



Reporting on data from
July 2024-June 2025.



Wet Tropics
Waterways

REPORT CARD

2026



WATERWAY GRADES

Legend

GRADES	A Very Good	B Good	C Moderate	D Poor	E Very Poor	Insufficient Data
INDICES	Grade Freshwater	Grade Estuary	Grade Inshore Marine	Grade Offshore Marine		

This Report Card was released in July 2026 and presents data from July 2024 to June 2025. The time delay is due to the time required for quality control, scientific analysis and expert peer review.

To see how grades and indicator scores have changed over the past 10 years, go to: wettropicswaterways.org.au/dashboard/

Waterway health has many moving parts so these grades are based on multiple indicators. While the grades may appear steady from year to year, there are always changes happening below the surface. That's why it's important to look at the detail on our website:

wettropicswaterways.org.au

What is the Report Card?

This report card gives an overview of how healthy our waterways are from freshwater rivers and estuaries to our coasts and offshore marine areas. It is produced annually by Wet Tropics Waterways, a partnership of 20+ organisations.

What do we measure?

These grades are aggregated from 43 indicators that assess water quality, habitat and hydrology, fish populations, coral and seagrass. The data is collected from a range of different monitoring programs. Collectively these indicators give us a comprehensive picture of how our waterways are faring.

Why do we produce it?

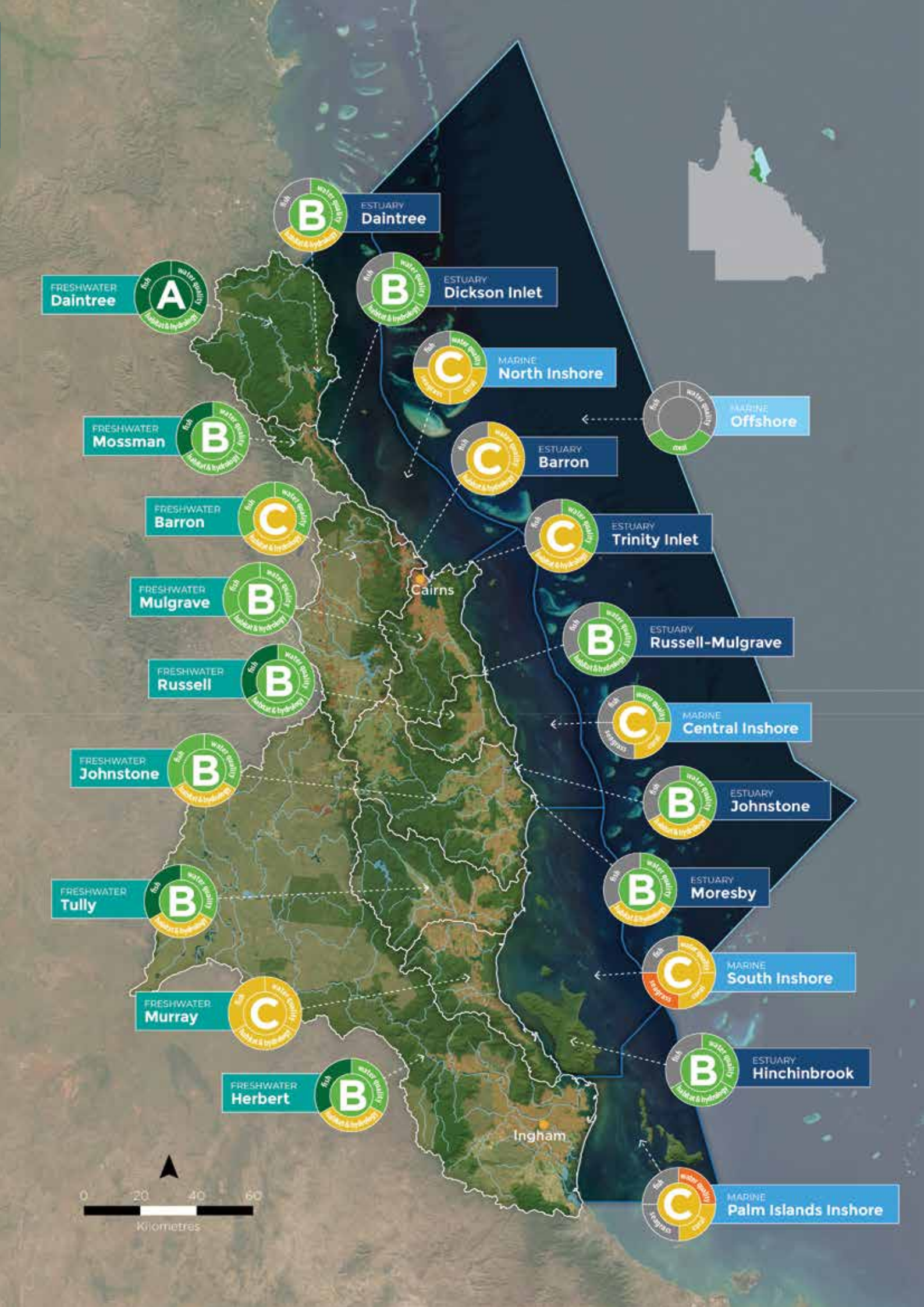
Many activities we do on the land affect our waterways and ultimately, the Great Barrier Reef. Tracking changes in waterway health helps identify and manage emerging issues and guide onground actions.

