



South East Queensland
Report Card
2017

A Snapshot of our Region 2017

Current trend of prolonged **dry weather** interrupted by **severe rain events** puts pressure on the landscape

A total of **237,558 ha** of non-exclusive and exclusive **Native Title** has been determined within South East Queensland²

50% of SEQ has forest cover but clearing rates are the highest in 10 years³

On average it costs **\$2.4M** in **sludge disposal** to produce drinking water annually¹

Freshwater stream health is a result of rainfall and riverbank vegetation⁴

People in SEQ on average spend **64 days** recreating and enjoying nature each year⁵

Landholders can help prevent sediment flowing into waterways by revegetating and fencing riverbanks to reduce downstream effects

Revegetated riverbanks in the upper catchments can reduce flood water by up to **50%** protecting roads, bridges and other infrastructure downstream⁵

Effective wastewater and stormwater management prevents waterway pollution and supports a **healthy ecosystem**

Urban construction sites contribute on average **40%** of the total sediment load entering waterways in SEQ each year⁷

Compliant erosion and sediment control on construction sites prevents sediment pollution

750,000 new residents and **30,000** new dwellings predicted for SEQ each year, putting further pressure on the region⁸

60% population growth predicted for SEQ over the next 25 years⁹

SEQ waterways provide approx. **\$3.2b** worth of recreational value to residents⁵

30,000 dump trucks worth of sediment was generated across South East Queensland this year⁷

Mangroves filter sediment carried by rivers improving water quality and provide marine habitats

160 km² of seagrass meadows in Moreton Bay stabilise the sea floor and provide food for dugongs, turtles and critical fish habitat¹⁰

Moreton Bay is a diverse ecosystem with over **3,500** marine species¹¹

1. Seqwater (2017)

2. National Native Title Tribunal (2017)

3. Queensland Department of Science, Information Technology and Innovation (2017) Land cover change in Queensland 2015-16: a Statewide Landcover and Trees Study (SLATS) report. DSTI, Brisbane.

4. Sheldon, F. et al. (2012). Identifying the spatial scale of land use that most strongly influences overall river ecosystem health score. Ecological Applications, 22(8), 2188-2203.

5. Queensland University of Technology and Healthy Land and Water (2017) Social Survey 2017

6. Healthy Waterways (2013) Reduce Flood Impacts 2013-007

7. Healthy Waterways (2016) The Case for Best Practice Erosion and Sediment Control Compliance

8. ShapingSEQ South East Queensland Regional Plan 2017 (2017) The Department of Infrastructure, Local Government and Planning

9. Healthy Land and Water Monitoring Program

10. Roelfsema, C. et al. (2013) Challenges of remote sensing for quantifying changes in large complex seagrass environments

11. Queensland Museum (2011) Wild Guide To Moreton Bay And Adjacent Coasts

WESTERN CATCHMENTS

Conditions in the Western region range from poor to good and most catchments recorded a decrease in overall condition. Ongoing dry weather and poor vegetation coverage in the Western catchments has resulted in a continuing decline in freshwater stream health. This means the region's waterways are highly-susceptible to future erosion caused by storms and flooding, but solutions do exist. Ongoing riverbank stabilisation projects reduce damage caused by floods, protecting agricultural land and Brisbane's drinking water supply. Community members are knowledgeable and highly connected with their waterways in the region which is demonstrated by their ongoing support and participation in activities to protect their catchments.

