

Somerset Regional Council

# HEALTHY WATERWAYS AND CATCHMENTS

# REPORT CARD 2016

Istock

Unitywater

Scenic Rim Regional Council



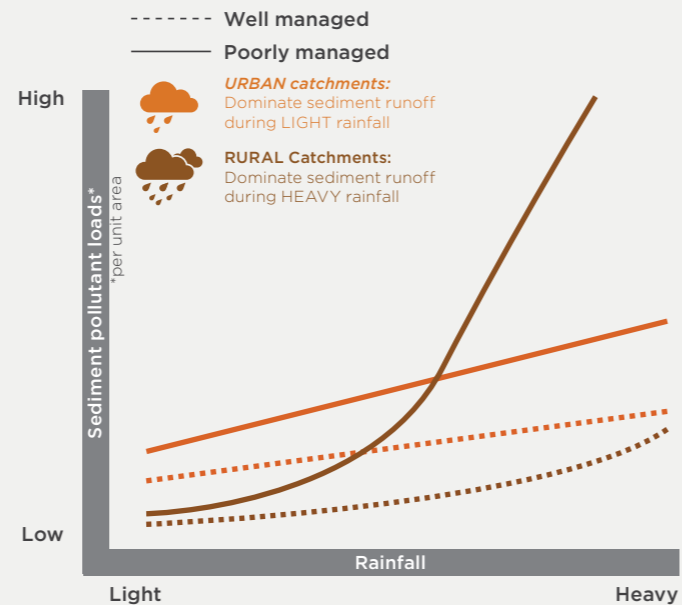
# ACTIONS TO REDUCE SEDIMENT POLLUTION

Sediment pollution is the number one pressure impacting on South East Queensland waterways. It carries both nutrient and heavy metal pollutants, reduces water quality, and smothers estuarine, marine and freshwater habitats. A coordinated and comprehensive approach is needed to target the problem and drive the large-scale investment required to address it. Healthy Waterways and Catchments understands that improving the condition of our catchments requires an understanding of sediment pollution drivers and we are working to identify focus areas for action. Working with local and state governments, we have assessed each sub catchment to identify areas that are vulnerable to generating sediment pollution if they are not properly managed. This information will help unite landholders, community groups, developers and government to undertake targeted, evidence-based action.

The assessment has highlighted how sediment sources differ in rural and urban areas of the region. In rural catchments, stream bank and gully erosion are the dominant sediment pollution sources contributing to the loss of fertile, agricultural lands and threatening South East Queensland's water supply. In urban catchments, the two important sediment sources are construction sites and hardened areas such as roads.

Environmental condition, land management and rainfall are key elements influencing the severity of erosion and the amount of sediment pollution entering the waterways. The conceptual diagram to the right represents sediment pollution sources in different rainfall scenarios. By implementing the priority actions identified below for both rural and urban catchments, we can significantly reduce the amount of sediment pollution entering our waterways during all types of rainfall events.

▶ For more information, visit [healthywaterways.org/reportcard](http://healthywaterways.org/reportcard)



