

Ipswich City Council

# HEALTHY WATERWAYS REPORT CARD 2015

Sewater

Sunshine Coast Council

Redland City Council



Healthy  
Waterways  
ONE CLEAR VISION

# A HOLISTIC UNDERSTANDING OF OUR WATERWAYS

## Introducing the first phase of the evolved Healthy Waterways Report Card

South East Queensland's waterways are estimated to provide over \$10 billion per year to the region's economy through tourism, recreation, drinking water supply and fishing<sup>1</sup>. Our waterways also provide many social benefits that support healthy and happy communities<sup>2</sup>. Understanding how these social and economic benefits are affected by the environmental condition of our waterways is essential to drive and inform the effective management of these vital natural assets.

Healthy Waterways has been monitoring and reporting on the condition of the region's waterways for 15 years, providing crucial information to identify and track waterway health issues. Our science experts have identified the increasing amount of mud (sediment) entering our waterways as the number one issue currently affecting water quality in the region.

Healthy Waterways has evolved our independent Monitoring Program and Report Card to further address and manage this increasing pressure, and better understand the impact of environmental condition on the social and economic benefits our waterways provide.

New indicators in the Environmental Condition Grade measure the amount and impact of mud entering waterways, as well as the extent of habitats (i.e. riparian vegetation and seagrass) available to mitigate these impacts and support fish, turtles and dugongs. The new Waterway Benefits Rating measures the level of social and economic benefits our waterways provide to local communities. Together, the evolved Environmental Condition Grade and new Waterway Benefits Rating provide a deeper understanding of the action required to protect our waterways in the face of rapid urbanisation and a variable climate.

In addition, we have also begun to explore what motivates action among landholders and community groups to protect and improve waterways. In 2016, further evolving our understanding of people's willingness and ability will help enable the action required to reduce the pressures on waterway health.

This holistic monitoring approach provides a powerful tool to identify, prioritise and evaluate best practice waterway management that achieves significant environmental outcomes and enhances the community's quality of life.

### 'Waterway Values: Why People Care'

The University of Queensland, Griffith University, Queensland Government, Healthy Waterways, SEQ Catchments, and Traditional Custodians

Waterways provide us with a diversity of rich and meaningful experiences which underpin our quality of life. This collaboration between organisations in South East Queensland has revealed the many aspects of these benefits and values.

**FINALIST - 2015 Healthy Waterways Research Award**



## Understanding waterway condition

The condition of our waterways impacts the socio-economic benefits they provide. Understanding and reporting on the condition of our waterways is critical to identify these impacts and inform effective waterway management.

To ensure our monitoring remains relevant and underpinned by rigorous science, the newly evolved Report Card considers the impacts of various pressures, and introduces new indicators to assess progress towards:

- restoring and maintaining key habitats (riparian vegetation, seagrass, mangroves)
- minimising the amount of mud (sediment) and pollutants (nutrients) entering waterways
- improving and maintaining water quality
- restoring and maintaining key ecosystem processes
- restoring and maintaining resilient and healthy aquatic communities (i.e. fish populations).

As in previous years, Environmental Condition Grades are calculated against established guidelines. The majority of previously measured indicators are still assessed, with new indicators included to account for and measure aquatic habitats (i.e. riparian vegetation) and additional pressures on waterway health (i.e. mud). Indicators are combined to calculate one overall Environmental Condition Grade per catchment.

This evolved calculation and expanded monitoring means the 2015 grades cannot be directly compared to previous years. This evolved approach will allow us to more efficiently assess and compare the health of different catchments in the future.



## Understanding waterway benefits

Our waterways provide important benefits such as clean and safe drinking water, nursery habitats for recreational and commercial fishing, and a reliable water source for agricultural productivity. Recreation activities in and around waterways not only help to improve community health and wellbeing, they also contribute approximately \$2.3 billion to the region's economy annually<sup>1</sup>.

The new Waterway Benefits Rating helps us to understand how these social and economic values will be affected by changing environmental conditions. The Waterway Benefits Rating measures and tracks progress toward improving and maintaining:

- community values and satisfaction with waterways
- appropriate access to local waterways
- economic benefits generated through recreation
- clean waterways that support the supply of low cost drinking water
- economic benefits provided through recreational fishing.

