



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

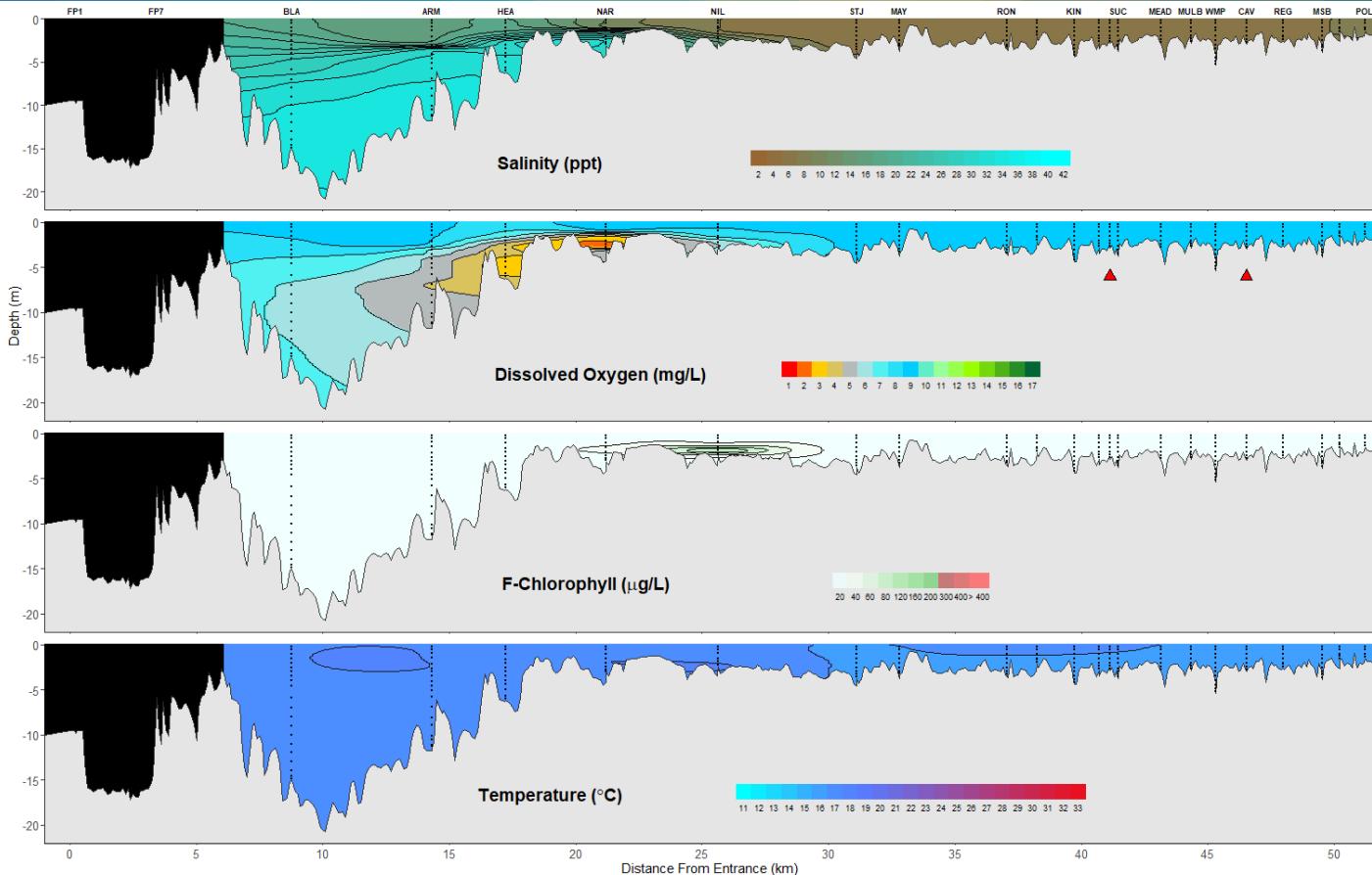
Lower Swan Canning Estuary to Upper Swan Estuary

