



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

30 August 2021

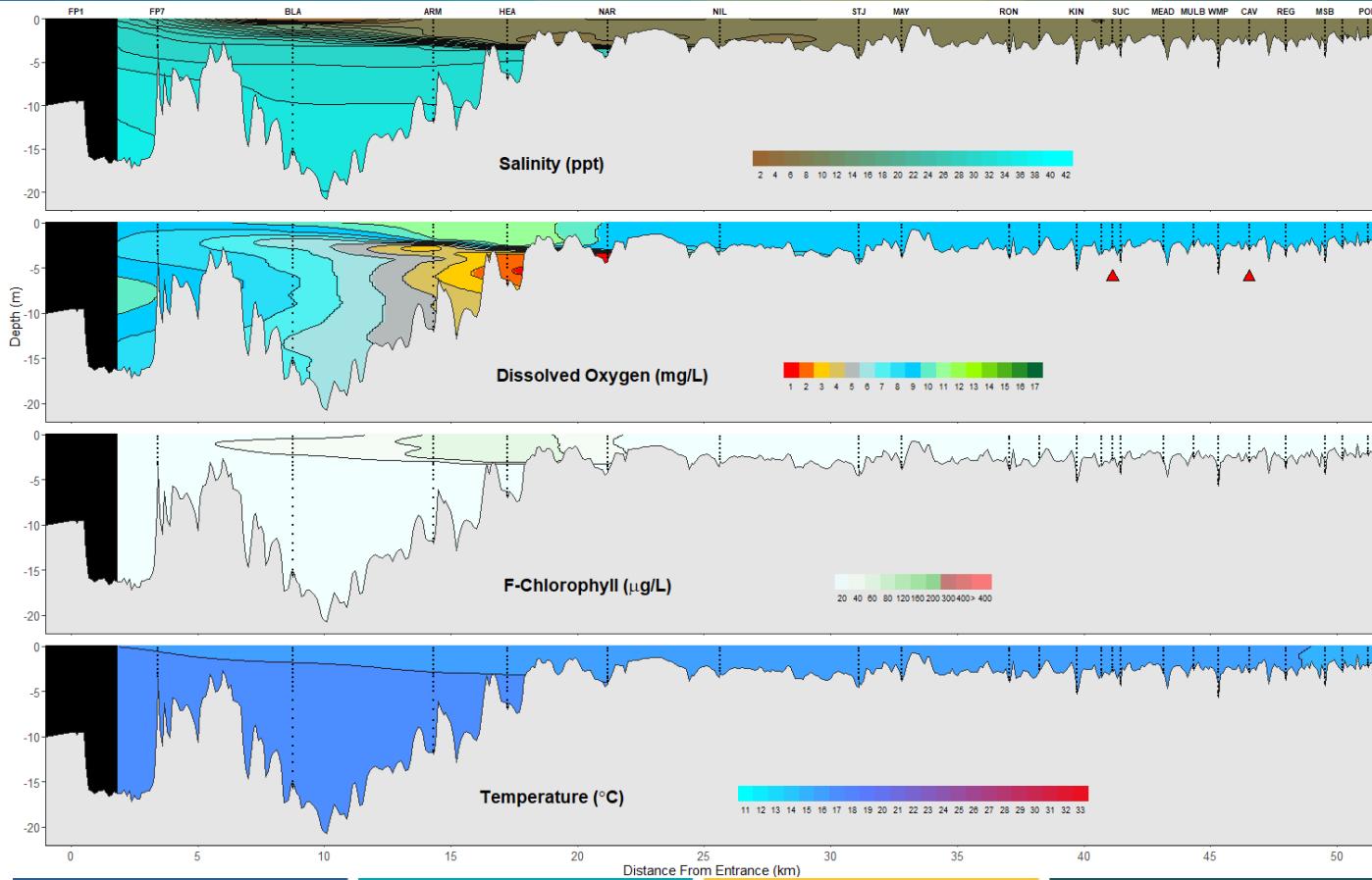
Prepared by

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Department of Biodiversity, Conservation and Attractions



