



Swan Canning Estuary Water Quality Monitoring Project

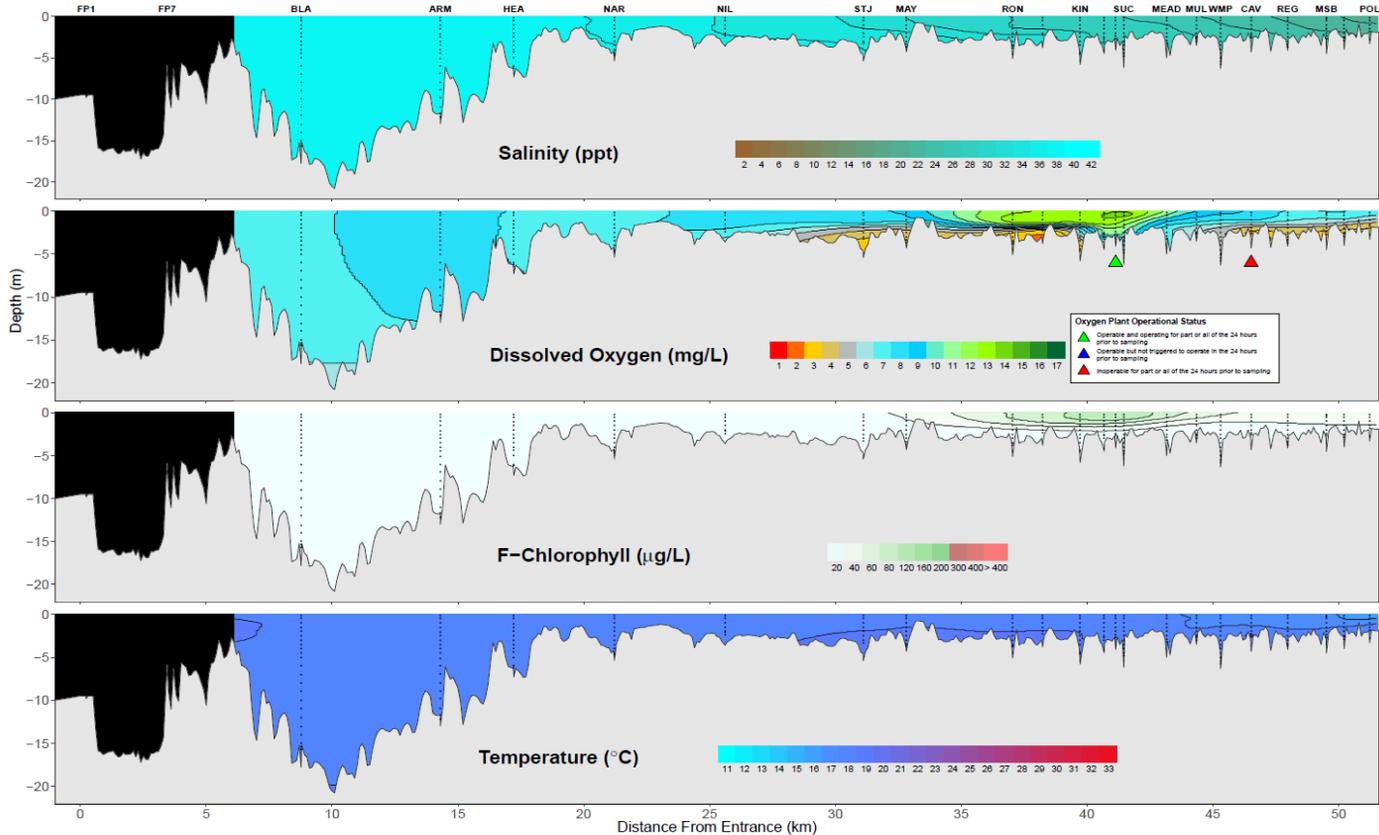
**Weekly Profile Report for the
Lower to Upper Swan Estuary**

