

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

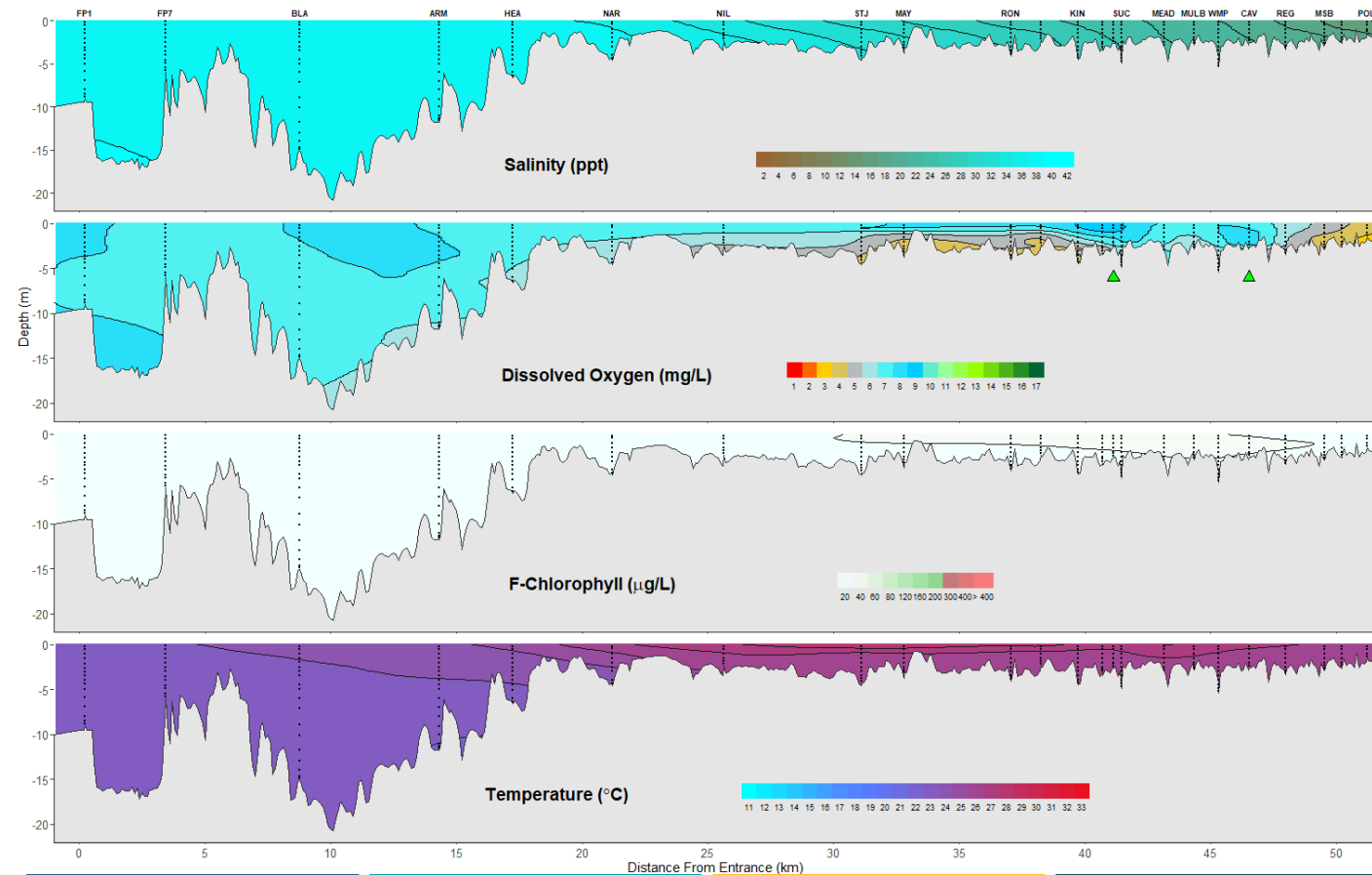
Lower Swan Canning Estuary to Upper Swan Estuary

