



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

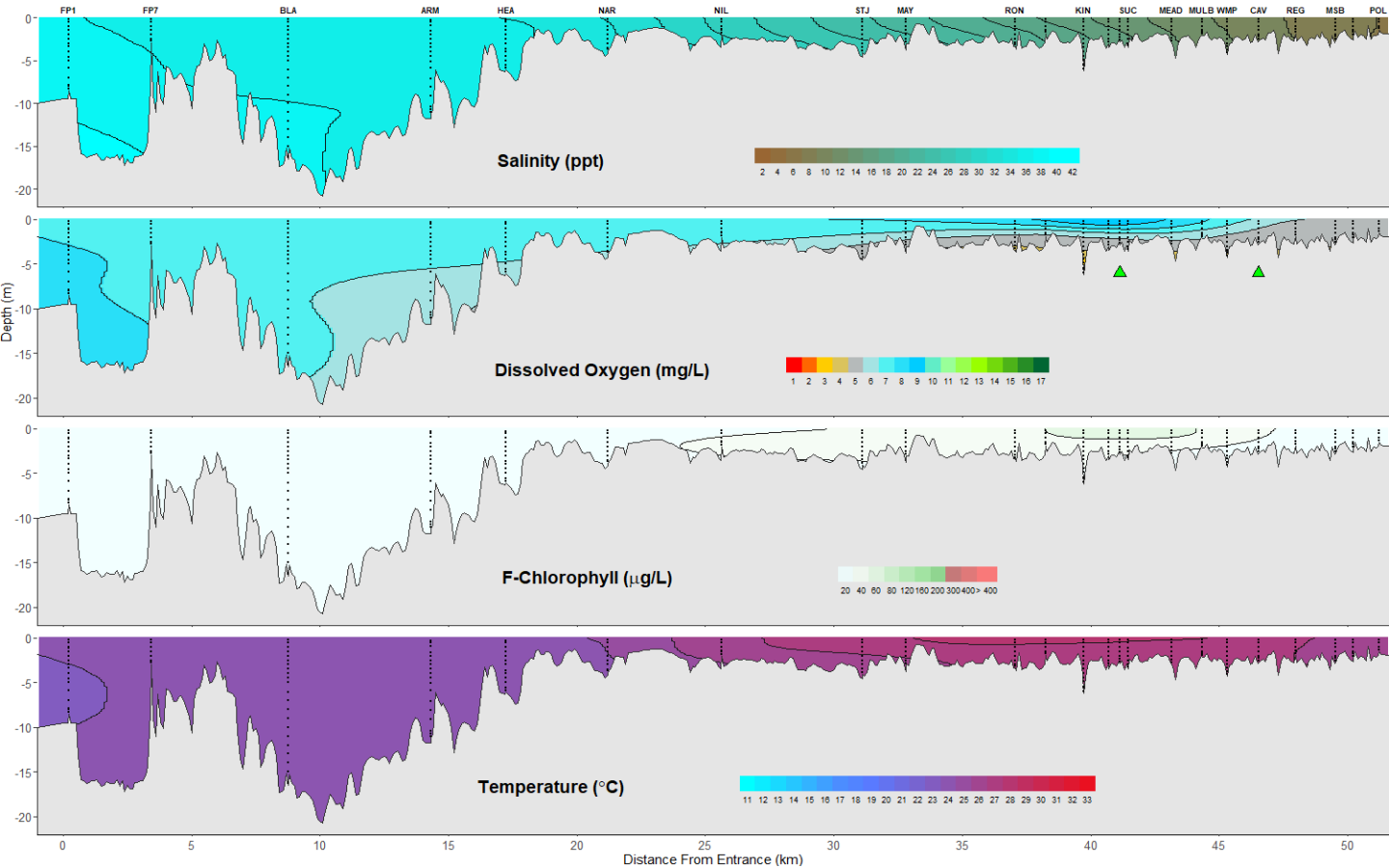
Lower Swan Canning Estuary to Upper Swan Estuary