## ▶ URBAN CATCHMENTS

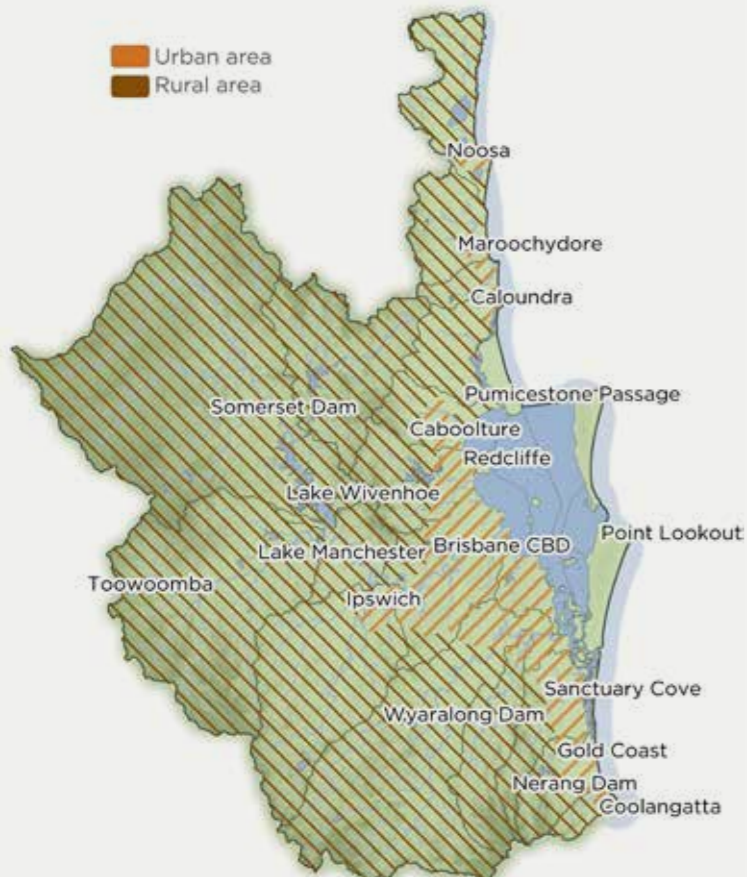
**MAIN SOURCE OF SEDIMENT POLLUTION**  
Exposed areas such as roads, construction sites and newly cleared areas.

**PRIORITY ACTIONS**  
Erosion and sediment control on construction sites, water sensitive urban design to manage stormwater and rehabilitation of urban creeks.

## ▶ RURAL CATCHMENTS

**MAIN SOURCE OF SEDIMENT POLLUTION**  
Channel erosion, including stream bank and gully, particularly in areas with less riparian vegetation and those with highly erosive soils.

**PRIORITY ACTIONS**  
Stabilise stream banks, establish and preserve healthy riparian vegetation and support best management practice farming.



# A SNAPSHOT OF ACTIONS IN SOUTH EAST QUEENSLAND

There are plenty of projects and initiatives currently being undertaken to reduce sediment pollution, which will help protect and enhance the environmental, social and economic benefits our waterways provide. A few examples are provided below.

▶ To find out about other great projects in the region, visit [healthywaterways.org/actions](http://healthywaterways.org/actions)



This activity is part of Unitywater's Creekside Greening Program and the most recent planting day was held on 29 July 2016.

## Revegetating Priority Sites: Pine River Wetland

Unitywater and Moreton Bay Regional Council are working in partnership with the local community to revegetate the Pine River Wetland. The wetland plays an important role in increasing natural wildlife habitats and buffering the Pine River system and Moreton Bay from negative impacts of stormwater flows and urban development. Over a four-year period, volunteers have planted some 6,000 seedlings at the 24-hectare site, helping reduce sediment loads and nutrients entering waterways and being transported to Moreton Bay. These plantings will further enhance the landscape and create lasting benefits for the community and environment by adding to the vegetation buffers along the Pine River.

## Kilcoy Community Wetland

Somerset Regional Council and Brisbane Valley Kilcoy Landcare Group, with support from the community, are using innovative techniques to revegetate a key wetland corridor at Kilcoy. The project has been successful in increasing biodiversity, community ownership and amenity, as well as buffering the Lake Somerset and Lake Wivenhoe drinking water supplies from increased sediment and nutrient supply associated with urban development. The project is currently in its third stage of development bringing the total area of wetland to 1.2 hectares.



Innovative planting techniques have resulted in almost 100% survival rate.

## Scenic Rim One Million Trees

Through fostering relationships between the community and investors, Scenic Rim Regional Council is working to ensure the region's social, economic and ecological sustainability. The Scenic Rim One Million Trees Program provides trees to local landholders and community groups, which are then used to reduce erosion, provide a net increase in habitat for wildlife and increase community liveability. The Program is funded in partnership with local government agencies, businesses and community. This revegetation work will help safeguard essential ecological services the South East Queensland community relies upon.