20 September 2021

Prepared by

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

Swan Canning Estuary- Water Quality Profiles - 20 September 2021





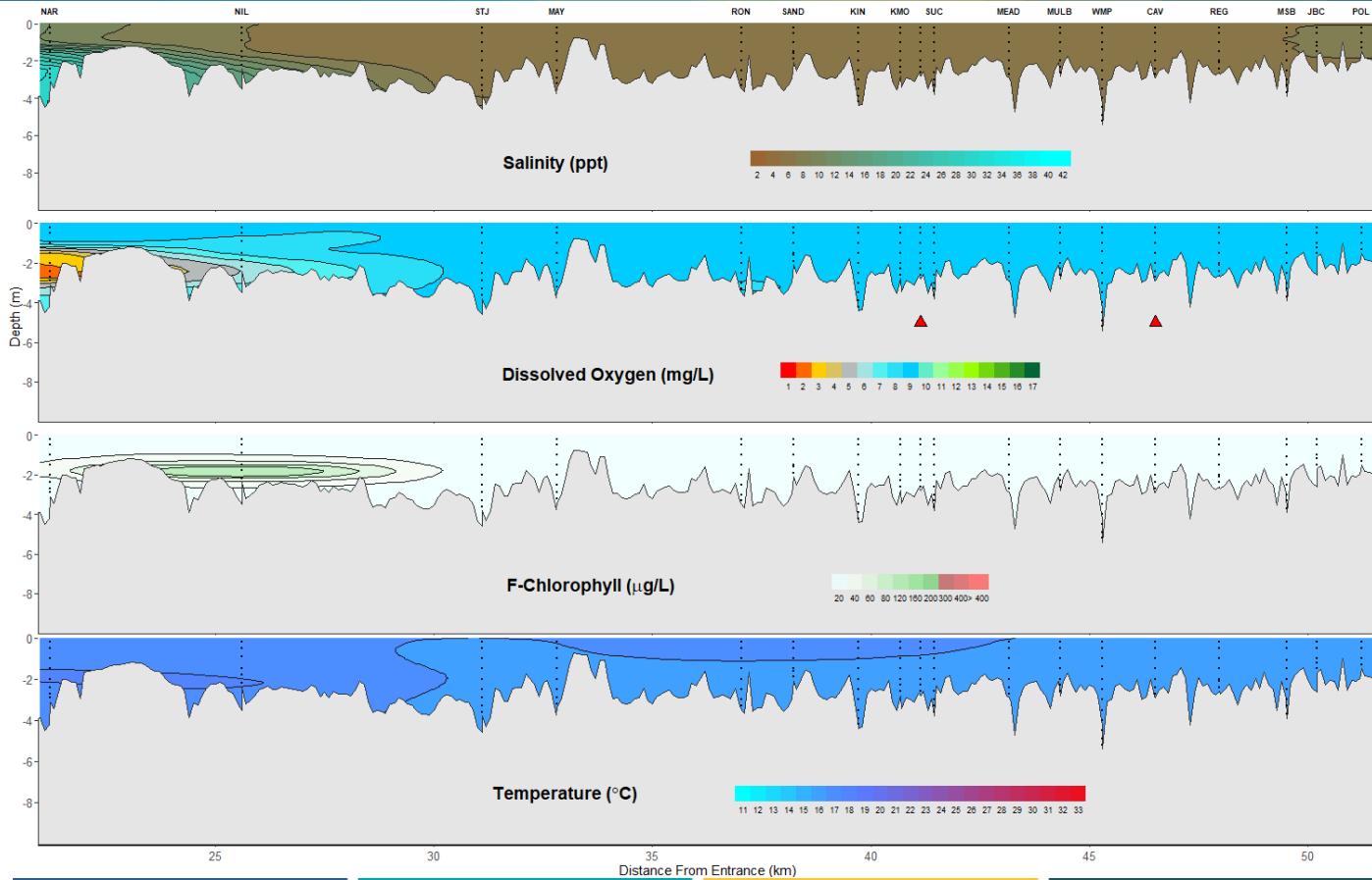
Department of Biodiversity,
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Biodiversity and
Conservation Science

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Middle and Upper Swan Estuary- Water Quality Profiles – 20 September 2021





Date: 20 September 2021

Weather & tide conditions: Conditions were clear with a moderate breeze up to 19 knots. The predicted tides at Barrack St were 0.74 m at 3:45 am (low tide) and 0.99 m at 11:00 am (high tide). Perth recorded 14.4 mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were not operational during the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was brackish over saline between BLA and NAR. Surface waters were well oxygenated throughout, and bottom waters were low in oxygen at HEA and hypoxic at NAR. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15.2 to 17.3 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish and waters were well oxygenated. Chlorophyll fluorescence was highest at NIL indicating higher microalgal activity in this area. Water temperature ranged from 15.2 to 17.3 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15.4 to 16.7 °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 >6mg/L, oxygenated 4-6mg/L, low oxygen >2-4mg/L, hypoxic 0.5-2mg/L, anoxic <0.5mg/L

Recommended reference: Department of Biodiversity, Conservation and Attractions 2021. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 20 September 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)