

Fitzroy Basin
Report Card
2017-18



Your 8th Report Card

Assessment

Water quality, biological and ecological health for all waterways in the Fitzroy Basin including the estuary are assessed to determine report card grades.

Sampling

More than 425,000 sample results, contributed by our partners from 187 sites across the Basin, have been assessed and analysed to develop report card grades which are endorsed by an Independent Science Panel. This is a reduced amount of sampling compared to last year. Sampling conducted by the resources industry is influenced by the number of site water releases. As fewer releases occurred over the reporting period than in previous years, fewer samples were taken.

Timing

This report card presents data from July 2017-June 2018. Scientific analysis and expert review can only commence once the results of the last sampling has been completed.

Rainfall

The amount, duration and intensity of rainfall directly impacts water quality and ecology. Like the previous year, eastern catchments received above average rainfall, with dry conditions in the west and large areas of central and western Queensland receiving below average rainfall for the year. This produced similar results to last year.

Fitzroy Basin 2017-18



Upper Isaac

The Upper Isaac is graded C overall. It is graded B for physical/chemical and nutrients, C for toxicants and D for ecology. It is graded B for agricultural use.

Mackenzie

The Mackenzie is graded C overall. It is graded B for physical/chemical and nutrients, C for toxicants and D for ecology. It is graded B for stock use and A for cropping use.

Theresa

The Theresa is graded C overall. It is graded B for physical/chemical and nutrients, C for toxicants and D for ecology. It is graded B for stock use and A for cropping use.

Nogoa

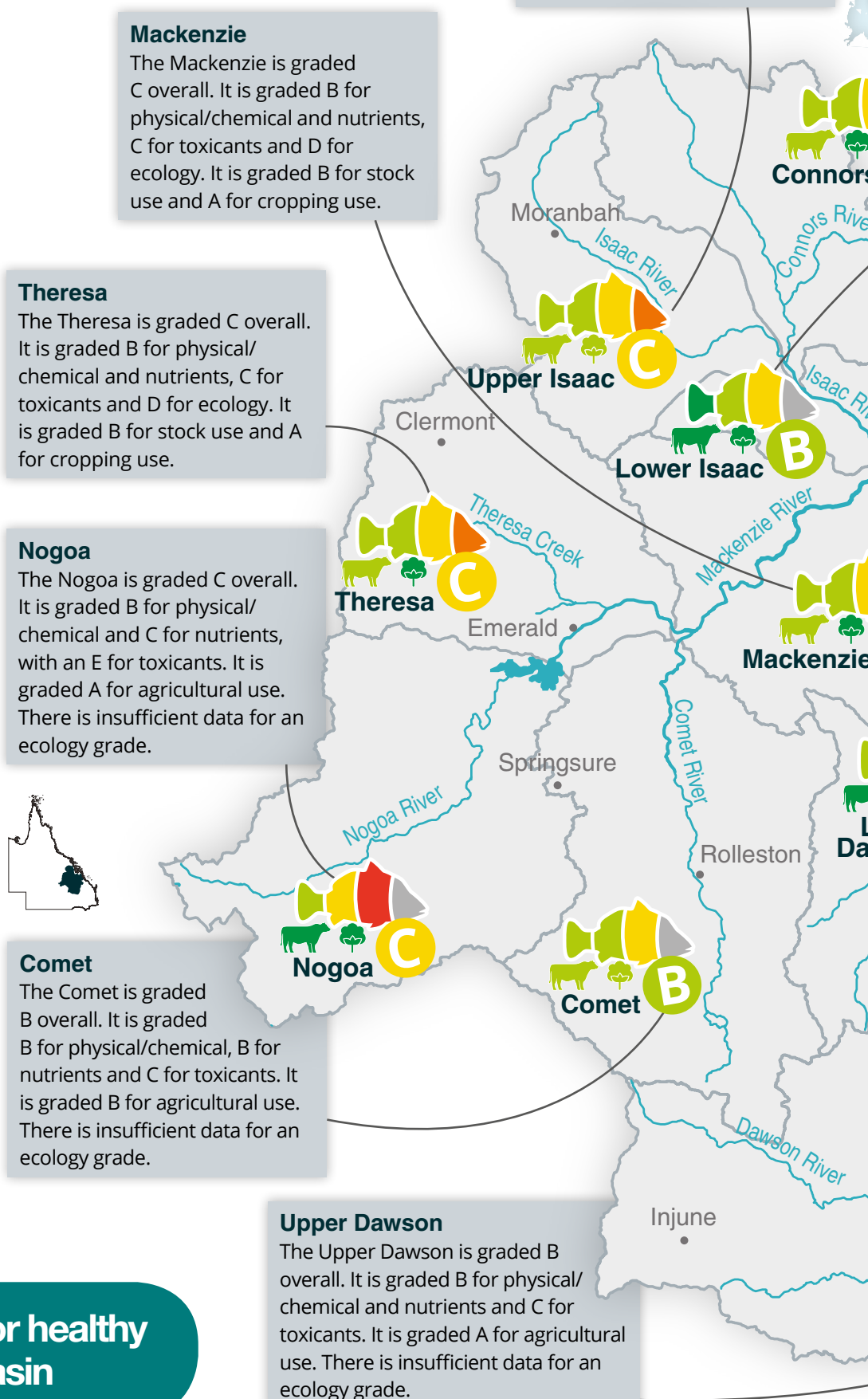
The Nogoa is graded C overall. It is graded B for physical/chemical and C for nutrients, with an E for toxicants. It is graded A for agricultural use. There is insufficient data for an ecology grade.

