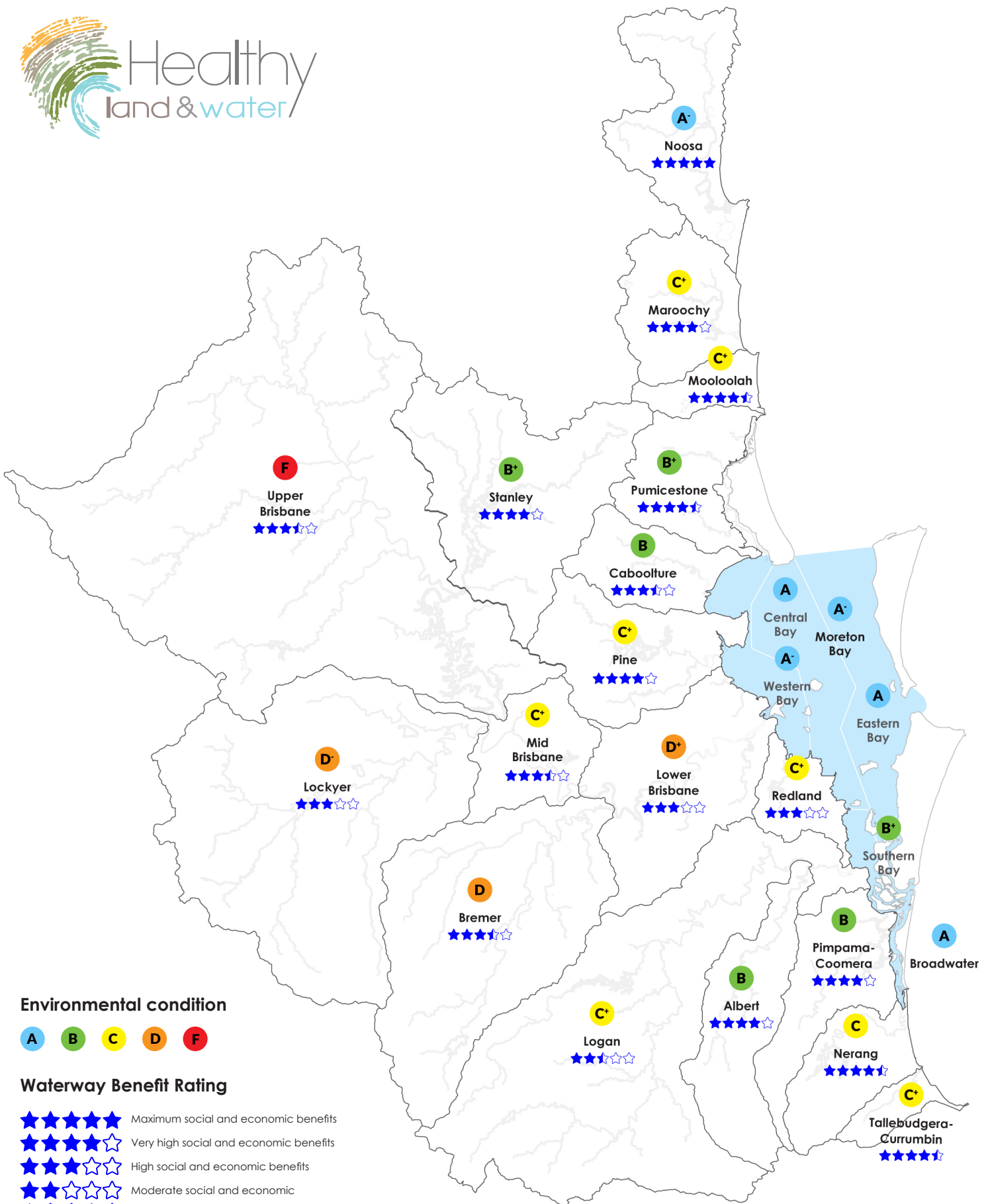
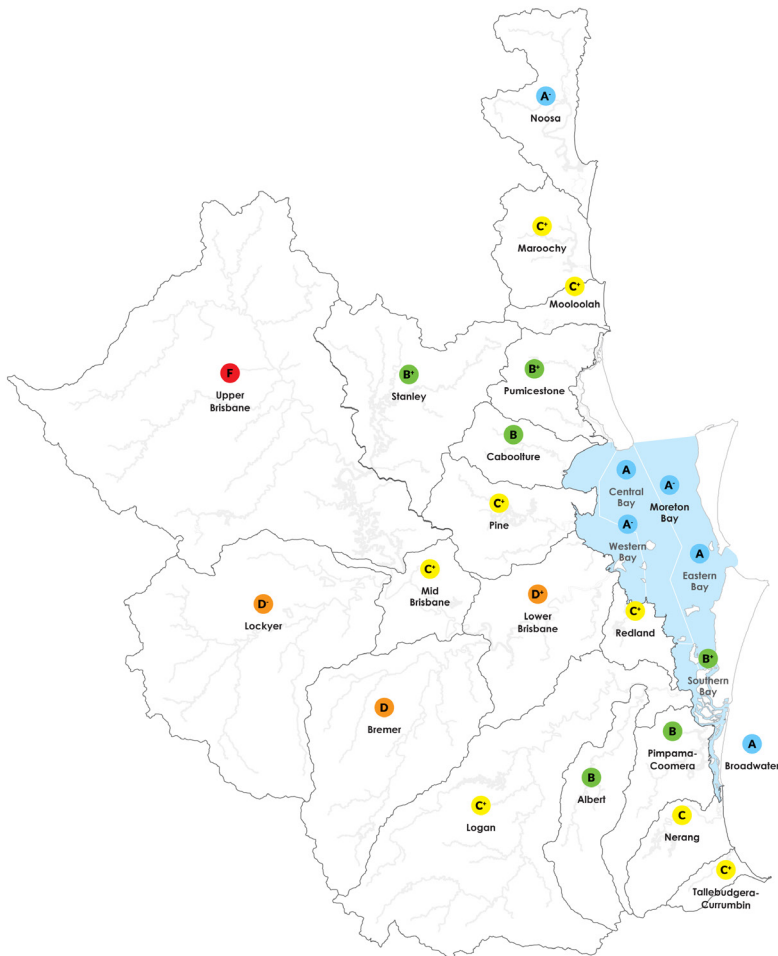




