



Wet Tropics  
Waterways

# REPORT CARD 2024

Reporting on data from July 2022 to June 2023





# Overview

This Report Card is an important tool to track changes to waterway health over time. In the 2022-23 reporting period, overall waterway condition grades were mostly unchanged. Exceptions are the Daintree River which declined from 'very good' to 'good', and the Moresby Estuary and Central and Palm Island inshore zones which improved from 'moderate' to 'good'. The underlying waterway health indicators show more changes than the overall grades.

To view all results in detail, visit our website:

[wettropicswaterways.org.au](http://wettropicswaterways.org.au)

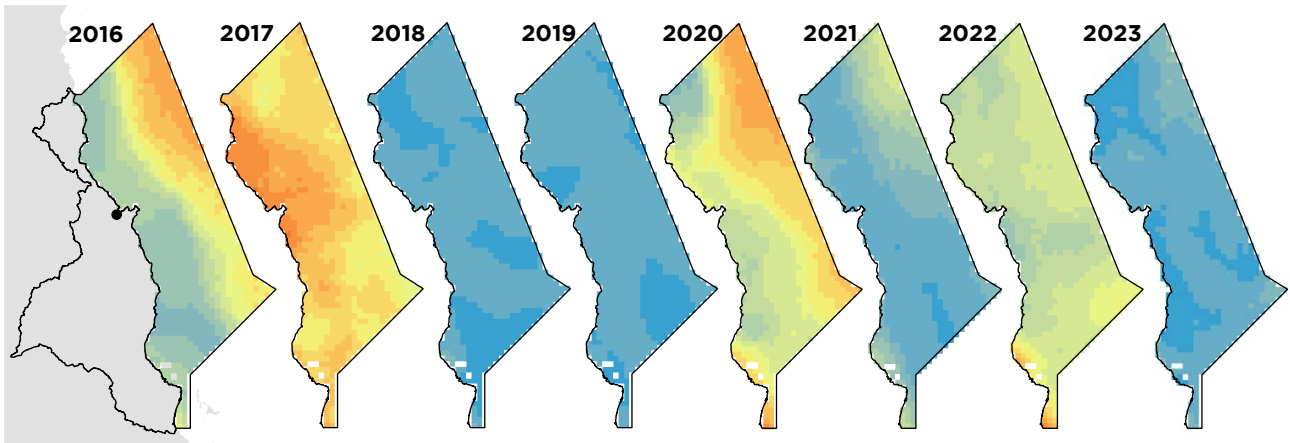
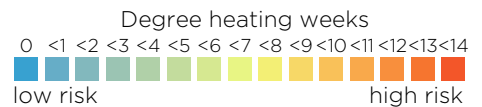
## RAINFALL

Rainfall in July was significantly above average in some areas - Kuranda had its highest monthly rainfall on record in July and rainfall for the Daintree, Mossman, Barron and Mulgrave was in the highest 1% of long-term rainfall records.

However, annual rainfall was average for most basins except the northern basins (Daintree, Mossman, Barron) which were above average. Annual discharges from the major rivers were above average, and more than double the average for the Daintree River.

## SEA SURFACE TEMPERATURES

Sea surface temperatures in 2022-23 presented a low likelihood for coral bleaching during the summer months.



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 ~25 km<sup>2</sup> pixel. Data sourced from: <https://coralreefwatch.noaa.gov/>.

## SEAGRASS

Seagrass restoration has been scaled up in the Moresby Estuary and seagrass condition improved, even though the overall grade remained 'very poor'. Volunteers have been helping James Cook University's TropWATER to plant 8000 seedlings in the estuary.

Seagrass condition in Trinity Inlet reached its highest score since 2015-16, improving from 'poor' to 'moderate' and in the North Inshore zone it also improved from 'moderate' to 'good'.







## FISH CONNECTIVITY

Five newly constructed fishways have improved connectivity and fish passage along 100+ kilometres in the Herbert catchment. This has helped to improve the fish barrier score for the Hinchinbrook channel from 'moderate' to 'good'.

## FISH IN THE LOWER HERBERT

New fish surveys across 16 sites in the Herbert Basin recorded many species of native fish and low numbers of pest and translocated fish. As a result native fish diversity was scored as 'good' and non-native fish as 'very good'. However, subsequent surveys by Ozfish have shown an increase in pest fish, including tilapia, which indicates that pest species could be spreading. Ongoing fish surveys will help to target actions for management and control measures.

## ALGAE

Microscopic algae (phytoplankton) has increased in the Daintree, Moresby and Hinchinbrook over the past four years. The causes for this are unknown.