Comet

The Comet is graded B overall. It is graded B for physical/chemical, B for nutrients and C for toxicants. It is graded B for agricultural use. There is insufficient data for an ecology grade.

Upper Dawson

The Upper Dawson is graded B overall. It is graded B for physical/chemical and nutrients and C for toxicants. It is graded A for agricultural use. There is insufficient data for an ecology grade.



Trusted information for healthy rivers in the Fitzroy Basin

Connors

The Connors is graded C overall. It is graded B for physical/chemical and nutrients, C for toxicants and D for ecology. It is graded B for stock use and A for cropping use.

Lower Isaac

The Lower Isaac is graded B overall. It is graded A for physical/chemical, B for nutrients and C for toxicants. It is graded A for agricultural use. There is insufficient data for an ecology grade.

Fitzroy

The Fitzroy catchment is graded B overall. It is graded B for physical/chemical and nutrients and C for toxicants. It is graded A for agricultural use. There is insufficient data for an ecology grade.

Ecosystem health results

In 2017-18 the Fitzroy Basin received an overall C grade for aquatic ecosystem health, which is consistent with the previous year. Fitzroy catchment, Upper Dawson, Comet, Lower Isaac and the Estuary were awarded B grades, with all other catchments awarded C grades.

Agriculture Use Results

Available data across the Basin has been compared to stock and crop water use thresholds to provide agricultural use reporting. For 2017-18, A and B grades were awarded to all catchments for suitability of water for agricultural use.

Suitability of water for stock use received A grades for Lower Isaac, Fitzroy, Upper Dawson, Lower Dawson and Nogoa. While Callide, Comet, Connors, Theresa, Mackenzie and Upper Isaac received B grades. For use as crop water, all catchments received A grades, except for Callide, Comet and Upper Isaac which received B grades.

Estuary

An estuary is the transition zone between the river and marine environments and contains a mix of marine water and freshwater.

The Fitzroy River Estuary is graded B overall. It is graded B for physical/chemical and ecology, and C for nutrients.

