



Department of Biodiversity,
Conservation and Attractions



Biodiversity and
Conservation Science

We're working for
Western Australia.

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

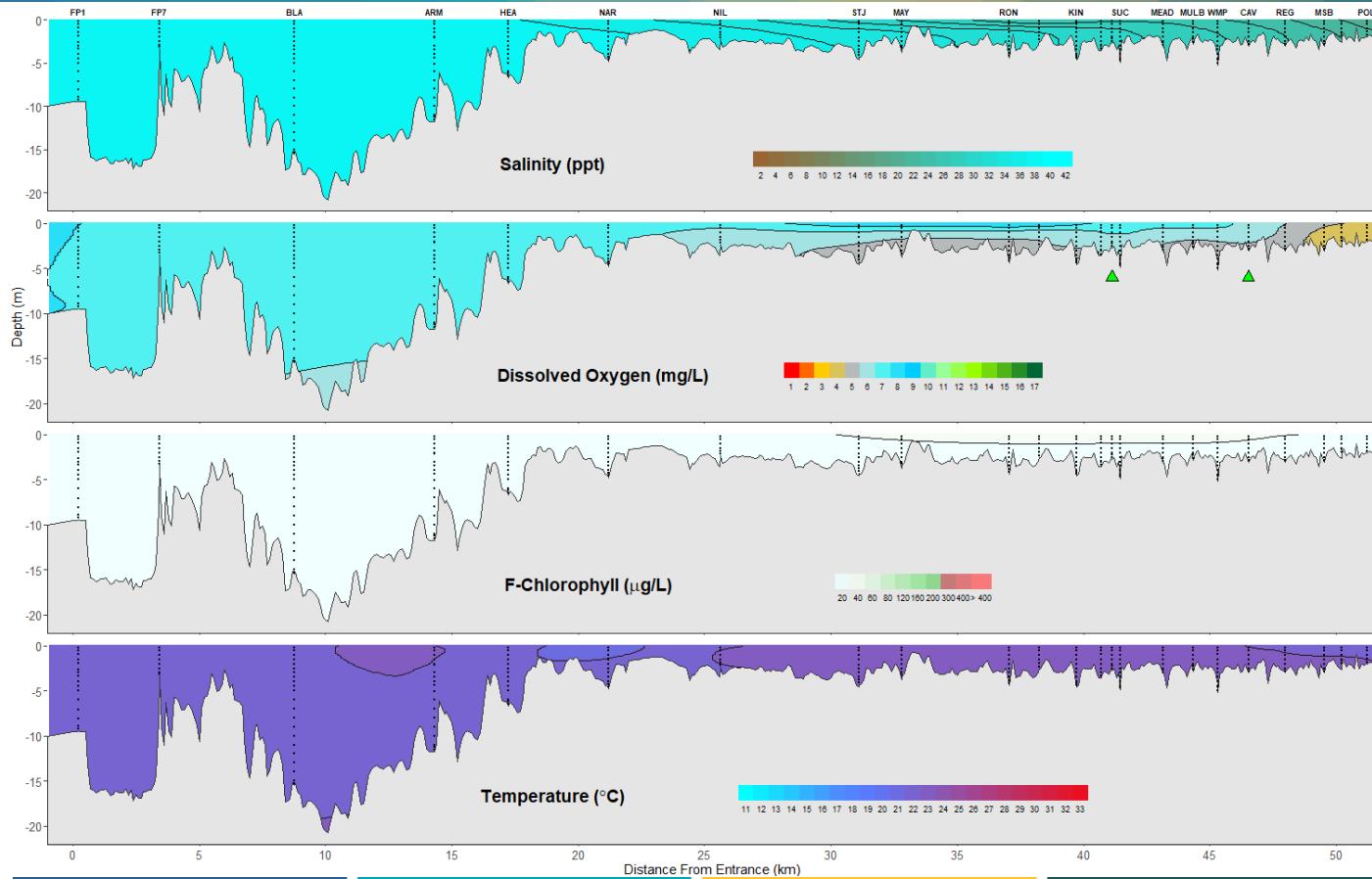
11 April 2022

Prepared by

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

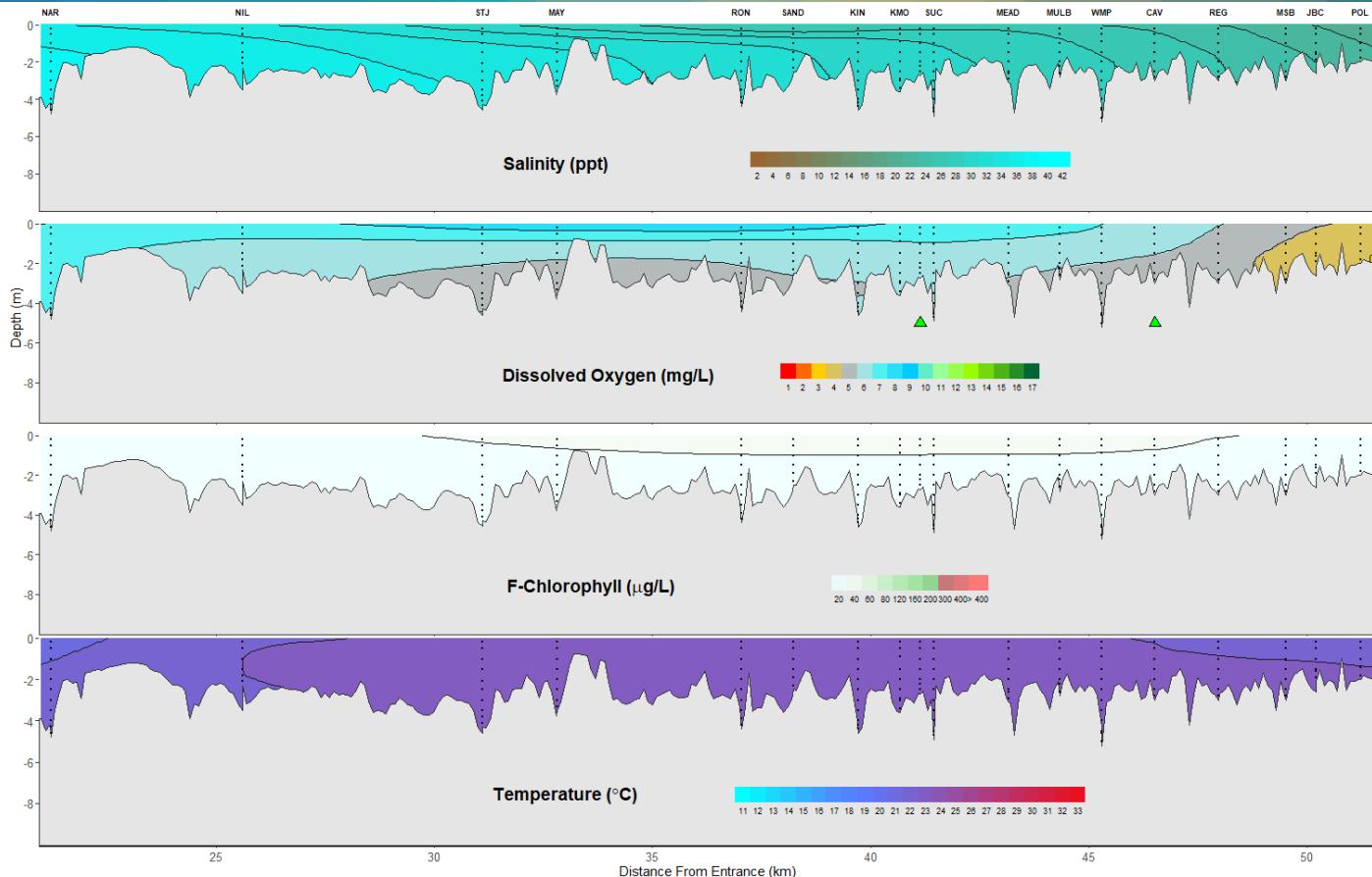


Swan Canning Estuary- Water Quality Profiles – 11 April 2022





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





Date: 11 April 2022

Weather & tide conditions: Conditions were partly cloudy with a variable breeze of up to 5 knots. The predicted tides at Barrack St were 0.67 m at 4:30 am (low tide) and 1.09 m at 6:41 pm (high tide). Perth recorded 31.8 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

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

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was hypersaline, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 20.6 to 22.1 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline, surface waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 22.0 to 22.8 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was saline from SAND to WMP, brackish over saline at CAV and brackish from REG to POL. Waters were oxygenated or well oxygenated from SAND to REG and low in oxygen between MSB and POL. Chlorophyll fluorescence was low throughout the zone. Water temperature ranged from 21.4 to 22.8 °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 (summer): 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, 2022. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 11 April 2022. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)