One Million Trees Program

## Best Practice Erosion and Sediment control

Lendlease, as part of the Gateway Upgrade North project team, is committed to implementing innovative solutions to minimising environmental impacts. This includes developing best management practices for erosion and sediment control. These works are located in close proximity to high-value sites, including Moreton Bay Marine Park, Deagon and Boondall Wetlands. Management actions include reducing vegetation clearing, managing off-site flows, stabilising exposed soils and monitoring water quality to ensure the project proceeds in a way that meets the social and environmental expectations of the community. This project is being managed by the Department of Transport and Main Roads in partnership with Transurban Queensland, and is being constructed by Lendlease.



The project is funded by the Australian and Queensland governments.

## Healthy Waterways and Catchments Monitoring Program

The Healthy Waterways and Catchments 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. Last year, new measures were introduced to focus on additional pressures (such as sediment in our waterways), and to understand the links between water quality and waterway benefits that are provided to the community. This assessment is undertaken for each of South East Queensland's 18 major catchments and five zones in Moreton Bay and Broadwater.

The Program is managed by Healthy Waterways and Catchments 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 2016 Report Card Environmental Condition Grades and Waterway Benefits Ratings are based on analysis of data compiled from July 2015 to June 2016.

#### 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 2016 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 intact.
- 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:

South East Queensland's waterways provide many social and economic benefits to the community through recreation, tourism, fishing and providing clean drinking water. The Waterway Benefits Rating provides an assessment of these social and economic benefits, which are combined to reach an overall rating.

**Social** - measures community satisfaction with waterways as well as their ability to access and use waterways.

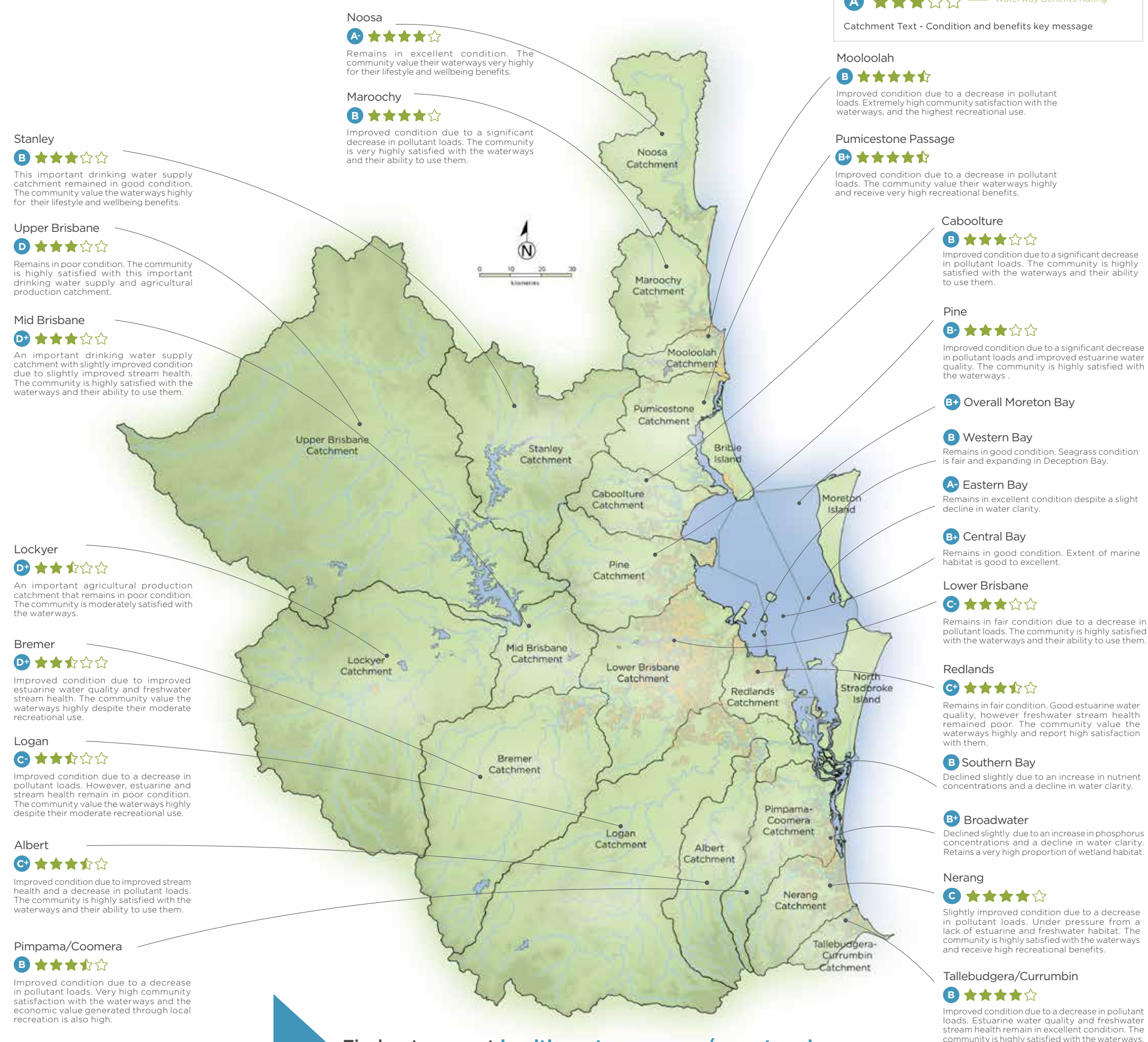
**Economic** - measures the financial benefits generated through recreational use of waterways and recreational fishing, as well as the contribution the catchment makes to providing clean drinking water.

