



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

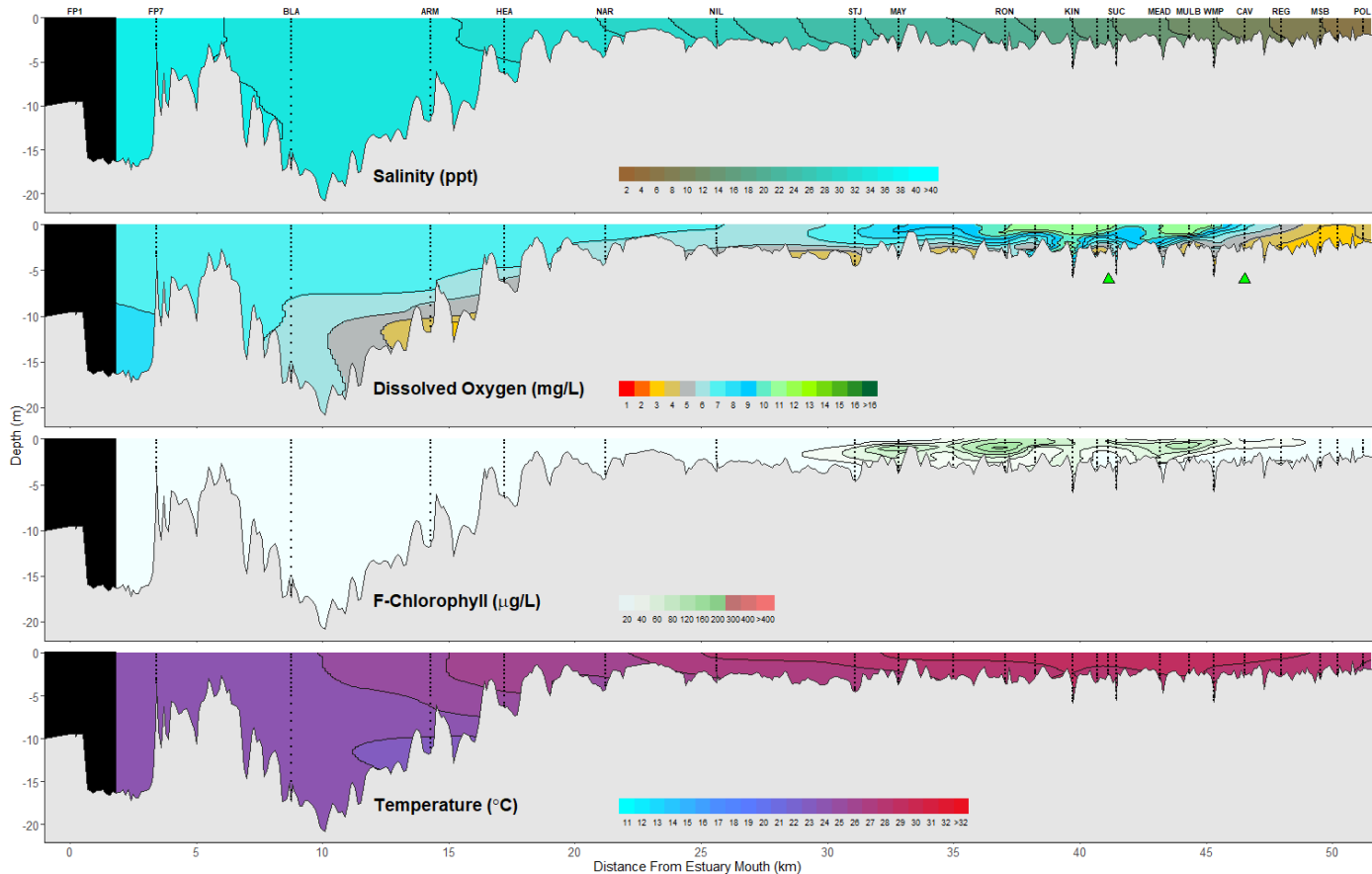
Lower Swan Canning Estuary to Upper Swan Estuary