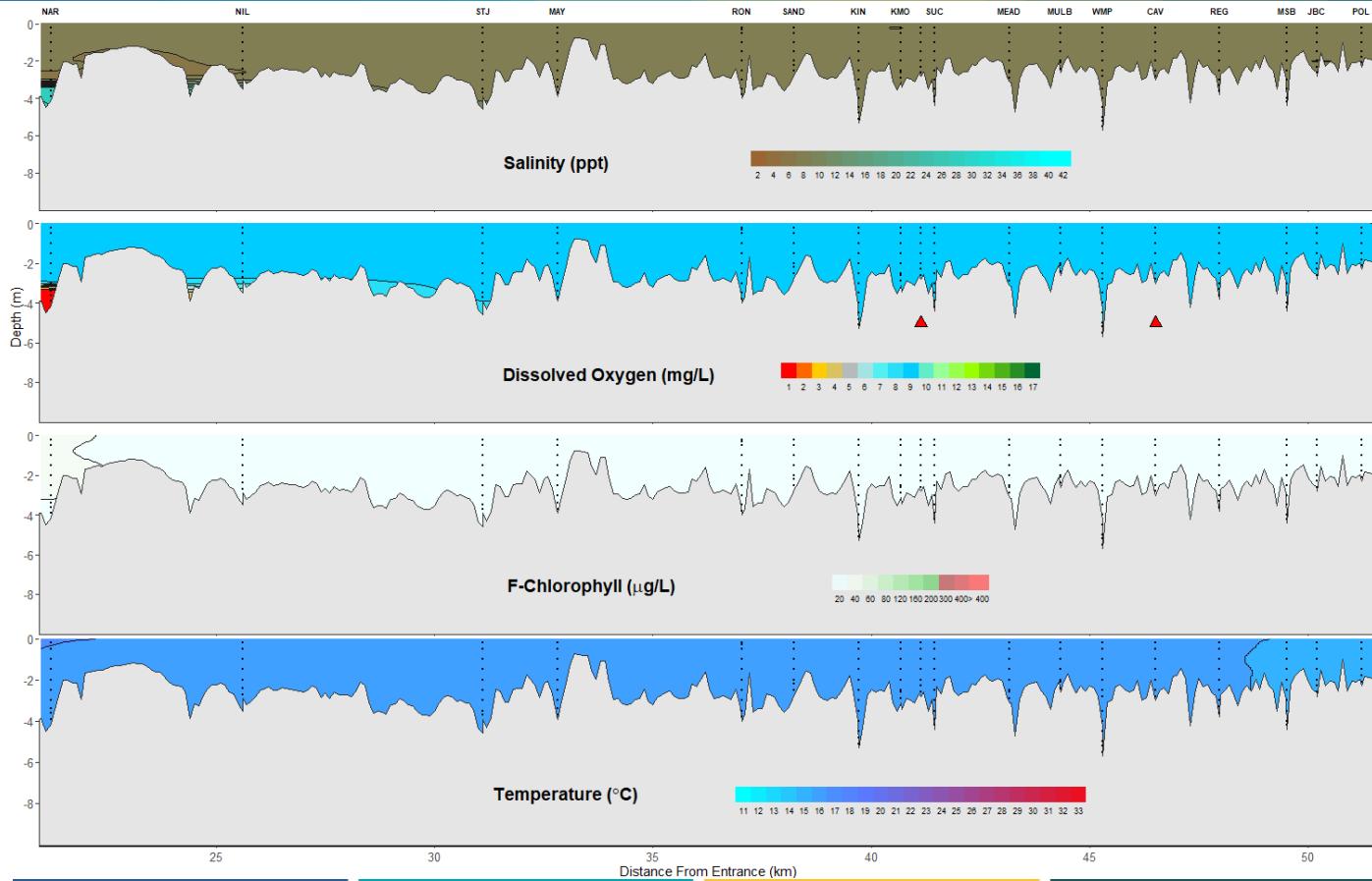
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Swan Canning Estuary- Water Quality Profiles- 30 August 2021





Middle and Upper Swan Estuary- Water Quality Profiles - 30 August 2021





Date: 30 August 2021

Weather & tide conditions: Conditions were sunny with a westerly breeze of up to 18 knots. The predicted tides at Barrack St were 1.02 m at 3:22 am (high tide) and 0.68 m at 5:34 pm (low tide). Perth recorded 8.2 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 (FP2.2 to NAR): The Lower Swan Canning Estuary was saline at FP2.2 and brackish over saline from BLA to NAR. Surface waters were well oxygenated and bottom waters were hypoxic from HEA to NAR. Chlorophyll fluorescence was highest at HEA indicating higher microalgal activity in this area. Water temperature ranged from 15.4 to 16.0 °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 15.1 to 15.9 °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 14.9 to 15.5 °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 30 August 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)