Derbal Yirragan

Swan waterway

Weekly water quality report

14 September 2026

Monitoring conducted on Whadjuk Noongar Country

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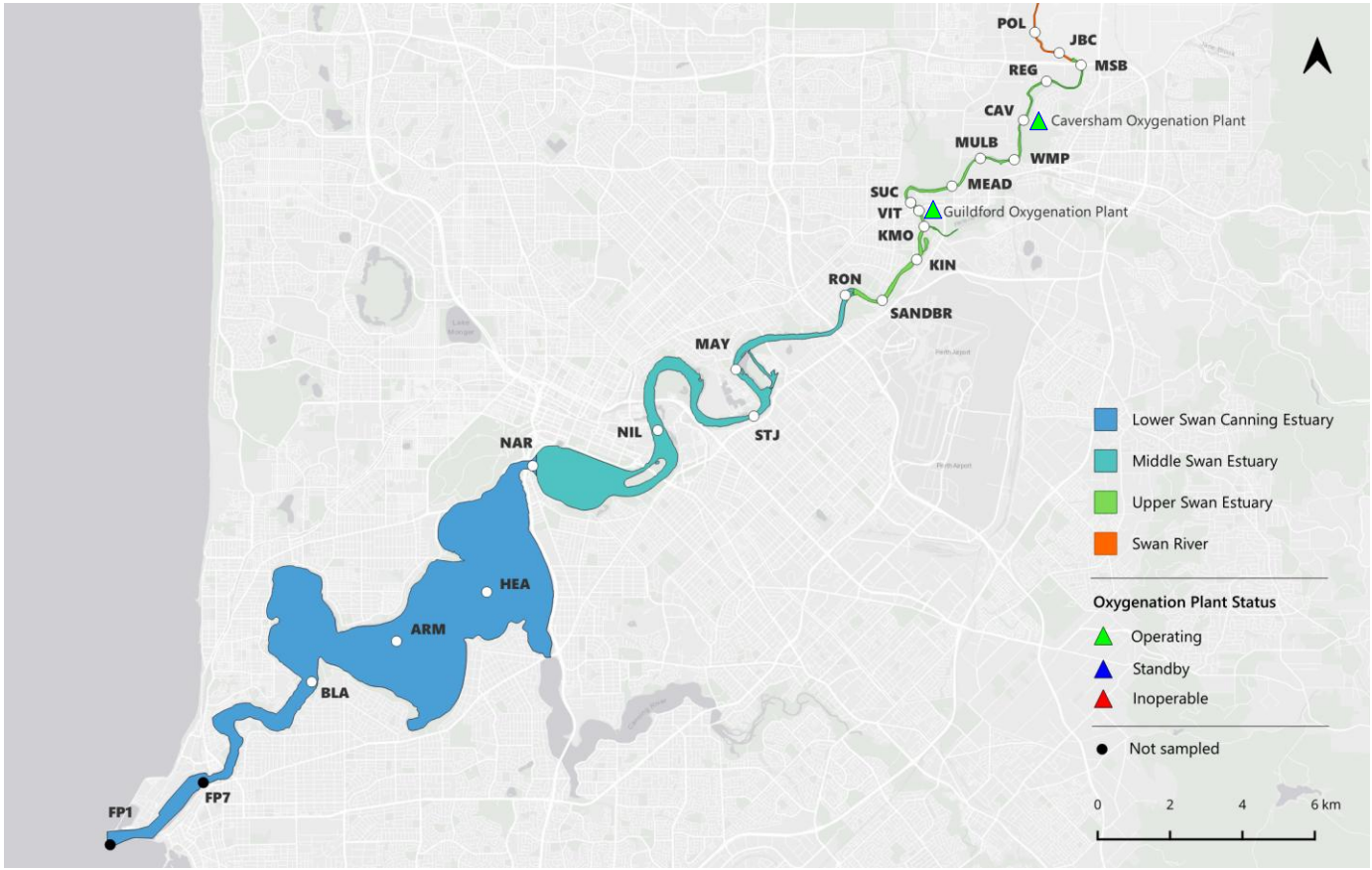
Photo – DBCA

