



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

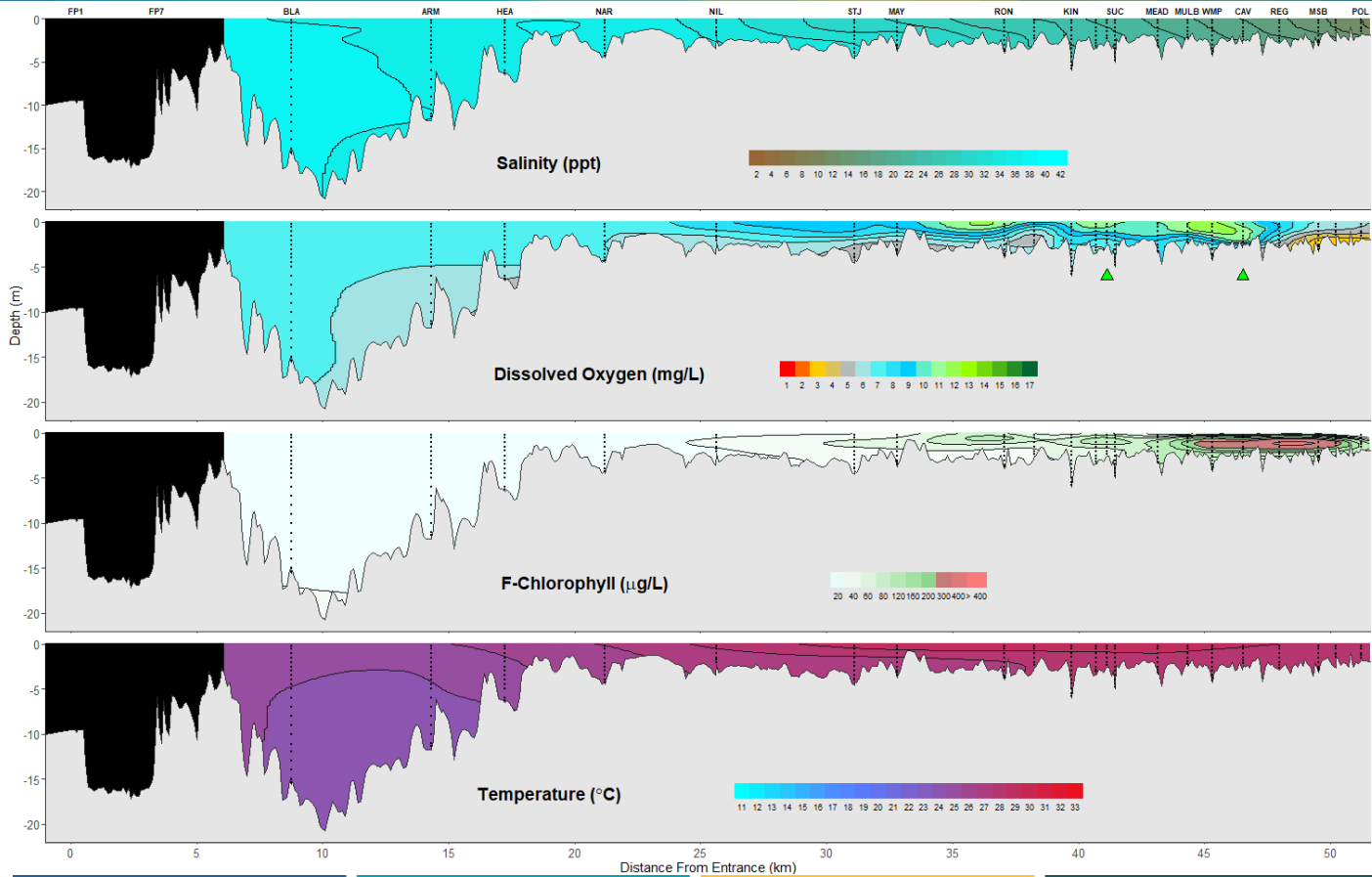
Lower Swan Canning Estuary to Upper Swan Estuary

