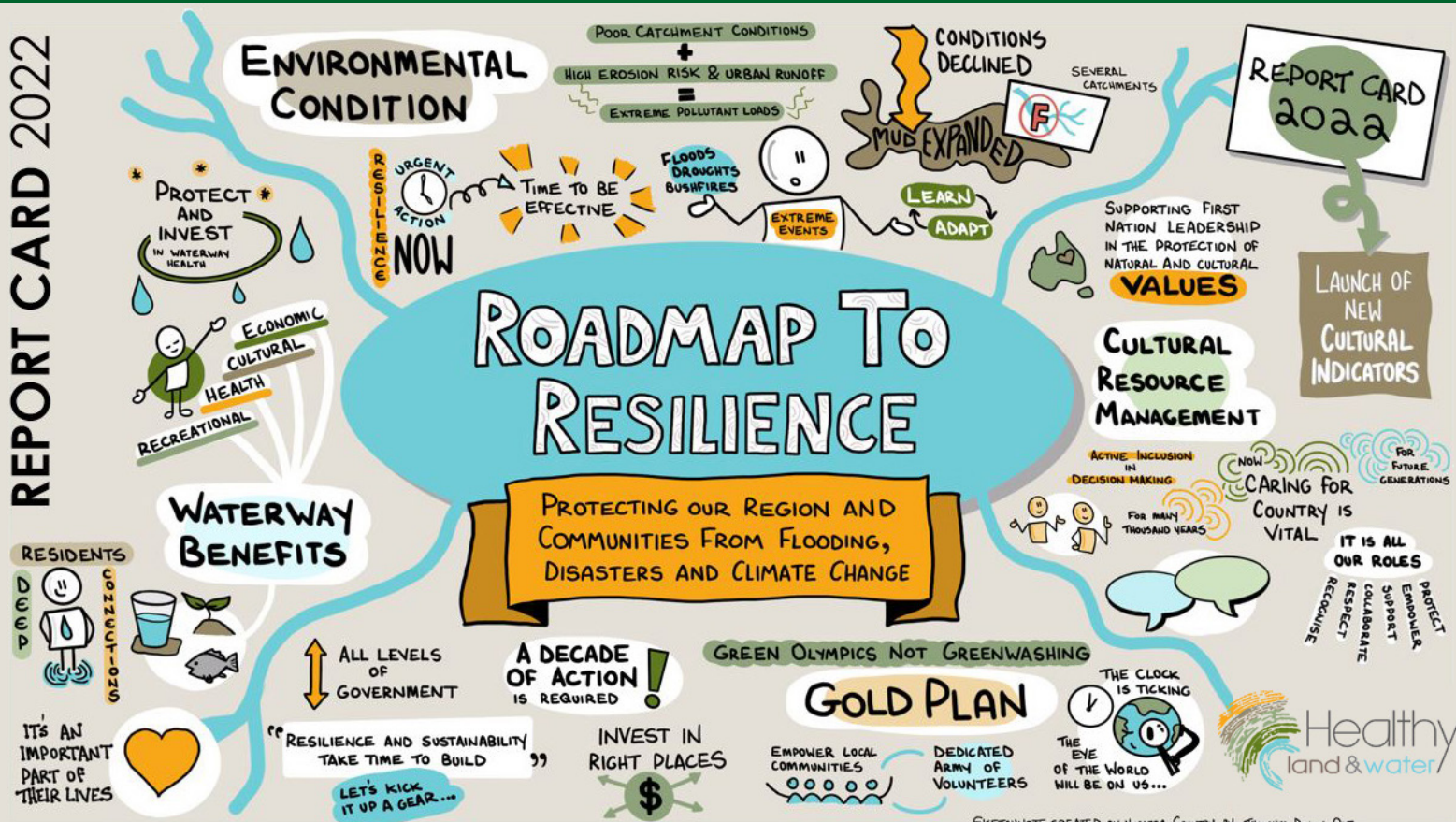


REPORT CARD

At a Glance 2022

REPORT CARD 2022



Traditional Owner acknowledgement

We acknowledge that the place we now live in has been nurtured by Australia's First Peoples for tens of thousands of years. We believe the spiritual, cultural, and physical consciousness gained through this custodianship is vital to maintaining the future of our region.

