

Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

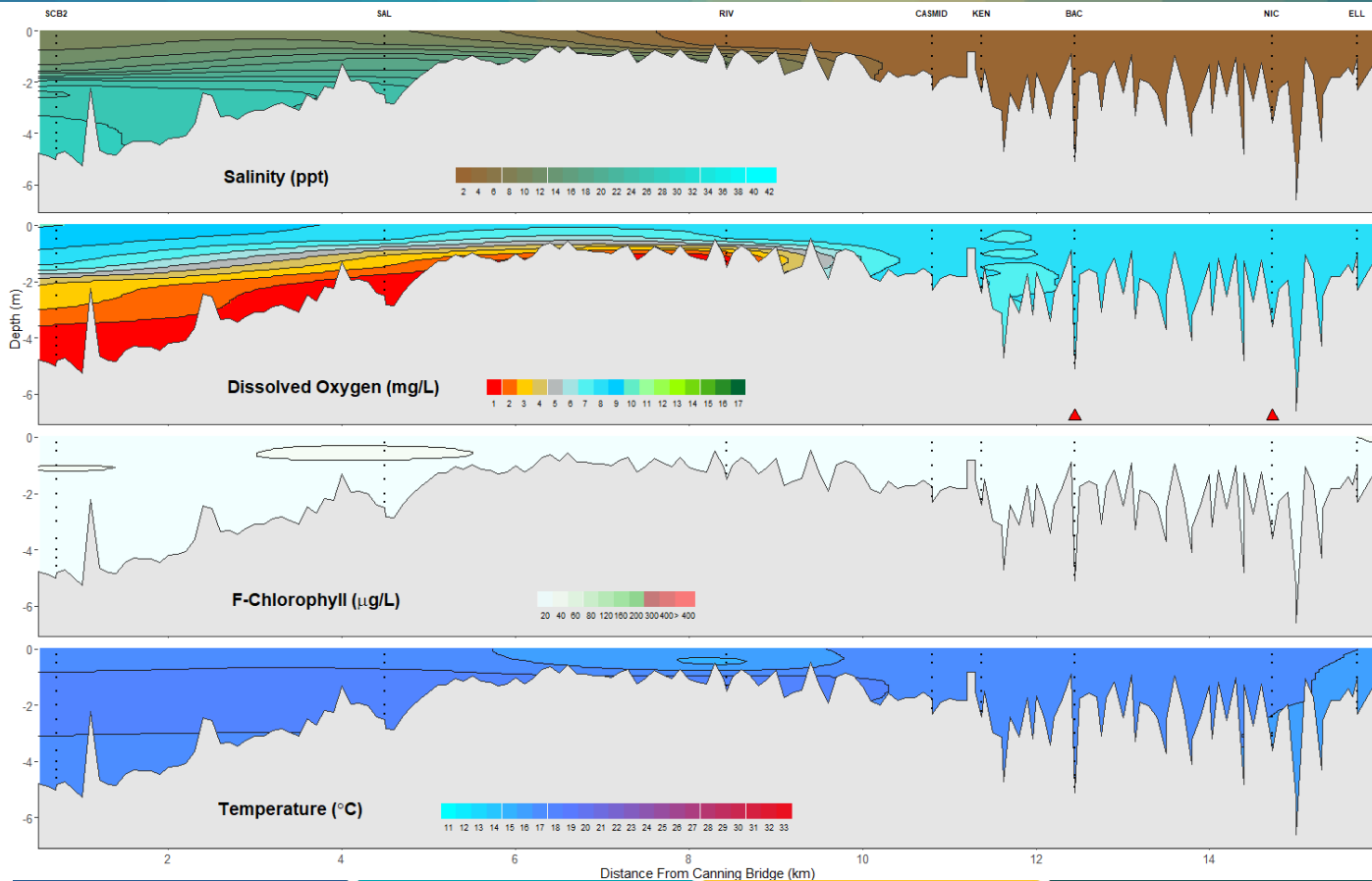
Canning Estuary and Lower Canning River

21 September 2021

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Canning Estuary and Lower Canning River - Water Quality Profiles – 21 September 2021



Date: 21 September 2021

NB: Kent Street Weir was opened to alleviate winter flows on 9 July 2021.

Weather & tide conditions: Conditions were clear with a light variable breeze of up to 7 knots. The predicted tides at Barrack St were 0.73 m at 4:48 am (low tide) and 0.94 m at 11:40 am (high tide). Perth recorded 14.4 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St and Nicholson Rd oxygenation plants were not operational in the 24 hours prior to sampling.

Canning Estuary (SCB2 to CASMID): The Canning Estuary was brackish over saline at SCB2, brackish at SAL, fresh over brackish at RIV and fresh at CASMID. Surface waters were well oxygenated and bottom waters were anoxic from SCB2 to SAL and hypoxic at RIV. Chlorophyll fluorescence was highest at SAL indicating higher microalgal activity in this area. Water temperature ranged from 14.9 to 18.1 °C.

Lower Canning River (upstream of KEN): The Lower Canning River was fresh, waters were well oxygenated and chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 15.9 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, Canning Estuary and Lower Canning River 21 September 2021*. Rivers and Estuaries Science (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)