



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

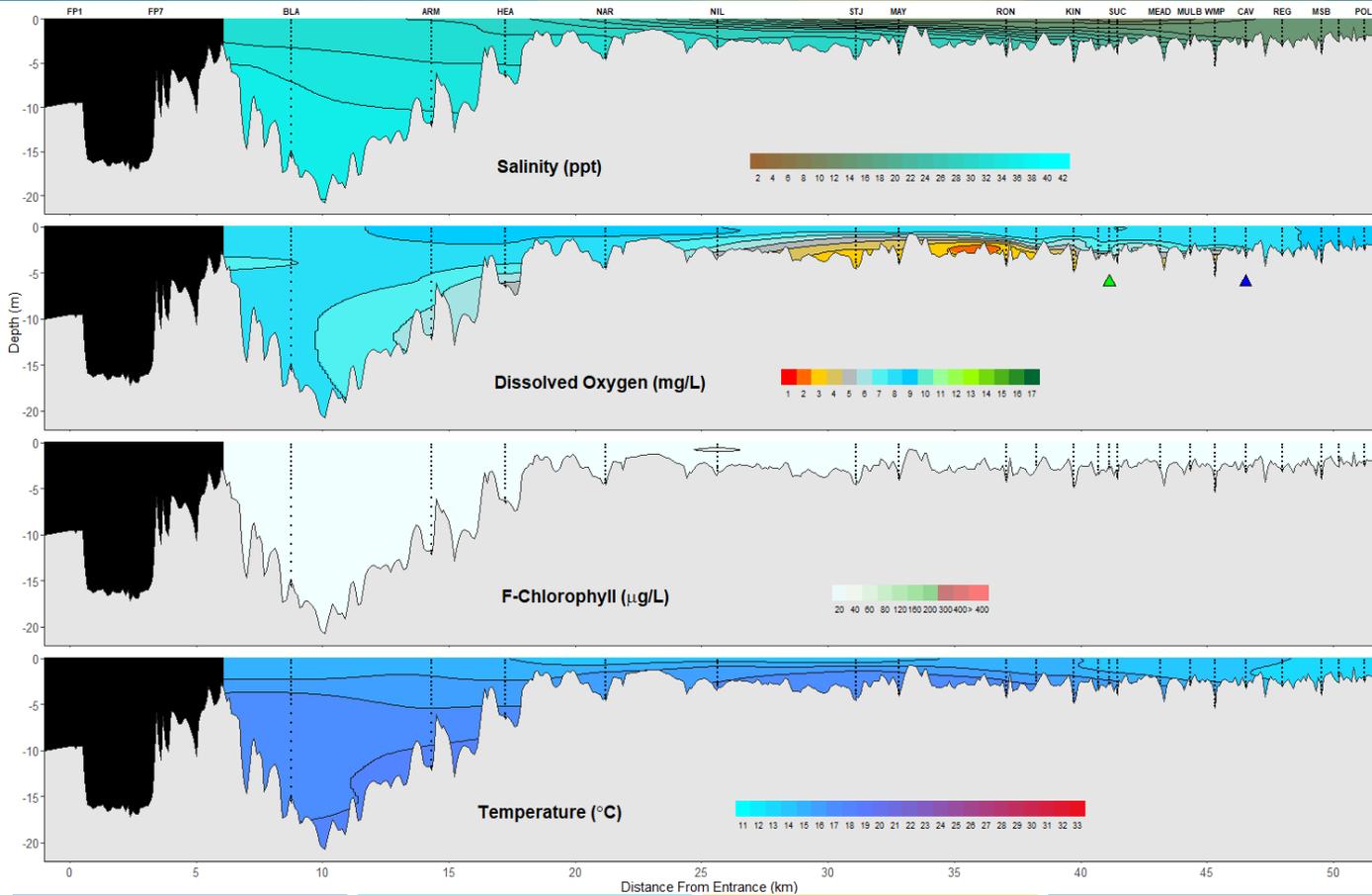
Lower Swan Canning Estuary to Upper Swan Estuary

