



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

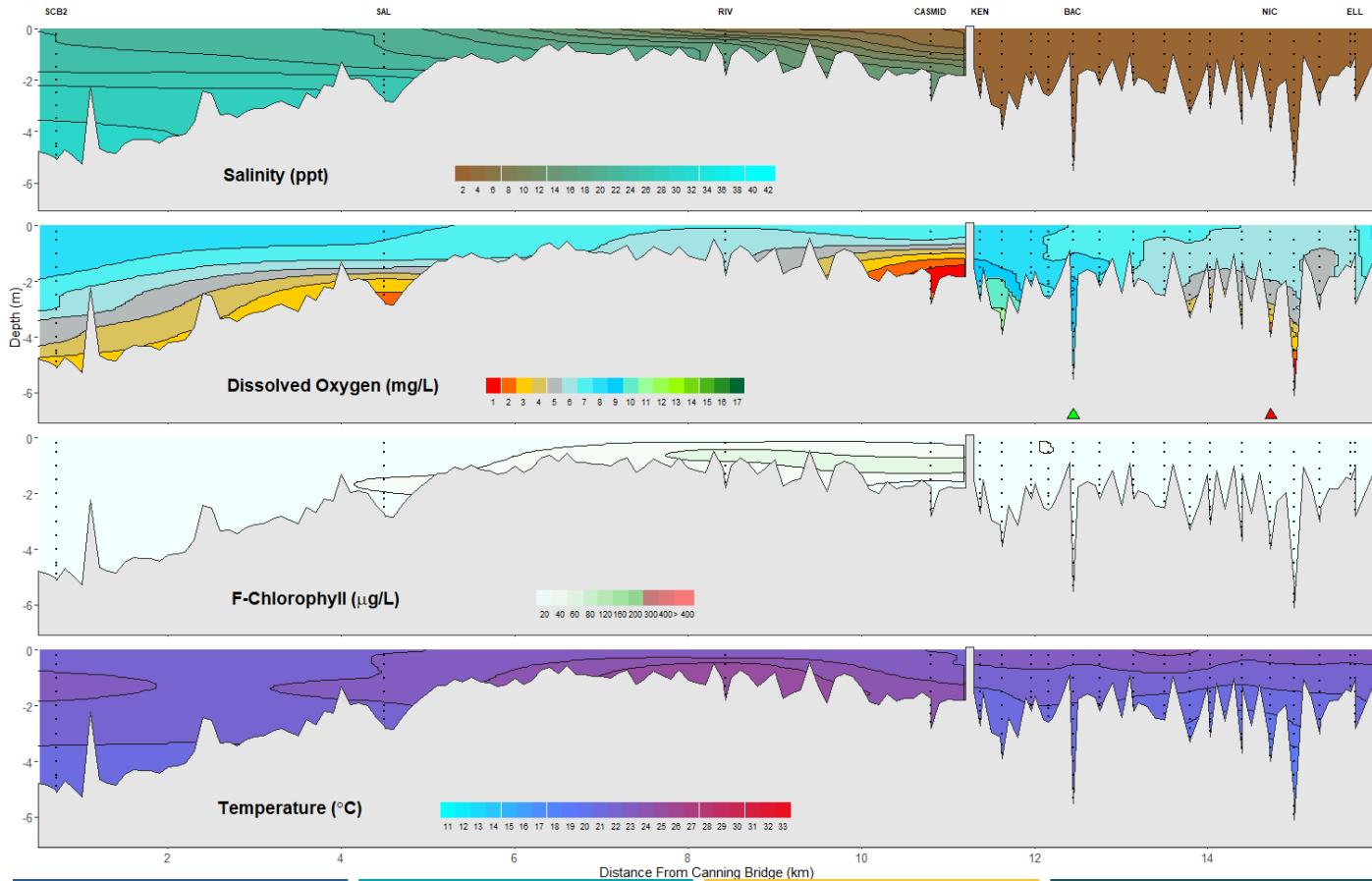
Canning Estuary and Lower Canning River

16 November 2021

Prepared by

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

Canning Estuary and Lower Canning River - Water Quality Profiles – 16 November 2021





Date: 16 November 2021

Weather & tide conditions: Conditions were partly cloudy with a westerly breeze of up to 4 knots. The predicted tides at Barrack St were 0.68 m at 6:18 am (low tide), 0.74 m at 11:12 am (high tide) and 0.73 m at 1:45pm (second low tide). Perth recorded 0 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Bacon St oxygenation plant was triggered to provide oxygen in the 24 hours prior to sampling and the Nicholson Rd oxygenation plant was not operational.

Canning Estuary (SCB2 to CASMID): The Canning Estuary was brackish over saline from SCB2 to SAL, brackish at RIV and fresh over brackish at CASMID. Surface waters were oxygenated or well oxygenated and bottom waters were low in oxygen from SCB2 to SAL and anoxic at CASMID. Chlorophyll fluorescence was highest at CASMID indicating higher microalgal activity in this area. Water temperature ranged from 20.5 to 24.6 °C.

Lower Canning River (KEN to ELL): The Lower Canning River was fresh. Surface waters were well oxygenated and bottom waters were low in oxygen between KS7 and MASD50, hypoxic from NICD200 to NIC and anoxic at KS9. Chlorophyll fluorescence was low throughout this zone. Water temperature ranged from 18.1 to 23.3 °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 >6 mg/L, oxygenated >4-6 mg/L, low oxygen >2-4 mg/L, hypoxic 0.5-2 mg/L, anoxic <0.5 mg/L

Recommended reference: Department of Biodiversity, Conservation and Attractions 2021. *Swan Canning Estuary water quality profile report, Canning Estuary and Lower Canning River 16 November 2021. Rivers and Estuaries Science* (<https://www.dpaw.wa.gov.au/management/swan-canning-riverpark>)