The data and information collected to measure these indicators is calculated into a star rating (between one and five stars) representing the level of benefit received by the community in each catchment.



Waterways provide essential benefits that underpin our lifestyle.

Source: Mitchell Stephenson



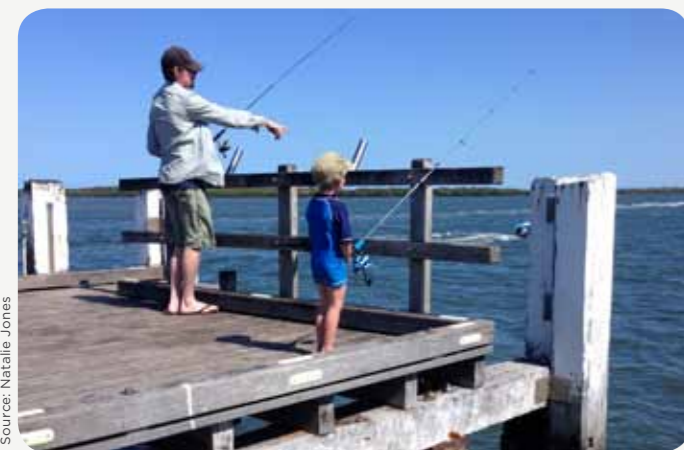
## Understanding what motivates action

Action undertaken by the community to protect and restore waterway health enhances the benefits that waterways provide<sup>2</sup>. Healthy Waterways is working with the community, local and state governments, water utilities, SEQ Catchments and the Council of Mayors (SEQ) to prioritise action in each catchment.

In order to implement effective waterway management, we must better understand the barriers to, and drivers for, action. There are many landholders and community groups dedicating their time to the protection and improvement of our waterways through activities such as riverbank stabilisation, tree plantings and picking up litter. Through our evolved Monitoring Program, Healthy Waterways gathered information around the number of landholders and community groups engaged in waterway initiatives. While we have begun to explore the willingness, ability and behaviour of the community on our website, this information has not been assessed

or graded in the 2015 Report Card. Moving forward, this 'action' component of the Monitoring Program will evolve to include additional groups and actions being undertaken within priority waterway management themes (i.e. erosion and sediment control). Measuring the willingness, ability and behaviour of groups and individuals across the region will provide a powerful tool to help motivate and enable action that protects and improves waterway condition and benefits.

Visit [www.healthywaterways.org](http://www.healthywaterways.org) to find out more about the activities in your area and how you can get involved.



48% of people enjoy recreational fishing in South East Queensland<sup>2</sup>.

1. Healthy Waterways Independent Economic Valuation 2015

2. Healthy Waterways Community Survey 2015

### Healthy Waterways Monitoring Program

The Healthy Waterways Monitoring Program is one of the most comprehensive waterway monitoring programs in Australia. The Program delivers a regional assessment of the environmental condition and benefits of waterways. This year, new measures have been introduced to focus on additional pressures (such as mud in our waterways), and to understand the links between water quality and waterway benefits that are provided to the community. This assessment is undertaken in 18 major catchments in South East Queensland and five zones across Moreton Bay and Broadwater.

The Program is managed by Healthy Waterways on behalf of our member organisations, and delivered by a team of scientific experts from state and local government, water utilities, universities and industry.

### Results - What do they mean?

The 2015 Report Card Environmental Condition Grades and Waterway Benefits Ratings are based on analysis of data compiled from July 2014 to June 2015.

#### Environmental Condition Grade:

The Environmental Condition Grade is comprised of multiple indicators, assessing key freshwater and estuarine aspects of the waterways. Indicators are assessed against established guidelines and benchmarks, resulting in a single grade for each catchment or bay zone. The data used to calculate the 2015 grades have been collected using an integration of computer modelling and field monitoring.

