



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

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Western Australia.*

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

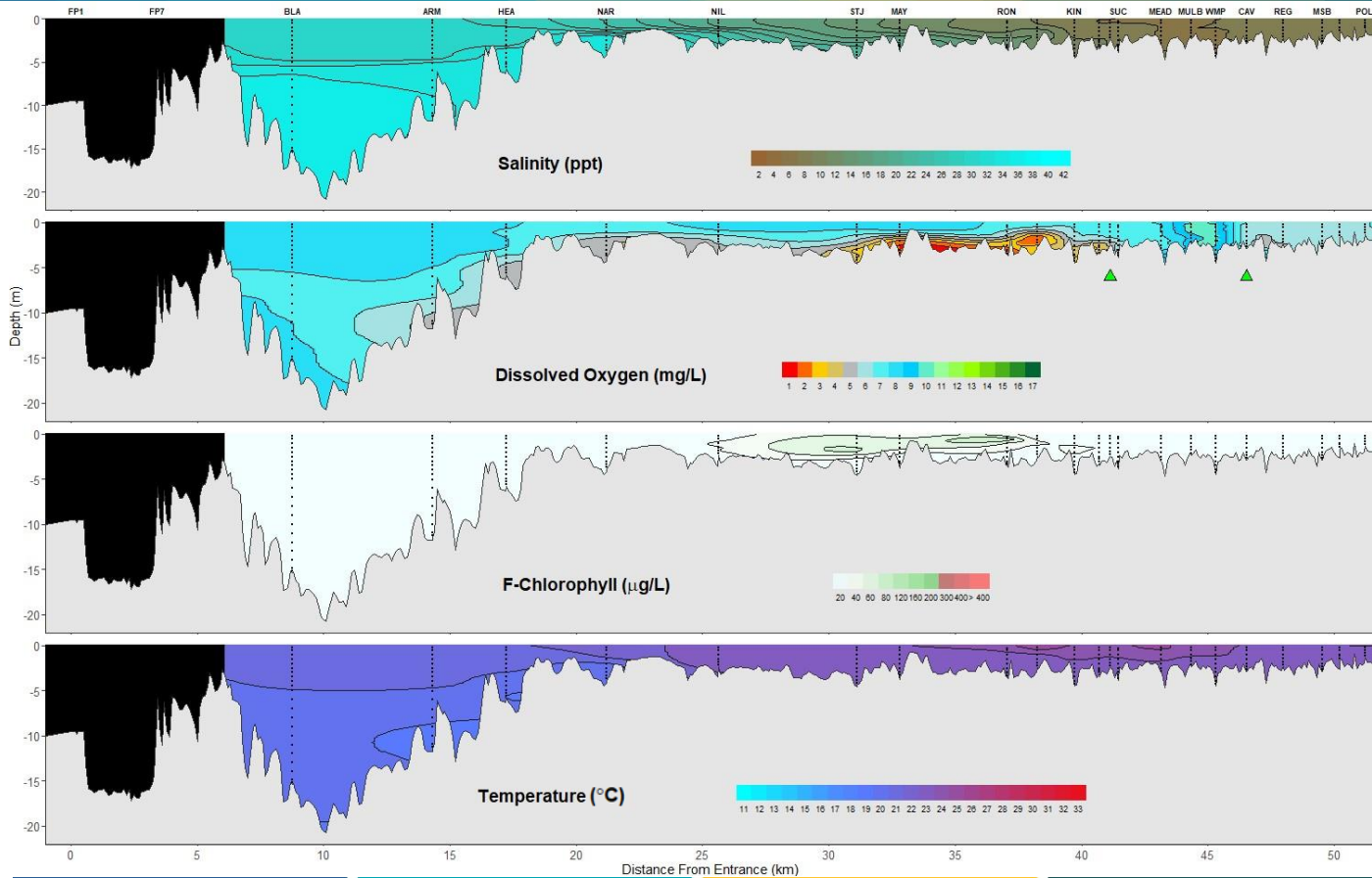
Lower Swan Canning Estuary to Upper Swan Estuary

