

WET TROPICS REPORT CARD

2019

Reporting on data from July 2017 to June 2018



Wet Tropics
Waterways

wettropicswaterways.org.au



OVERVIEW

In 2017-18 the majority of Wet Tropics basins and estuaries continue to be graded as good or moderate, while inshore marine grades are all moderate and offshore marine is graded good.

There was below average monthly rainfall across the wet season except for very high localised rainfall and flooding events in March 2018, particularly in the lower Barron and the Herbert rivers.

The state and condition of waterways during this reporting period were influenced by the dry conditions that occurred for most of the year.

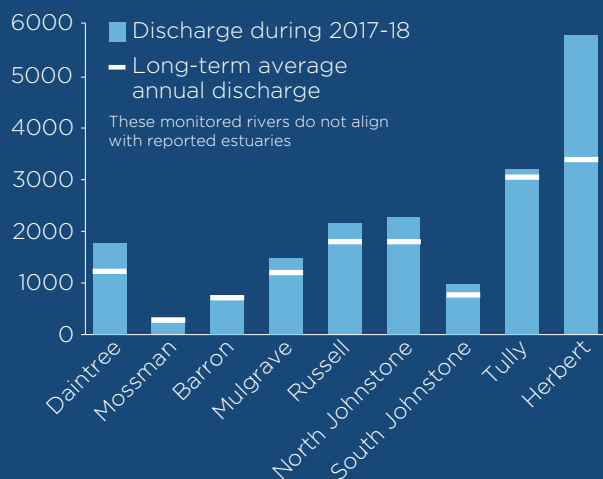
Water quality indicator scores declined from 2016-17, possibly due to the expansion of the number and types of pesticides included in our assessment, although this did not affect the overall grades.

For more information and the detailed report go to wettropicswaterways.org.au

CLIMATE

Annual rainfall in the 2017-18 reporting period was average or above average for the region. However, much of this rainfall occurred in March. In most of the other months rainfall ranged from average to considerably below average.

River flows (GL)



CANE CHANGER

A behavioural science program that was piloted in the Wet Tropics helped boost a 316% increase in the number of farms accredited in the SmartCane Best Management Practice program. It is now being rolled out into other Great Barrier Reef catchments along the Queensland coast.



80% of the Wet Tropics sugar cane and banana production land is engaged in

BEST MANAGEMENT PRACTICE PROGRAMS

785  **SMARTCANE BMP**

cane farms benchmarked

91 **BANANA GROWERS**

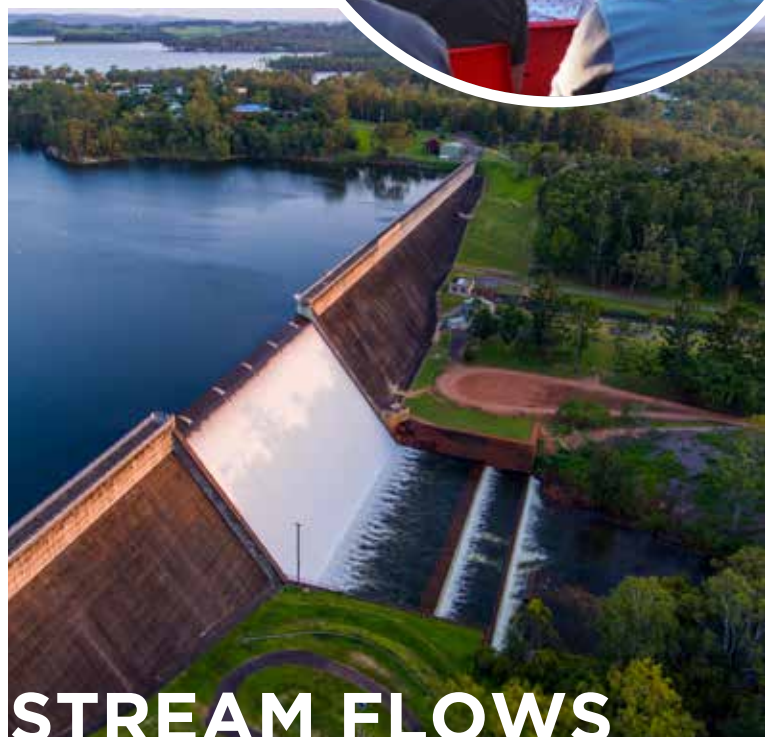
benchmarking against Best Management Practice

a 12% increase on previous reporting period

There are approximately 1300 cane farms in the Wet Tropics. Once they have been benchmarked they can undertake modules and auditing to gain SmartCane BMP accreditation. By June 2018, 220 cane farming businesses were accredited (33% of cane production land).

a 20% increase on previous reporting period

There are approximately 200 banana farms in the Wet Tropics. Many of these farms have environmental accreditation through private schemes.