New in 2022: Introducing cultural resource management indicators

In recognition that First Nations have an important and leading role in caring for Country, we have developed cultural resource management indicators to highlight where First Nations stewardship is being enabled.

This set of indicators uses a range of public data sets to show how South East Queensland is recognising and advancing the leadership and role of First Nations peoples and the protection of Aboriginal Cultural Heritage.

INDICATOR	DESCRIPTION	QUICK FACTS
1 Recognition of rights and interests	Highlights where First Nations rights and interests are recognised, to enable their ability to lead the stewardship of Country and culture through Native Title.	20% of the areas across the region have been fully recognised through Native Title over landscapes where Native Title persists
2 Cultural referral	First Nations parties are identified and recognised to lead the decisions relating to Aboriginal Cultural Heritage.	84% of the region has First Nation parties identified and recognised to lead the decisions relating to Aboriginal Cultural Heritage
3 Cultural surveys	Comprehensive archaeological studies that formally document and maximise the protection of Aboriginal Cultural Heritage have been completed and recognised.	15,630 ha (0.62%) of the region is covered by a fully completed archaeological survey
4 Cultural protection and management	Aboriginal Cultural Heritage Management Plans are adopted over formally recorded Aboriginal Cultural Heritage sites.	20% of the region's documented sites have Cultural Heritage Management Plans in place

Disclaimer

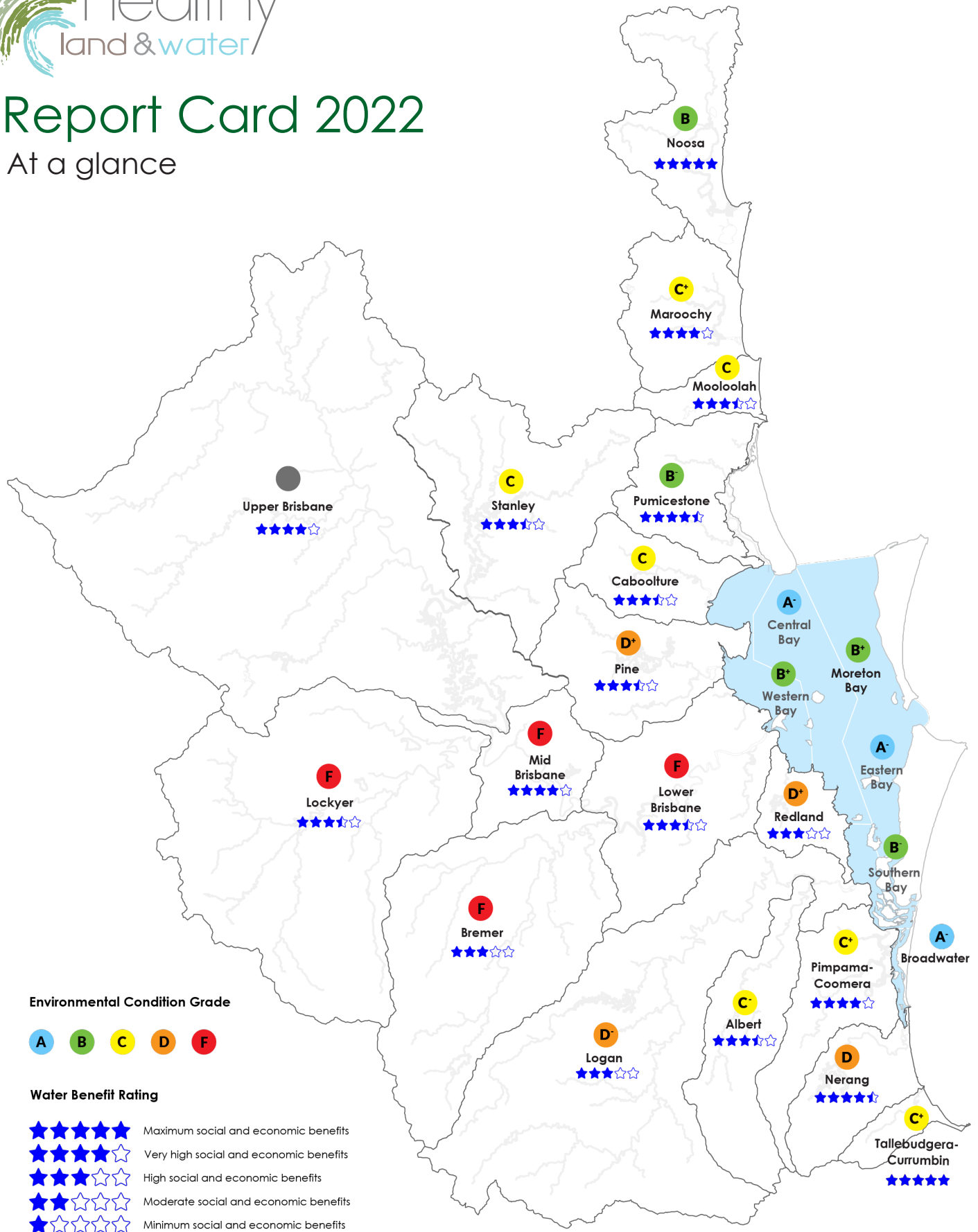
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Some practical ways to enhance cultural resource management:

