

5.3. WET TROPICS REPORT CARD 2017

REPORT AUTHOR(S)	Nicola Learmond, Sustainability Officer
GENERAL MANAGER	Nicholas Wellwood, General Manager Operations
DEPARTMENT	Sustainable Communities

RECOMMENDATION

That Council notes the release of the Wet Tropics Healthy Waterways Partnership Report Card 2017 which reports on water quality data from July 2015 to June 2016.

EXECUTIVE SUMMARY

Council is a member of the Wet Tropics Healthy Waterways Partnership. A key output of the Partnership is an annual report card which collates waterway health in the Wet Tropics region. The Report Card for 2017 has recently been released and includes four (4) waterways within the Douglas Shire, these are:

1. Mossman - freshwater
2. Dickson Inlet - estuary
3. Daintree - freshwater
4. Daintree - estuary

BACKGROUND

The quality of water entering the Great Barrier Reef (GBR) has deteriorated over the past 100 years and continues to have a detrimental effect on marine ecosystems. Evidence suggests that declining water quality is strongly correlated to outbreaks of crown-of-thorns starfish and coral cover decline. Sediment, nutrients and pesticides leaving agricultural land and draining into the reef lagoon remain the largest contributors to elevated pollutant levels.

The Wet Tropics Healthy Waterways Partnership is an initiative of the Federal and State Government's Reef 2050 Long-term Sustainability Plan. Partners include: local government, industry groups (e.g. sugar, prawn and banana groups), local businesses and not-for-profit organisations. A key output of the Partnership is an annual report card which collates waterway health in the Wet Tropics region.

The Partnership covers the Wet Tropics Natural Resource Management region, a land area of 21,722 km² and includes 91% of the Wet Tropics World Heritage Area. The area encompasses nine (9) river catchments: Daintree, Mossman, Barron, Russell, Mulgrave, Johnstone, Tully, Murray and the Herbert. The Partnership is one of four (4) regional report card partnerships supported and largely funded by the State Government.

COMMENT

The Report Card 2017 (**Attachment 1**) has recently been published, which reports on data from July 2015 to June 2016. It reports on and scores three (3) indicators which are: 1. Habitat & Hydrology, 2. Fish and 3. Water Quality for four (4) areas within the Douglas Shire. The majority of the Wet Tropics waterways are graded as 'Moderate' (C) or 'Good' (B) for the 2015-16 reporting period.

Table 1: Report Card 2017 detailing Douglas Shire waterways

#	Douglas Shire Area	Detailed Area	Indicators Assessed in Score			Score*
			Habitat & Hydrology	Fish	Water Quality	
1	Mossman	Freshwater	Y	N	N	C
2	Dickson Inlet	Estuary	Y	N	N	B
3	Daintree	Freshwater	Y	N	N	A
4	Daintree	Estuary	Y	N	Y	B

* Please note there is currently insufficient data relating to the Fish and Water Quality indicators. The overall score for these areas may change when data relating to these indicators is included in future report cards.

The Report Card 2017 follows on from the Pilot Report Card, published in 2016. There have been several methodology changes since the release of the 2016 Pilot Report card, this means the two report cards are not directly comparable.

An interactive version of the Report Card 2017 detailing further information on each of the three (3) indicators (where data is available) can be found on the Wet Tropics Waterways website: <http://wettropicswaterways.org.au/>

PROPOSAL

That Council notes the release of the Wet Tropics Healthy Waterways Partnership Report Card 2017.

FINANCIAL/RESOURCE IMPLICATIONS

Council joined the Wet Tropics Healthy Waterways Partnership in May 2017. As part of this membership Council agreed to extend its existing water monitoring in Dickson Inlet and the Mossman River to ensure relevant parameters, relating to potential impacts on the Reef are improved. Water sampling is currently undertaken by Council's Environmental Technical Officer with Healthy Waterways to improve our data knowledge. Council also pays a nominal membership to the group to assist in the administration of the Partnership.

Please note that due to the current 1.5 year data lag, the Report Card 2017 continues to show insufficient water quality data for the Mossman and Dickson Inlet river systems. This is expected to be rectified in the 2018 Report Card, as Council's additional water sampling points address these data gaps.

SUSTAINABILITY IMPLICATIONS

Economic: Measures to understand, and potentially mitigate, factors that can impact the vitality and health of the Great Barrier Reef are crucial for the economic sustainability of the Douglas Shire where tourism is the major economic driver.

Environmental: Improved water is crucial to improve the health of the Great Barrier Reef and marine ecosystems.