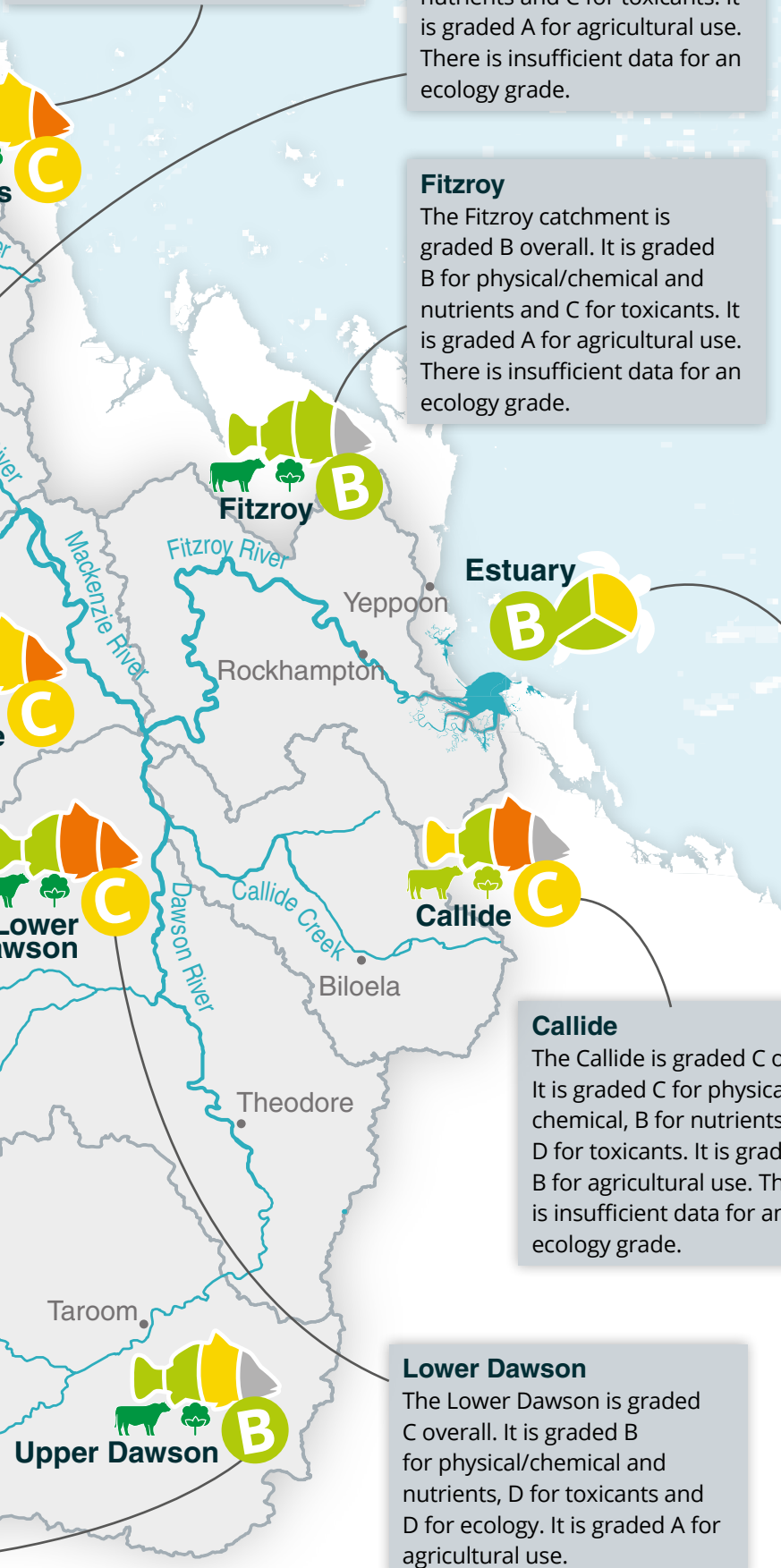
Long-term estuary trend data from 1994 onwards is available on our website.

Callide

The Callide is graded C overall. It is graded C for physical/chemical, B for nutrients and D for toxicants. It is graded B for agricultural use. There is insufficient data for an ecology grade.

Lower Dawson

The Lower Dawson is graded C overall. It is graded B for physical/chemical and nutrients, D for toxicants and D for ecology. It is graded A for agricultural use.



Legend

A Excellent B Good C Fair D Poor E Fail No data

Water quality results for:

Freshwater
Physical/chemical, Nutrients, Toxicants, Ecology

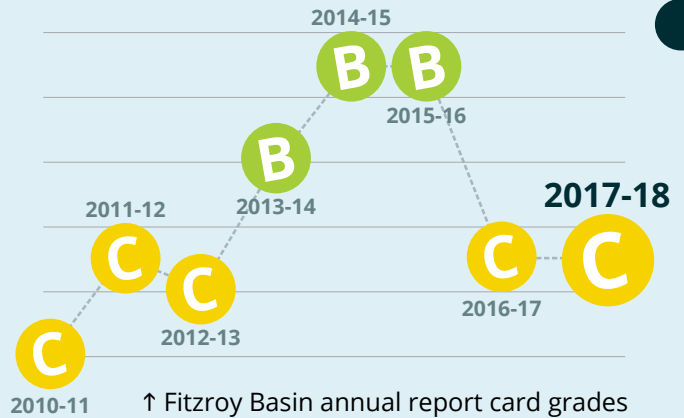
Estuary
Physical/chemical, Nutrients, Ecology

Crop use (cotton icon)
Stock use (cow icon)

Match the grade colours above to those used on the fish, turtle, cotton and cow icons to determine the grades for each catchment.