What affects the grades?

Rainfall and land management (both urban and agricultural) are the main factors affecting the amount of pollutants that enter the Great Barrier Reef.

What actions are required?

While the condition of many waterways is graded as Good or Moderate, ongoing action to reduce pollutants is still needed to meet Reef 2050 targets.





Offshore Zone

CORALS

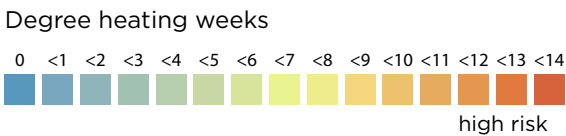
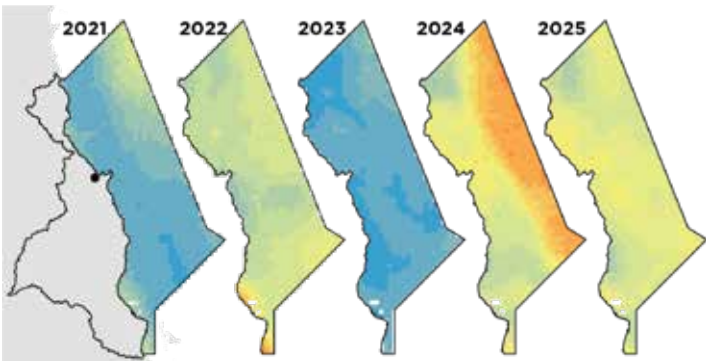
Climate change is the single greatest threat to the Great Barrier Reef. Rising sea surface temperatures cause marine heatwaves and increase the likelihood of coral bleaching. While bleaching is natural, more frequent and intense disturbances leave corals—especially slow-growing species—with less time to recover.

Climate change and multiple other stressors, including storms, poor water quality and Crown-of-thorn starfish outbreaks are increasing the vulnerability of the reef and reducing its capacity to recover.

The report card uses three indicator categories to assess offshore coral condition: coral cover, macroalgae cover and density of juvenile corals.

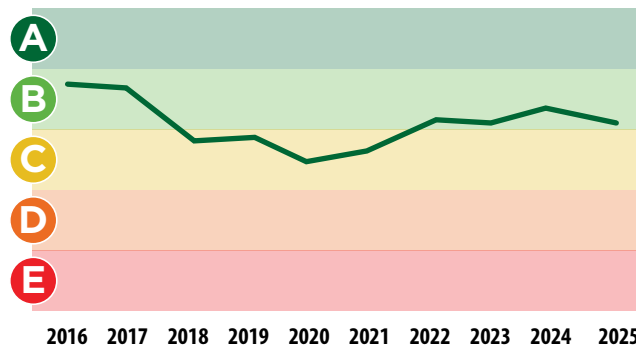
Sea Surface Temperatures

Sea surface temperatures in 2024-25 were above average for the likelihood of coral bleaching occurring.