This information was collected through a range of methods including social surveys and economic assessments.

- ★★★★★ **Maximum social and economic benefits**
- ★★★★ **Very high social and economic benefits**
- ★★★ **High social and economic benefits**
- ★★ **Moderate social and economic benefits**
- ★ **Minimum social and economic benefits**

**NOTE:** A Waterway Benefits Rating for the bay zones and Broadwater will be explored in future years.

## REPORT CARD RESULTS 2016



Find out more at [healthywaterways.org/reportcard](http://healthywaterways.org/reportcard)

## REPORT CARD KEY MESSAGES

### Northern Catchments

Noosa, Maroochy, Mooloolah, Pumicestone Passage.

Waterway condition in the northern sub region ranges from good to excellent. Lower than average rainfall throughout the year has significantly decreased the amount of pollutant loads entering the waterways, leading to improved condition in Maroochy, Mooloolah and Pumicestone Passage. The majority of waterways have high quality estuarine habitat, which support recreational fishing. The level of benefit the community receives from their local waterways ranges from high to very high. The local communities therefore value their waterways highly. They also generally report being highly satisfied with them. The economic value generated through local waterway recreation is very high.

Sediment pollutant loads generated through rural channel erosion and a rapidly growing urban footprint continue to impact waterway condition and benefits. Local councils, industry and the community are working to reduce sediment loads through a number of key projects across the region, including the Pumicestone Passage Action Plan. Further action is needed in vulnerable rural and urban areas to maintain vegetation, stabilise channels and banks, and minimise runoff from construction sites.

### Central Catchments and Moreton Bay Zones

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

Waterways in the central sub region are in fair to good condition. A significant reduction in pollutant loads entering local waterways has offset a decline in freshwater stream health. The level of benefit the community receives from their local waterways is high. The local communities value their waterways highly and generally report their satisfaction with them as high. These catchments remain under pressure from urban development, and rural and urban hot spots which are vulnerable to channel erosion.

Moreton Bay areas and the Broadwater remain in good condition. The Bay supports high value habitat, making it an important fishery and key tourism resource for the region. Protecting this resource into the future will require reducing sediment loads from growing urban areas and stabilising riverbanks in rural areas.

Local councils and industry are working hard to ensure sediment loads generated through urban development are minimised. This includes exploring cost-effective re-allocation of stormwater management resources via off-site stormwater treatment solutions.