- A Excellent:** Conditions meet all guidelines. All key processes are functional and critical habitats are in near pristine condition.
- B Good:** Conditions meet guidelines for most of the reporting area. Most key processes are slightly impacted and most critical habitats are intact.
- C Fair:** Conditions are close to meeting guidelines in most of the reporting area. Key processes are impacted but still functional and critical habitats are impacted.
- D Poor:** Conditions meet few of the guidelines in most of the reporting area. Many key processes are not functional and most critical habitats are impacted.
- F Fail:** Conditions do not meet the set guidelines. Most key processes are not functional and most critical habitats are severely impacted.

#### Waterway Benefits Rating:

The introduction of the Waterway Benefits Rating provides a benchmark to measure future improvements or increases in the benefits and services that our waterways provide to the community. Information for this year's star rating was collected through a range of methods including social surveys and economic assessments.

In 2015, the Waterway Benefits Rating measures the following components:

- Social** - community values and satisfaction with waterways, and their ability to use them.
- Economic** - economic benefits generated through recreational use and recreational fishing, as well as the contribution the catchment makes to providing clean drinking water.

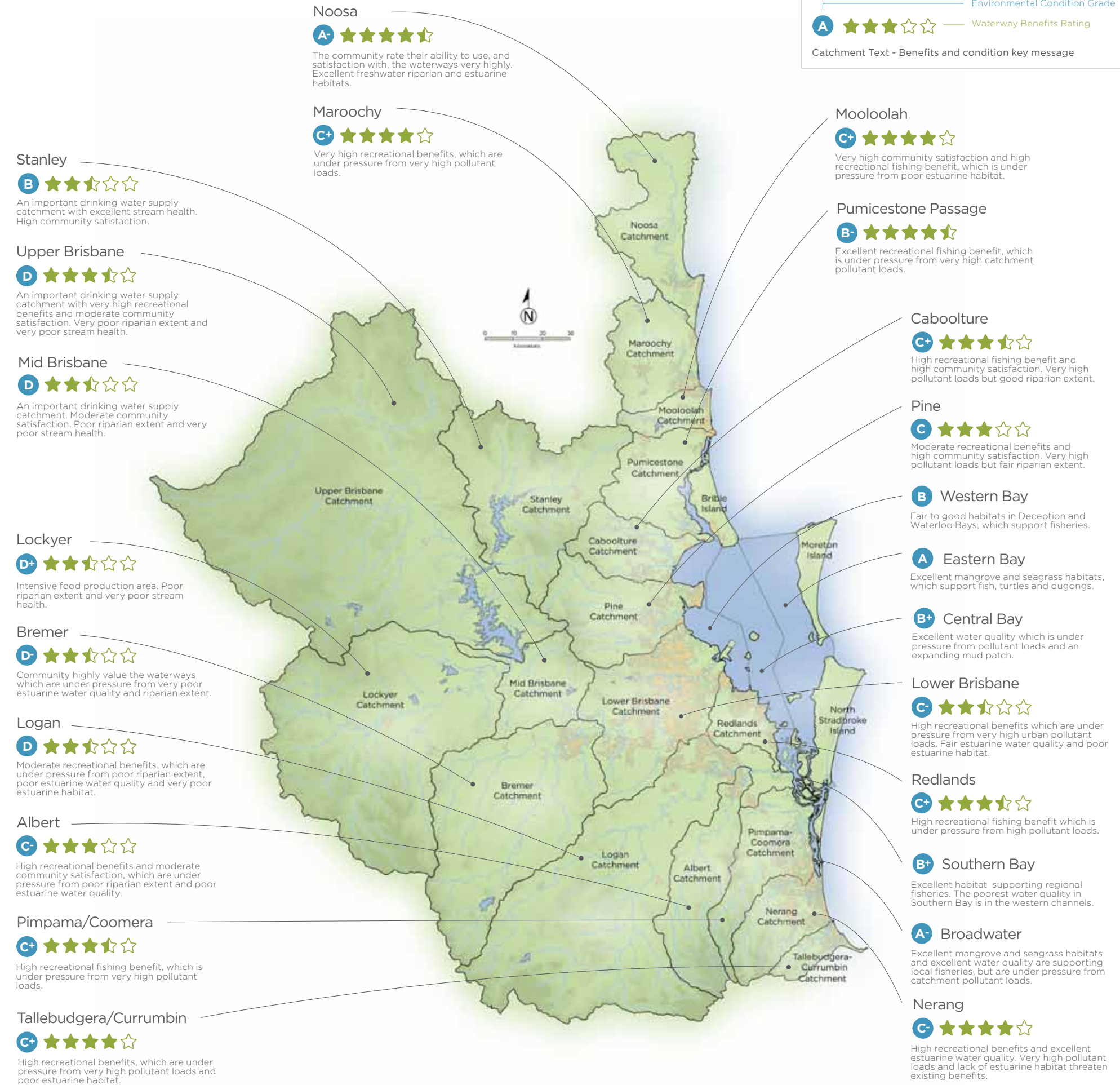
These components are combined to reach an overall Waterway Benefits Rating.