2021 Report Card At a Glance





Environmental Condition

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 grade is an integration of 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.

The Environmental Condition Story of 2021

With a dataset spanning over 20 years, we can see the condition of South East Queensland's (SEQ) waterways is declining over and above typical cycles of wet and dry periods. As the population in SEQ has grown over the past two decades, significant investments have been made into our catchments and point source pollution such as sewage treatment plants, which has improved water quality in our river estuaries and Moreton Bay. However, the trends in the data are now showing early warning signs that we are struggling to keep up with the escalating population growth to the region, which brings growing levels of pollution to our waterways from land-use changes for new housing, industry and development.

More investment and action is now needed into activities such as restoring streambank vegetation and managing urban run-off and point source pollution.

Overall Report Card grades for 2021 changed little from 2020. Typically grades do not change much year to year, however, drilling down to the data underneath the grades, trends in individual indicators paint a picture of changing waterway condition across the region.

There is a concerning trend of increasing nutrients levels in parts of Moreton Bay and the Brisbane, Pine and Caboolture River estuaries. Drought conditions like SEQ has experienced in the past five years, should result in better coastal water quality, as the estuaries and bay become disconnected from the catchment pollutants that typically come with rainfall.

We do see that in Moreton Bay in 2021, water clarity was the best recorded in 20 years for Western Bay, however, the fact we see increasing nutrient levels in some parts of SEQ is an early sign that nutrient pollution, particularly from urban areas may be creeping up as more people move to South East Queensland. This highlights that investment, planning and action is needed now to protect the future.