Derbal Yirragan water quality monitoring sites

14 September 2026



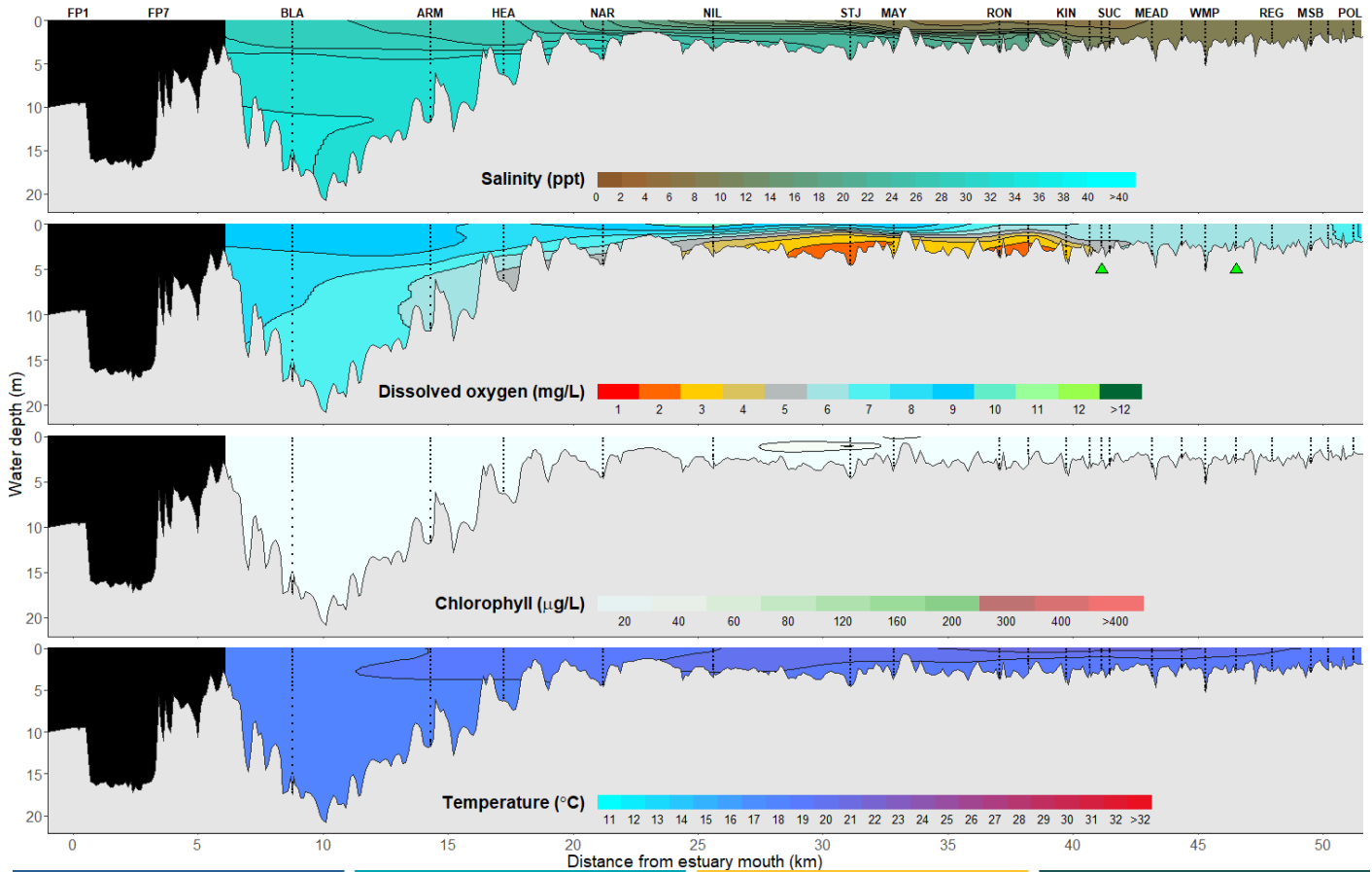
Department of Biodiversity, Conservation and Attractions