Social: One of the Partnership purposes is to communicate information to the broader community on waterways health issues to increase knowledge and help drive change.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2014-2019 Initiatives:

Theme 4 - Engage, Plan, Partner

4.2.2 - Provide leadership to secure beneficial social, environmental and economic outcomes for the Shire.

4.2.3 - Work with regional, state, national and international stakeholders to promote beneficial partnerships to support strong, resilient and sustainable communities.

Operational Plan 2017-2018 Actions:

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Information Provider	Bringing people together to develop solutions to problems.
Part-Funder	Sharing the cost of a program or activity with other organisations.

CONSULTATION

Internal: Consultation has taken place with the Sustainable Communities and Water and Wastewater Teams.

External: The Report Card 2017 has been compiled with the cooperation of the Wet Tropics Partnership members. It is publicly available on the Wet Tropics Waterways website.

ATTACHMENTS

1. Wet Tropics Report Card 2017 **[5.3.1]**



Wet Tropics

Healthy Waterways Partnership

Wet Tropics REPORT CARD 2017

Reporting on data July 2015 to June 2016

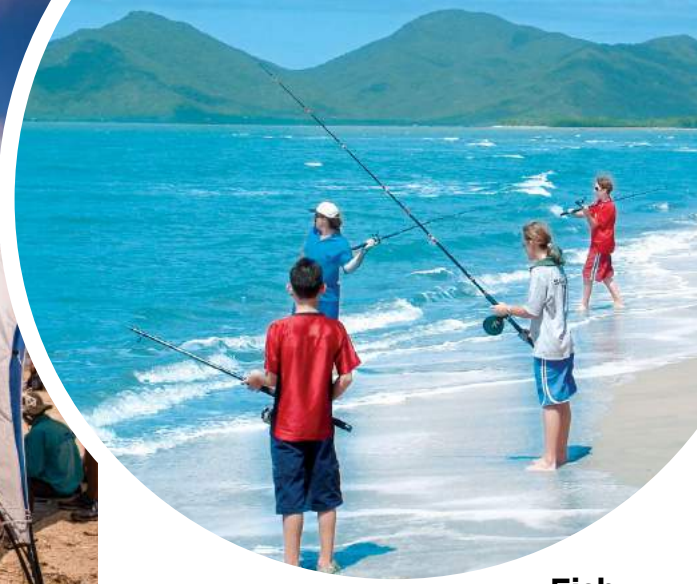


Marine Debris Attachment 5.3.1

52 of 164

Community groups cleared 2.62 tonnes of marine debris from Wet Tropics beach clean ups during 2015-16. The majority of the 35,067 items picked up were plastics, which pose a threat to marine wildlife.

*AMDJ



Fish

The Department of Agriculture and Fisheries assess 37 Wet Tropics marine fish, crabs and a lobster species to determine sustainability of the stocks. Commercial fishers, recreational anglers and seafood processors all contribute valuable data to these assessments. No Wet Tropics stocks are currently classified as overfished.



Banana Industry

The banana industry is working to improve on-farm practices to reduce runoff. By mid-2016, 46 growers completed training in Best Management Practice, covering 6,748 hectares (55% of production land). This figure is expected to grow significantly.

Urban

Regional councils are trialling steam technology to replace the use of herbicides to manage weeds along roadsides and beaches.

Sugar Cane Industry

The cane industry is shifting towards improved practices to reduce runoff. By June 2016, 550 farming businesses were benchmarked in the SmartCane Best Practice program, representing 63% of cane production land. Investment in extension support is expected to increase this figure.



Ordinary Council Meeting - 30 January 2018

Measuring Progress

The Wet Tropics Report Card tracks changes in the condition of our waterways. It allows us to measure the progress being made by the many innovative caretakers in our region who are working hard to ensure the future health of our waterways.

It also enables us to determine how and where to focus our efforts as a community to improve waterway health.

For 2015-16 the majority of Wet Tropics waterways are graded as good or moderate. These results reflect a continuation of low rainfall conditions.

We are tracking these results over time. Go to www.wettropicswaterways.org.au to track trends.

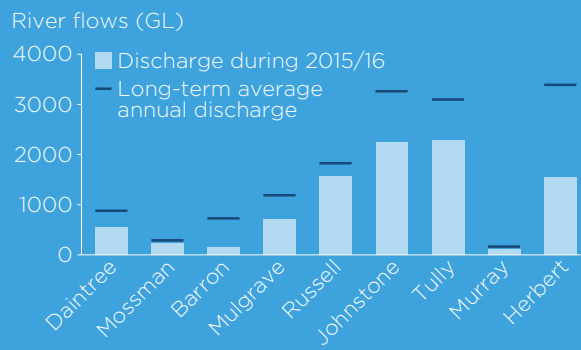


Fish barriers

New research undertaken by the Partnership shows that the movement of fish between freshwater and estuaries is less impacted by barriers than other regions. Most basins were graded good or very good.