### Southern Catchments

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

The southern sub region has fair to excellent waterway condition. Slight improvements were seen across Logan, Albert and Nerang, which are all in fair condition while Pimpama/Coomera and Tallebudgera/Currumbin improved from fair to good condition. These improvements were largely driven by a decrease in the amount of pollutant loads entering the waterways. The level of benefit the community receives from their local waterways ranges from high to very high. The local communities value their waterways highly and generally report being highly satisfied with them. The economic value generated through local waterway recreation is moderate to high.

Sediment pollution remains a significant pressure. Environmental condition and socio-economic benefits are highly vulnerable to channel erosion in the upper rural catchments, and lower parts of the catchment are vulnerable to sediment generated through a lack of erosion and sediment control, particularly from construction sites.

Local councils, industry and the community are working to reduce sediment loads through a range of projects including the Logan/Albert Catchment Action Plan (due in 2017).

### Western Catchments

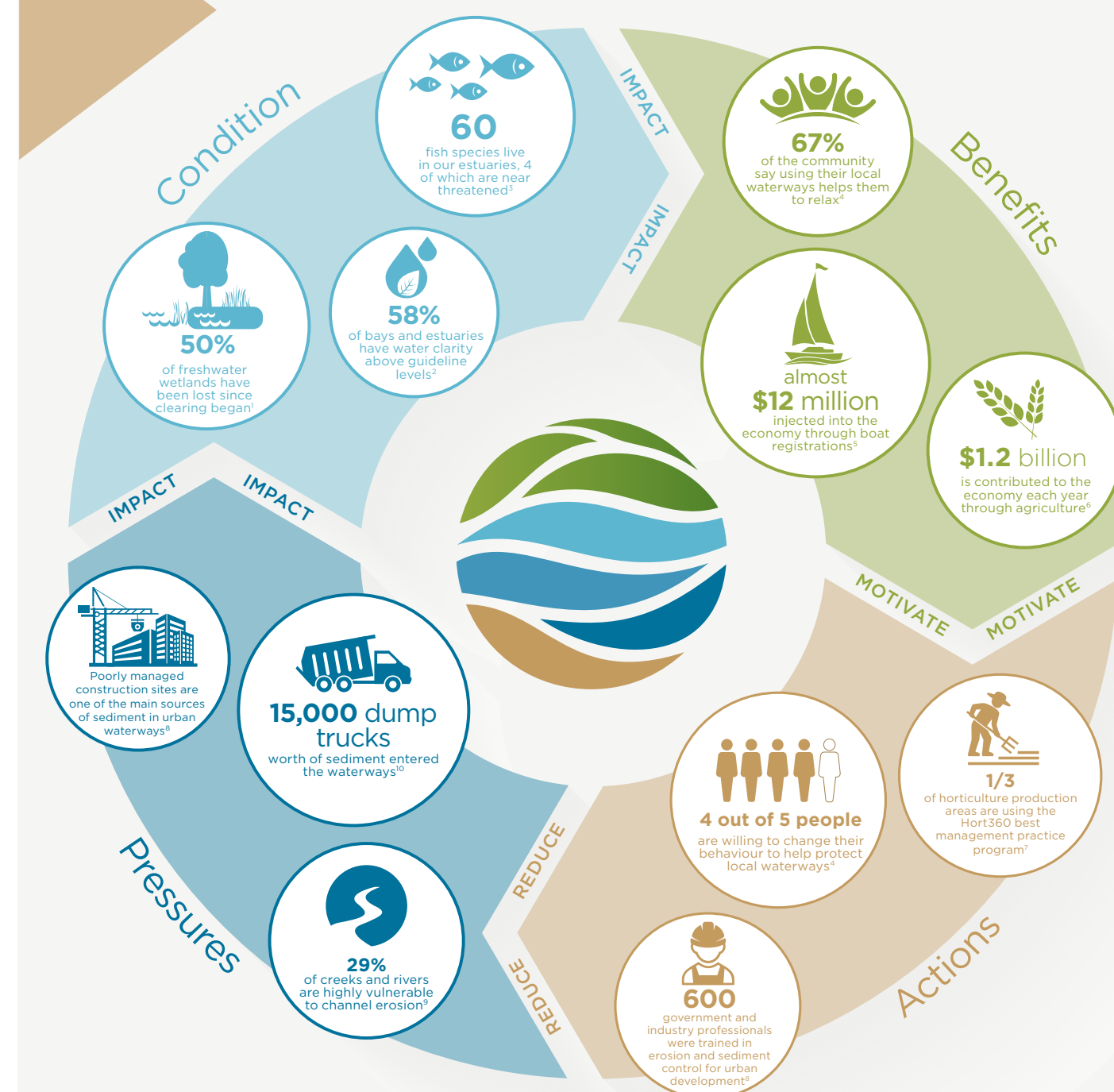
Stanley, Upper Brisbane, Mid Brisbane, Lockyer, Bremer.

