



# Swan Canning Estuary Water Quality Monitoring Project

## Weekly Water Quality Report

### Lower Swan Canning Estuary to Upper Swan Estuary

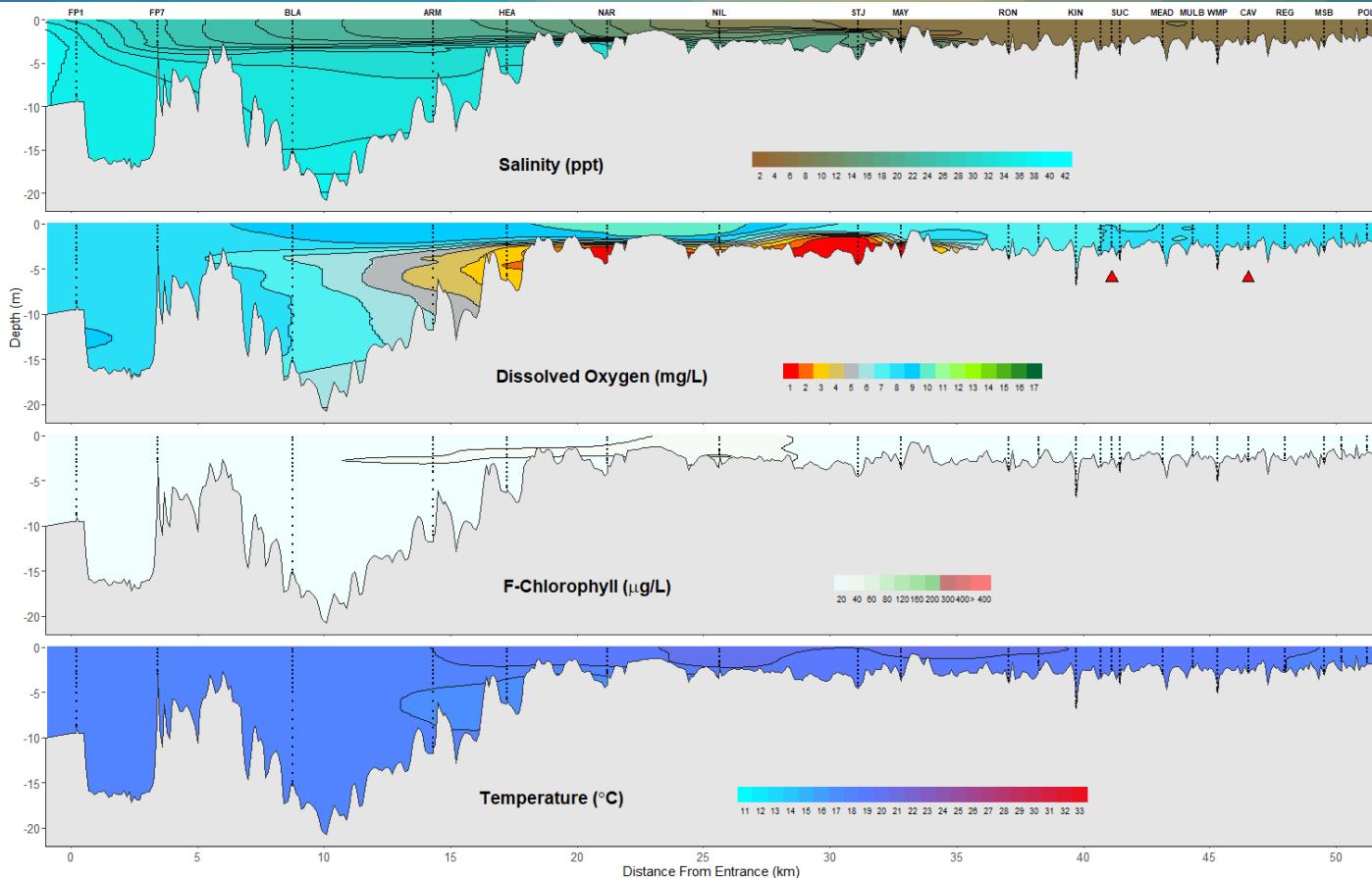
28 September 2021

Prepared by

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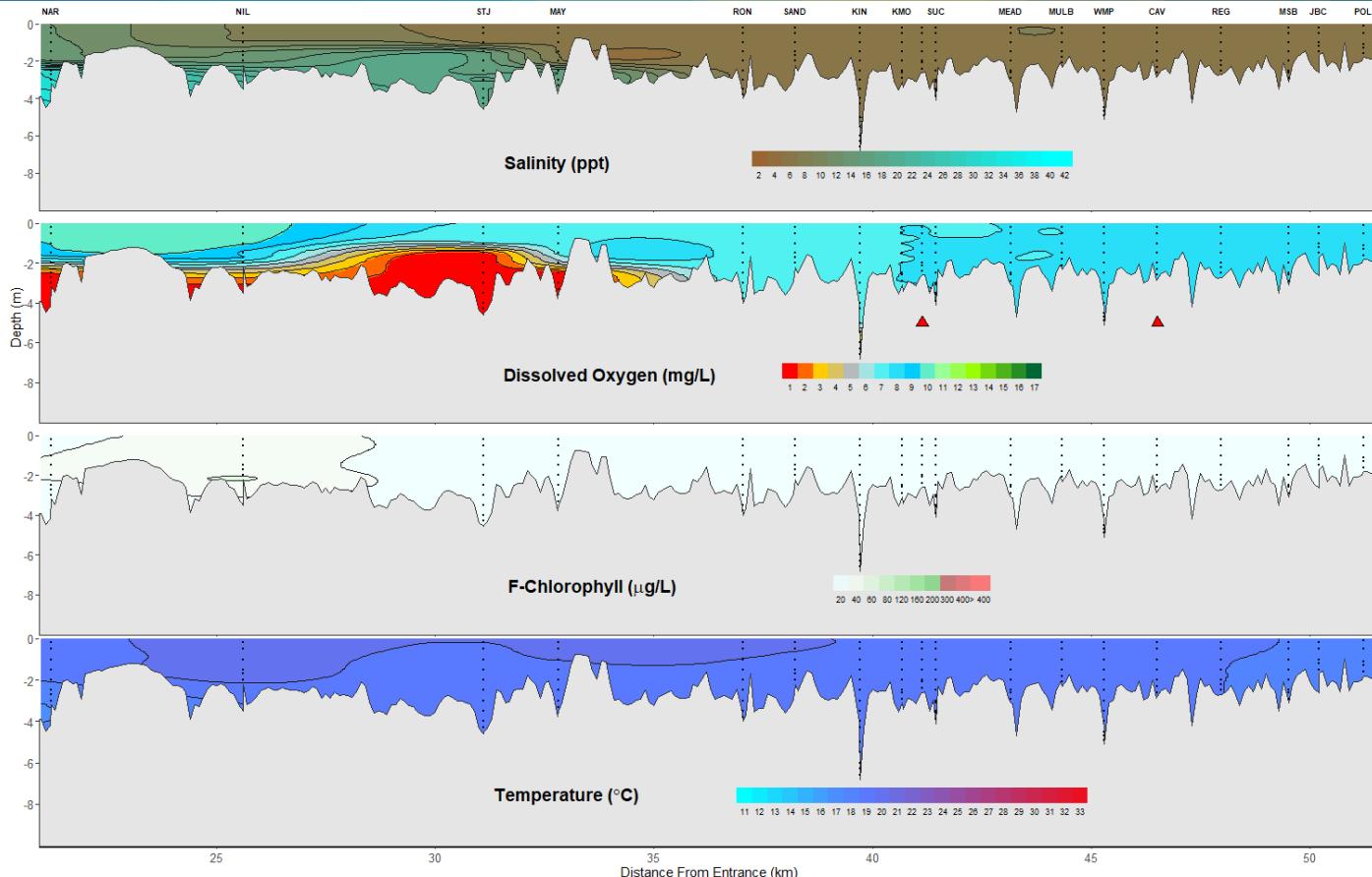


## Swan Canning Estuary- Water Quality Profiles - 28 September 2021





## Middle and Upper Swan Estuary- Water Quality Profiles – 28 September 2021





Date: 28 September 2021

Weather & tide conditions: Conditions were overcast with a light breeze up to 8 knots. The predicted tides at Barrack St were 1.02 m at 1:33 am (high tide) and 0.65 m at 15:06 am (low tide). Perth recorded 19.0 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 (FP1 to NAR): The Lower Swan Canning Estuary was saline between FP1 and FP7 and brackish over saline from BLA to NAR. Surface waters were well oxygenated throughout, and bottom waters were low in oxygen at HEA and hypoxic at NAR. Chlorophyll fluorescence was highest at HEA indicating higher microalgal activity in this area. Water temperature ranged from 16.7 to 18.7 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was brackish. Surface waters were well oxygenated and bottom waters were anoxic between STJ and MAY. Chlorophyll fluorescence was highest at NIL indicating higher microalgal activity in this area. Water temperature ranged from 17.9 to 19.4 °C.

Upper Swan Estuary (SAND to POL): The Upper Swan Estuary was brackish except at KIN which was brackish over saline, waters were well oxygenated except for bottom waters at KIN which were anoxic. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 17.6 to 19.8 °C.

**NB:** Profile plots are visual interpolations of measured parameters only. Detailed data are available at [wir.water.wa.gov.au](http://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 28 September 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)