Long-term trends

Long-term trends offer a better understanding of our waterways resilience over time and build a more comprehensive picture of the pressures in each catchment. This graph presents the overall Fitzroy Basin trends and indicates that generally, condition has remained stable since 2010-11. Each time a Fitzroy Basin report card is compiled, knowledge of the long-term health of the basin is improved. Data comparisons and changes can be tracked for the 11 catchments, and the estuary at www.riverhealth.org.au/report_card/ehi/trend.



Highs

Ecosystem health has remained stable overall in 2017-18 compared to 2016-17. The condition of Comet, Fitzroy, Lower Dawson and Lower Isaac catchments and Estuary Zone improved.

Lows

There were slight decreases overall for ecosystem health for the waterways of Callide, Connors, Mackenzie, Nogo, Theresa, Upper Dawson and Upper Isaac. Lack of ecology data across the Basin has been identified as a contributing factor to changes in results each year.

Drinking Water Results

Once again treated water provided for human use in Rockhampton and Central Highlands Regional Council areas was excellent quality, resulting in A grades for all townships. All results were within Australian drinking water health guidelines.



Aesthetic guidelines relate to acceptability of water appearance, taste and odour to consumers. Minor exceedances of aesthetic indicators were recorded in some townships, these are typical of most drinking water supplies in Australia.

How are grades determined? A brief overview

This report card has been prepared using the following steps:

1. Waterway monitoring data is assessed against levels of health for indicators endorsed by our Independent Science Panel.
2. Indicators are grouped into four categories: physical and chemical; nutrients; toxicants; and ecology.
3. The results from each category are combined to provide an overall rating for each reporting area.

Physical/Chemical

- Electrical Conductivity
- pH
- Sulfate
- Turbidity



Nutrients

- Total Nitrogen
- Oxidised Nitrogen
- Total Phosphorus
- Filterable Reactive Phosphorus



Toxicants

- Arsenic
- Aluminium
- Boron
- Cadmium
- Chromium
- Cobalt
- Copper
- Iron
- Lead
- Manganese
- Mercury
- Molybdenum
- Nickel
- Selenium
- Uranium
- Zinc



Ecology

- PET Richness
- SIGNAL Index
- Taxa Richness



Ecology results currently rely on macroinvertebrate data, which is not available for all catchments. The Partnership is exploring options to fill monitoring gaps in biological indicators.

Dive into Detail

Freshwater and Estuary Ecosystem Report Cards

Looking for data on your local catchment for the latest year? Find it and all previous report cards at riverhealth.org.au/report_card/ehi

Marine Report

Results for the marine zone adjacent to the Fitzroy Basin can be found at the Queensland Government Reef Plan website reefplan.qld.gov.au/tracking-progress/reef-report-card



Fitzroy Partnership for River Health

The Fitzroy Partnership for River Health was launched in 2012 and has now delivered eight report cards on the health of Fitzroy Basin waterways. We are a formal collaboration between government, industry, research organisations and community, who all have an interest in the health of waterways across the Fitzroy Basin.

Our role is to facilitate improved water quality monitoring, collate and assess data, and publicly report on waterway health for the Fitzroy Basin – the largest catchment draining to the east coast of Australia. Data and results are assessed and verified by an Independent Science Panel to ensure accuracy and use of the best available science.

We are amassing a comprehensive dataset and provide trusted information on waterway health in the Fitzroy Basin. It is being used by all sectors of society including setting of water quality guidelines by government, supporting projects for industry partners and for local material in science assignments.

