

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

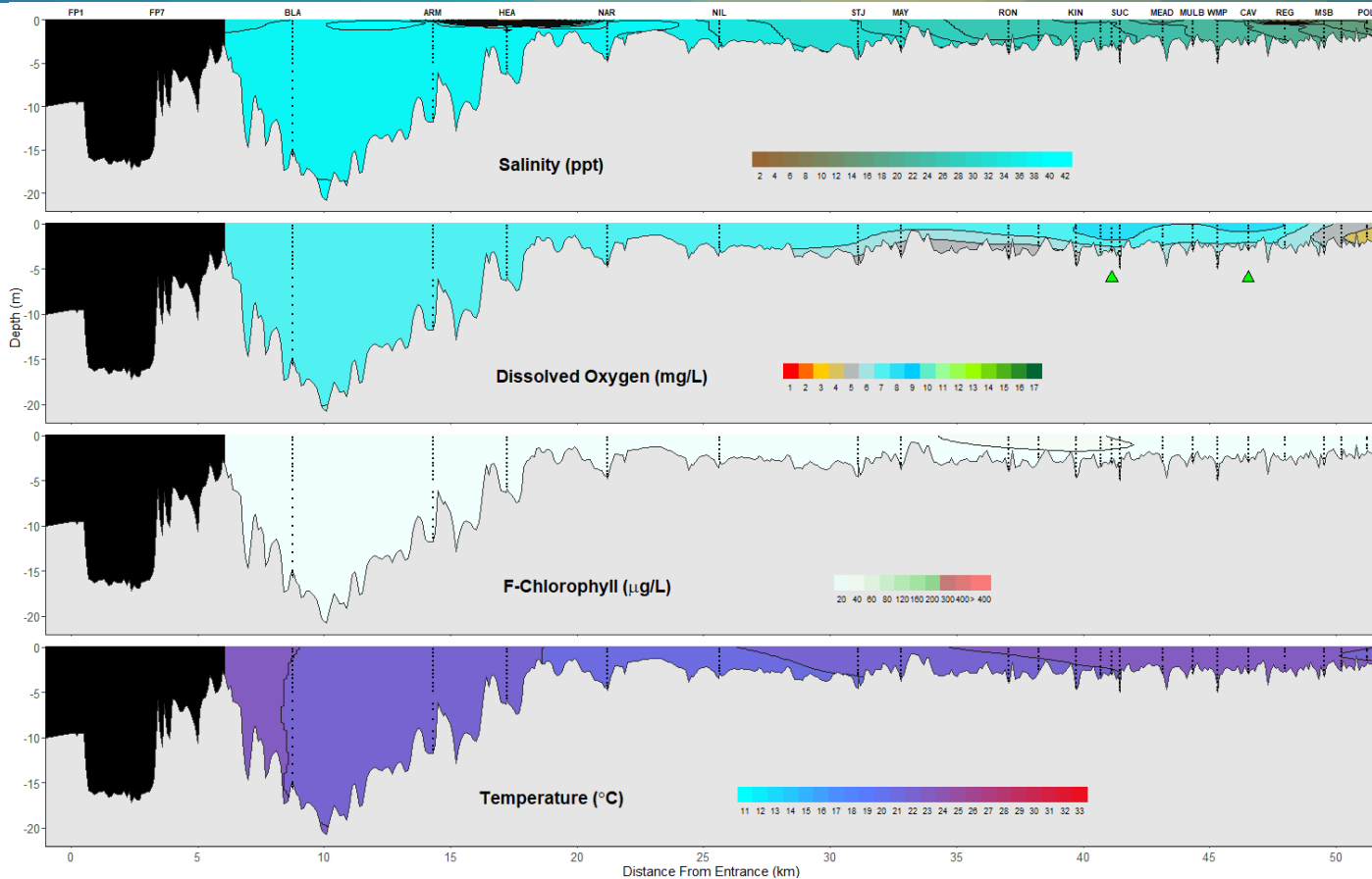
Lower Swan Canning Estuary to Upper Swan Estuary