16 December 2024

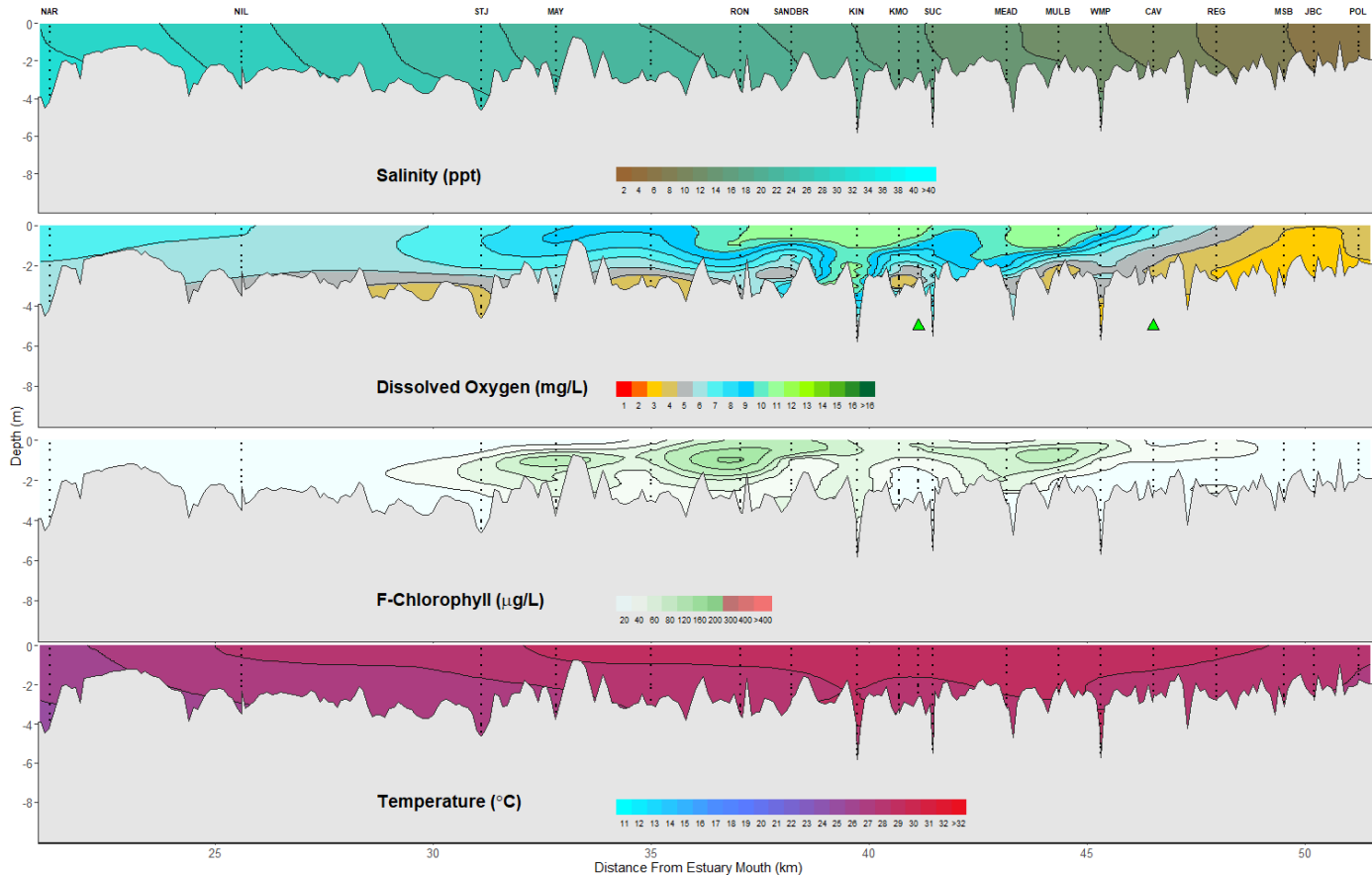
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Swan Canning Estuary - Water Quality Profiles – 16 December 2024



Swan Canning Estuary - Water Quality Profiles – 16 December 2024



Date: 16 December 2024

Weather & tide conditions: Conditions were clear with a predominantly westerly breeze of up to 10.0 knots. The predicted tides at Barrack St were 0.44 m at 09:49 am (low tide) and 1.19 m at 11:19 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 (FP7 to NAR): The Lower Swan Canning Estuary was saline from FP7 to NAR. Waters were oxygenated or well oxygenated, except for bottom waters of ARM which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 22.5 to 25.6 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL and brackish from STJ and RON. Waters were oxygenated or well oxygenated, except bottom waters at STJ which were low in oxygen. Chlorophyll fluorescence was moderate in subsurface waters at STJ and MAY and high at RON. Water temperatures ranged from 26.4 to 28.4 °C at the time of sampling.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish from SANDBR to JBC and fresh at POL. Waters were oxygenated or well oxygenated, except bottom waters at KMO and from MULB to REG and both surface and bottom waters from MSB to POL. Chlorophyll fluorescence was moderate in surface waters between SANDBR and WMP. Water temperatures ranged from 26.9 to 29.0 °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