## PESTICIDES RUNOFF

The pesticide risk increased in some basins, particularly the Murray, Tully and Herbert. However, it decreased in the Johnstone. Pesticide use in agriculture can vary substantially depending on climatic conditions.



## NUTRIENT RUNOFF

Scores for dissolved inorganic nitrogen, or DIN, have remained mostly constant over the last three years. In contrast, basin scores for Filtered Reactive Phosphorus (FRP) have declined, which coincided with wetter conditions. Higher amounts of phosphorus runoff in waterways can promote algal growth, which impacts waterway health.



# Waterway grades 2022-23

This Report Card is part of a framework that is tracking progress towards the Reef 2050 Water Quality Improvement Plan targets. Go to [www.wettropicswaterways.org.au/report-cards](http://www.wettropicswaterways.org.au/report-cards) for more information.

**Great Barrier Reef Outlook Report**  
Reef wide. Released every **5 years**.

**Reef Water Quality Report Card**  
Reef wide (inshore). Released **biennially**.

**Regional Report Cards**. Released **annually**.



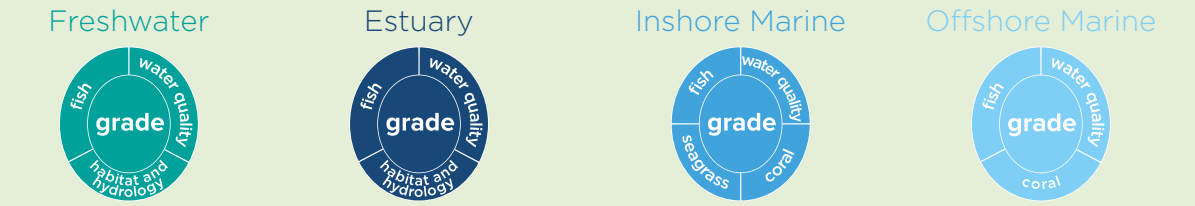
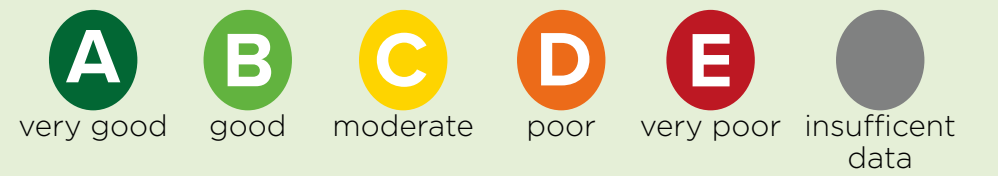
These grades are based on multiple indicators. For more information go to: [www.wettropicswaterways.org.au/report-card](http://www.wettropicswaterways.org.au/report-card)

## Regional drivers

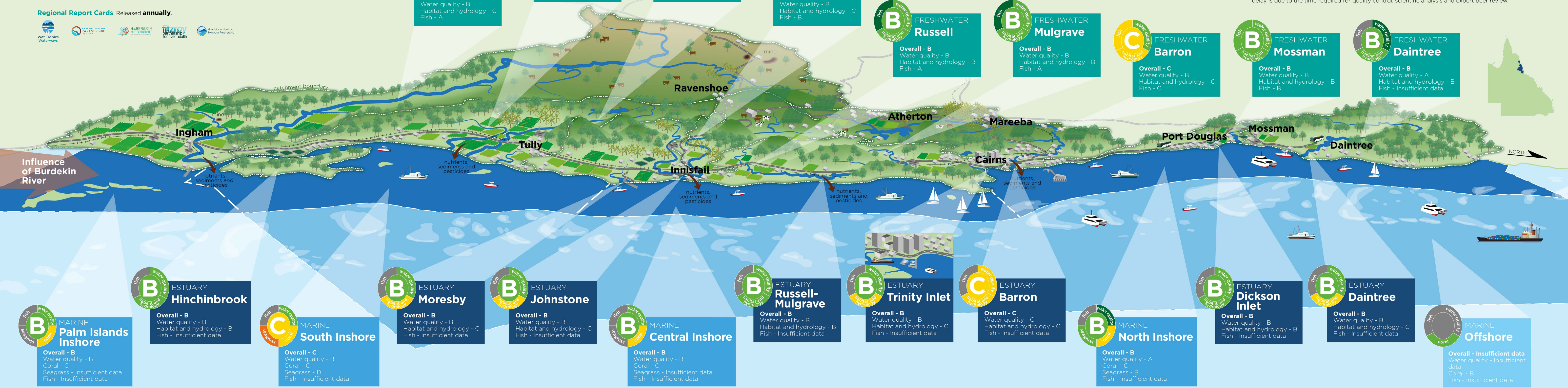
Key pressures on waterways in the Wet Tropics are driven by human activities such as urban and agricultural land use, and weather extremes.