- Respect and recognise First Nations in daily work activities by getting to know and engaging with the appropriate First Nation group who have a registered interest in your catchment.
- Safeguard and document Cultural Heritage through comprehensive surveys that contemporarily record and protect sites through Cultural Heritage Management Plans.
- Enhance Cultural Heritage compliance by improving development assessment processes and increasing education around compliance with the Aboriginal Cultural Heritage Act 2003 and Best Practice Standards (Dhawura Ngilan).

Report Card 2022

At a glance

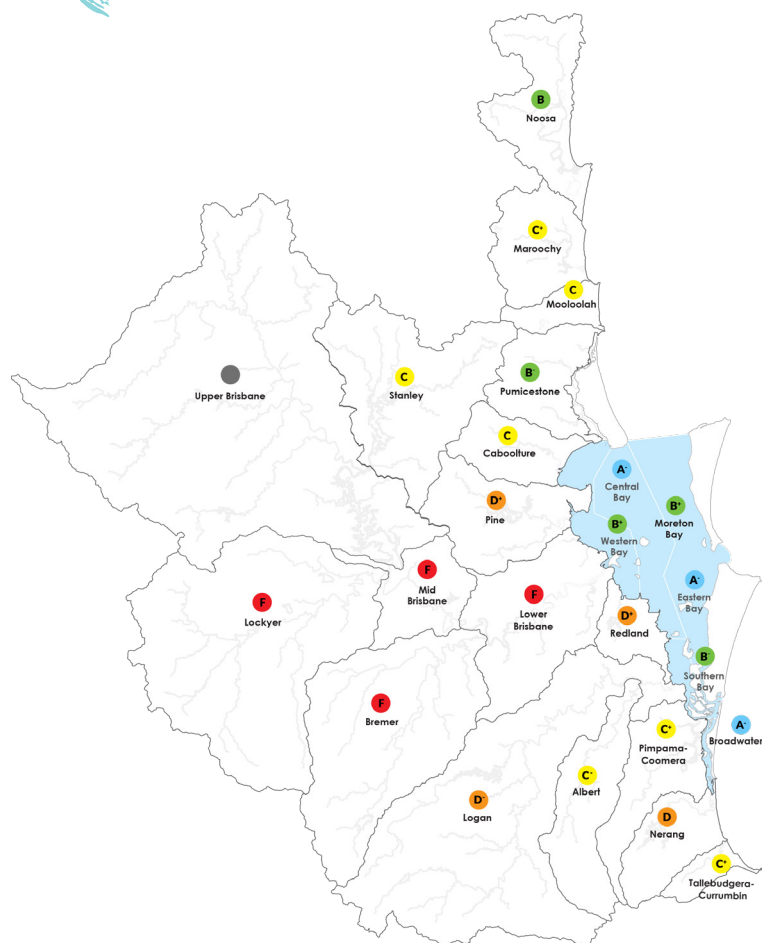


Report Card 2022

At a glance

Environmental Condition Grades

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 2022

1 The large areas of SEQ with poor catchment condition and high erosion risk generated extreme pollutant loads

The floods of February-March 2022 were followed by a second period of major floods in May 2022. Prior to this, in December 2021, the region had already experienced substantial rainfall and flooding. Flooding extent across SEQ, in terms of the number of rivers experiencing major flooding, was much greater than in 1974 and 2011. Flooding is an important natural

process for freshwater and coastal ecosystems. Floods recharge groundwater aquifers, deposit nutrients, support recruitment, growth and productivity of river and wetland species and facilitate the dispersal of animals and plant propagules. However heavy rainfall and runoff is faster, stronger, and higher in pollutants in landscapes cleared of trees, lacking groundcover, and affected by catchment urbanisation and stream modification. These human modifications of the catchment exacerbate flooding and can slow ecosystem recovery, and have long-term impacts on waterway health.

Healthy Land & Water pollutant load modelling estimated record high land-generated sediment loads for all catchments in 2022. There was substantial erosion of channel banks in streams of poor condition. This was worst in streams with minimal or no streambank vegetation, and with restricted floodplains upstream. Catchments such as Upper Brisbane, Mid-Brisbane, Stanley, Lockyer, Bremer, Logan and Pine have 30-45% of streambanks with no riparian vegetation.

