



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

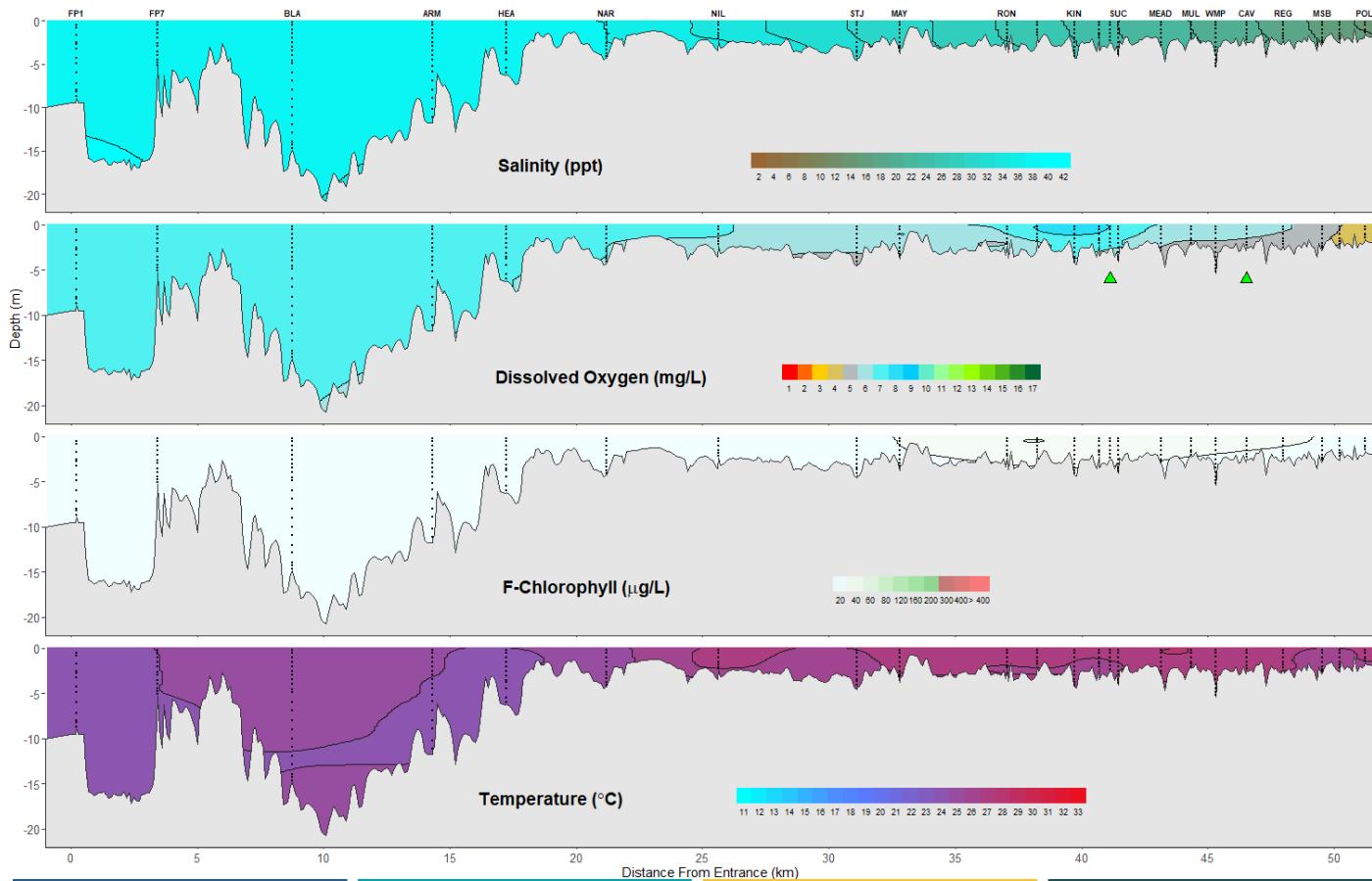
1st February 2021

Prepared by

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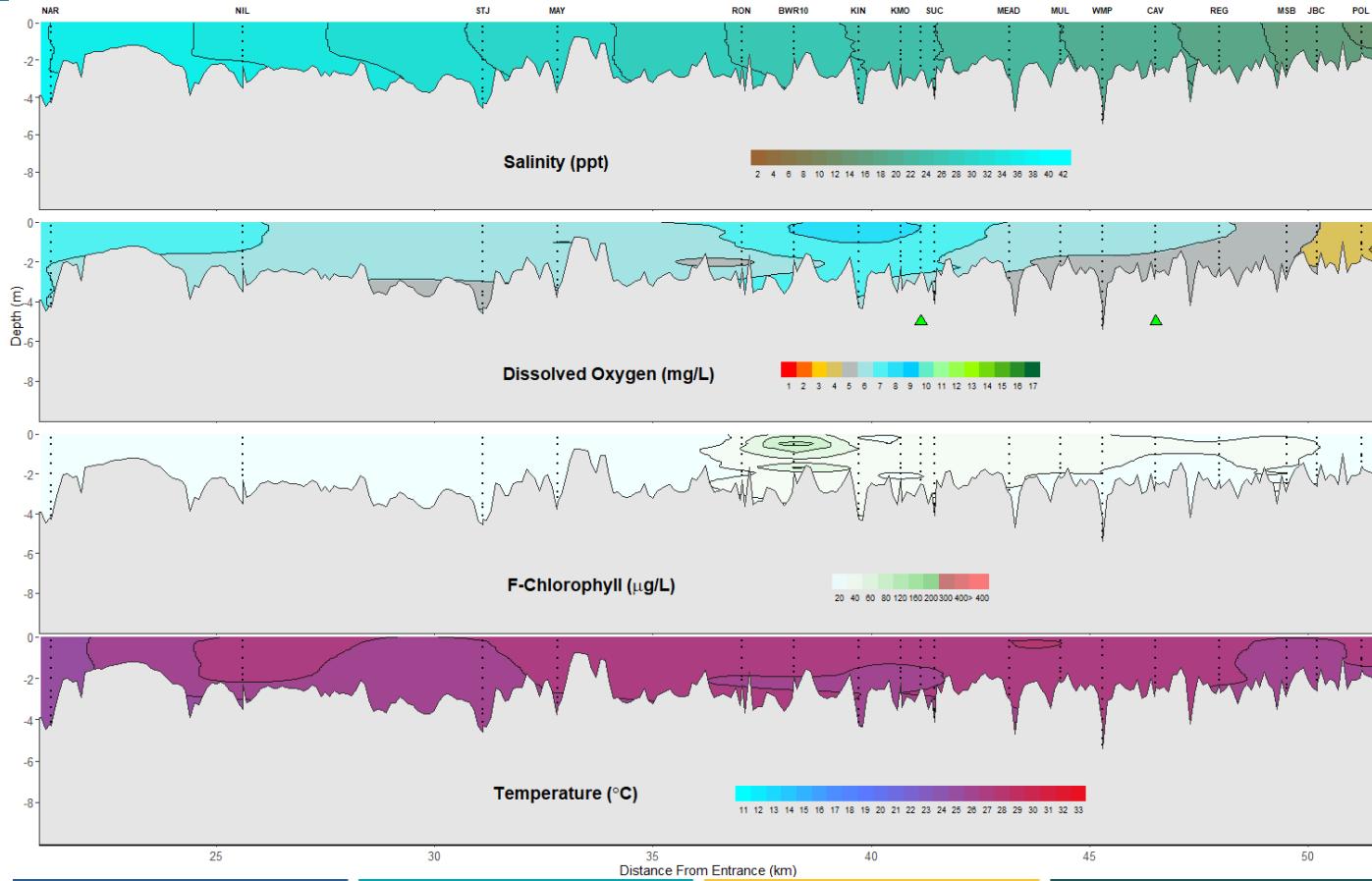


Swan Canning Estuary- Water Quality Profiles- 1st February 2021





Middle and Upper Swan Estuary- Water Quality Profiles- 1st February 2021





Date: 1st February 2021

Weather & tide conditions: Conditions were clear with a predominantly easterly breeze of up to 10 knots. The predicted tides at Barrack St were 0.53 m at 7:06 am (low tide), 0.76 m at 2:04 pm (first high tide), 0.74 m at 4:15 pm (second low tide) and 0.95 m at 11:14 pm (second high tide). Perth recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were 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, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 23.7 to 24.6 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline and waters were oxygenated or well oxygenated. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in that area. Water temperature ranged from 25.2 to 26.8 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was brackish and waters were oxygenated or well oxygenated except at JBC and POL which were low in oxygen. Chlorophyll fluorescence was highest at BWR10 indicating higher microalgal activity in that area. Water temperature ranged from 25.3 to 27.1 °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 1st February 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)