



Swan Canning Estuary Water Quality Monitoring Project

Weekly Profile Report for the

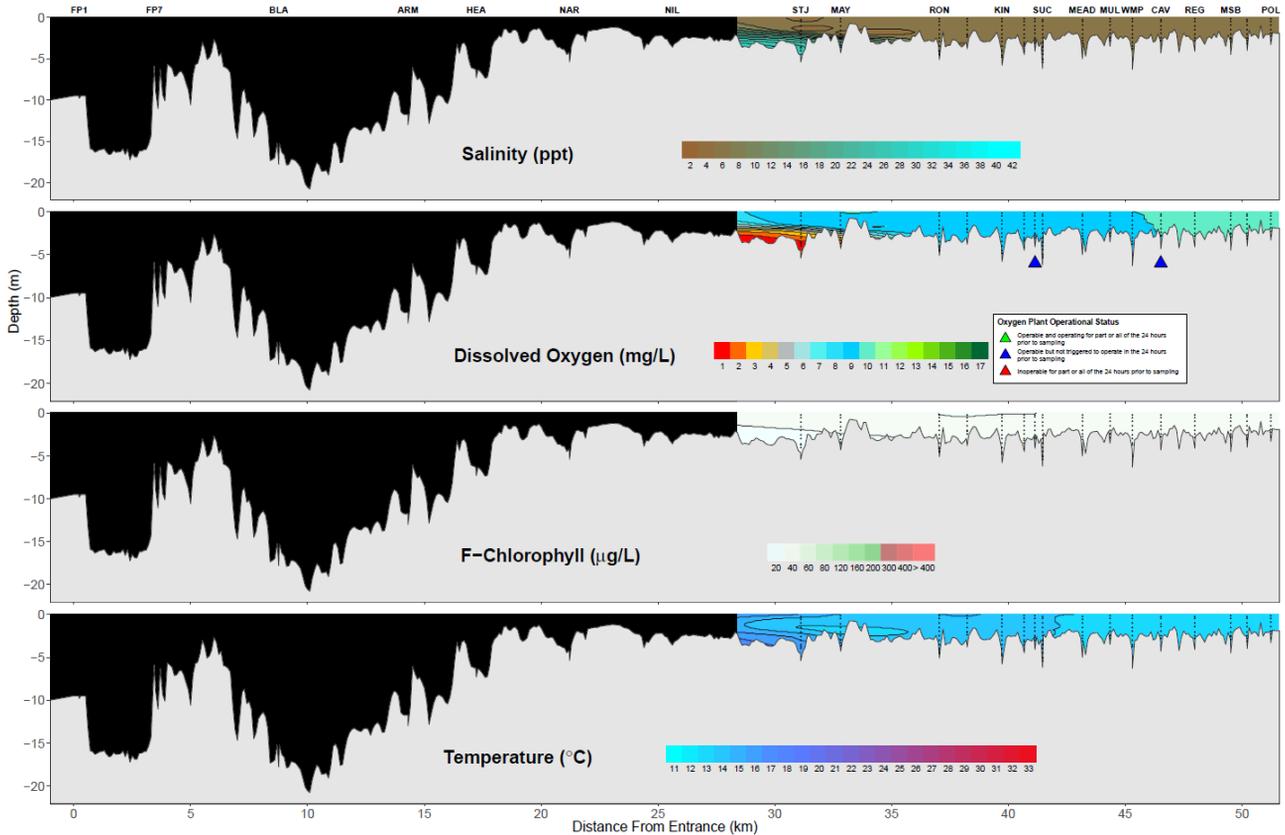
Swan Estuary
And
Upper-Middle Swan Estuary