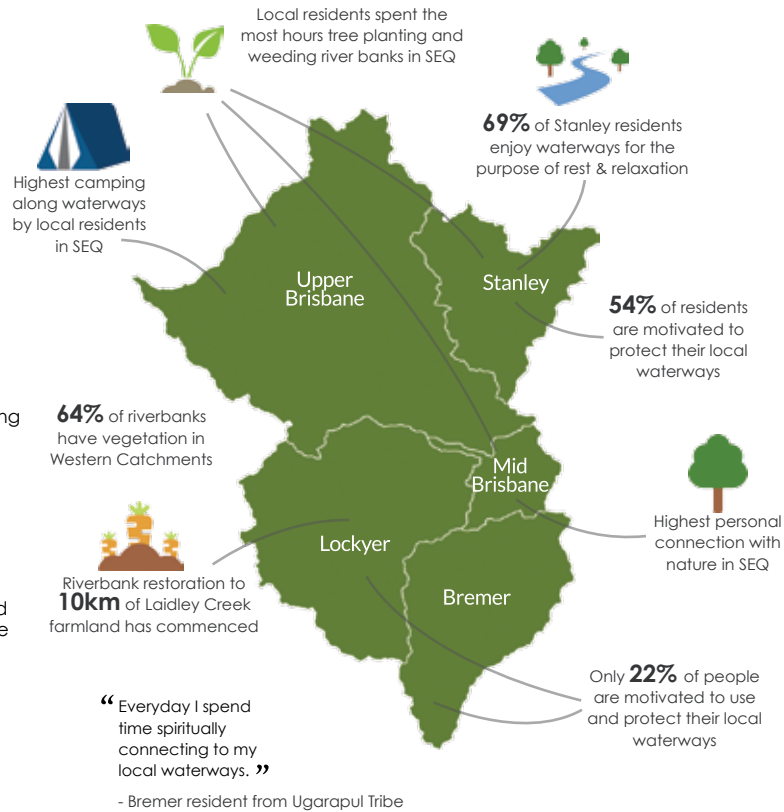


Image: Ipswich City Council

Stabilising Sapling Pocket

The rehabilitation of a former quarry site bordering the Brisbane River near Fernvale is showcasing what can be achieved through collaborative efforts to restore degraded environmental sites. Sapling Pocket is a highly valuable ecological area home to platypus, ducks, geese, swans and eagles but one that is highly susceptible to flooding.

A project managed by **Ipswich City Council** and **Seqwater** aims to stabilise the floodplain to make the site more resilient to low-level flooding. Over 60,000 native species have been planted and more than 400 pile-field posts have been driven into the ground to slow the flow of water. The rehabilitation works are helping to reduce the level of sediment flowing into the Brisbane River and have restored environmental value to the site.



ACTIONS TO TAKE



Revegetation and riverbank stabilisation



De-channelise rivers and reinstate floodplains



Best management practice grazing and horticulture

SOUTHERN CATCHMENTS

Waterway condition in the Southern catchments ranges from fair to good and overall grades decreased slightly in 2017 due to an increase in sediment loads. Residents love using their waterways but the region faces pressure from population growth and rapid urbanisation. The region has the least intact estuarine habitat in SEQ and sparse riverbank vegetation, making it highly sensitive to storm events. The floods caused by ex-Tropical Cyclone Debbie demonstrated this sensitivity, but the success of ongoing riverbank stabilisation projects have shown these problems can be fixed. In urban areas, effective stormwater management will further increase the resilience of the region to extreme weather events.