18th May 2020

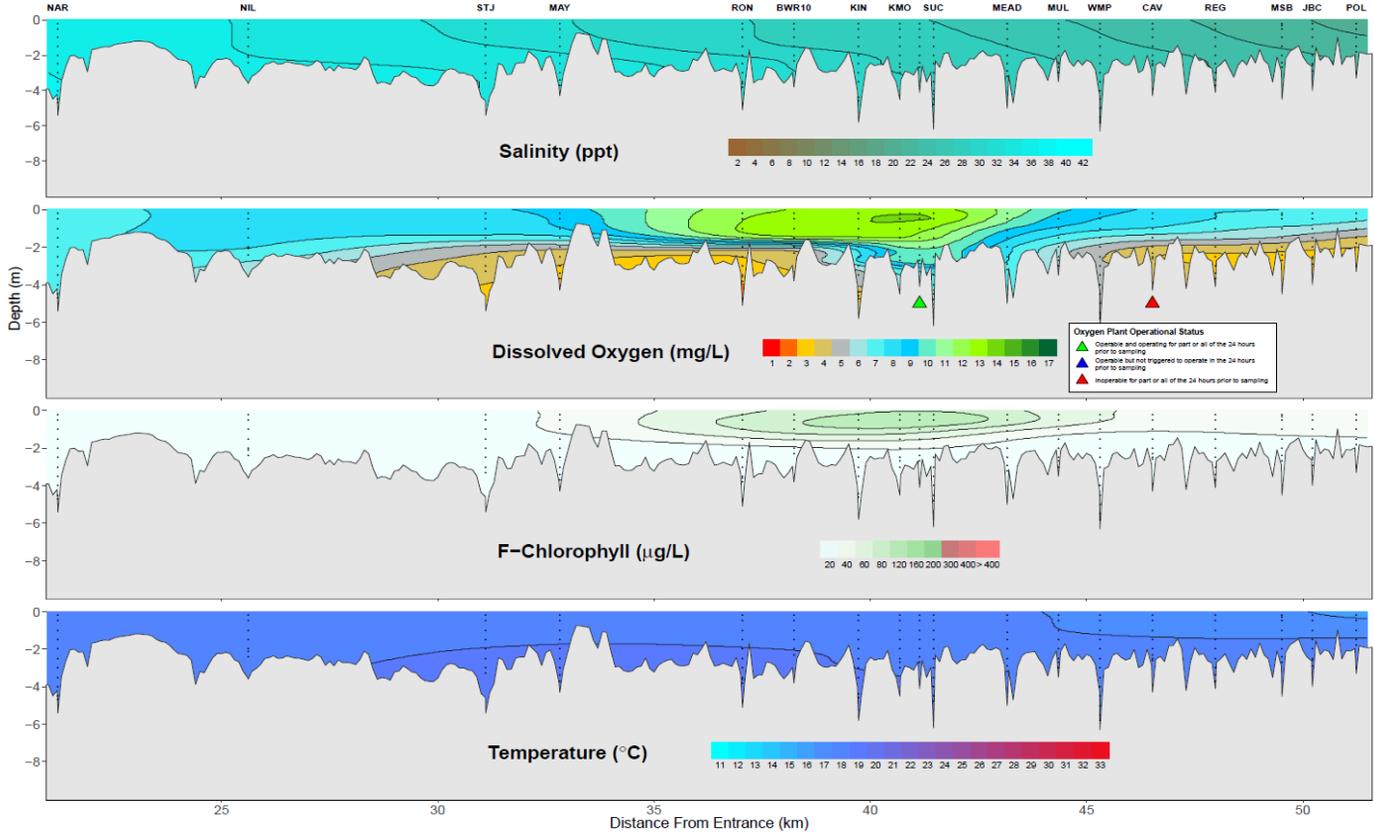
Prepared by

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

Swan River Estuary – Physical-Chemical Profile – 18th May 2020



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 18th May 2020



Date: 18th April 2020

Weather & tide conditions: Conditions were clear with a variable breeze of up to 11 knots. The predicted tides at Barrack St were 0.81 m at 2:48 am (low tide overnight), 1.04 m at 9:59 am (high tide) and 0.91 m at 6:30 pm (second low tide). Perth recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford oxygenation plant was triggered to provide oxygen and the Caversham oxygenation plant was not operational during the 24 hours prior to sampling.

Lower Swan Canning Estuary (BLA to NAR): The Lower Swan Canning Estuary was saline, waters were oxygenated or well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 17.2 to 17.9 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline, surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen between MAY and RON. Chlorophyll fluorescence was highest at RON indicating higher microalgal activity in this area. Water temperature ranged from 17.3 to 18.4 °C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was saline from BWR10 to SUC, brackish over saline from MEAD to CAV and brackish from REG to POL. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen between BWR10 and KIN and from CAV to POL. Chlorophyll fluorescence was highest at SUC indicating higher microalgal activity in this area. Water temperature ranged from 15.7 to 18.3 °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