

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

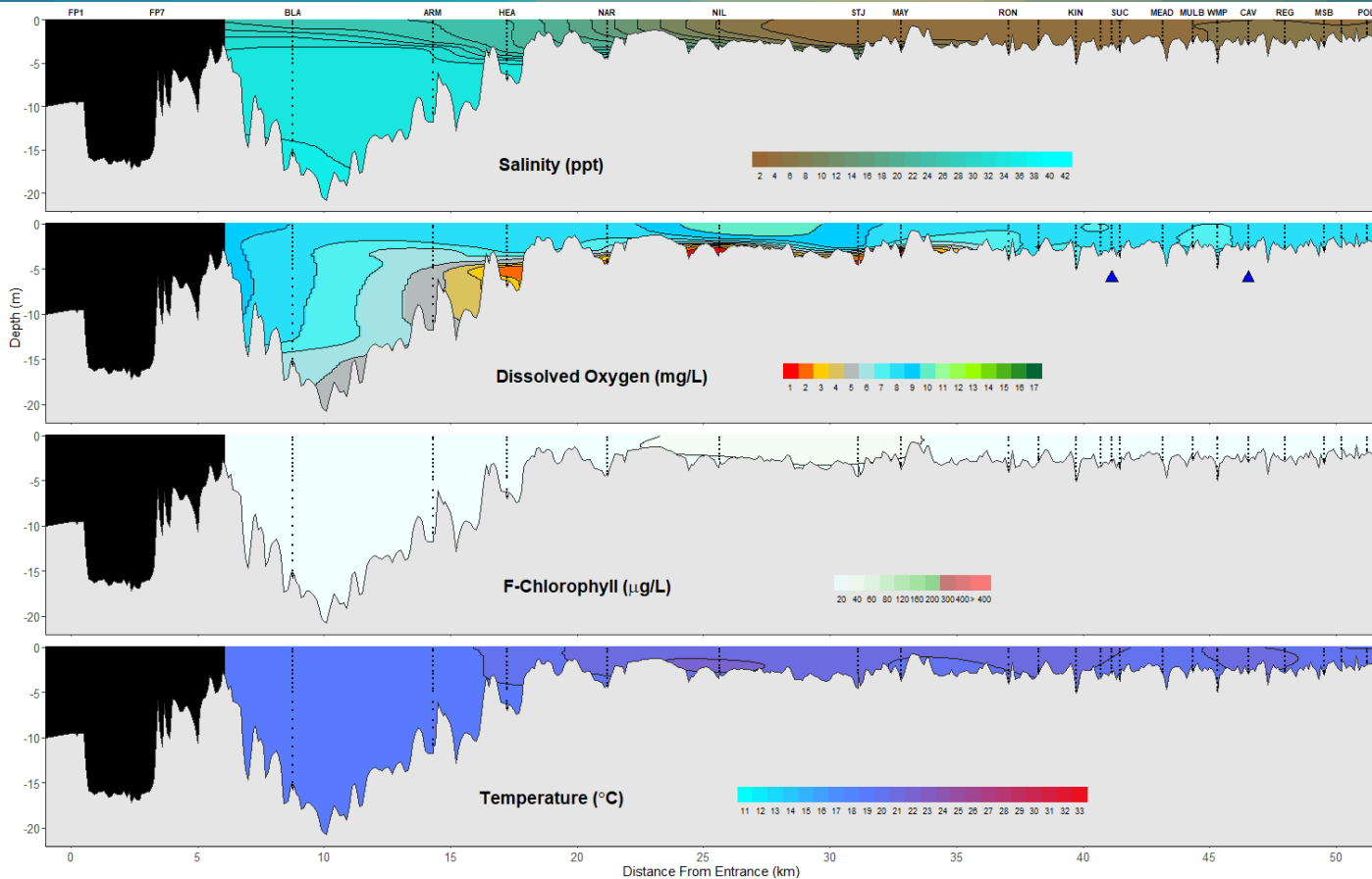
Lower Swan Canning Estuary to Upper Swan Estuary