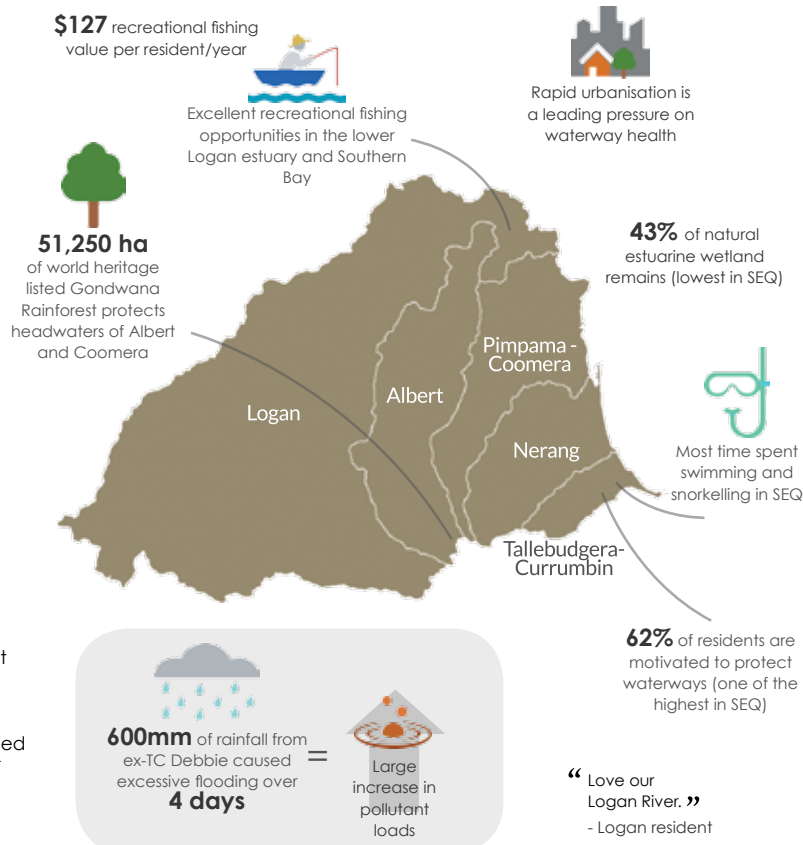


Image: Healthy Land and Water

Rehabilitating Logan River

The Scenic Rim section of the Logan River is historically inundated during significant rainfall events. As a result, the river suffers from high rates of channel erosion which distributes large amounts of soil, mud and nitrogen into the waterway.

An ongoing project led by **Queensland Urban Utilities** tackled the issue by upgrading a 500m section of riverbank nearby the Beaudesert Wastewater Treatment Plant, helping to prevent 11,000 tonnes of sediment, five tonnes of total nitrogen and eight tonnes of total phosphorous from entering the waterway each year. The project, due to run until 2019, prevented the need for an \$8m upgrade to Beaudesert Wastewater Treatment Plant, delivering a major cost-saving for ratepayers.



ACTIONS TO TAKE



Comply with erosion and sediment control requirements in fast developing urban areas



