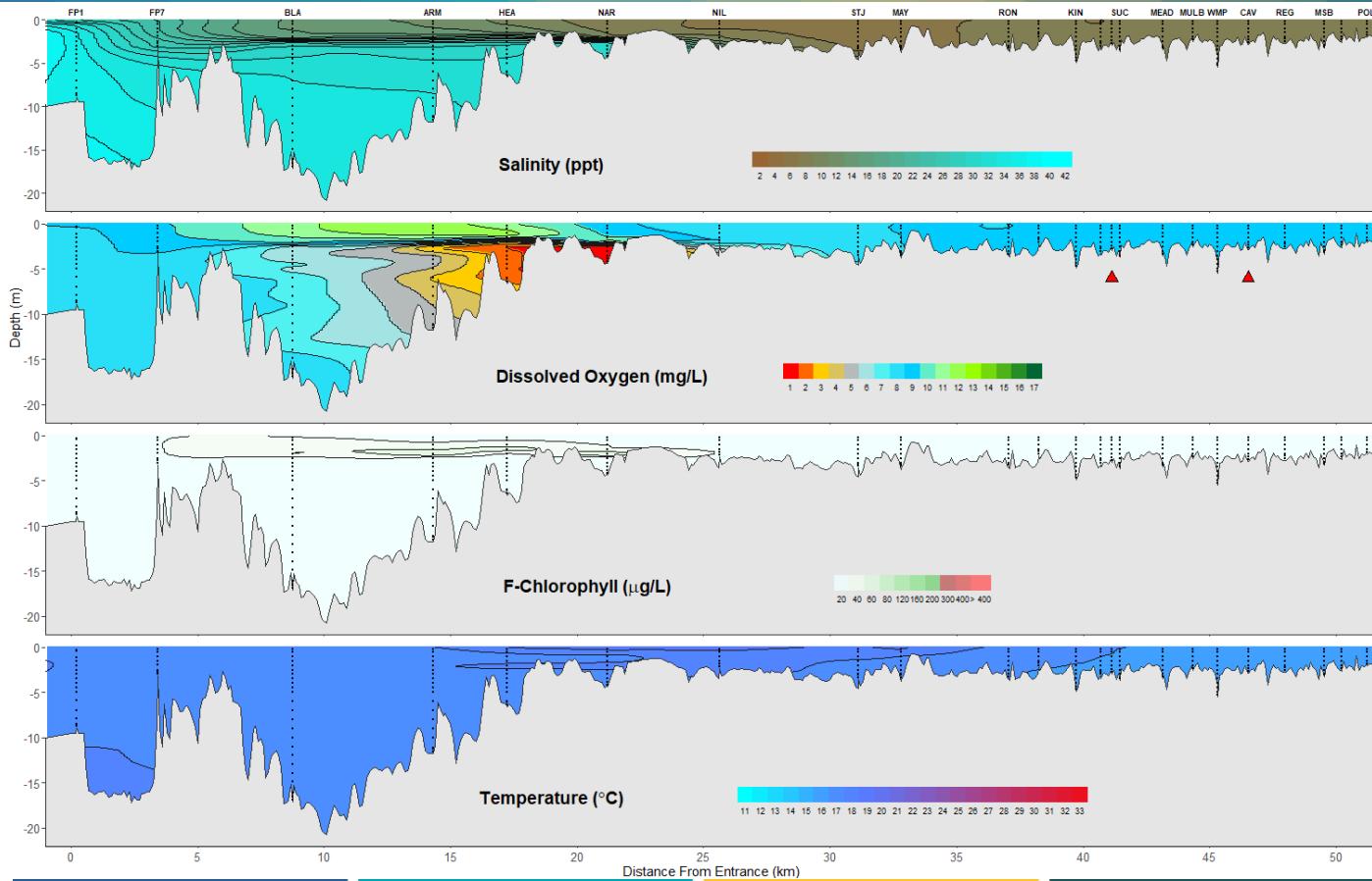
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Swan Canning Estuary- Water Quality Profiles - 13 September 2021