1 November 2021

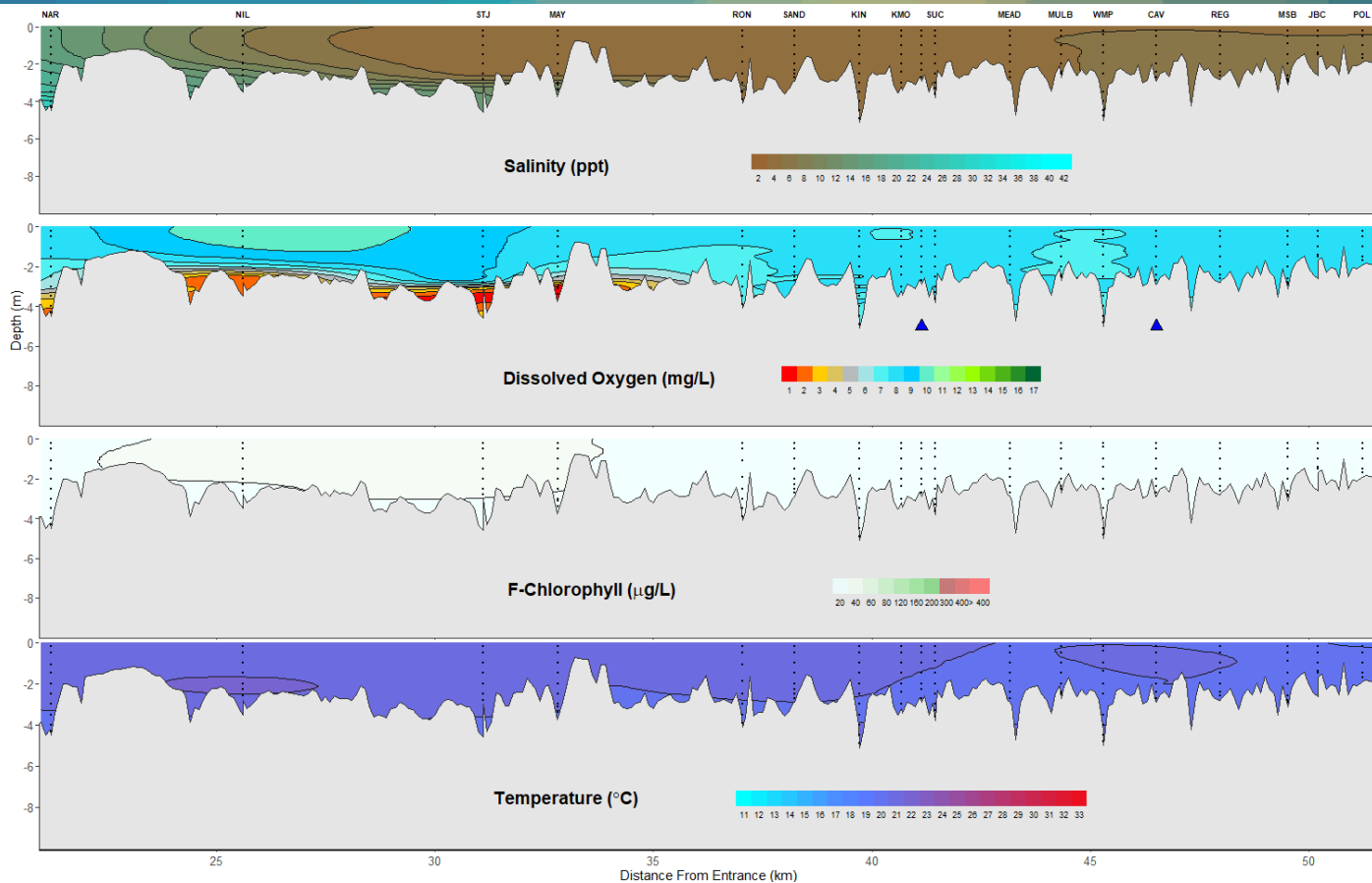
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Swan Canning Estuary- Water Quality Profiles – 1 November 2021



Middle and Upper Swan Estuary- Water Quality Profiles – 1 November 2021



Date: 1 November 2021

Weather & tide conditions: Conditions were overcast with a strong south westerly breeze of up to 18 knots. The predicted tides at Barrack St were 0.87 m at 8:17 am (high tide) and 0.67 m at 3:46 pm (low tide). Perth recorded 34 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline at BLA and brackish over saline from ARM to NAR. Surface waters were oxygenated or well oxygenated and bottom waters at HEA and NAR were low in oxygen. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 18.3 to 20.7 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish at NIL, fresh at STJ, fresh over brackish at MAY and fresh at RON. Surface waters were well oxygenated and bottom waters were hypoxic at NIL and MAY. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 19.7 to 21.4 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 16.9 to 20.6 °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 >6 mg/L, oxygenated >4-6 mg/L, low oxygen >2-4 mg/L, hypoxic 0.5-2 mg/L, anoxic <0.5 mg/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 1 November 2021*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)