Swan Canning Estuary Water Quality Monitoring Project

Weekly Water Quality Report

Lower Swan Canning Estuary to Upper Swan Estuary

5 January 2026

Prepared by

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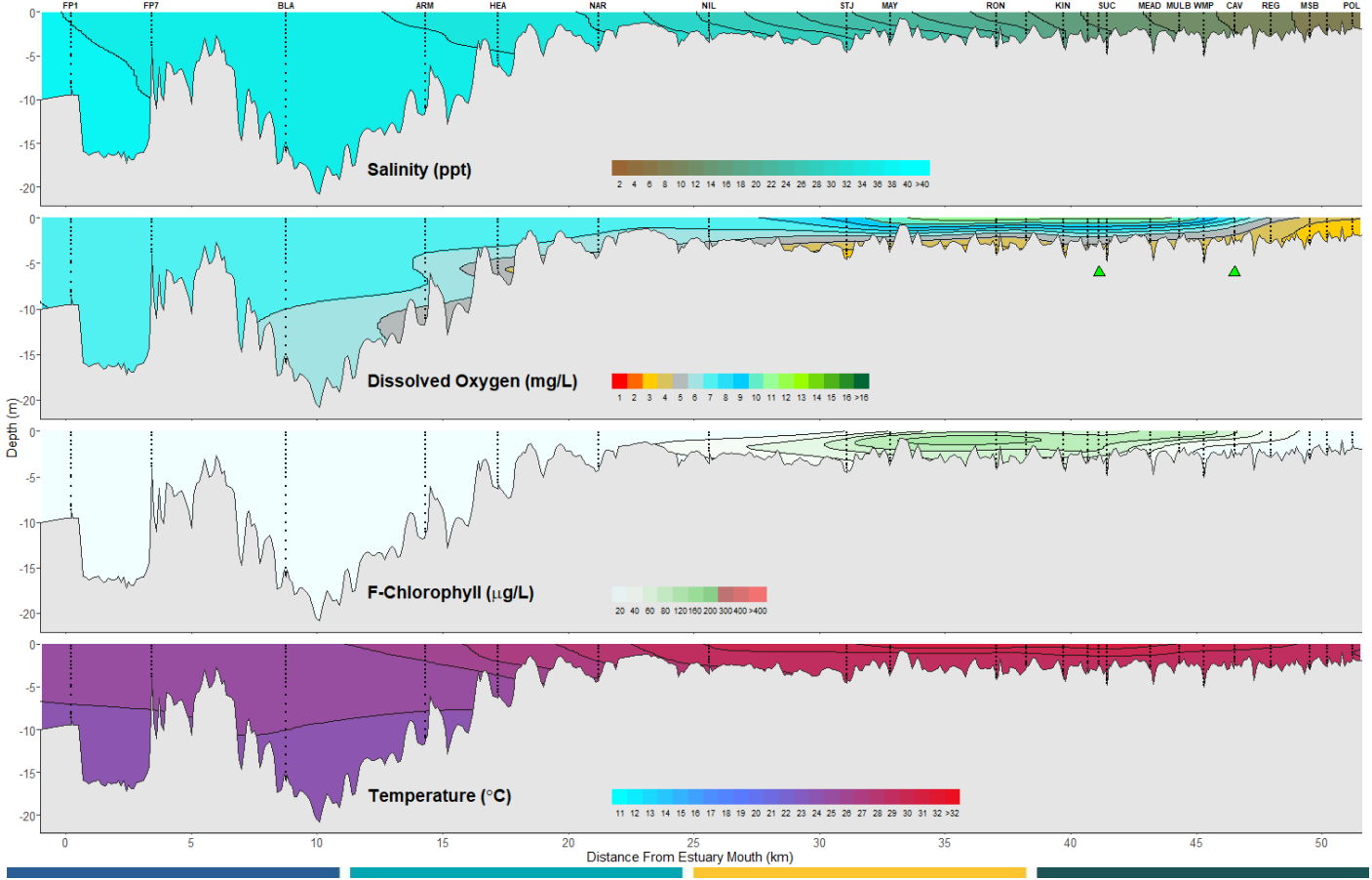
GOVERNMENT OF WESTERN AUSTRALIA