## Legend



This Report Card, although released in 2024, presents data from July 2022 to June 2023. The time delay is due to the time required for quality control, scientific analysis and expert peer review.



Influence of Burdekin River

Ingham

Ravenshoe

Tully

Innisfail

Atherton

Mareeba

Cairns

Port Douglas

Mossman

Daintree

NORTH





# Wet Tropics Waterways

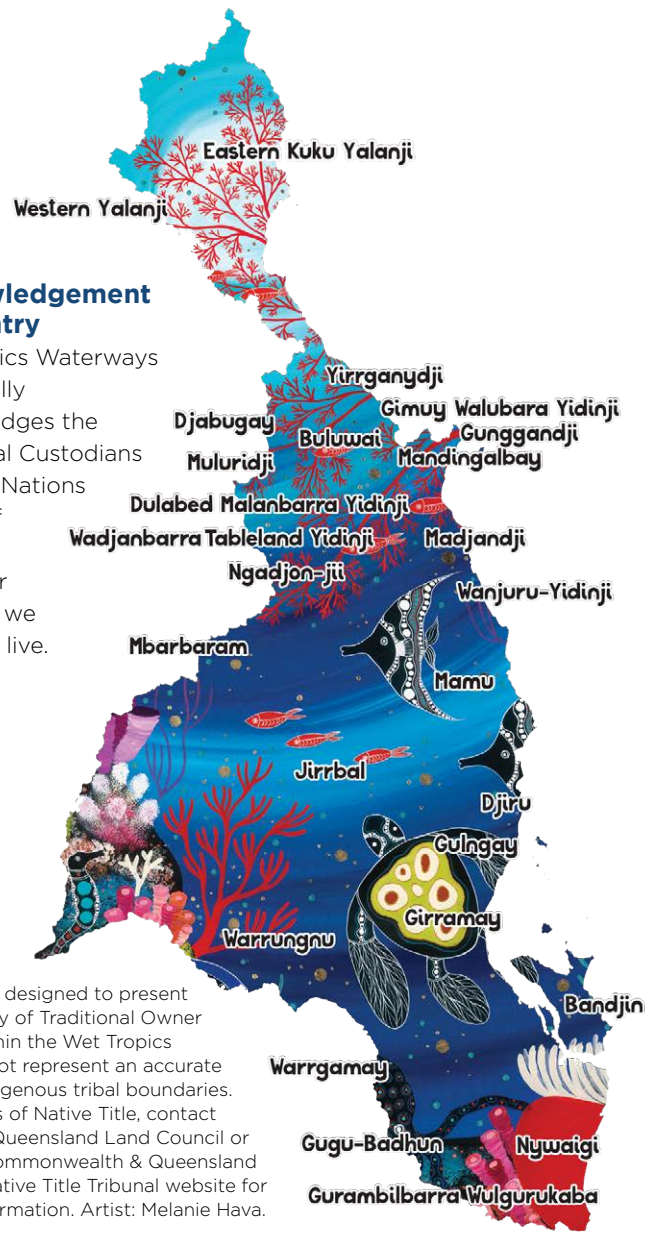
Wet Tropics Waterways is an initiative of the **Reef 2050 Long-Term Sustainability Plan**. We are one of five regional partnerships that produce a region-specific report card each year to track the health of the local rivers and estuaries that flow to the Great Barrier Reef. Find out more about joining the Wet Tropics Waterways partnership by emailing us at [info@wettropicswaterways.org.au](mailto:info@wettropicswaterways.org.au) or go to our website.

*Partnering for healthy tropical waterways and vibrant communities*

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## 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.

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. Artist: Melanie Hava.

## Thanks to our partners



Queensland Government



Australian Government



### Acknowledgements

Wet Tropics Waterways would like to acknowledge the following organisations for their contribution to the Wet Tropics Report Card: Regional Report Card Technical Working Group, Reef Independent Science Panel; Australian Institute of Marine Science; Queensland Government Department of Environment, Science and Innovation; James Cook University; CSIRO; Queensland Department of Regional Development, Manufacturing and Water. We would also like to thank the many other organisations that support and contribute to the release of the Report Card.

### Design and layout

Kate Hodge, Hodge Environmental

### Photo credits

Cover: Linda Joseph, Matt Curnock.  
Others: Geoff Collins, Queensland Government, TropWater

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### To find out how you can join the Wet Tropics Waterways Partnership contact:

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