11 July 2022

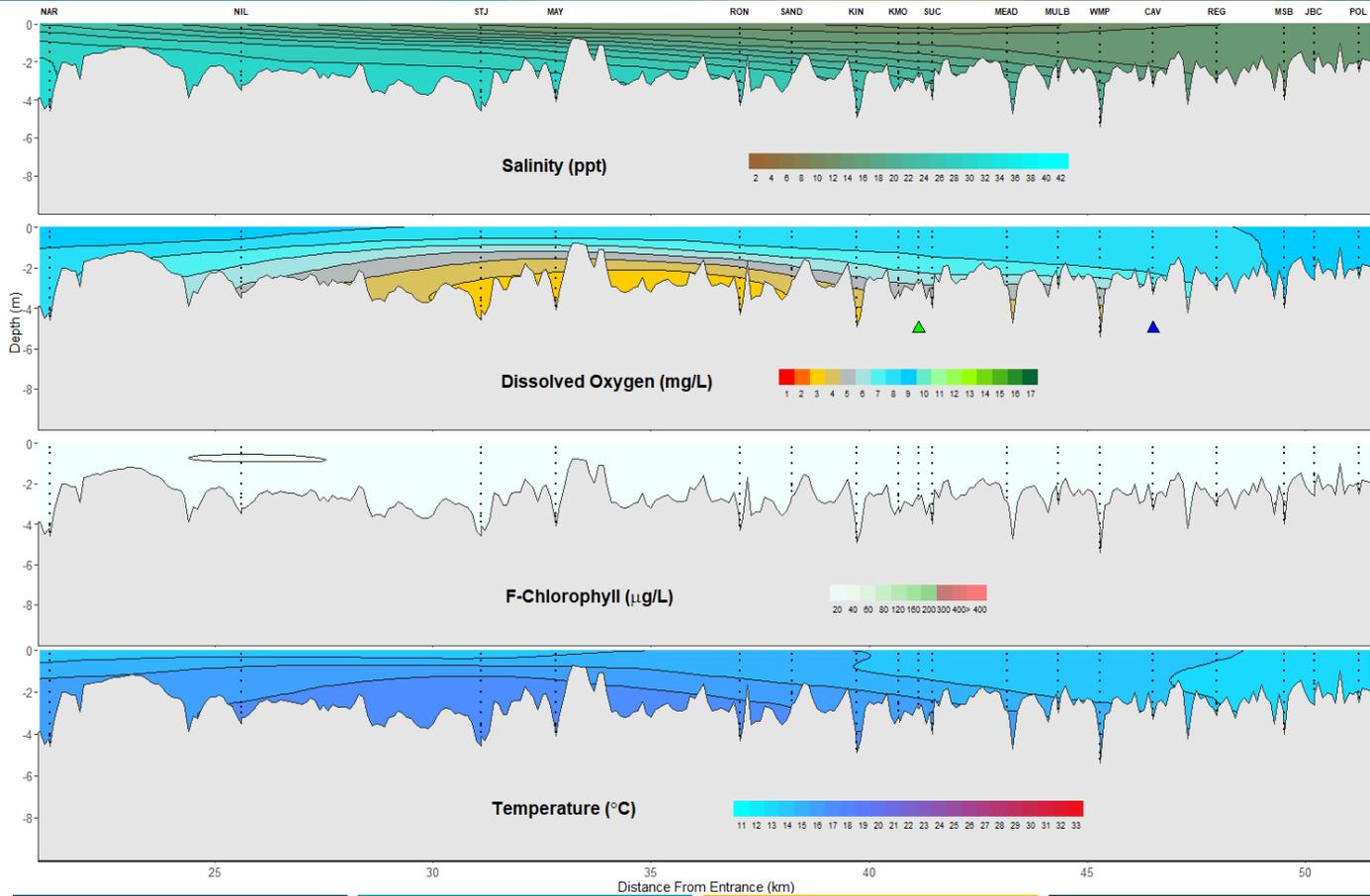
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Swan Canning Estuary - Water Quality Profiles – 11 July 2022



Middle and Upper Swan Estuary- Water Quality Profiles – 11 July 2022



Date: 11 July 2022

Weather & tide conditions: Conditions were clear with a predominantly northerly breeze of up to 4 knots. The predicted tides at Barrack St were 1.28 m at 8:50 am (high tide) and 0.67 m at 7:53 pm (low tide). Perth recorded 34.2 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was triggered to provide oxygen and the Caversham oxygenation plant was operable 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. Waters were oxygenated or well oxygenated throughout. Water temperature ranged from 13.7 to 17.3 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish over saline throughout. Waters were oxygenated or well oxygenated, except for bottom waters from STJ to RON which were low in oxygen. Chlorophyll fluorescence was low and water temperature ranged from 13.1 to 16.7 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish throughout, except for bottom waters at KIN which were saline. Waters were oxygenated or well oxygenated throughout, except for bottom waters at WMP and KIN which were low in oxygen. Chlorophyll fluorescence was low and temperature ranged from 12.7 to 16.4 °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 (no/low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