



Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

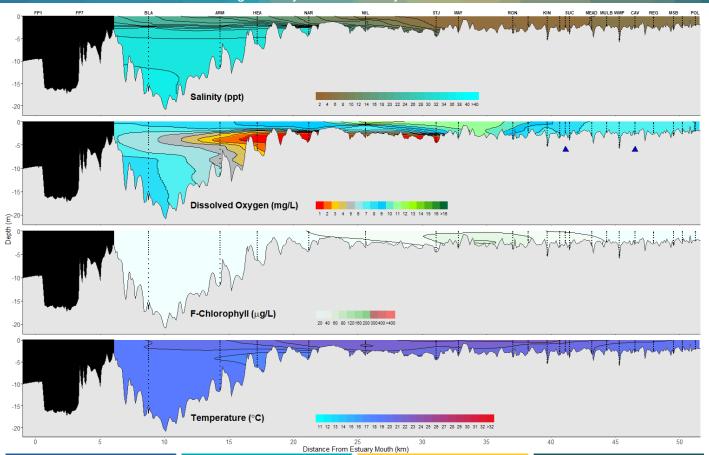
Lower Swan Canning Estuary to Upper Swan Estuary

13 October 2025

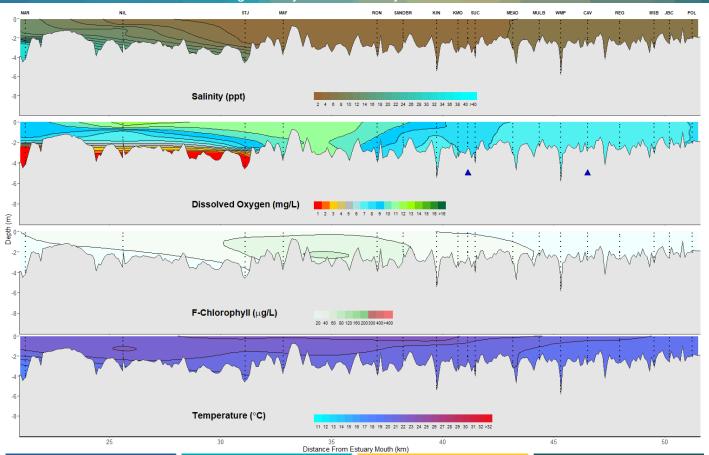
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Swan Canning Estuary - Water Quality Profiles – 13 October 2025



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<u>Weather & tide conditions</u>: Conditions were cloudy with a south easterly breeze of up to 11 knots. The predicted tides at Barrack St were 1.07 m at 2:18 am (high tide) and 0.52 m at 2:51 pm (low tide). Perth recorded 0.2 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 at all sites. All surface waters were well-oxygenated. At ARM mid-waters were low oxygen/hypoxic over oxygenated bottom waters. Similarly at HEA, mid-waters were hypoxic over low oxygen bottom waters. NAR bottom waters were anoxic. Chlorophyll fluorescence was low throughout and water temperatures ranged from 17.7 to 21.8 °C.

<u>Middle Swan Estuary (NIL to RON)</u>: The Middle Swan Estuary was brackish at NIL, fresh over brackish at STJ, and fresh from MAY to RON. Waters were oxygenated to well oxygenated, except for bottom waters of STJ which were anoxic. Chlorophyll fluorescence was moderate in sub-surface from MAY to RON. Water temperatures ranged from 19.9 to 22.1 °C.

<u>Upper Swan Estuary (SANDBR to POL)</u>: The Upper Swan Estuary was fresh at SANDBR, fresh over brackish at KIN, and fresh throughout the remaining sites. Waters were well oxygenated, except for low oxygen in the bottom waters at KIN. Chlorophyll fluorescence was low and water temperatures ranged from 19.1 to 22.9 °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 >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 μ g L⁻¹, moderate 50-150 μ g L⁻¹, high 150-400 μ g L⁻¹, extreme > 400 μ g 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 13 October 2025. Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)