Biodiversity and Conservation Science

Swan Canning Estuary - Water Quality Profiles – 5 January 2026



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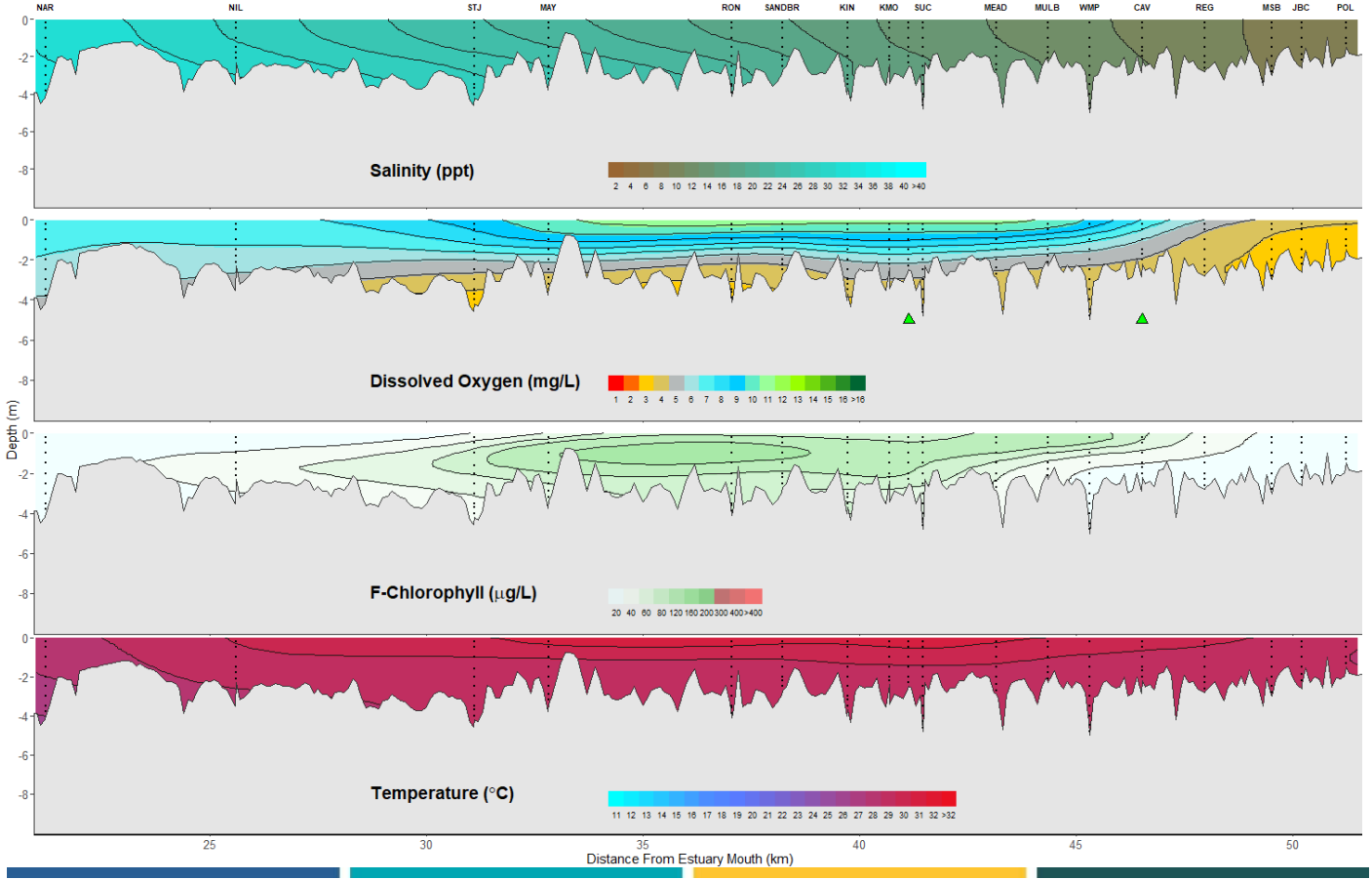
Middle and Upper Swan Estuary - Water Quality Profiles – 5 January 2026



Date: 5 January 2026

Weather & tide conditions: Conditions were clear with a south-westerly breeze up to 10.9 knots. The predicted tide at Barrack St was 0.5 m at 10:32 am (low tide). Perth recorded 0 mm of rainfall in the week prior to sampling (Bureau of Meteorology).

Oxygenation: The Caversham and Guildford oxygenation plants were operable and triggered to provide oxygen in the 24 hours prior to sampling.

Lower Swan Canning Estuary (FP1 to NAR): The Lower Swan Canning Estuary was saline over hypersaline at FP1 and saline from FP7 to NAR. Waters were oxygenated to well-oxygenated, except for bottom waters of HEA which were low in oxygen. Chlorophyll fluorescence was low throughout, and water temperatures ranged from 23.4 to 27.4 °C.

Middle Swan Estuary (NIL to RON): The Middle Swan Estuary was saline at NIL, brackish over saline at STJ, and brackish at MAY and RON. Chlorophyll fluorescence was high in sub-surface waters of MAY and RON, and moderate throughout the rest of the water column at these sites. Levels were also moderate within sub-surface waters of STJ. Water temperatures ranged from 27.9 to 30.8 °C.

Upper Swan Estuary (SANDBR to POL): The Upper Swan Estuary was brackish throughout. Low dissolved oxygen was detected within bottoms waters of SANDBR, SUC, MEAD and WMP, and throughout the water column from REG to POL. Chlorophyll fluorescence was high in surface waters of MEAD and moderate levels were detected from SANDBR to MULB and at CAV. Water temperatures ranged from 27.9 to 31 °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
Dissolved oxygen – 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, 2026. *Swan Canning Estuary water quality profile report, Lower Swan Canning Estuary to Upper Swan Estuary 5 January 2026.* Rivers and Estuaries Science (https://www.dpaw.wa.gov.au/management/swan-canning-riverpark)