Climate

Climatic conditions were similar to the previous reporting period with continuing below average rainfall in most basins. Lower rainfall years can result in reduced sediment, pesticide and nutrient runoff. Discharges from major rivers continued to be below long-term averages.



These monitored rivers do not align with reported estuaries

Invasive Weeds

Invasive weeds cause major impacts on waterway health. The Murray and Herbert basins were identified as experiencing the greatest impact (very poor). The basins experiencing least impact were the Tully (very good) and Mulgrave (good).



Coral

The results for coral show improvement in the 2015-16 reporting period. However, offshore reefs were surveyed before the effects of the coral bleaching in early 2016 were fully evident.



Tree Planting

Over 200,000 trees were planted by community groups and councils throughout the region, including riparian zones. These help stabilise streambanks and reduce sediment and nutrient loads entering waterways.

Waterway grades 2015-16

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 2017, presents data from July 2015-June 2016. The time delay is due to the time required for quality control, scientific analysis and expert review.

Extra monitoring

Last year's Wet Tropics Pilot Report Card identified a number of monitoring gaps, some of which have since been addressed by the Partnership to present a more complete picture of waterway health.

For the 2015-16 reporting period an additional four estuaries have been monitored for water quality, and both the Cairns Regional Council and Cassowary Coast Regional Council expanded their estuary monitoring to include additional indicators selected for the Wet Tropics Report Card.

Changed methodology

Since the release of the Pilot Report Card last year, the Partnership has applied improvements to the methodology used to generate estuary and freshwater basin scores, and the offshore coral index. The revised methodology has been applied to both the 2014-15 and 2015-16 results.

More detailed information about the grades and the methods used to generate them can be found on the website.

wettropicswaterways.org.au



MARINE

Palm Islands Inshore

Palm Island is graded good overall. It is graded good for water quality and moderate for coral.



ESTUARY

Hinchinbrook

The Hinchinbrook Channel is graded good overall. It is graded very good for water quality and good for habitat and hydrology.



MARINE

South Inshore

The South Inshore Zone is graded moderate overall. It is graded moderate for water quality and coral, and very poor for seagrass.