Restore riverbank and land vegetation to support lifestyle



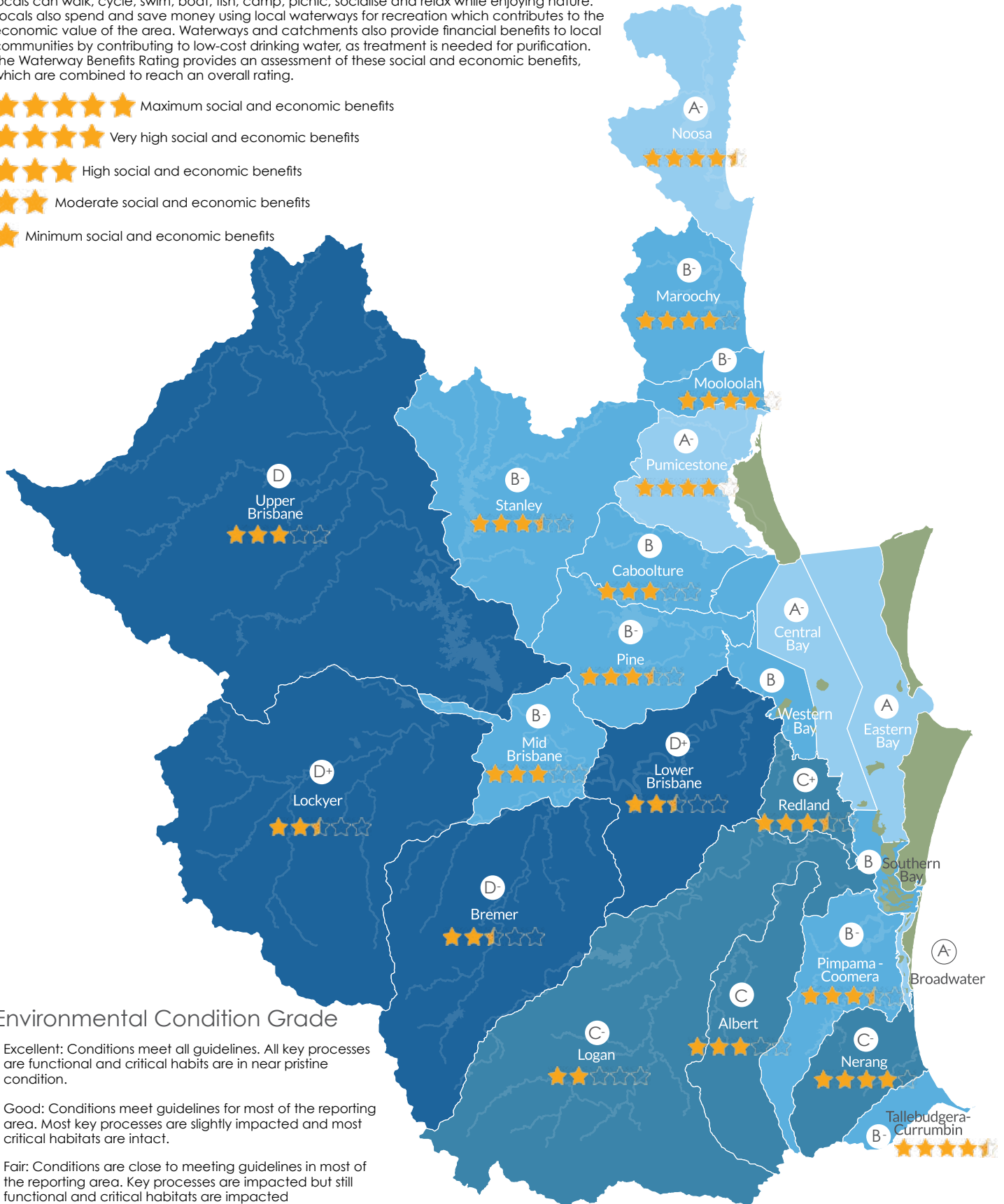
Stabilise channels and riverbanks

Report Card Results 2017

Waterway Benefits Rating

South East Queenslanders gain many benefits from their local waterways. Rivers, creeks, lakes and beaches that are easily accessible and usable are an important place of recreation where locals can walk, cycle, swim, boat, fish, camp, picnic, socialise and relax while enjoying nature. Locals also spend and save money using local waterways for recreation which contributes to the economic value of the area. Waterways and catchments also provide financial benefits to local communities by contributing to low-cost drinking water, as treatment is needed for purification. The Waterway Benefits Rating provides an assessment of these social and economic benefits, which are combined to reach an overall rating.

- ★★★★★★ 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



Environmental Condition Grade

- A** Excellent: Conditions meet all guidelines. All key processes are functional and critical habits 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.

NORTHERN CATCHMENTS

Waterway condition in the Northern catchments remains good to excellent due to high vegetation retention which maintains the resilience of the catchment to the effects of droughts and floods. The community loves their waterways and enjoys using them regularly. Protecting the natural assets of the region is crucial as the population increases and the catchments come under increasing pressure from land-clearing and urbanisation. The community is highly motivated to protect their local waterways but are concerned about the potential impacts from development. New developments must incorporate water sensitive design principles and include erosion and sediment controls that minimise the potential of soil and mud impacting urban waterways.



Highest extent of riverbank vegetation in SEQ (87%)



70% of residents use waterways for walking/running, picnicking & swimming



Slight increase in pollutant loads

Parks and reserves make up 35% of the Northern region (highest in SEQ)

"I love my local waterways. I live in the most beautiful place in the world."
- Mooloolah resident



85% of residents are satisfied with the condition and accessibility of waterways (highest in SEQ)



50-65% of residents are motivated to protect their local waterways



>300 tonnes of sediment saved from waterways using erosion and sediment control (Stockland Aura development)

\$320 recreational fishing value per resident/year



30% of residents enjoy fishing in their local waterway (highest in SEQ)

ACTIONS TO TAKE



Protect riverbank vegetation and freshwater wetlands



Maintain natural assets to support lifestyle



Minimise mud from construction sites in urban areas

Protecting the Passage

In the past 30 years, human population in the Pumicestone Passage Catchment area has doubled to around 65,000 people, placing increasing pressure on the passage and leading to a decline in water quality. In response, **Sunshine Coast Council** and **Moreton Bay Regional Council** initiated a catchment management program designed to reverse the trend and protect and restore wildlife habitats.