8 January 2024

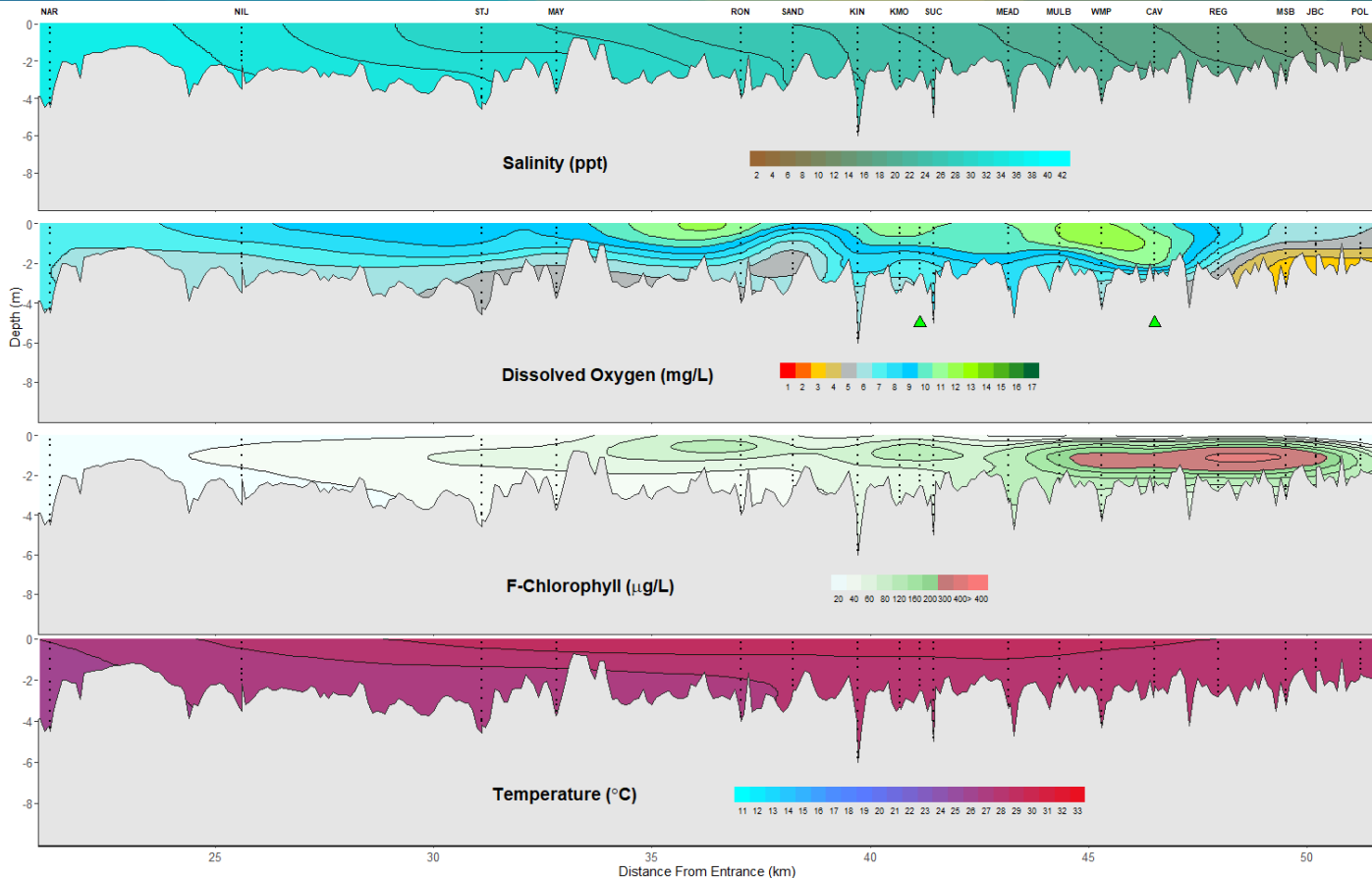
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Swan Canning Estuary - Water Quality Profiles – 8 January 2024



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Date: 8 January 2024

Weather & tide conditions: Conditions were cloudy with an easterly to south easterly breeze of up to 12 knots. The predicted tides at Barrack St were 0.55 m at 7:17 am (low tide) and 1.17 m at 8:43 pm (high tide). Perth recorded no rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline, waters were oxygenated to well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 23.5 to 25.8 °C at the time of sampling.

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 to well oxygenated. Chlorophyll fluorescence was moderate in subsurface waters at STJ and MAY and both surface and subsurface waters at RON. Water temperatures ranged from 26.2 °C to 29.4 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish over saline at SAND and brackish from KIN to POL. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen at SAND and from MSB to POL. Chlorophyll fluorescence was moderate in surface, subsurface or bottom waters at each site in the upper estuary, high in subsurface waters at WMP, CAV, MSB and JBC and in bottom waters at CAV and extreme in subsurface waters at REG. Water temperatures ranged from 26.7 to 29.2 °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⁻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 (mod/high flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