In urban streams there was also widespread scouring and erosion due to catchment urbanisation, low infiltration capacity and stream modification. Construction and development sites in the region are also significant polluters when it rains, due to low compliance with erosion and sediment control requirements (only 15%).

2 Environmental condition declined across the region, with several catchments receiving an 'F' in 2022 while mud expanded across Moreton Bay

Extreme pollutant loads in 2022 led to declines in downstream estuarine and bay water quality. Notably, the Lower Brisbane catchment received an F in 2022, heavily impacted by the extreme sediment loads and poor water quality flowing from upstream catchments (Bremer, Lockyer, Mid Brisbane), which similarly received very poor grades.

Valuable agricultural soil from poorly managed upper catchments washed downstream to the coast, expanding the size of the 'mud patch' in Moreton Bay. Mud is increasing in eastern Moreton Bay, a place of significant value to migratory bird populations (Ramsar) and cultural heritage. Mud stimulates algal blooms and creates turbid waters that impact the health of seagrass meadows and intertidal habitats. These areas are critical for foraging migratory birds and supporting species of cultural significance, including fish, turtles and dugong.

There is concern over the legacy impact of sediments and nutrients deposited in the bays and estuaries that could stimulate nuisance algal blooms such as *Lyngbya majuscula* for many years to come.



3 Building climate resilience into SEQ catchments and waterways is urgent to protect people, environment and cultural resources; it will take time to be effective, so action must be taken now for the future

Habitats and aquatic communities of SEQ have evolved to tolerate drought and flood cycles; following the floods of 2011 and 2013 the estuaries of SEQ and Moreton Bay showed evidence of recovery within six years. However, climate change is impacting recovery windows and the consequences for waterways—already under pressure from land clearing, development, population growth and industrial inputs—are unknown.