- ★★★★★ **Maximum benefits:** The local community receives full social and economic benefits from waterways.
- ★★★★ **Very high benefits:** The local community receives the majority of social and economic benefits from waterways.
- ★★★ **High benefits:** The local community receives many social and economic benefits from waterways.
- ★★ **Moderate benefits:** The local community receives only a few social and economic benefits from waterways.
- ★ **Minimum benefits:** The local community receives almost no social or economic benefits from waterways.

**NOTES:** A Waterway Benefits Rating for the bay zones and Broadwater will be explored in future years. The 2015 Environmental Condition Grades are not directly comparable to previous years due to the evolved methodology which includes measures for additional pressures and key habitats. This will allow us to more efficiently assess and compare the health of different catchments in the future. The data is available on the Healthy Waterways website.

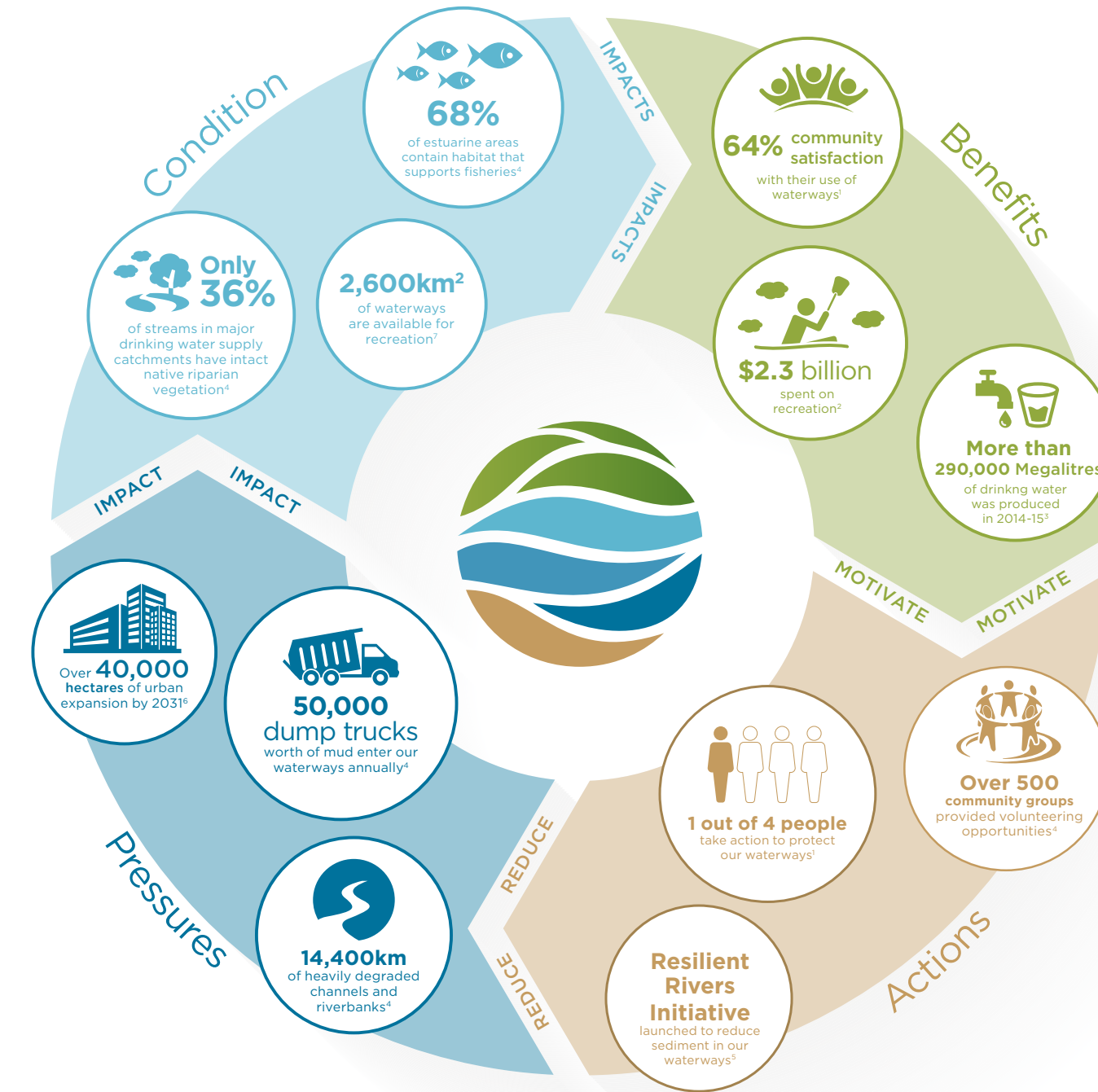
For more information, please visit [www.healthywaterways.org](http://www.healthywaterways.org)