One of the key reasons we have been able to hold the line so long, is significant ongoing investment and management of point source pollution, such as sewage treatment plants. This has improved water quality in our river estuaries and Moreton Bay and helped counter the impacts of population growth to the region over the past two decades.

The Environmental Condition Story continued

The rural western catchments with sparse vegetation cover and little to no riparian vegetation (notably Upper Brisbane and Lockyer) have no resilience to drought, and as a result, 2021 saw some of the poorest freshwater condition since 2007. Upper Brisbane, a major supplier of drinking water feeding into Wivenhoe Dam, scored an F this year for the first time since 2007, at the end of the Millennial drought. Large-scale investment is required to bring back and protect stream bank vegetation and to restore the resilience across the region, but particularly in the western catchments.

Much work has been done, but there is much left to do. 1000 km of streams have been identified as a priority for stream bank restoration, due to their very high risk of stream bank (channel) erosion. Bringing back stream bank vegetation to around 6,000 km would restore the resilience to many freshwater streams and reduce sediment pollutant loads to the coastal areas by 50%.

The good news is that Moreton Bay appears resilient to times of poorer water quality, if disconnected from the catchment inputs for long enough to recover. The first Report Card was released in 2000 and at the time Bramble and Deception Bays received an F and D respectively, due to algal blooms, poor water quality, sewage and seagrass loss. In 2021 these bays, collectively now reported as "Western Bay", received an A- for the third year in a row.

Water quality in the Western Bay in 2021 is the best on record and seagrass, which returned several years ago, continues to expand growing thicker and deeper. A little further offshore, the Central Bay did even better in 2021, receiving an A for the first time in the history of the program. The mud delivered to Moreton Bay during the 2011 was significant, but with enough time between large events, the bay has been able to process it and the condition is excellent in 2021.

Notably, the return of seagrass to Moreton Bay is an internationally significant achievement. Bringing back seagrass was attempted in other parts of the world, such as Denmark, without success 20 years on. This suggests that Moreton Bay had not gone beyond a point of return when 20 years ago large investments were made to protect Moreton Bay and restore lost seagrass meadows. Expanding seagrass habitat signifies a healthier ecosystem, including fish community health and the protection of internally significant Ramsar wetlands. Protecting this valuable habitat is a priority for South East Queensland.

The 21-year story is a reminder that large-scale investment is still required, particularly in managing the impact of increasing population and the protection and restoration of stream bank vegetation. To date only modest investment in restoration has been made covering small areas and the scale of investment required to make a beneficial impact is substantial.

Different regions face different pressures and priorities:

Northern Catchments: Impacted by development pressures and historic land-use, the priority is to protect existing values and undertake active restoration and protection of wetlands and floodplains.

Central Catchments: Impacted by an increasing population, the priority is stormwater management and naturalising urban waterways where possible, as well as continuing to manage increasing demands on wastewater treatment plants.

Western Catchments: Impacted by historic loss of vegetation and riparian cover, the priority is to protect, manage and restore catchment vegetation and wetlands.