Waterway condition in the western sub region spans from poor to good. The highly productive western catchments enable the agricultural activities that are vital to our food supply and the economy. The level of benefit the community receives from their local waterways therefore ranges from moderate to high. The local communities value their waterways highly and generally report their satisfaction with them as high.

Channel and gully erosion associated with historic land-clearing of riparian vegetation has resulted in bulk erosion and transport of sediment within the sub region's waterways. Revegetation and channel stabilisation are needed in large areas of the catchment that are vulnerable to erosion.

A number of planning initiatives and actions are helping to reduce sediment loads in local waterways. This includes the Lockyer Valley, Mid-Brisbane and Bremer River Catchment Action Plans, on-ground revegetation and channel stabilisation works, best management practice horticulture and grazing programs.

## A SNAPSHOT OF SOUTH EAST QUEENSLAND'S WATERWAYS 2016



1. Department of Environment and Heritage Protection (2016) WetlandInfo  
2. Healthy Waterways and Catchments Monitoring Program  
3. University of Sunshine Coast & Healthy Waterways and Catchments (2016) Linking habitat, land use and water quality to optimise fish conservation in degraded estuaries  
4. Queensland University of Technology & Healthy Waterways and Catchments (2016) Social Survey 2016  
5. Science Under Sail & Healthy Waterways and Catchments (2016) Economic Valuation of Waterways

6. Department of Agriculture and Fisheries (2015) Queensland Agricultural Land Audit  
7. GrowCom  
8. Healthy Waterways and Catchments (2016) Erosion and Sediment Control Program 2015-16  
9. Healthy Waterways and Catchments (2016) Sub Catchment Hazard Assessment  
10. Healthy Waterways and Catchments & BMT WBM (2016) Report Card Modelling 2016  
11. Hort360  
12. Hort360



# LOOKING AHEAD

Healthy Waterways and Catchments Ltd

Healthy Waterways and Catchments is a new entity combining not-for-profit organisations Healthy Waterways and SEQ Catchments. The strength of this union lies in our ability to bring together scientific expertise with enduring and strong partnerships, enabling us to mobilise action that will help build a resilient region.

Our aim is to protect our unique and beautiful land and waterways from the numerous pressures they face. This includes population growth and extreme weather events, which can cause sediment pollution and habitat loss. These pressures not only impact environmental condition, but threaten the many social and economic benefits our waterways provide. This includes recreation, agriculture and a clean drinking water supply.

We tackle these issues by connecting and empowering landholders, community groups, government and industry with the independent and trusted science, tools, support and on-ground action required to make real and lasting change for the environment. This also contributes to the ongoing health and wellbeing of the community.

Together with our members we have been developing a strategic plan and brand for our new organisation, which will be unveiled in early 2017. We are excited to share this strategic direction with you. We look forward to continuing to work together to ensure a sustainable and thriving future for our region.



**Find out more**  
[healthywaterways.org/reportcard](http://healthywaterways.org/reportcard)



*Dedicated to a better Brisbane*



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