## REPORT CARD 2015



## A SNAPSHOT OF SOUTH EAST QUEENSLAND'S WATERWAYS

The condition of our waterways impacts the benefits they provide to local communities. The level of benefit provided can motivate action to help reduce the pressures that are impacting on environmental condition.



1. Healthy Waterways Community Survey 2015
2. Healthy Waterways Independent Economic Valuation 2015
3. Treated water to drinking standard, Seqwater Annual Report 2014-15, page 5
4. Healthy Waterways Monitoring Program 2014-15
5. Council of Mayors (SEQ)
6. Healthy Waterways Erosion and Sediment Control Project 2015
7. Data from the Queensland Geospatial Catalogue

## 2015 REPORT CARD KEY MESSAGES

Since Healthy Waterways began monitoring South East Queensland's waterways in 2000, reducing point source pollution (i.e. nutrients) has been a key focus. Over the years, point source pollution has improved significantly and is now a reduced pressure that continues to be managed. The increasing amount of mud (sediment) entering the waterways has now become a critical issue. We have refocused our monitoring to help address this pressure and inform the maintenance of key habitats (i.e. riparian vegetation and seagrass) which support fish, turtles and dugongs. Reducing these pressures will help improve environmental condition and enhance the benefits our waterways provide to local communities.

### Northern Catchments

Noosa, Maroochy, Mooloolah, Pumicestone Passage.

The environmental condition of waterways in the northern subregion ranges from fair to excellent. There are extensive areas of estuarine habitat in most northern estuaries (except Mooloolah), which support recreational fishing. Recreation in all northern waterways generates a high level of economic benefit. Local communities are highly satisfied with their waterways and reported few barriers to using them. Community members are active in this subregion, with 34% of people indicating they are engaged in initiatives that protect and restore waterways.

Intensive land use is generating high pollutant loads, particularly in Maroochy and Pumicestone catchments. This is placing increasing pressure on waterway condition which will impact the future level of benefits waterways provide to the community. Protecting existing riparian and wetland habitat is critical to protect waterway condition and benefits.

### Central Catchments and Moreton Bay Zones

Caboolture, Pine, Lower Brisbane and Redlands. Bay zones and Broadwater.

Moreton Bay catchments are generally in fair environmental condition. Water quality in most estuaries is improving due to wastewater treatment plant upgrades over the last decade. All communities highly value their waterways, rating their ability to use and satisfaction with the waterways between moderate to high. The high number of waterway related volunteer opportunities available provide potential to further connect the community with local waterways.