Annual degree heating week estimates for the Wet Tropics inshore and offshore marine environments. This indicates the likelihood of coral bleaching. Data are the annual maximum degree heating week estimates for each ~25km2 pixel. Data sourced from coralreefwatch.noaa.gov

Coral Index



CROWN-OF-THORNS starfish

Crown-of-thorns starfish (COTS) were present at low to moderate levels, with localised increases. As coral predators, they reduce coral cover and slow recovery. While most reefs remained below outbreak thresholds, the impacts of COTS added to damage caused by bleaching, flood and storm pressures.

Photo: Rickard Abom



REGIONAL OVERVIEW

This report card draws on data from July 2024 to June 2025. While overall grades appear relatively stable from year to year, there are always underlying changes to the indicator scores.

Inshore Zones

THE ROLE OF CLIMATE

Climate conditions—particularly extreme rainfall, flooding and heat—strongly influence waterway health by affecting water quality, habitats and ecosystem resilience.

Heavy rainfall and flooding are natural in the Wet Tropics, but catchment condition determines their impact. Healthy catchments absorb, slow and filter water, while degraded catchments amplify runoff, sediment and nutrient loads.

RAINFALL 2024-25

Intense rainfall and flooding affected the southern region, particularly the Herbert and Murray catchments, but also the Tully (pictured below) following a tropical low in February 2025. Monthly totals reached 1.7m at Cardwell and 2.1m at Macknade, with widespread flooding around Ingham.





NORTHERN SNAPSHOT

DAINTREE, MOSSMAN, BARRON

DAINTREE



BASIN PROFILE



AREA
2,104 km²



NATURAL
89%



DEVELOPED
10% agriculture
1% urban

Key Results (basin & estuary)

- Basin water quality score highest in the region
- Three hectares of freshwater wetlands lost
- Estuarine condition improved (lower chlorophyll a and turbidity)
- Mangrove and saltmarsh graded: **Very Good**

What needs to happen

- Restore eroded streambanks
- Protect remaining wetlands
- Accelerate efforts to reduce nutrient loss to meet Reef targets

MOSSMAN



BASIN PROFILE



AREA
465 km²



NATURAL
80%



DEVELOPED
14% agriculture
6% urban

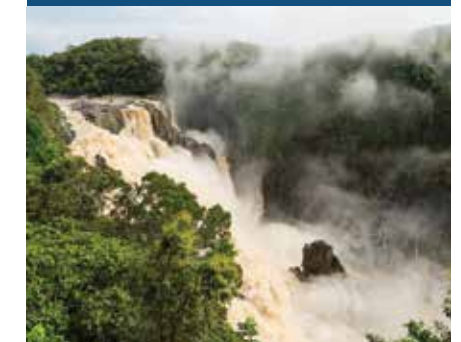
Key Results (basin)

- Water quality: **Good**
- Pesticide risk decreased to **Very Low**
- Dissolved inorganic nitrogen improved in grade for the second year
- One hectare of wetlands lost
- Mangroves and saltmarsh: **Good**

What needs to happen

- Manage land use transition
- Protect and restore wetlands and riparian areas
- Accelerate efforts to reduce nutrients

BARRON



BASIN PROFILE



AREA
2,193 km²



NATURAL
47%



DEVELOPED
44% agriculture
7% urban

Key Results (basin & estuary)

- Water quality: **Good** (basin), **Moderate** (estuary)
- Dissolved inorganic nitrogen remains the poorest indicator
- Estuary chlorophyll a (**Moderate**) has been highly variable
- Estuarine turbidity graded **Very Good**
- Mangroves and saltmarsh: **Stable**

What needs to happen

- Accelerate management of fine sediment sources
- Accelerate efforts to reduce nutrient loss
- Protect riparian vegetation
- Restore wetlands
- Manage aquatic weeds

INSHORE NORTH

- Overall water quality: **Good**
- Chlorophyll a grade declined: **Moderate**, with concentrations peaking during
- Coral and seagrass still reflect impacts from Cyclone Jasper
- Coral remains absent south of Snapper Island; macroalgae growth is continuing