15th February 2021

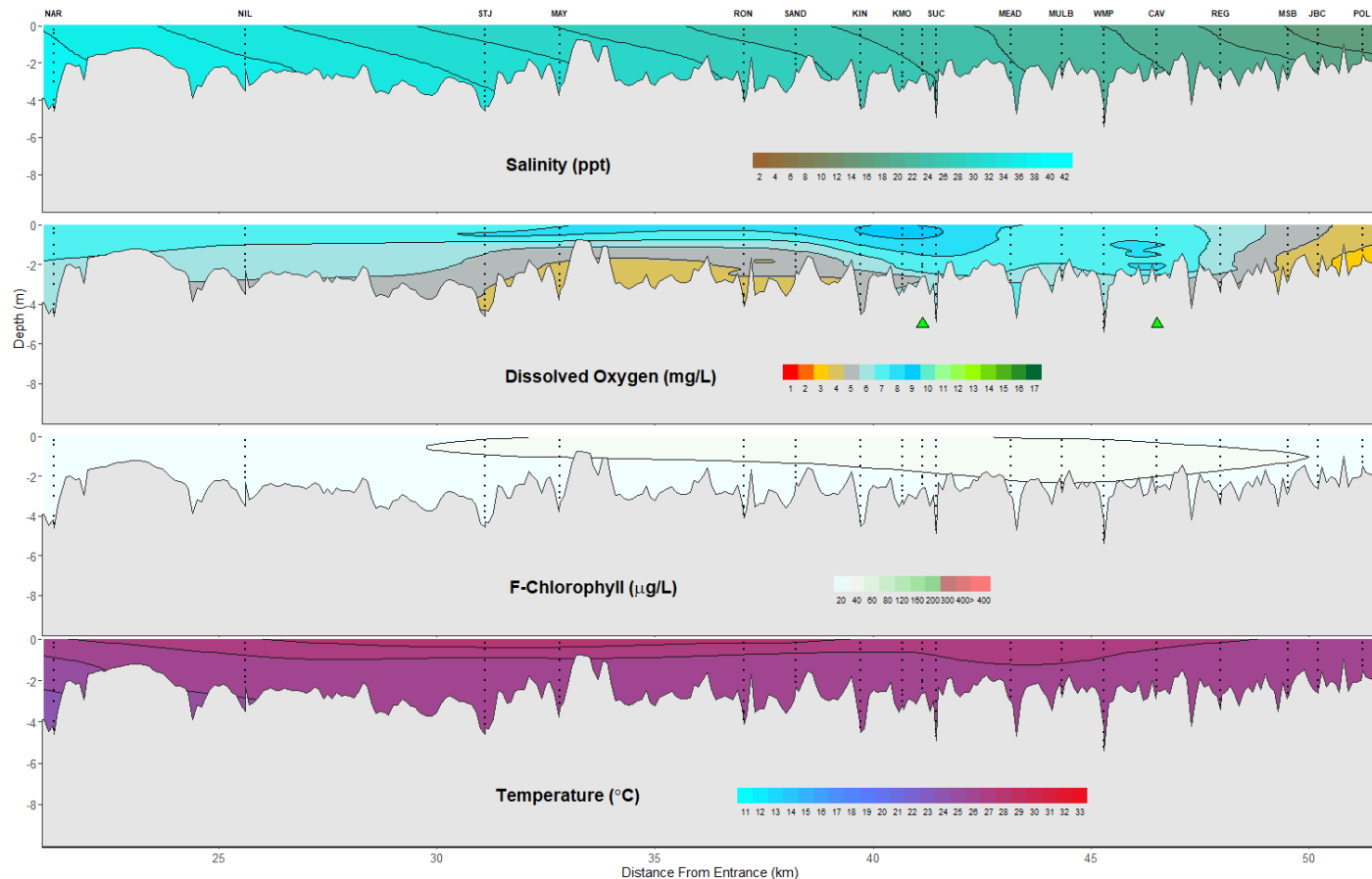
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Swan Canning Estuary- Water Quality Profiles- 15th February 2021



Middle and Upper Swan Estuary- Water Quality Profiles- 15th February 2021



Date: 15th February 2021

Weather & tide conditions: Conditions were clear with a predominantly easterly breeze of up to 5 knots. The predicted tides at Barrack St were 0.67 m at 8:24 am (first low tide), 0.84 m at 3:07 pm (high tide) and 0.82 m at 6:00 pm (second low tide). Perth recorded 1.4 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, waters oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 21.9 to 25.7 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen between STJ and RON. Chlorophyll fluorescence was highest at STJ indicating higher microalgal activity in that area. Water temperature ranged from 25.3 to 28.1 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish over saline from SAND to KMO and brackish from VIT to POL. Surface waters were oxygenated or well oxygenated except at POL which was low in oxygen. Bottom waters were low in oxygen from SAND to KIN and between MSB and POL. Chlorophyll fluorescence was highest at WMP indicating higher microalgal activity in that area. Water temperature ranged from 25.2 to 27.7°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 15th February 2021*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)