



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

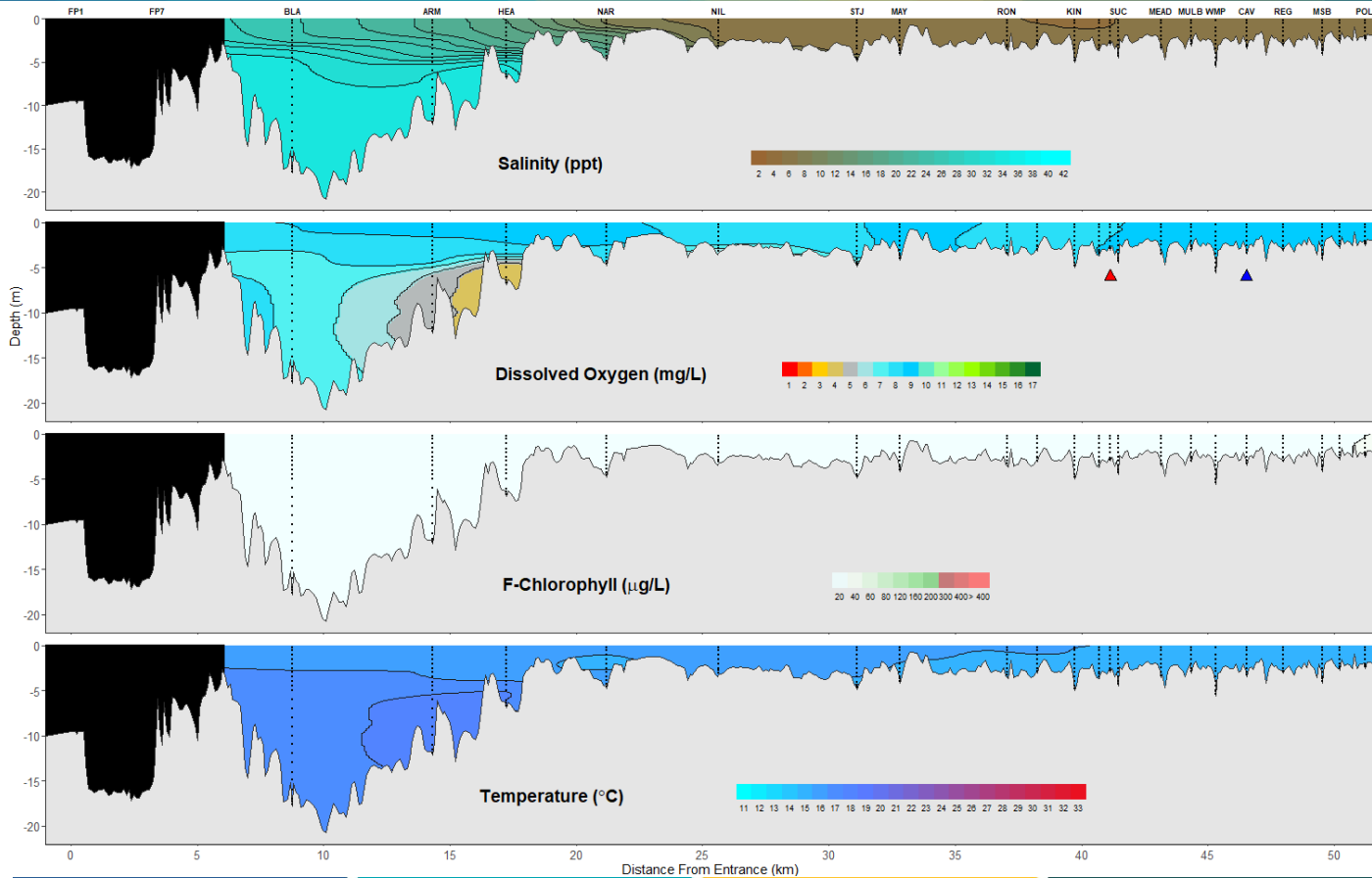
Lower Swan Canning Estuary to Upper Swan Estuary