STREAM FLOWS

Stream flows were either good or very good for all basins and estuaries, except in the Barron Basin and Estuary. The lower scoring sites, downstream of Tinaroo Dam and Copperlode Dam, were affected by the dams, water extraction and low rainfall.

CORAL

Inshore coral cover scores increased in all zones and overall coral condition scores improved slightly for the North and Central zones.

However, offshore coral condition declined substantially due to the 2016-17 coral bleaching events and increasing crown-of-thorns starfish outbreaks.

CULLING OF COTS

42,815 Crown-of-thorns starfish (COTS)

were culled across 41 of the 130 reefs in the region in the 2017-18 reporting period. Systematic culling has prevented the occurrence of COTS outbreaks on some reefs.

MANGROVE WATCH

Far North Queensland has the highest diversity of mangrove species in Australia with 34 recorded in the Daintree. Mangroves filter sediments and contaminants, sequester carbon and protect the coastline from storm surges. Wet Tropics Waterways is working closely with MangroveWatch to develop and implement a mangrove indicator for all Wet Tropics estuaries.

4 reefs (3%) with severe outbreak of COTS

1 reef (1%) with potential outbreak of COTS

35 reefs (27%) with no outbreak of COTS

90 reefs (69%) with unknown outbreak status

FISH

A new fish index has been added for the Mulgrave and Russell basins for the 2017-18 reporting period. Fish diversity at the majority of sites was rated as being in good or very good condition.

42 native fish species
4 pest fish species

Two species of Tilapia have naturalised populations in the Wet Tropics – Mozambique and Spotted Tilapia. Tilapia has been recorded in all catchments except the Daintree, Tully and Murray. The Barron River is the only catchment with both species.

SEAGRASS

For the first time since monitoring began in 1993, no seagrass was found in Moresby Estuary. Seagrass meadows have not recovered in this region since the cyclones and floods in 2009-2011. There is little chance for this to improve without assisted restoration.

The overall health of Inshore marine seagrass has improved. Species composition in the North Zone has returned to levels prior to Cyclone Yasi.

Waterway grades 2017-18

The science behind the grades

These waterway grades were developed by analysing and integrating scientific monitoring data contributed by many organisations. This process was overseen by an independent panel of scientists.

Timing

This report card, although released in 2019, presents data from July 2017-June 2018. The time delay is due to the time required for quality control, scientific analysis and expert review.

Fish surveys

A new fish index has been added for the Mulgrave and Russell basins for the 2017-18 reporting period. Monitoring is being rolled out through the remaining basins in the Wet Tropics from 2019.

Water quality

The pesticide risk assessment has expanded so the number and types of pesticides being assessed has increased to include additional herbicides and insecticides.

Daintree and Mossman basins

Both these basins are now reported for water quality. The Daintree data is provided by Great Barrier Reef Catchment Loads Monitoring Program and Mossman data is provided by Douglas Shire Council.

Habitat extent

Wetland mapping for Queensland has been updated, which has resulted in some slight changes to wetland extent in some basins.

