

# Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

**Lower Swan Canning Estuary to Upper Swan Estuary** 

18 August 2025

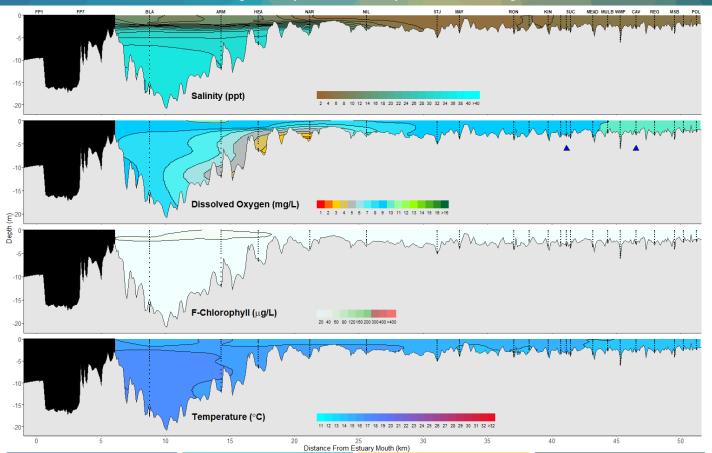
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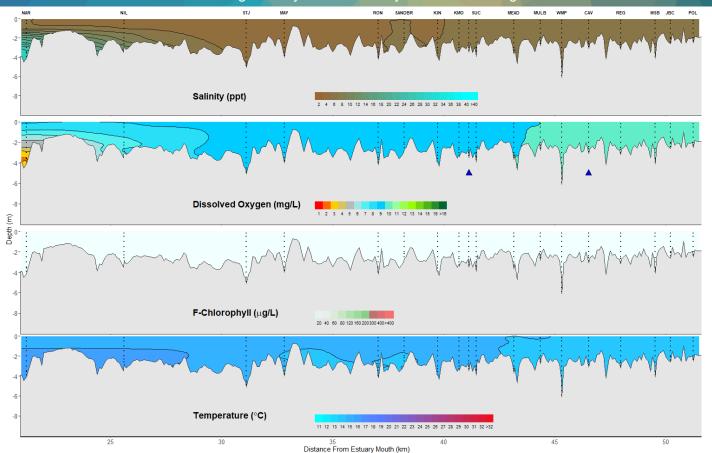
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*Date*: 18 August 2025

<u>Weather & tide conditions</u>: Conditions were cloudy with a predominantly northerly breeze of up to 9 knots. The predicted tides at Barrack St were 1.15 m at 6:03am (high tide), and 0.6 m at 6:21pm (low tide). Perth recorded 22 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Guildford and Caversham oxygenation plants were operable but not triggered to provide oxygen in the 24 hours prior to sampling.

<u>Lower Swan Canning Estuary (BLA to NAR)</u>: The Lower Swan Canning Estuary was brackish over saline from BLA to HEA and fresh over saline at NAR. Waters were oxygenated or well oxygenated except for bottom waters at HEA, which were low in oxygen and those at NAR, which were hypoxic. Chlorophyll fluorescence was low and water temperatures ranged from 14.5 to 16.8 °C.

<u>Middle Swan Estuary (NIL to RON)</u>: The Middle Swan Estuary was fresh over brackish at NIL and fresh from STJ to RON. Waters were well oxygenated, chlorophyll fluorescence was low and water temperatures ranged from 13.9 to 15.5 °C.

<u>Upper Swan Estuary (SANDBR to POL)</u>: The Upper Swan Estuary was fresh and well oxygenated throughout. Chlorophyll fluorescence was low and water temperatures ranged from 13.4 to 14.4 °C.

**NB**: Profile plots are visual interpolations of measured parameters only. Detailed data are available at <a href="wir.water.wa.gov.au">wir.water.wa.gov.au</a>.

## 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 >36 ppt

<u>Dissolved oxygen</u> – well oxygenated >6 mg  $L^{-1}$ , oxygenated >4-6 mg  $L^{-1}$ , low oxygen >2-4 mg  $L^{-1}$ , hypoxic 0.5-2 mg  $L^{-1}$ , anoxic <0.5 mg  $L^{-1}$ 

Chlorophyll fluorescence (low flow): low < 50 μg  $L^{-1}$ , moderate 50-150 μg  $L^{-1}$ , high 150-400 μg  $L^{-1}$ , extreme > 400 μg  $L^{-1}$ 

Recommended reference: Department of Biodiversity, Conservation and Attractions, 2025. Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 18 August 2025. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)