



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

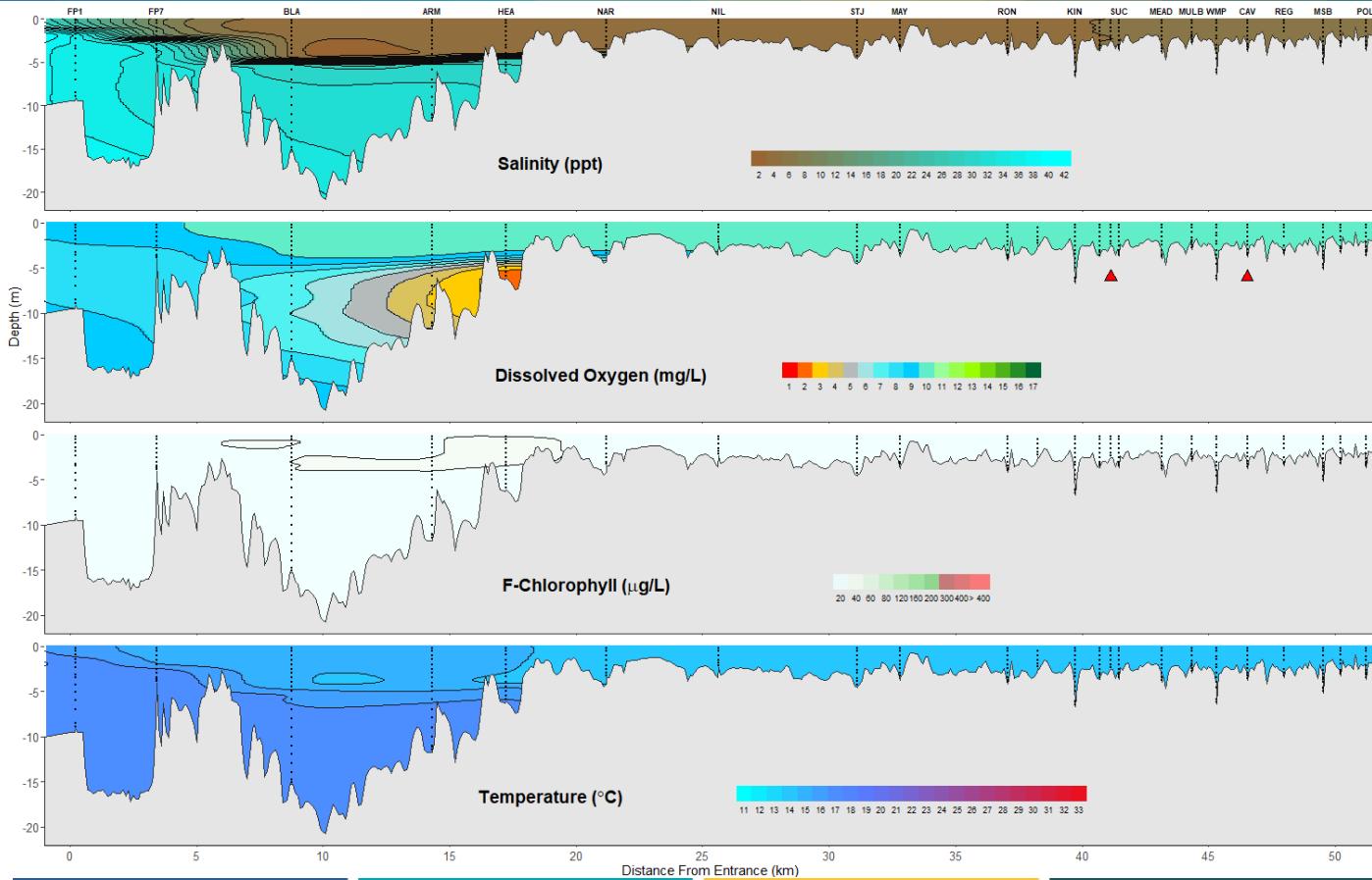
16 August 2021

Prepared by

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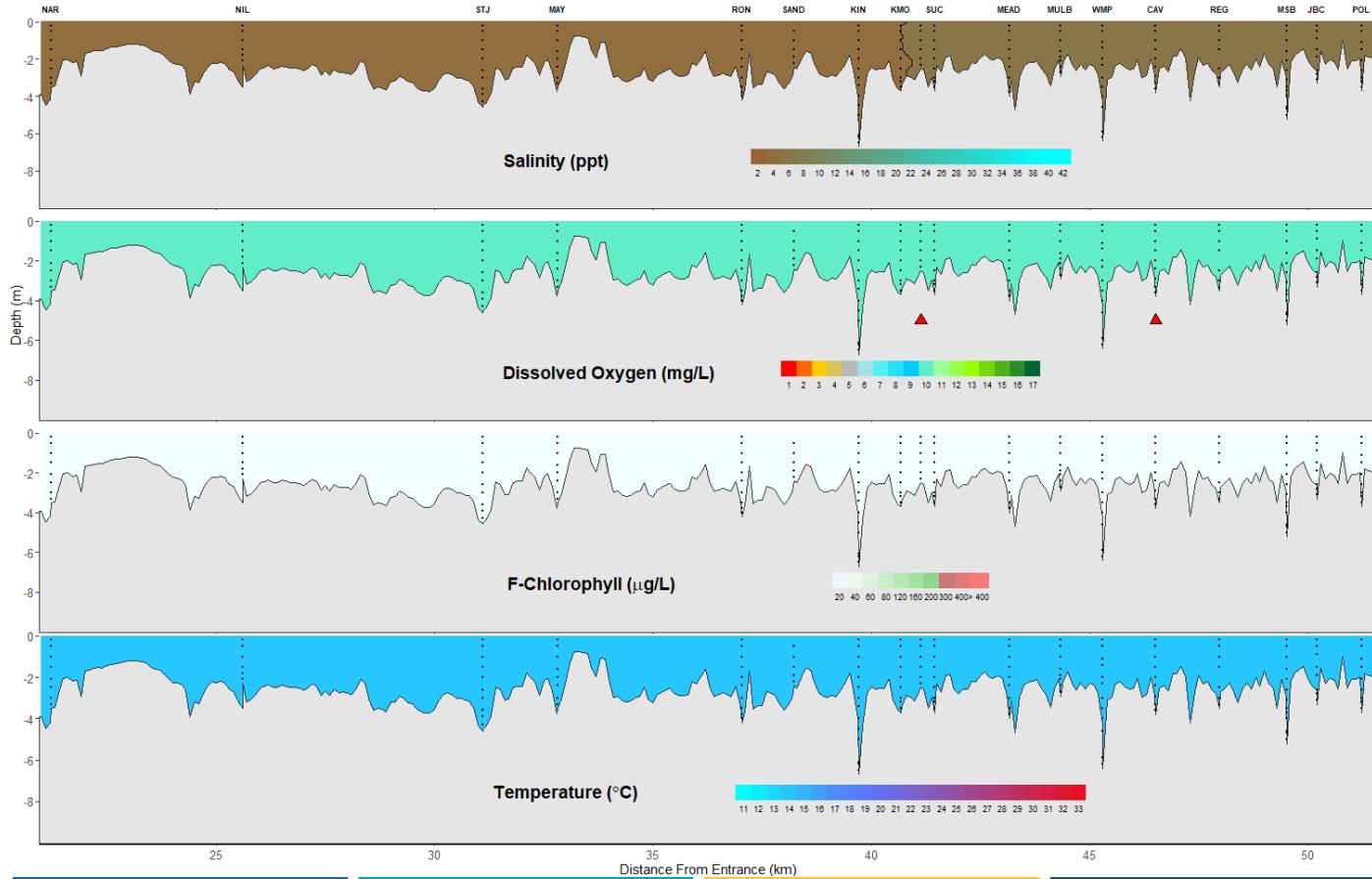


Swan Canning Estuary- Water Quality Profiles- 16 August 2021





Middle and Upper Swan Estuary- Water Quality Profiles - 16 August 2021





Date: 16 August 2021

Weather & tide conditions: Conditions were overcast with a easterly breeze of up to 16 knots. The predicted tides at Barrack St were 1.06 m at 4:45 am (high tide) and 0.68 m at 5:40 pm (low tide). Perth recorded 11.8 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 brackish over saline at FP1 and FP7, saline at FP2.2, fresh over saline from BLA to HEA and fresh at NAR. Surface waters were oxygenated or well oxygenated. Bottom waters were low in oxygen at ARM and hypoxic at HEA. Chlorophyll fluorescence was highest at HEA indicating higher microalgal activity in this area. Water temperatures ranged from 13.4 to 16.8 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was fresh throughout, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 13.4 to 13.7 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh throughout, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 13.1 to 13.5 °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 16 August 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)