19th August 2024

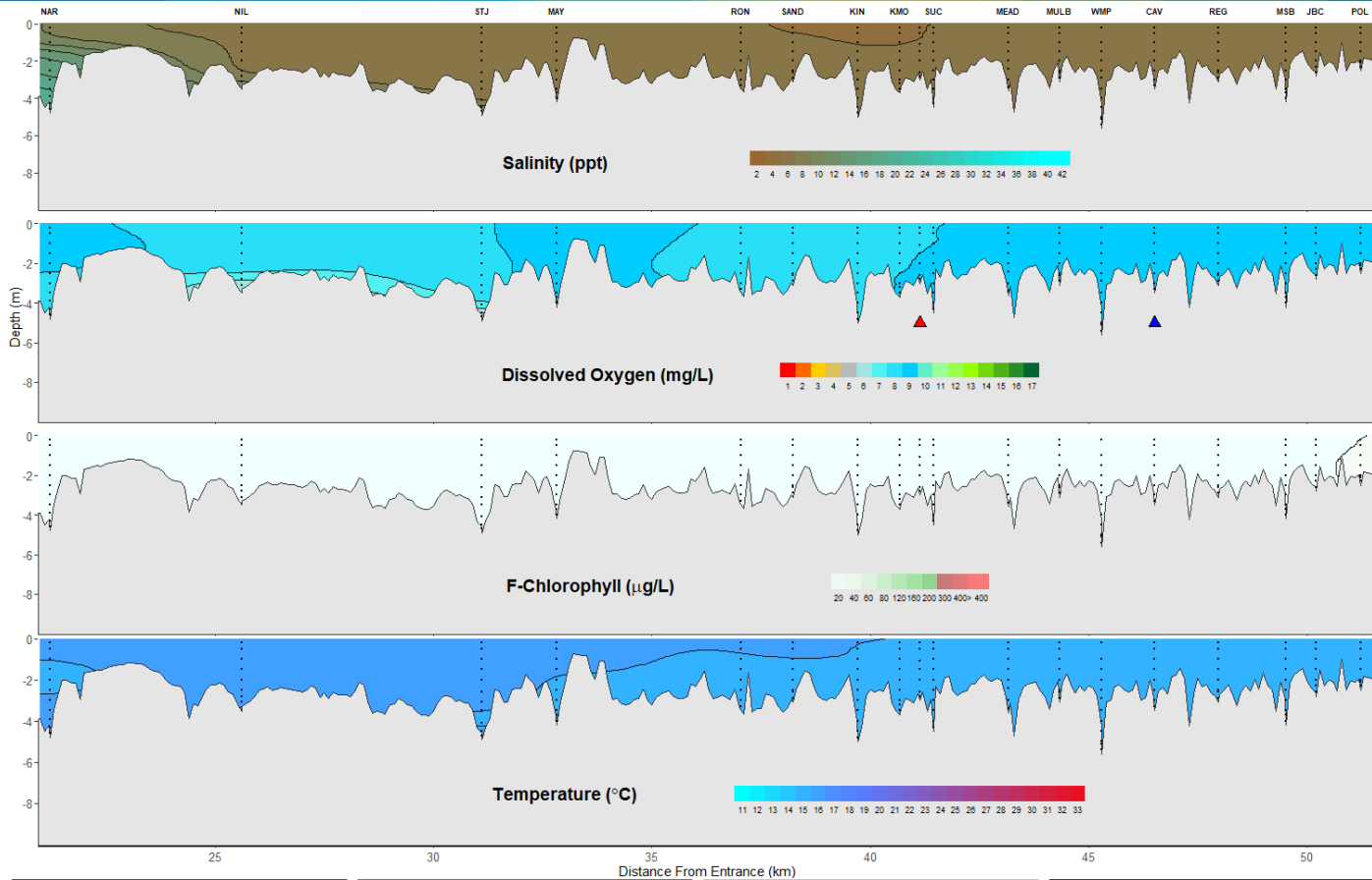
Prepared by

Rivers and Estuaries Science
Biodiversity and Conservation Science
Department of Biodiversity, Conservation and Attractions

Swan Canning Estuary - Water Quality Profiles – 19th August 2024



Swan Canning Estuary - Water Quality Profiles – 19th August 2024



Date: 19th August 2024

Weather & tide conditions: Conditions were partly cloudy with a predominately south-westerly breeze of up to 12.8 knots. The predicted tides at Barrack St were 1.22 m at 10:48 am (high tide) and 0.64 m at 8:41 pm (low tide). Perth recorded 45.2 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was inoperable and the Caversham oxygenation plant was operable, but not triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was brackish over saline from BLA to HEA and brackish at NAR. Waters were oxygenated or well oxygenated, except for bottom waters at HEA which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 14.9 to 17.2 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish between NIL and STJ and fresh from MAY to RON. Waters were oxygenated or well oxygenated, except for bottom waters at STJ which were low in oxygen. Chlorophyll fluorescence was low and water temperatures ranged from 14.8 to 16.0 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was fresh from SAND to MSB and brackish at JBC and POL. Waters were well oxygenated and chlorophyll fluorescence was low. Water temperatures ranged from 14.4 to 15.5 °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 (low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹

Recommended reference: Department of Biodiversity, Conservation and Attractions, 2024. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 19th August 2024*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)