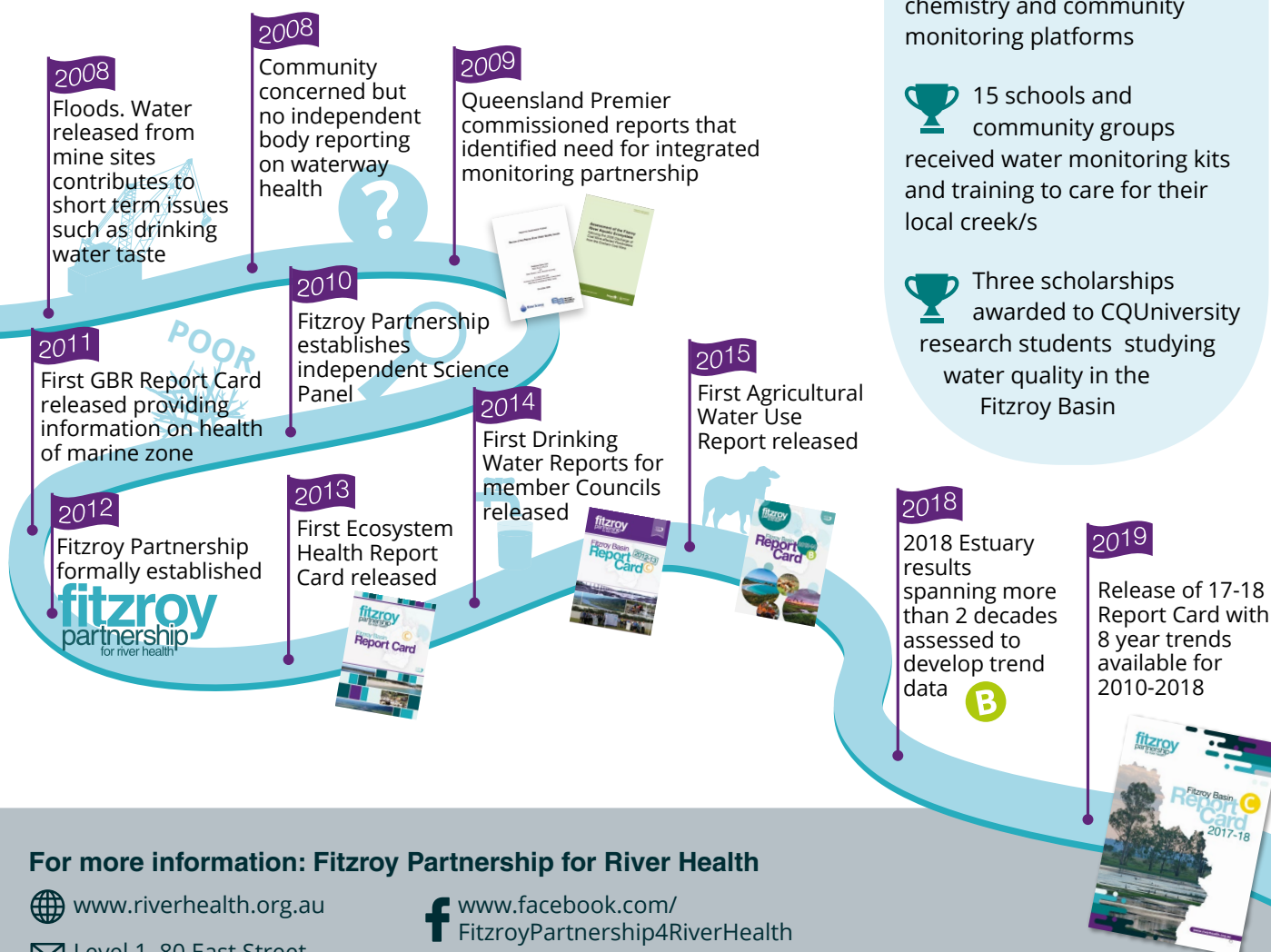


Our achievements

-  Eight report cards on the health of Fitzroy Basin waterways released
-  24 organisations working together to deliver annual and independent river health report cards
-  Identified as an internationally significant example of shared water stewardship in the mining sector by the International Council on Mining and Metals


-  Focus of five post graduate studies – social science in cross-sector partnerships, water chemistry and community monitoring platforms
-  15 schools and community groups received water monitoring kits and training to care for their local creek/s
-  Three scholarships awarded to CQUniversity research students studying water quality in the Fitzroy Basin

Our story



For more information: Fitzroy Partnership for River Health

 www.riverhealth.org.au

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 [www.facebook.com/
FitzroyPartnership4RiverHealth](https://www.facebook.com/FitzroyPartnership4RiverHealth)

 [@admin@riverhealth.org.au](mailto:admin@riverhealth.org.au)

We thank our partners for



Nurturing the Fitzroy Basin's independent and trusted waterway health information source.



Contributing data to be independently assessed to ensure report cards are comprehensive.



Maintaining one of the most highly recognised and influential report card initiatives in Australia.



Influencing our future through involvement in the Partners Network and/or Management Committee.



Affirming their commitment to sustainable use of waterways and providing a more complete picture of health.



Keeping current with waterway happenings relating to the latest water policy, planning and management activities relevant to the Fitzroy.

Does your organisation want to be part of our successful partnership? There are various member benefits including community recognition and promotion, networking opportunities, access to reliable information and an Independent Science Panel. Join us and be part of regional Queensland's first report card network.



Major Partners



Partners