Despite the current and legacy environmental pressures, there is evidence of resilience within the SEQ landscape:

In 2021 many rural western catchments recorded the poorest freshwater condition since 2007, following several years of drought. Yet their condition improved in 2022 with the return of flows, indicating the freshwater communities of SEQ, particularly the fish, retain resilience and can recover. This demonstration of waterway resilience is strongest in freshwater streams with intact riparian cover and forested catchments upstream. Analysis of the Ecosystem Health Monitoring Program (EHMP) long-term freshwater data shows that freshwater streams with intact riparian cover and forested catchments upstream maintain their resilience throughout wet-dry cycles.

Following 2011 and 2013 flood events, estuarine and bay water quality progressively improved in the following years, and the mud 'footprint' had contracted by 2019, highlighting that given sufficient 'respite' between extraordinary events, coastal health can recover.

There is also the success story of this decade—the return of seagrass to Bramble Bay following a decade of improved water quality—which indicates that aquatic communities of Moreton Bay retain resilience and, with time, can recover.



4 Learning from and adapting to extreme events (floods, droughts, bushfires)

The extreme climatic conditions over the past decade (and a 22-year program of monitoring, modelling and science) has taught us where the priorities are in SEQ to protect our lifestyle, economy, environment and cultural heritage into the future. But there is lots we need to do. For many actions (such as revegetation), it will take time to be effective, so action must be taken now to reduce future impacts.

We need to slow water and reduce erosion in the upper catchment by protecting and increasing vegetation (especially along riparian zones) and engaging floodplains through policy, land-use planning and compliance. Note that clearing continues, with the highest annual rates of loss/clearing of riparian vegetation notable in Pumicestone (215ha), Caboolture (55ha), Bremer (188ha), and the total for the region was 1400ha (last measure for 2019)). For the downstream communities, conservation of existing riparian vegetation and revegetation of degraded areas will lower flood heights and reduce damage to roads, bridges and buildings. For the environment and cultural heritage, this will protect banks from erosion, resulting in cleaner floodwaters and enhanced protection of cultural heritage values.

In the existing and rapidly developing new urban landscape, we need to naturalise urban water flows and increase natural areas. This would require the 'buy-back' of land and restricting (and even stopping) development on floodplains. There is also an urgent need for increased erosion and sediment controls and compliance for new development, construction sites and private lands.

Science, modelling, and monitoring is needed to understand the 'new normal', to guide strategic planning and investment in priority areas.

Finally, and most importantly, we must take a regional collaborative approach to support community, First Nations, industry (including water utilities and service providers) and various levels of government to work together to coordinate knowledge sharing, planning, compliance and financial incentives and investment for the long-term protection of SEQ waterways and natural assets.