Stage one of the plan involved utilising mapping technology and monitoring programs to identify water quality hotspots, planting native trees along riverbanks to increase stability, establishing water quality targets and implementing a communications strategy that encouraged residents and stakeholders to take ownership of the issues facing the catchments. A second stage of the management plan is underway and due to be completed in 2020.

CENTRAL CATCHMENTS

& MORETON BAY

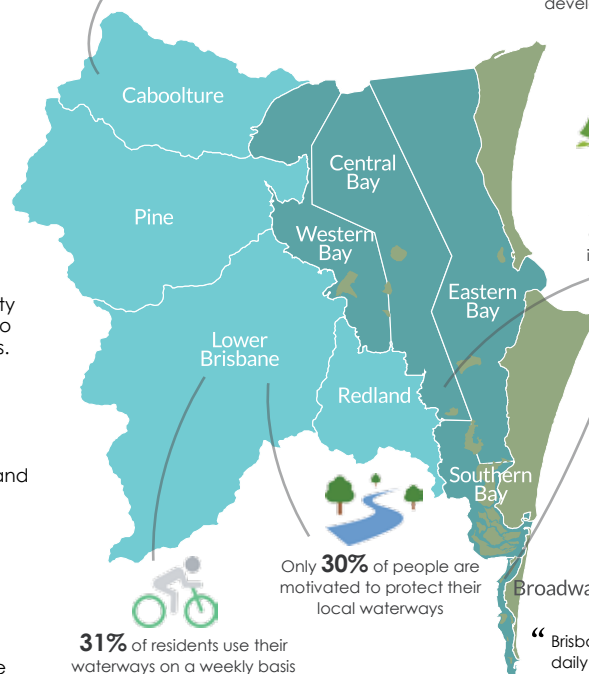
The overall condition of the Central catchments decreased slightly, ranging from poor to good. High levels of pollutants were generated from the extensive urban areas. This will likely increase with continuing urbanisation. Effective erosion and sediment control on construction sites is therefore vital to protect the overall health of waterways into the future. Residents greatly enjoy using the creeks, rivers and Moreton Bay for leisure activities, but the community lacks an emotional connection with their waterways. Educating residents on the benefits of engaging with waterways will motivate the community to protect them.



Most intact estuarine habitat in SEQ



350 government and industry professionals were trained in erosion and sediment control for urban development



Seagrass is growing at greater depths due to improved water clarity this year



\$2,500 per person in economic contribution from recreation activity around Moreton Bay

Only 30% of people are motivated to protect their local waterways



31% of residents use their waterways on a weekly basis for walking, running and cycling

"Brisbane River makes my daily commute a pleasure."
- Lower Brisbane resident

ACTIONS TO TAKE



Minimise mud from construction sites in urban areas



Stormwater treatment and retention through water sensitive urban design



Enhance lifestyle by increasing access and usability of local waterways

Restoring Spring Creek

In the ongoing effort to improve waterway quality in South East Queensland, returning waterways to their natural state is a key element in the process. At Carindale, **Brisbane City Council** is doing its part with the Spring Creek – Natural Waterway Rehabilitation project. Spring Creek has been identified as one of only two places in Brisbane where Ornate Rainbow Fish are found and the project, which began in 2016, aims to preserve and enhance the important aquatic habitat through targeted on-ground works.

After purchasing Spring Creek Reserve, Council removed exotic species from the waterway, re-instated local canopy and ground cover and planted vegetation to stabilise the riverbank against erosion. The project will improve water quality in the surrounding region and provide the local community with an important environmental habitat.

The 2017 Report Card is produced with support from our partners



Dedicated to a better Brisbane



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