8 July 2019

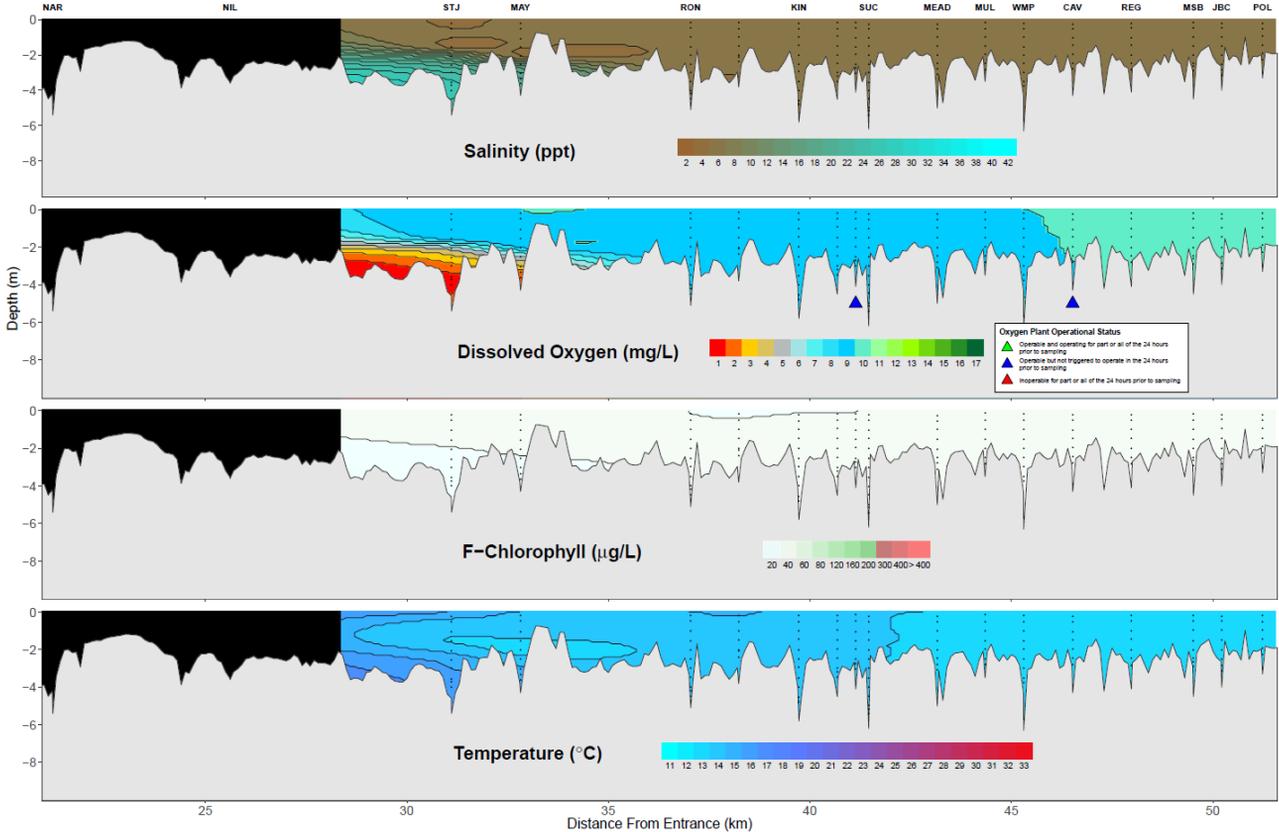
Prepared by

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Swan River Estuary – Physical-Chemical Profile – 8th Jul 2019



Middle and Upper Swan River Estuary – Physical-Chemical Profile – 8th Jul 2019



Date: 8 July 2019

Weather & tide conditions: Conditions were becoming overcast with up to 40% cloud cover and a predominantly north easterly breeze of up to 4 knots. The predicted tides at Guildford were 1.02 m (high tide) at 13:20 and 0.75 m (low tide) at 00:34. Perth recorded 66.6mm of rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were operational the week prior to sampling.

Lower Swan-Canning Estuary (FPI to NAR): Limited data was obtained in this zone due to equipment failure

Middle Swan Estuary (NIL to RON): Limited data obtained at NIL. The Middle Swan Estuary was fresh over brackish at STJ and MAY and fresh throughout at RON. Waters were well oxygenated at the surface at STJ and MAY, with hypoxic bottom waters. RON was well oxygenated throughout. Chlorophyll fluorescence was low throughout, indicating low microalgae activity. Water temperature ranged from 12.6 to 15.7°C.

Upper Swan Estuary (BWR10 to POL): The Upper Swan Estuary was fresh BWR10 to KMO, becoming fresh over brackish at SUC and brackish throughout to POL. Water was well oxygenated throughout with the exception of low oxygen bottom water at BWR10. Water temperature ranged from 12.3 to 13.1°C.

Recommended reference

Department of Biodiversity, Conservation and Attractions 2019. *Swan Canning estuary water quality monitoring weekly profile report, Swan Estuary 8 July 2019*. Rivers and Estuaries Science Program (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)

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.