Extensive areas of estuarine habitat throughout the bays and surrounding estuaries support high value recreational fishing. Bay zones are in good or excellent environmental condition with key habitats such as mangroves and seagrass providing extensive recreational and commercial fishing opportunities. However, pollutant loads from urbanisation and past flooding events are placing increasing pressure on waterway condition and benefits. Careful stormwater management and erosion prevention and sediment control is required to mitigate these pressures.

### Southern Catchments

Logan, Albert, Pimpama/Coomera, Nerang, Tallebudgera/Currumbin.

Waterways in the southern catchments are generally in fair environmental condition, with the exception of Logan. Local community satisfaction with their waterways varies from moderate to very high. All southern catchments provide volunteer opportunities through many vibrant community groups and extension programs. Generally, the waterways provide very high economic benefits through recreational use, with southern waterways providing some of the best recreational fishing areas in South East Queensland.

These benefits are under increasing pressure due to the removal of both estuarine and freshwater habitats, as well as intensive land use which is generating high pollutant loads. Improving and maintaining riparian vegetation and estuarine habitats is crucial in order to improve and protect waterway condition and benefits.

### Western Catchments

Stanley, Upper Brisbane, Mid Brisbane, Lockyer, Bremer.

With the exception of Stanley, which is in good environmental condition, the western catchments are generally in poor condition due to a legacy of long-term riparian vegetation clearing. The level of benefits that communities receive from their local waterways ranges from moderate to high. However, the community rate their ability to use and satisfaction with their local waterways as moderate. Some of the highest numbers of landholders in the region are engaged in waterway restoration activities in the western catchments.

These catchments support a nationally important 'food bowl'. To protect the community's livelihood, it is essential to retain valuable agricultural soil and ensure the availability of water for irrigation. Local councils are working with the Council of Mayors (SEQ) and landholders to prioritise actions that will stabilise riverbanks and decrease pollutant loads generated from high intensity land use.

# Converting understanding into action

One of the primary aims of the evolved Healthy Waterways Monitoring Program and Report Card is to identify priority areas for investment and help track the effectiveness of management actions. The evolved Monitoring Program is already playing a significant role in providing information for the delivery of the Pumicestone Passage and Catchment Action Plan 2013-2016.

The Program is also providing critical information to support the Resilient Rivers Initiative. This recently formed partnership established through the Council of Mayors (SEQ) and state government focuses targeted regional efforts to keep soil on the land and out of our waterways. The Program will be used to inform priority actions and support the setting and tracking of targets to deliver increased agricultural productivity, secure drinking water and improve flood and climate protection.

Healthy Waterways utilises the data and information from the Monitoring Program to develop targeted, evidence-based solutions that drive, inform and support the implementation of best management practice in a number of priority areas. These priority areas include recreation and tourism, stormwater, construction, point source, riparian and land management. Ongoing investment toward maintaining and improving our waterways will benefit the environment, economy and essentially our quality of life.



Source: Sunshine Coast Council

## *Pumicestone Passage and Catchment Action Plan 2013-2016*

The Action Plan was developed by more than 30 community, industry and government organisations of the Pumicestone Catchment Network.

Under the plan, network members are undertaking 41 actions to protect and improve water quality and wildlife habitats, and the diverse social and economic values they support.



**Find out more** about the Report Card results, what's happening in your area and how you can get involved [www.healthywaterways.org](http://www.healthywaterways.org)



Healthy Waterways is an independent, not-for-profit organisation working to protect and improve South East Queensland's waterways. Together with our members from government, industry, and the community we have one clear vision to achieve healthy waterways for a healthy economy.



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**Front cover images:** (Top to bottom) Ipswich City Council - Father and daughter fishing by the Bremer River at Cribb Park, North Ipswich. Seqwater - Seqwater works in partnership with local communities to improve catchment biodiversity and land management to ensure a high quality water supply. Sunshine Coast Council - The high diversity of birdlife found on the Pumicestone Passage, Toorbul. Redland City Council - Recreational sea kayakers among the southern Moreton Bay Islands.

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