3rd January 2023

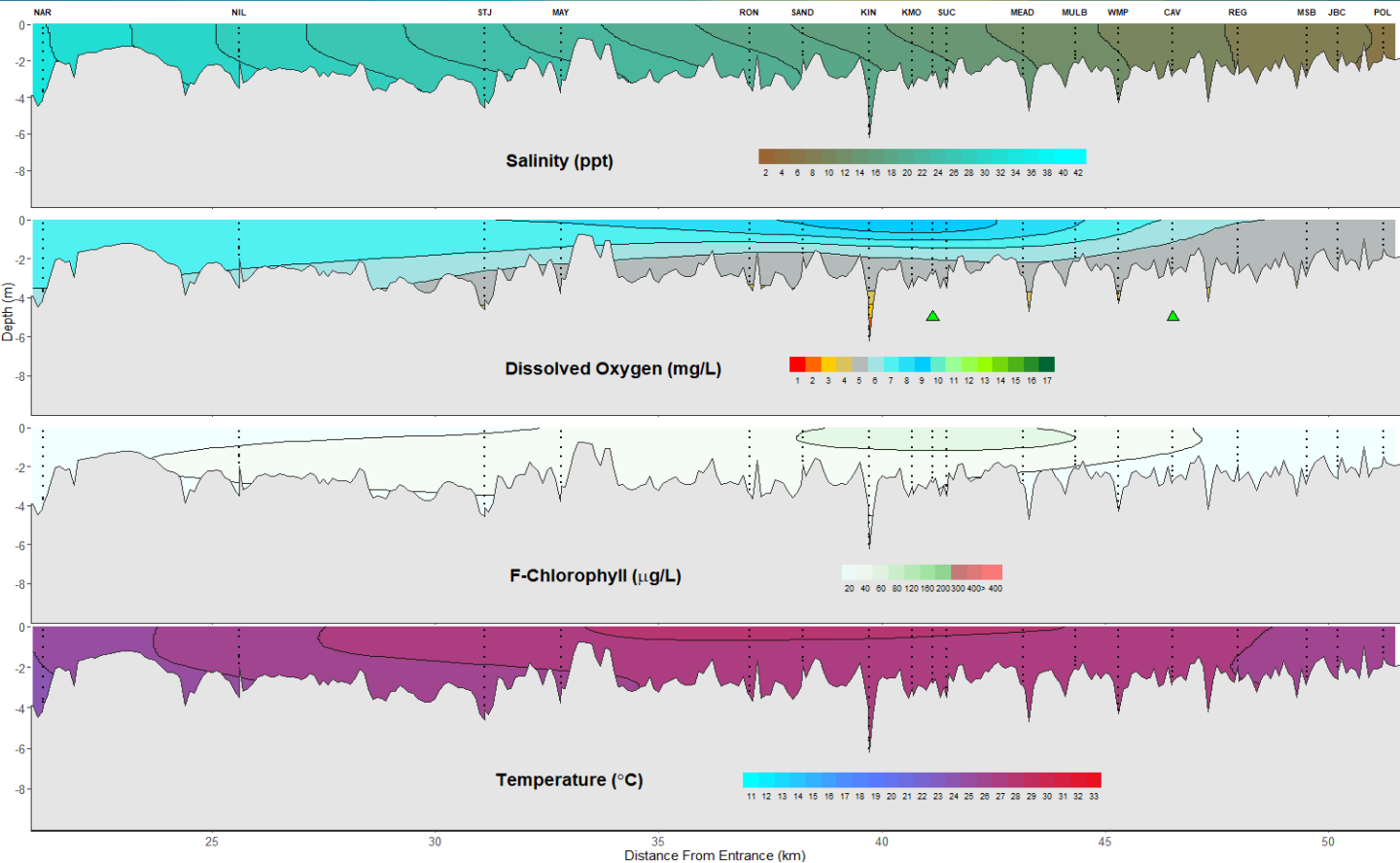
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Swan Canning Estuary - Water Quality Profiles - 3rd January 2023



Middle and Upper Swan Estuary - Water Quality Profiles – 3rd January 2023



Date: 3rd January 2023

Weather & tide conditions: Conditions were sunny with a predominantly easterly breeze of up to 12 knots. The predicted tides at Barrack St were 0.53 m at 7:37 am (low tide) and 1.13 m at 8:36 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both operable and providing oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (FPI to NAR): The Lower Swan Canning Estuary was saline and waters were oxygenated or well oxygenated throughout. Chlorophyll fluorescence was low throughout and water temperature ranged from 22.8 to 24 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL and brackish at all other sites. Waters were oxygenated or well oxygenated, except the bottom waters of MAY and RON, which were low in oxygen. Chlorophyll fluorescence was low throughout and water temperature ranged from 25.5 to 27.6 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish throughout. Waters were oxygenated or well oxygenated at sites VIT – POL excluding the bottom waters at VIT and WMP which were low in oxygen. The surface waters from SAND – KIN were well oxygenated while the bottom waters were either low in oxygen or hypoxic. Chlorophyll fluorescence was low throughout, except for within mid-column waters of KIN, KMO, VIT and SUC, where it was moderate. Water temperature ranged from 25.1 to 28 °C at the time of sampling.

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⁻¹, oxygenated >4-6 mg L⁻¹, low oxygen >2-4 mg L⁻¹, hypoxic 0.5-2 mg L⁻¹, anoxic <0.5 mg L⁻¹
Chlorophyll fluorescence (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