economic growth



population growth



climate

Regional drivers

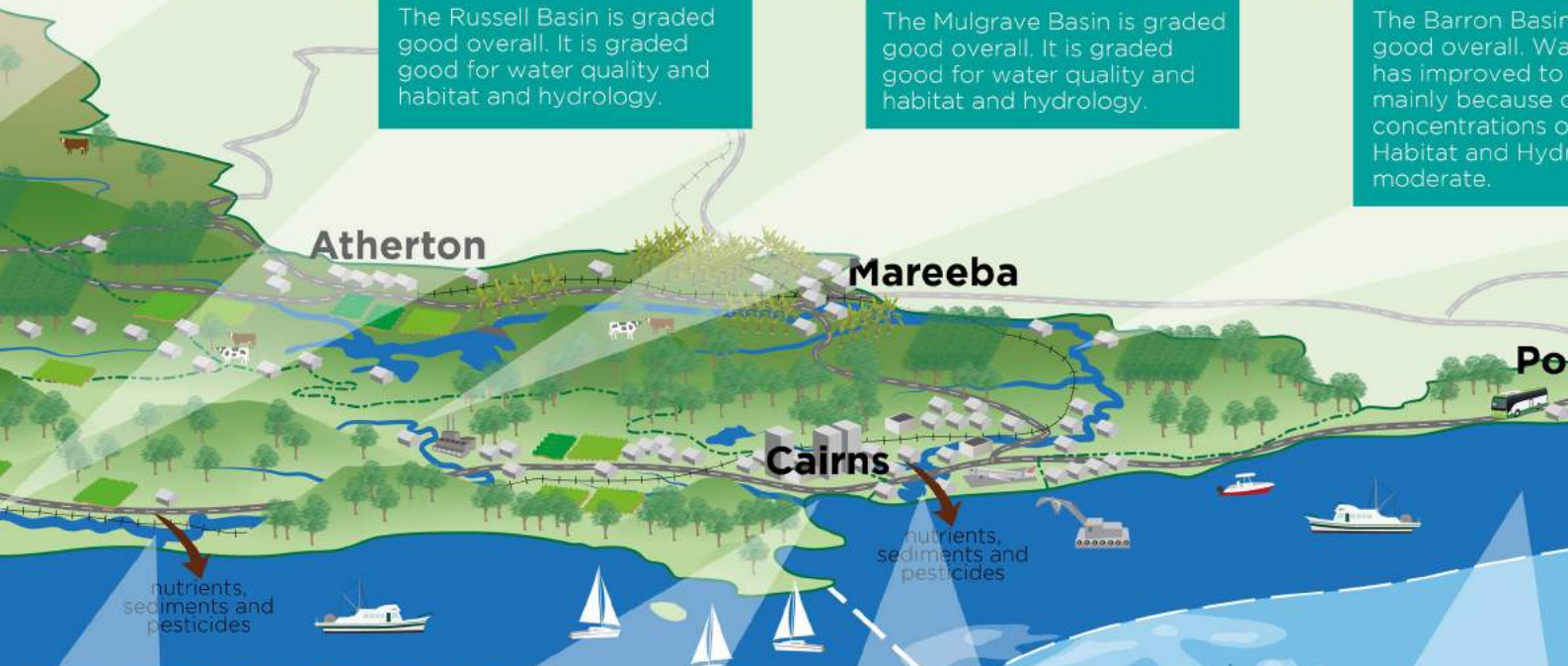
FRESHWATER

Inhstone
Inhstone Basin is good overall. It is good for water quality and moderate for habitat and hydrology.

B **FRESHWATER**
Russell
The Russell Basin is graded good overall. It is graded good for water quality and habitat and hydrology.

B **FRESHWATER**
Mulgrave
The Mulgrave Basin is graded good overall. It is graded good for water quality and habitat and hydrology.

B **FRESHWATER**
Barron
The Barron Basin is good overall. Water quality has improved to a good grade, mainly because of better concentrations of nutrients, sediments and pesticides. Habitat and Hydrology are moderate.



Mulgrave
Mulgrave is good overall. It is good for water quality and moderate for habitat and hydrology.

B **ESTUARY**
Trinity Inlet
Trinity Inlet is graded good overall. It is graded very good for water quality. It is graded moderate for habitat and hydrology due to poor but improving seagrass condition.

C **ESTUARY**
Barron
The Barron Estuary is graded moderate overall. Water quality declined to a moderate grade, mainly because of higher chlorophyll-a concentrations. It is graded moderate for habitat and hydrology.

C **MARINE**
North Inshore
The North Inshore Zone is graded moderate overall. Water quality improved to a good grade, with better scores for water clarity, nutrients and chlorophyll-a. It is graded moderate for coral and poor for seagrass.

Legend

Attachment 3.1



very good



good



moderate



poor



very poor



insufficient data

Freshwater indicators



Estuary indicators



Inshore Marine indicators



Offshore Marine indicators



WATER

is graded
water quality
very good,
of lower
of sediment.
ology is



FRESHWATER

Mossman

The Mossman Basin is graded moderate for habitat and hydrology. There is insufficient data for a water quality grade.



FRESHWATER

Daintree

The Daintree Basin is graded very good for habitat and hydrology. There is insufficient data for a water quality grade.



Port Douglas

Mossman

Daintree

NORTH



ESTUARY

Dickson Inlet

The Dickson Inlet is graded good for habitat and hydrology. There is insufficient data for a water quality grade.



ESTUARY

Daintree

The Daintree Estuary is graded good overall. It is graded good for water quality and moderate for habitat and hydrology.



MARINE

Offshore

The Offshore Zone is graded very good overall. It is graded very good for water quality and good for coral.

The Wet Tropics Healthy Waterways Partnership

The Wet Tropics Report Card has been developed by the Wet Tropics Healthy Waterways Partnership as an initiative of the Reef 2050 Long-Term Sustainability Plan. Our aim is to conserve the natural values of our region and improve the condition of our freshwater and estuary waterways that flow to the Great Barrier Reef. The Partnership brings together community, industry, researchers, businesses and all levels of government.

Partnering for healthy tropical waterways and vibrant communities

wettropicswaterways.org.au



Acknowledgement of Country

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

Wet Tropics Images/Brad Newton

Thanks to our partners



**CANEGROWERS Cairns, CANEGROWERS Herbert River, CANEGROWERS Innisfail, CANEGROWERS Mossman, CANEGROWERS Tablelands, CANEGROWERS Tully

Acknowledgements

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Kate Hodge, Hodge Environmental

Photo credits

Terrain NRM, Cairns Marine, Carefish, Tangaroa Blue, Wet Tropics Management Authority

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Contact information

Suzanne Jenkins – Executive Officer
 Wet Tropics Healthy Waterways Partnership
 E: info@wettropicswaterways.org.au
 P: 0429 918934