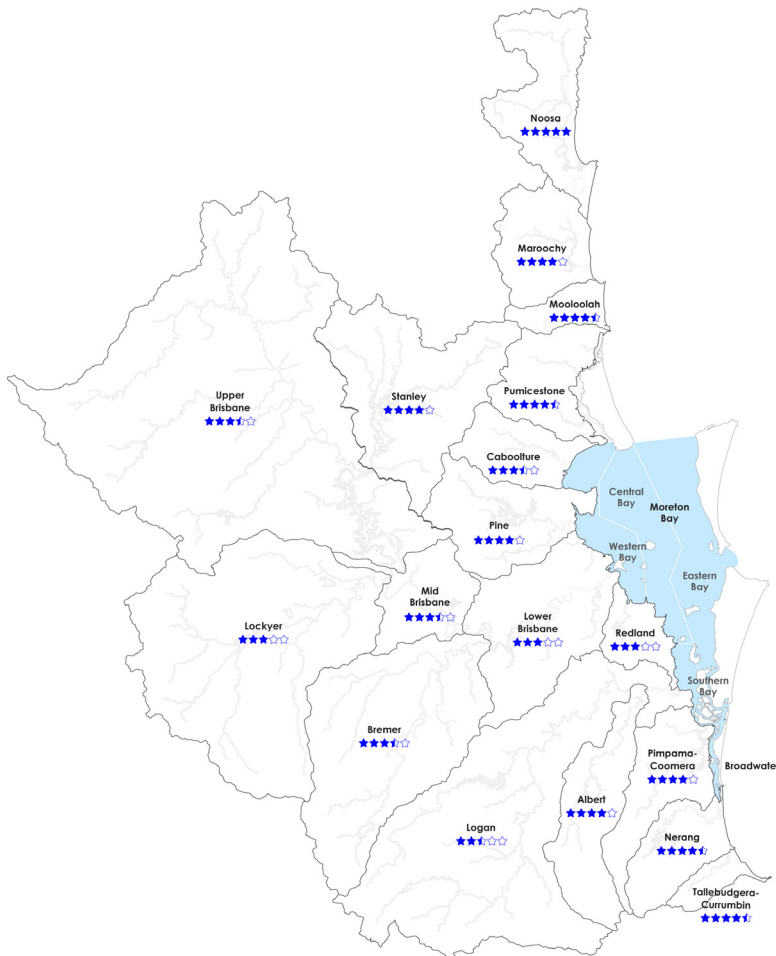
Southern Catchments: Impacted by an increasing population and development, the priority is to manage land-use change and increase erosion and sediment controls and compliance for new development, construction sites and private lands.

Waterway Benefit 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 benefit rating provides an assessment of these social and economic benefits, which are combined to reach an overall rating.



Waterway Benefit Rating



The Waterway Benefit Story of 2021

The creeks, rivers, lakes, bays and beaches of South East Queensland continue to provide significant value to the residents of the region during another year affected by the COVID-19 pandemic.

Most South East Queensland residents have a deep connection with nature, reporting that it is an important part of their lives. This year 84% of residents used their local waterways for some form of rest and recreation, including walking, cycling, swimming, picnics and fishing.

COVID-19 restrictions have affected how people use their local waterways. While 25% of people use them less, reporting overcrowding and fear of COVID-19, 52% report they use them the same and 16% residents report they use them more now than before the pandemic, for exercise ("...outdoor exercise was the only freedom we had!" – Tallebudgera-Currumbin resident) and escaping stress ("... to decompress after a stressful day inside" – Lower Brisbane resident).

Extremely high numbers of residents are satisfied with their local waterways in the coastal catchments of Noosa, Sunshine Coast and City of Gold Coast (67-85%).

The environmental condition of these catchments ranges from fair to excellent, highlighting that good environmental condition promotes very high satisfaction with waterways, but not exclusively. Even if environmental condition is only fair, waterways with good accessibility and opportunities for engagement can still promote high levels of community benefits and satisfaction with local waterways.

Personal benefits arise when waterways act as a place of rest and relaxation, exercise or to socialise with friends and family. Residents of all catchments report high levels of social benefits from using their local waterways. Despite some of the poorest waterway condition in 2021 in catchments such as Lockyer, Upper Brisbane and Bremer, 48-63% of residents still report that local waterways in these catchments are a valuable place to meet up and socialise with friends and family.

While high numbers of residents feel a personal connection with nature (78% catchment average), fewer (45% catchment average) are motivated to protect their local waterways or feel it is their personal responsibility. South East Queensland needs to empower resident action through promoting opportunities for waterway care.