GOVERNMENT OF WESTERN AUSTRALIA

Biodiversity and Conservation Science

Derbal Yirragan water quality profile

14 September 2026



Note: Profile plots are visual interpolations of measured parameters only. Detailed data are available at wir.water.wa.gov.au.

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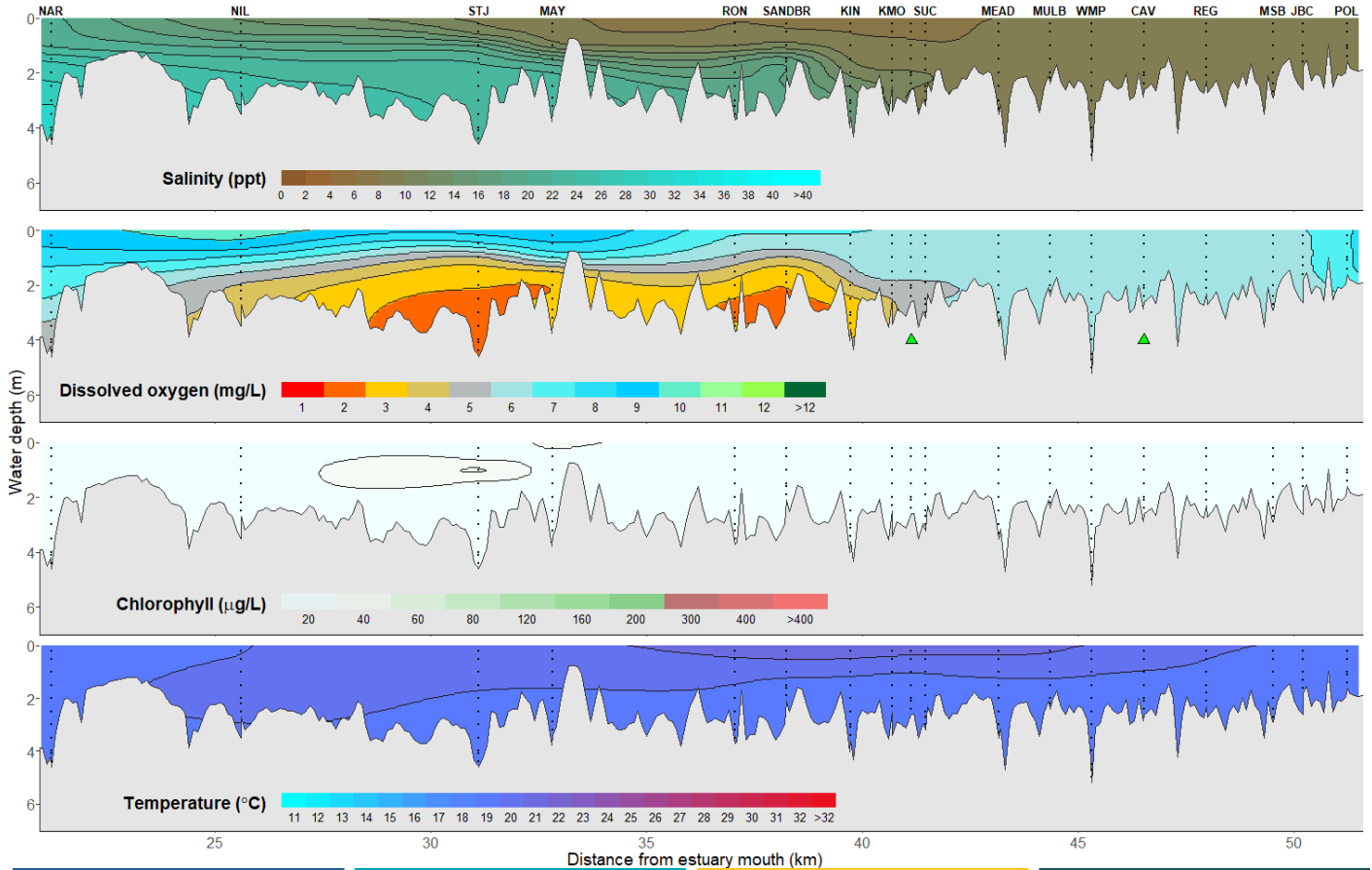