CENTRAL SNAPSHOT

MULGRAVE, RUSSELL, JOHNSTONE

MULGRAVE-RUSSELL

BASIN PROFILE

AREA 1,987 km ²	NATURAL 76%	DEVELOPED 19% agriculture 5% urban

Key Results (basin & estuary)

- Water quality (**Good**) remains strong in the basins and estuary
- Pesticide risk remains low
- Mangroves and saltmarsh: **Very Good** (highest score in the Wet Tropics)
- Estuarine dissolved inorganic nitrogen (**Moderate**) is the lowest scoring indicator

What needs to happen

- Accelerate efforts to reduce nutrients and pesticides
- Repair priority streambank erosion sites
- Restore wetlands (45% historic loss in the Mulgrave, 39% in the Russell)

JOHNSTONE

BASIN PROFILE

AREA 2,317 km ²	NATURAL 58%	DEVELOPED 38% agriculture 4% urban

Key Results (basin & estuary)

- Basin and estuary water quality graded **Good**
- Dissolved inorganic nitrogen score (**Moderate**) declined
- Pesticide risk remains low
- Slight loss in mangroves and saltmarsh

What needs to happen

- Accelerate efforts to reduce nutrients, pesticides and fine sediment
- Restore freshwater wetlands (54% historic loss)

INSHORE CENTRAL

- Water quality (**Good**) is stable
- Nutrients graded **Poor**, although oxidised nitrogen improved
- Crown-of-thorns starfish outbreaks recorded at Fitzroy, High and Frankland Islands (more than 700 were removed)

TRINITY INLET

Key Results (estuary)

- Water quality (**Good**) improved
- Chlorophyll *a* and dissolved inorganic nitrogen improved
- Dissolved oxygen still substantially lower than other estuaries – a risk for aquatic life
- Impacted by chemical spill (Sept 2025)

What needs to happen

- Reduce runoff from agriculture and urban areas
- Restore riparian areas and wetlands
- Upgrade stormwater and sewage management in urban areas

MORESBY ESTUARY

Key Results

- Water quality (**Good**) improved
- Chlorophyll *a* (Moderate) improved substantially
- Mangrove and saltmarsh stable
- Seagrass condition remains **Very Poor**



SOUTHERN SNAPSHOT

TULLY, MURRAY, HERBERT

TULLY

BASIN PROFILE

AREA 1,676 km²	NATURAL 76%	DEVELOPED 22% agriculture 1% urban

Key Results (basin)

- Water quality remained **Good**
- Pesticide risk increased to: **Moderate** (diuron, imidacloprid and metolachlor)
- Phosphorus (**Very Good**) improved
- Slight loss of freshwater wetlands

What needs to happen

- Intensify efforts to reduce nitrogen
- Improve pesticide management
- Large scale streambank restoration
- Restore wetlands

HINCHINBROOK CHANNEL

Key Results

- Water quality (**Good**) is steady
- Chlorophyll a grade is **Poor** following declines in previous years
- Slight loss of mangroves and saltmarsh but condition of shoreline mangroves remains **Very Good**

What needs to happen

- Reduce nutrient, sediment and pesticide runoff from upstream catchments
- Restore wetlands and riparian areas
- Repair eroded streambanks
- Improve fish habitat connectivity

MURRAY

BASIN PROFILE

AREA 1,107 km²	NATURAL 69%	DEVELOPED 30% agriculture 1% urban

Key Results (basin)

- Water quality (**Moderate**) is stable
- Pesticide risk: **Very high** (diuron and imidacloprid)
- Dissolved inorganic nitrogen (**Moderate**) is the lowest scoring indicator after Pesticides
- Slight loss of freshwater wetlands

What needs to happen

- Intensify efforts to reduce pesticide loss or shift to lower risk pesticides
- Accelerate effort to reduce nutrients
- Protect wetlands

HERBERT

BASIN PROFILE

AREA 9,873 km²	NATURAL 37%	DEVELOPED 62% agriculture 1% urban

Key Results (basin)

- Water quality (**Good**) is stable
- Pesticide risk: **Low**
- Dissolved inorganic nitrogen (**Moderate**) is the lowest scoring indicator

What needs to happen

- Intensify efforts to reduce nutrients and fine sediment
- Rehabilitate riparian areas
- Restore wetlands
- Continue to improve waterway connectivity

INSHORE SOUTH/ PALM ISLAND

Key Results

- Extensive flood plumes with reduced salinity and increased sediment and nutrients
- Coral cover declined
- Storms further impacted reef condition at Palm Island
- Seagrass (**Poor**) declined



Wet Tropics Waterways

Wet Tropics Waterways is an initiative of the **Reef 2050 Long-Term Sustainability Plan**. We are one of five regional partnerships that produce a region-specific report card each year to track the health of the local rivers and estuaries that flow to the Great Barrier Reef.