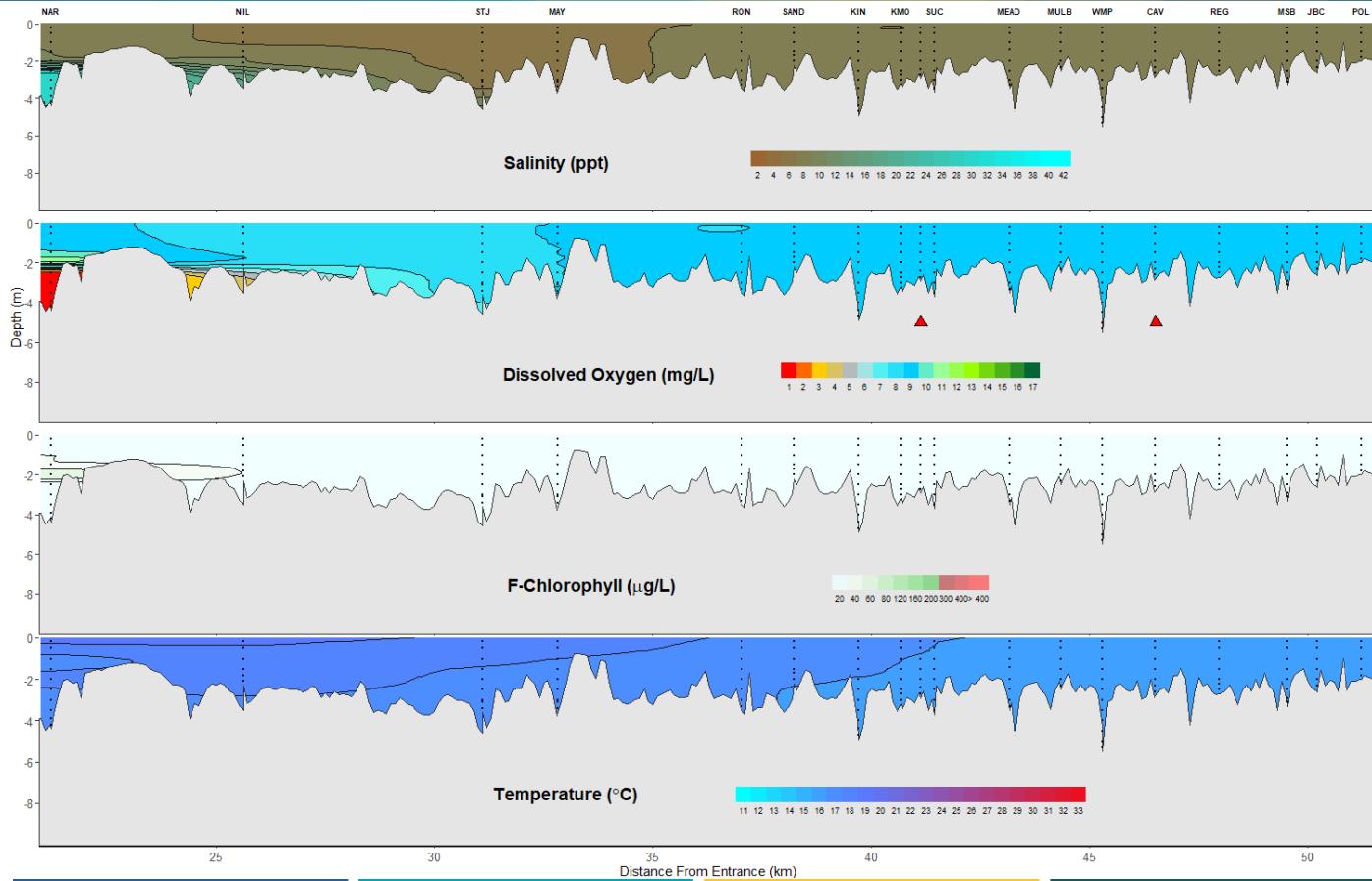
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Middle and Upper Swan Estuary- Water Quality Profiles – 13 September 2021





Date: 13 September 2021

Weather & tide conditions: Conditions were clear with a variable breeze of up to 5 knots. The predicted tides at Barrack St were 1.03 m at 2:44 am (high tide) and 0.6 m at 3:21 pm (low tide). Perth recorded 11.6 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were not operational during the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was saline from FP1 to FP2.2 and brackish over saline between FP7 and NAR. Surface waters were well oxygenated and bottom waters were hypoxic at HEA and anoxic at NAR. Chlorophyll fluorescence was highest at ARM indicating higher microalgal activity in this area. Water temperature ranged from 16.0 to 18.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 16.6 to 18.1 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15.2 to 16.0 °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 >6mg/L, oxygenated >4-6mg/L, low oxygen >2-4mg/L, hypoxic 0.5-2mg/L, anoxic <0.5mg/L

Recommended reference: Department of Biodiversity, Conservation and Attractions 2021. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 13 September 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)