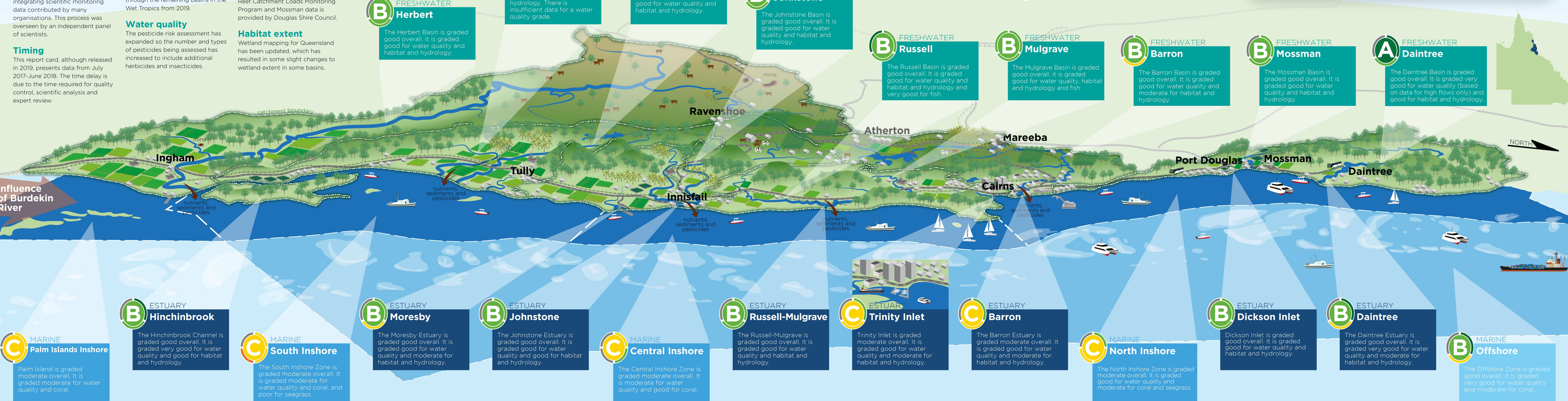
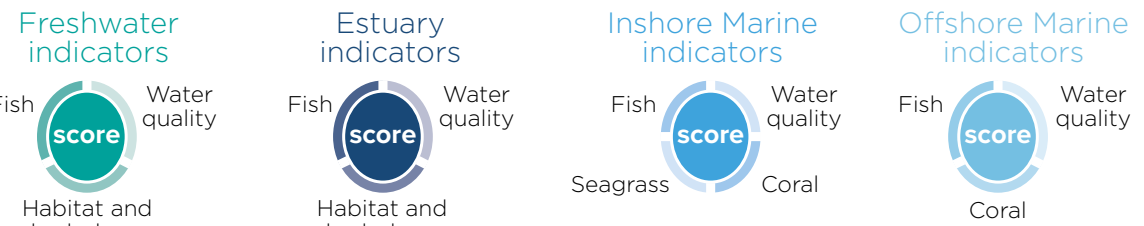
Go to our website for more detailed information about the grades and the science behind them.

wettropicswaterways.org.au

These drive the key pressures on waterways in the Wet Tropics, including human activities such as urban and agricultural land use and weather extremes.



A very good
B good
C moderate
D poor
E very poor
insufficient data



WET TROPICS WATERWAYS

Wet Tropics Waterways is an initiative of the Reef 2050 Long-Term Sustainability Plan. Our aim is to improve the condition of our freshwater and estuarine waterways that flow into the Great Barrier Reef. If you would like to find out more about joining our Partnership please email us at info@wettropicswaterways.org.au or go to our website.

*Partnering for healthy
tropical waterways and
vibrant communities*

 **READ:** wettropicswaterways.org.au

 **FOLLOW:** Wet Tropics Waterways

 **LISTEN:** wettropicswaterways.org.au/podcast



Gulngay Traditional Owner Clarence Kinjun is involved in water monitoring for a major reef water quality program in Tully.

Acknowledgement of Country

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

Thanks to our partners



Friends of the Partnership

Back Country Bliss, Blue Hand Steam, Cairns and Far North Environment Centre (CAFNEC), CareFISH, Dive Queensland, Holloways Beach Environmental Education Centre, Last Straw on the Great Barrier Reef, Spirit of Cairns, Tangaroa Blue

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 Sciences; Department of Environment and Science including the Office of the Great Barrier Reef; James Cook University; CSIRO; Department of Natural Resources, Mines & Energy.

Design and layout

Kate Hodge, Hodge Environmental

Photo credits

Paul Curtis (NQ Wildscapes), Dieter Tracey, Terrain NRM, AMPTO

Released

25 July, 2019

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

Greg Vinall - Manager

E: info@wettropicswaterways.org.au

Printed on 100% recycled paper