To join the Wet Tropics Waterways Partnership contact:

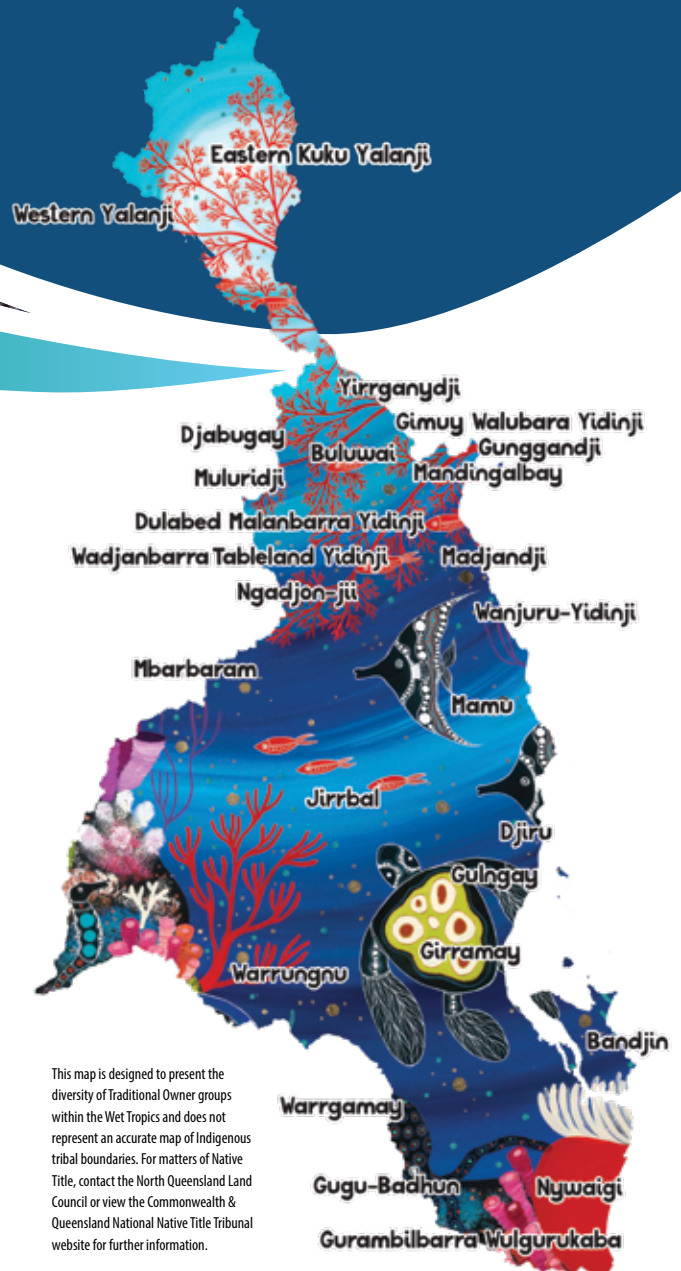
Rowan Hutchison (*Executive Officer*) info@wettropicswaterways.org.au

Read: wettropicswaterways.org.au

Follow: Wet Tropics Waterways

Acknowledgement of Country: Wet Tropics Waterways respectfully acknowledges the Traditional Custodians and First Nations People of the land and water on which we work and live.

Our Partners



This map is designed to present the diversity of Traditional Owner groups within the Wet Tropics and does not represent an accurate map of Indigenous tribal boundaries. For matters of Native Title, contact the North Queensland Land Council or view the Commonwealth & Queensland National Native Title Tribunal website for further information.

Acknowledgements

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