



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

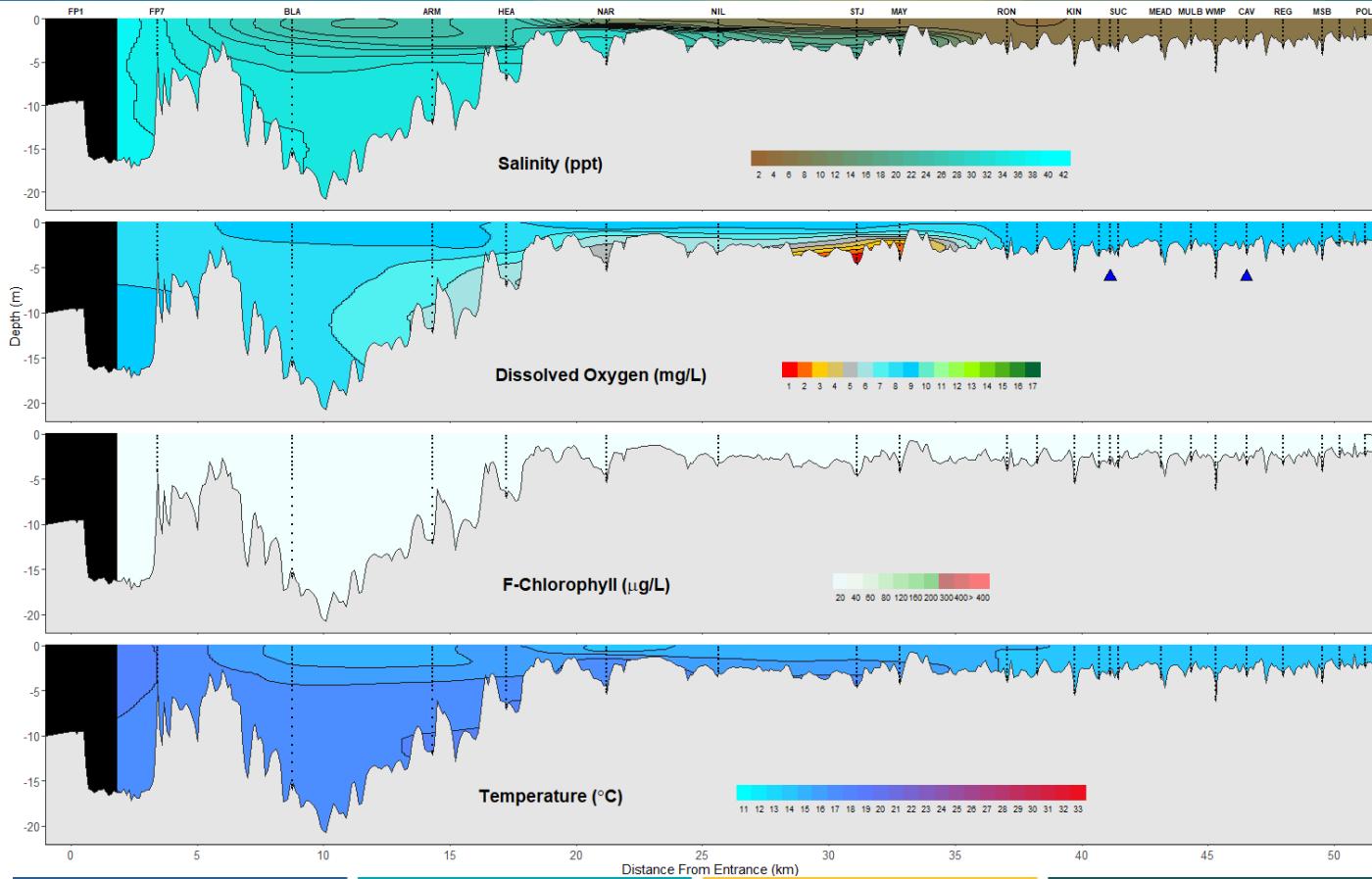
01 August 2022

Prepared by

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

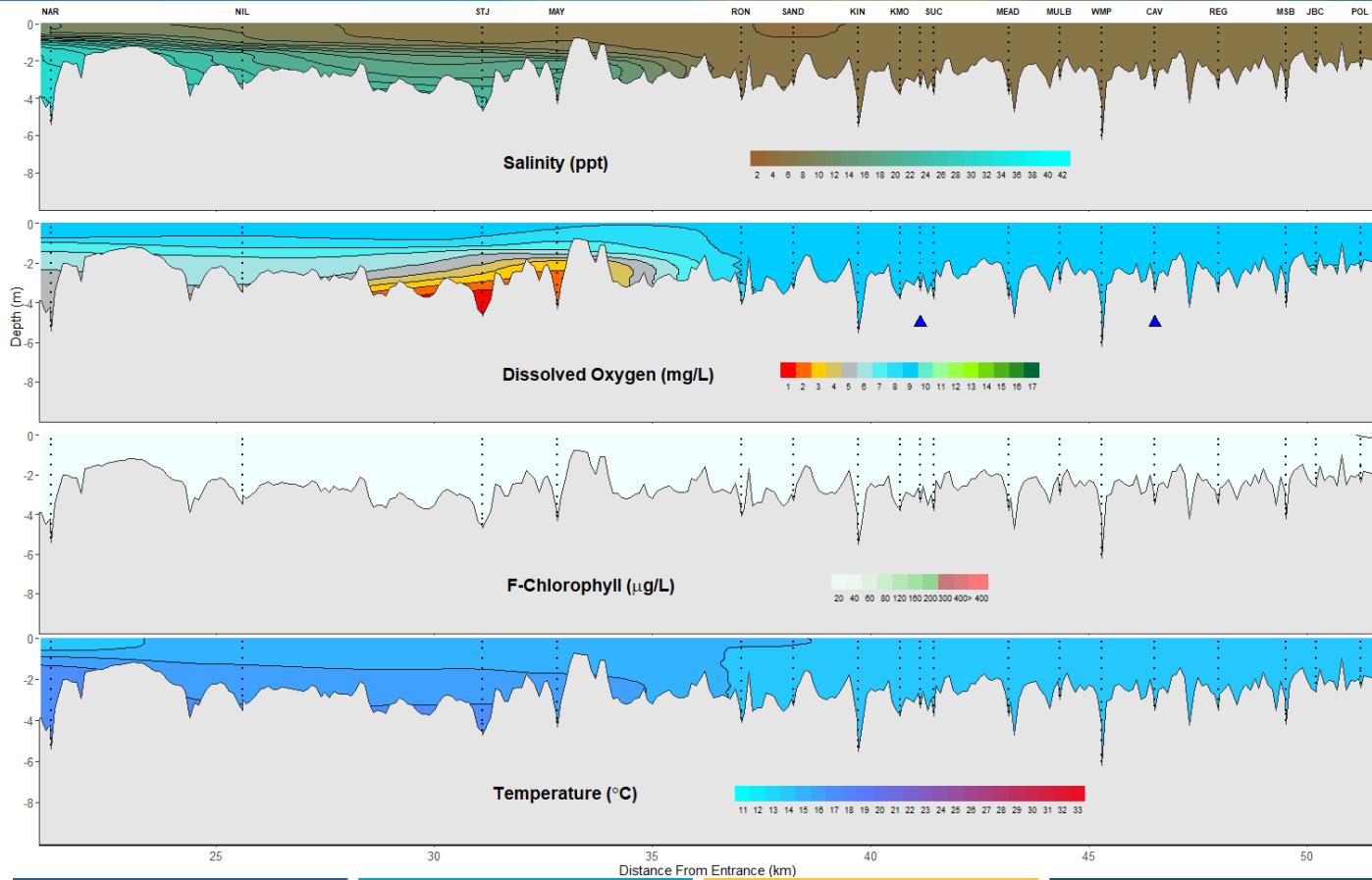


Swan Canning Estuary- Water Quality Profiles – 01 August 2022





Middle and Upper Swan Estuary- Water Quality Profiles – 01 August 2022





Date: 01 August 2022

N.B. FP1 was not sampled due to inclement weather.

Weather & tide conditions: Conditions were overcast with a moderate north easterly breeze of up to 12 knots. The predicted tides at Barrack St were 1.12 m at 12:34 am (high tide) and 0.77 m at 9:19 pm (low tide). Perth recorded 44 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were both operable but not triggered to provide oxygen during the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP7 to NAR): The Lower Swan Canning Estuary was saline at FP7 and HEA, and brackish over saline from BLA to ARM and NAR. Waters were oxygenated or well oxygenated throughout, chlorophyll fluorescence was low and water temperature ranged from 13.8 to 17.1 °C at the time of sampling.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish from NIL to MAY and fresh at RON. Waters were oxygenated or well oxygenated throughout, except for bottom waters at STJ and MAY which were hypoxic. Chlorophyll fluorescence was low and water temperature ranged from 13.9 to 16.4 °C at the time of sampling.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary were fresh from SAND to MEAD, fresh over brackish at WMP and MULB, and brackish from CAV to POL. Waters were well oxygenated throughout, chlorophyll fluorescence was low and temperature ranged from 13.3 to 14.1 °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 (no/low flow): low < 50 µg L⁻¹, moderate 50-150 µg L⁻¹, high 150-400 µg L⁻¹, extreme > 400 µg L⁻¹