



Department of Biodiversity,  
Conservation and Attractions



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# Swan Canning Estuary Water Quality Monitoring Project

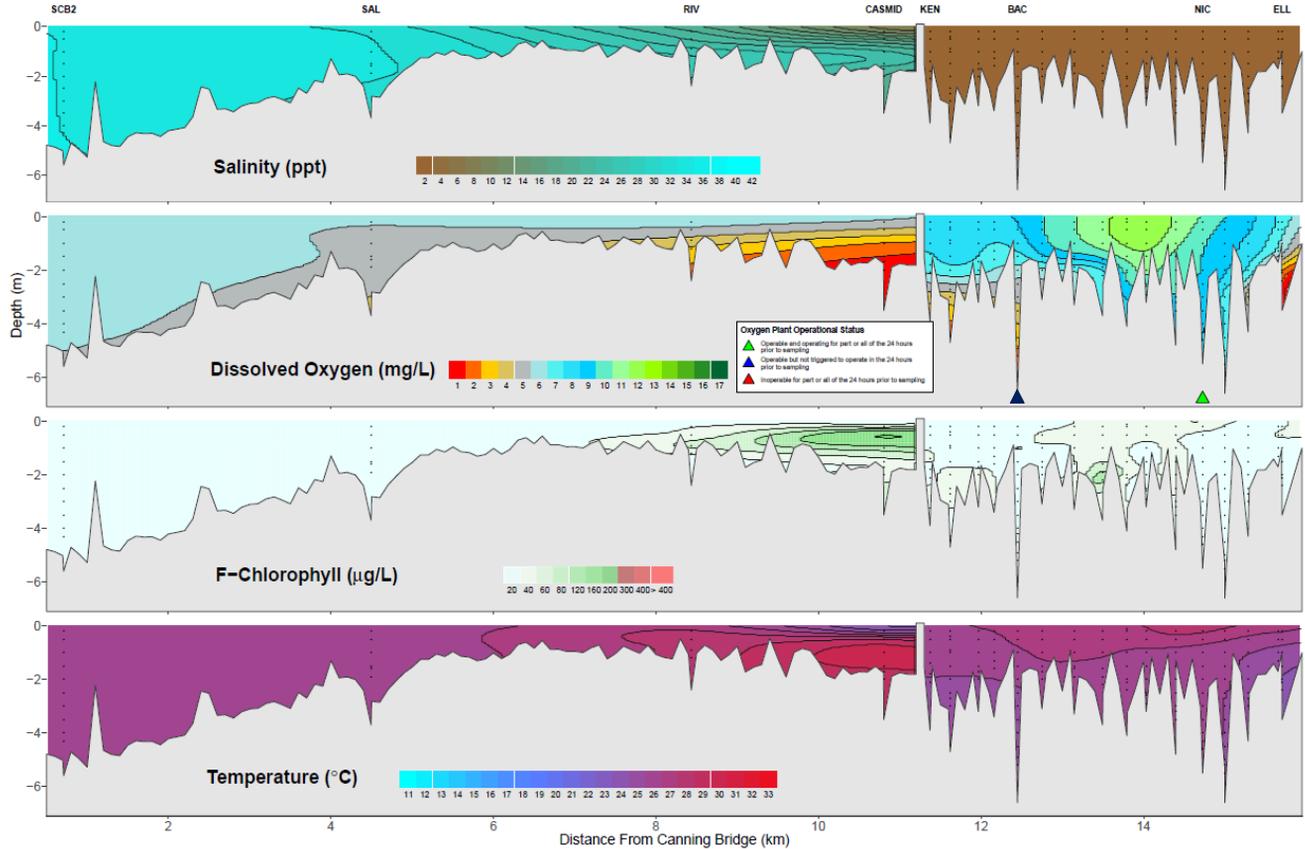
## Weekly Profile Report for the Canning Estuary and Lower Canning River

24<sup>th</sup> December 2019

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### Canning River Estuary – Physical-Chemical Profile – 24th Dec 2019



Date: 24<sup>th</sup> December 2019

Weather & tide conditions: Conditions were clear with a variable breeze of up to 6 knots. The predicted tides at Barrack St were 0.49 m at 07:50 am (low tide) and 1.09 m at 07:42 pm (high tide) and flow was observed at Kent St Weir. Gosnells recorded no rainfall during the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Nicholson Rd oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling.

Canning Estuary (downstream of Kent St Weir): The Canning Estuary was saline between SCB2 and SAL and brackish at RIV and CASMID. Surface waters were oxygenated or well oxygenated throughout this zone. Bottom waters were oxygenated between SCB2 and SAL and low in oxygen at RIV and hypoxic at CASMID. Chlorophyll fluorescence was elevated at CASMID indicating higher microalgal activity in this area. Water temperature ranged from 25.3 to 29.4 °C.

Lower Canning River (upstream of Kent St Weir): The Lower Canning River was fresh throughout. Surface waters were oxygenated or well oxygenated throughout with oxygen supersaturation occurring between PO2 and NIC, possibly caused by increased algal activity and the operation of the oxygenation plant. Bottom waters were hypoxic at BAC and ELL and low in oxygen at KENU300. Chlorophyll fluorescence was highest at GRE indicating higher microalgal activity in that area. Water temperature ranged from 23.7 to 28.0 °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).

#### **Recommended reference**

Department of Biodiversity, Conservation and Attractions 2019. *Swan Canning Estuary water quality monitoring weekly profile report, Canning River Estuary, 24<sup>th</sup> December 2019*. Rivers and Estuaries Science (<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.