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Derbal Yirragan water quality summary

14 September 2026

Lower Swan Canning Estuary: Seasonal rainfall has caused moderate stratification across this zone. Salinity was euhaline with a surface layer of polyhaline water across all sites. Chlorophyll fluorescence was low throughout, indicating low phytoplankton activity. Waters were oxygenated to well-oxygenated and water temperatures ranged from 17.2 to 18.9 °C.

Middle Swan Estuary: There was significant stratification across this zone from recent riverine flow. Waters were predominately polyhaline, with mesohaline surface waters throughout. Surface waters were oxygenated to well oxygenated while bottom waters ranged from hypoxic to low in oxygen across all sites. Chlorophyll fluorescence was low and water temperatures ranged from 18.7 to 20.2 °C.

Upper Swan Estuary and Swan River: The river was flowing and sites upstream of VIT were well mixed while those downstream were moderately stratified. Waters throughout were considered mesohaline except for bottom waters of SANDBR which were polyhaline. Conditions were oxygenated to well oxygenated, except for the bottom waters of SANDBR, which were hypoxic, and those of KIN and VIT, were low in oxygen. Chlorophyll fluorescence was low throughout, and water temperatures ranged from 18.5 to 21.1 °C.

Season	
Djilba	First spring

Predicted tides[1]			
High Tide		**Low Tide**	
1.01 m	12:53 am	0.76 m	8:38 am
0.79 m	1:36 pm		

Recorded weather conditions	
Skies	Clear
Wind direction	E
Wind speed (max)	5.8 knots
Air temperature[2] (max)	23.1 °C
Rainfall[2] (within week prior)	1.6 mm

Definitions

Salinity (ppt)[3] – fresh: <0.5; oligohaline: 0.5 – 5; mesohaline: >5 – 18; polyhaline: >18 – 30; euhaline: >30 – 40; hyperhaline: >40.
Dissolved oxygen (mg/L)[4] – anoxic: 0; hypoxic: >0 – 2; low oxygen: >2 – 4; oxygenated: >4 – 6; well oxygenated: >6.
Chlorophyll fluorescence (µg/L)[5] – low: <50; moderate: 50 – 150; high: >150 - 400, very high: >400.

References

1. DTMI (Department of Transport and Major Infrastructure) (2025) Tide predictions, DTMI, accessed 14 September 2026.
2. BOM (Bureau of Meteorology) (2026) Perth Western Australia Daily Weather Observations, BOM, accessed 14 September 2026.
3. (2003) 'The Venice System for the Classification of Marine Waters According to Salinity', *Limnology and Oceanography*, 3, doi: 10.4319/lo.1958.3.3.0346.
4. DWER (Department of Water and Environmental Regulation) (2018) *Oxygenating the Vasse estuary exit channel: the results of a two year trial 2025 - 2017*, DWER, Government of Western Australian.
5. Chlorophyll definitions were internally developed from historical trends within the Swan Canning Riverpark.

Recommended reference for this report

Department of Biodiversity, Conservation and Attractions, 2026. *Swan Water Quality Report, 14 September 2026.* Rivers and Estuaries Science (https://www.dbca.wa.gov.au/management/swan-canning-riverpark/swan-canning-riverpark-water-quality-monitoring)