8th February 2021

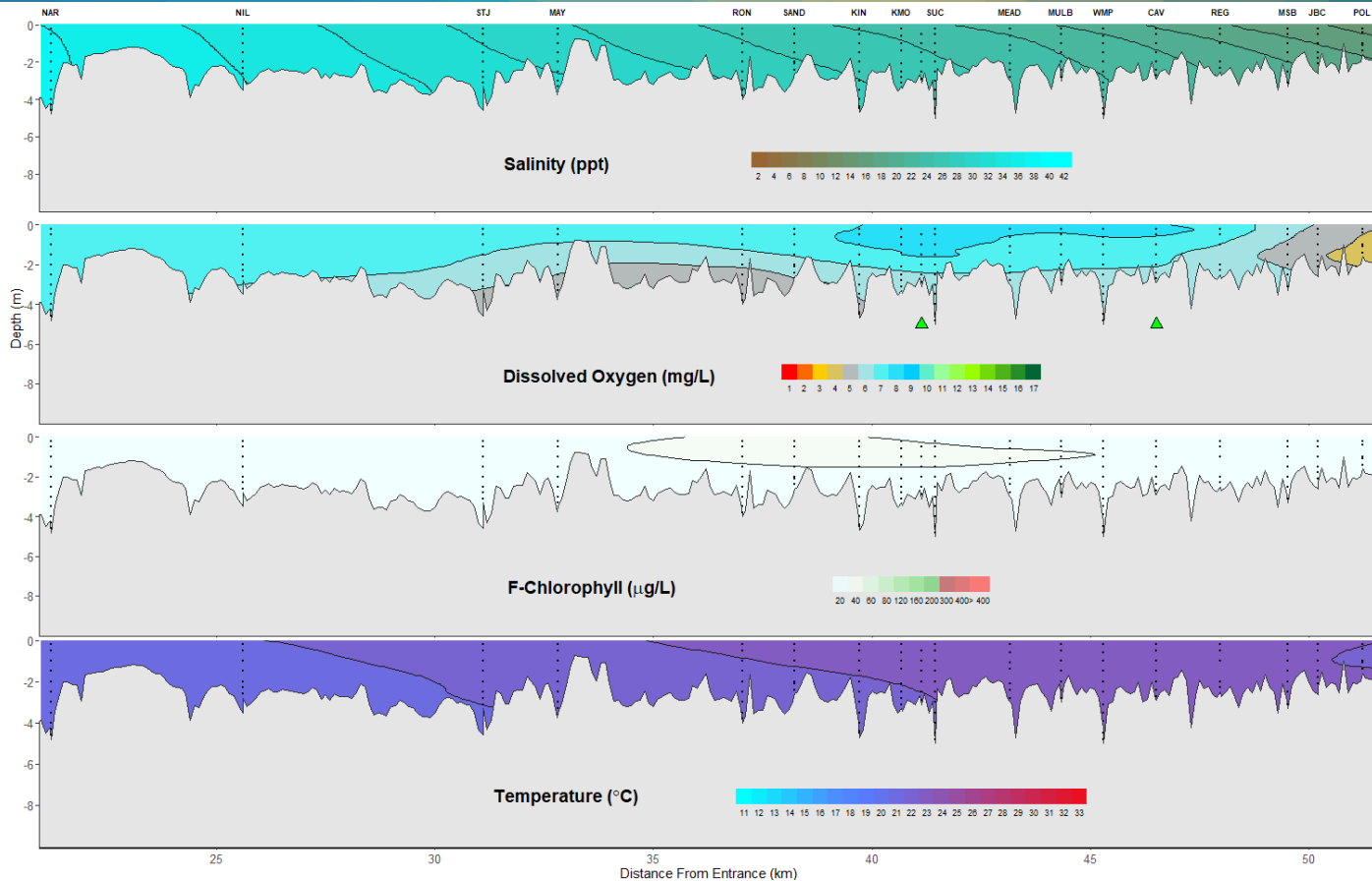
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Swan Canning Estuary- Water Quality Profiles- 8th February 2021



Middle and Upper Swan Estuary- Water Quality Profiles- 8th February 2021



Date: 8th February 2021

Weather & tide conditions: Conditions were clear with a predominantly westerly gale of up to 20 knots. The predicted tides at Barrack St were 0.40 m at 4:31 am (low tide) and 1.14 m at 7:17 pm (high tide). Perth recorded 35.6 mm of 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 except for a shallow brackish lens in surface waters at HEA. Waters well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 20.7 to 22.0 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline from NIL to MAY and brackish over saline at RON. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in that area. Water temperature ranged from 20.4 to 22.4 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was saline at SAND, brackish over saline between KIN and SUC and brackish from MULB to POL. Waters were oxygenated or well oxygenated except bottom waters at JBC and POL which were low in oxygen. Chlorophyll fluorescence was highest at KMO indicating higher microalgal activity in that area. Water temperature ranged from 21.3 to 23.0 °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 8th February 2021*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)