16th October 2023

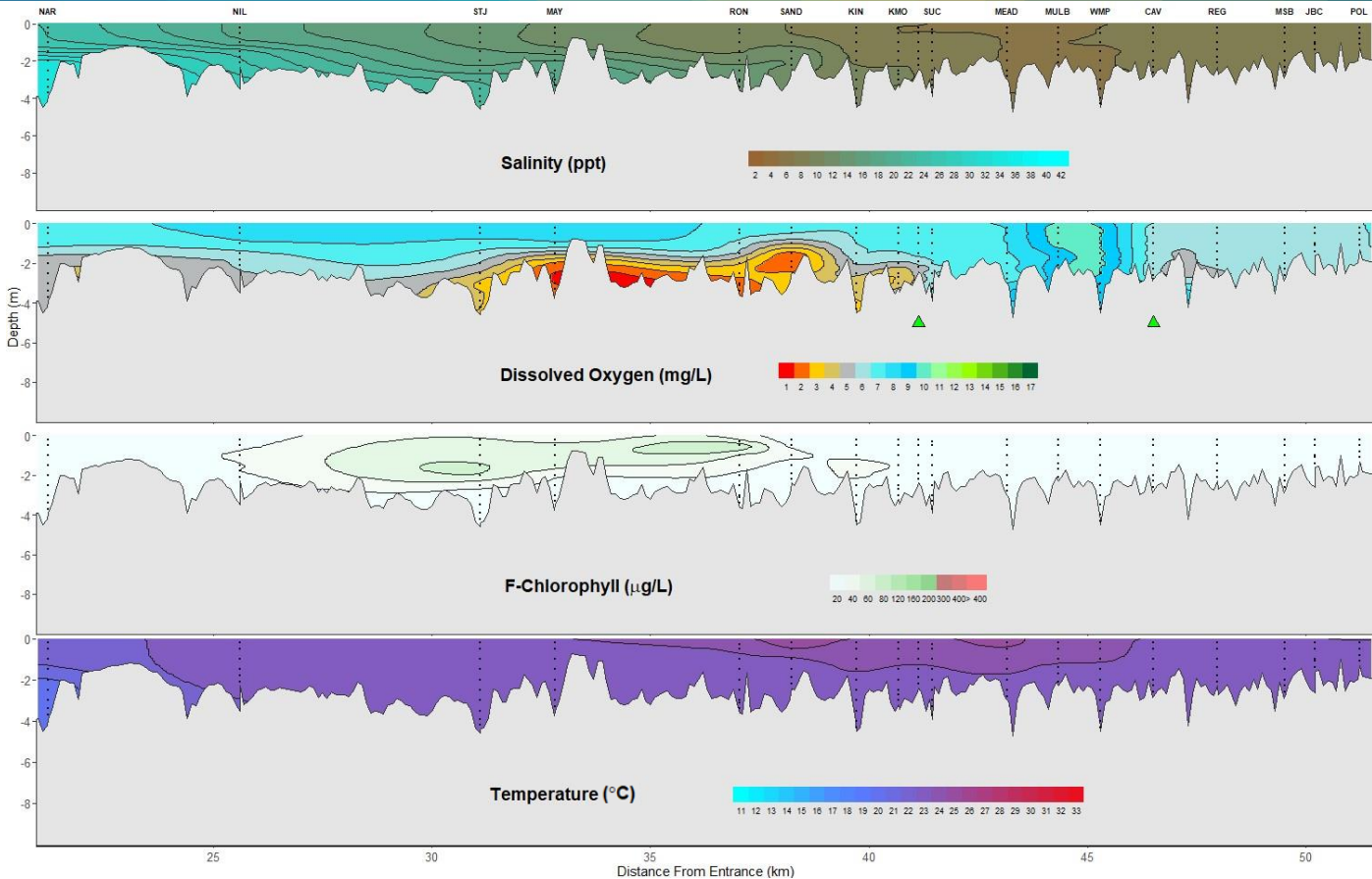
Prepared by

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

Swan Canning Estuary - Water Quality Profiles – 16th October 2023



Swan Canning Estuary - Water Quality Profiles – 16th October 2023



Date: 16th October 2023

Weather & tide conditions: Conditions were clear with a predominantly easterly breeze of up to 11.8 knots. The predicted tides at Barrack St were 0.63 m at 7:42 am (1st low tide), 0.75 m at 1:21 pm (high tide) and 0.73 m at 3:56 pm (2nd low 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 and NAR): The Lower Swan Canning Estuary was saline between BLA and HEA and brackish over saline at NAR. Waters were oxygenated or well oxygenated. Chlorophyll fluorescence was low and water temperatures ranged from 18.8 °C to 21.4 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish. Waters were oxygenated or well oxygenated, except bottom waters between STJ and RON which were low in oxygen or hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 22.3 °C to 23.4 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish. Waters were oxygenated or well oxygenated, except for bottom waters between SAND and KMO which were low in oxygen or hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 22.0 °C to 24.6 °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