Report Card 2022

At a glance

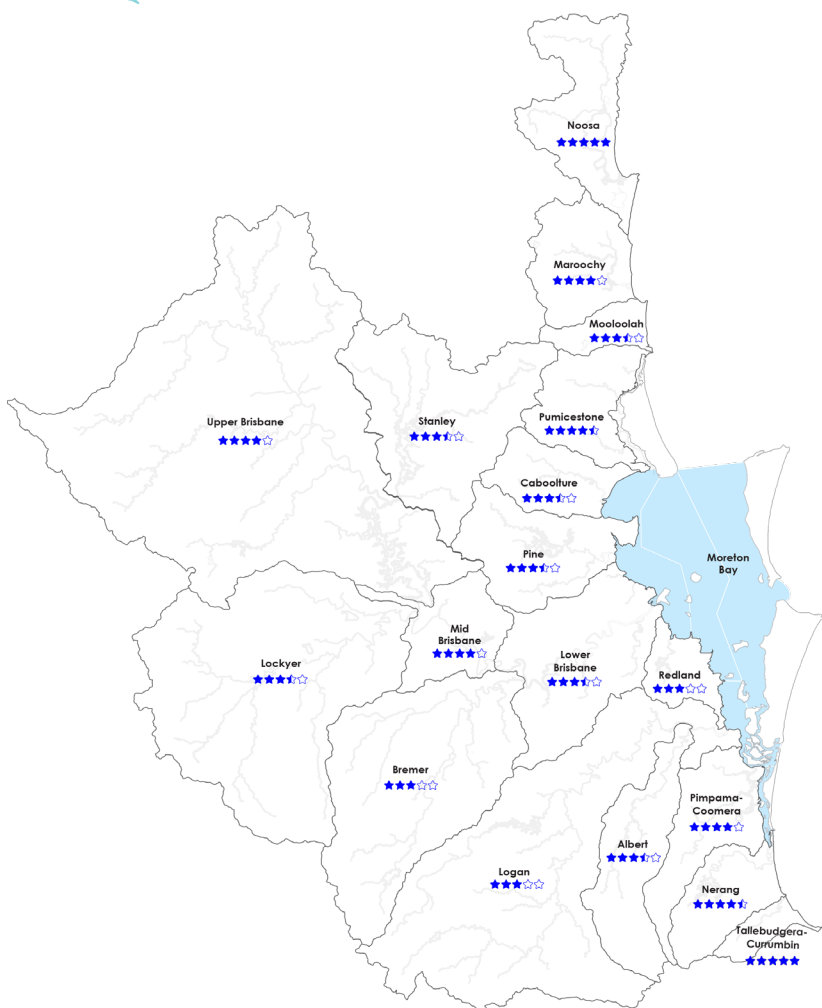
Waterway Benefit Rating

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.



The Waterway Benefit Story of 2022

The waterways of SEQ support the local lifestyle and economy, and residents want their lifestyles protected

Fundamental to the South East Queensland lifestyle are the recreational, health, cultural, and economic benefits provided by the region's extensive, diverse, and scenic waterways (creeks, rivers, lakes, beaches, and bays). It's not surprising that the majority of South East Queensland residents (70-80%) have a deep connection with nature, reporting that it is an important part of their lives. This year 87% of residents surveyed used their local waterways for some form of recreation, including walking, cycling, swimming, picnics, and fishing.

Waterways in good condition provide the most social and economic benefits to the community. Protecting and investing in waterway health is much more than just environmental protection, it's about protecting the multiple benefits that nature and waterways give our community and economy. A healthy catchment protects valuable agricultural soil, reduces various public health costs, protects our drinking water supply, supports productive fisheries and much more. Importantly it can also minimise flood risks to homes, businesses, and sites of cultural heritage significance.

The record-breaking floods of 2022 affected our community in different ways, not just water and debris in the homes. High levels of pathogens in waterways for weeks to months following flooding was a serious public health risk to all users, especially in urban areas. A portion of SEQ residents surveyed reported that the floods highly impacted their income/personal finances (14%) and their mental health (17%) or physical well-being (10%) of them or their family. 16.8% of officially recorded cultural heritage sites are located on floodplains and were potentially impacted.

Noosa

2016

A-

2017

A-

2018

A-

2019

A-

2020

A-

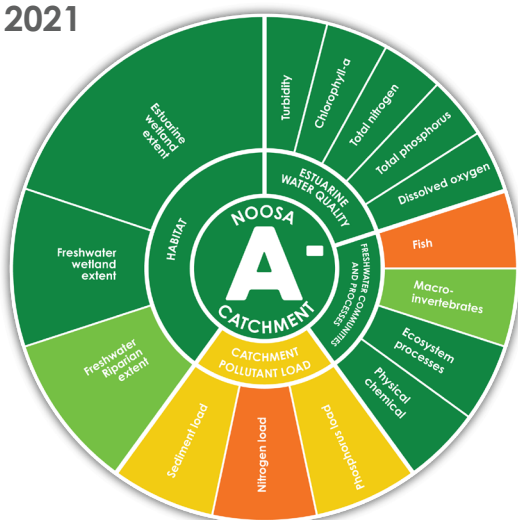
2021

A-

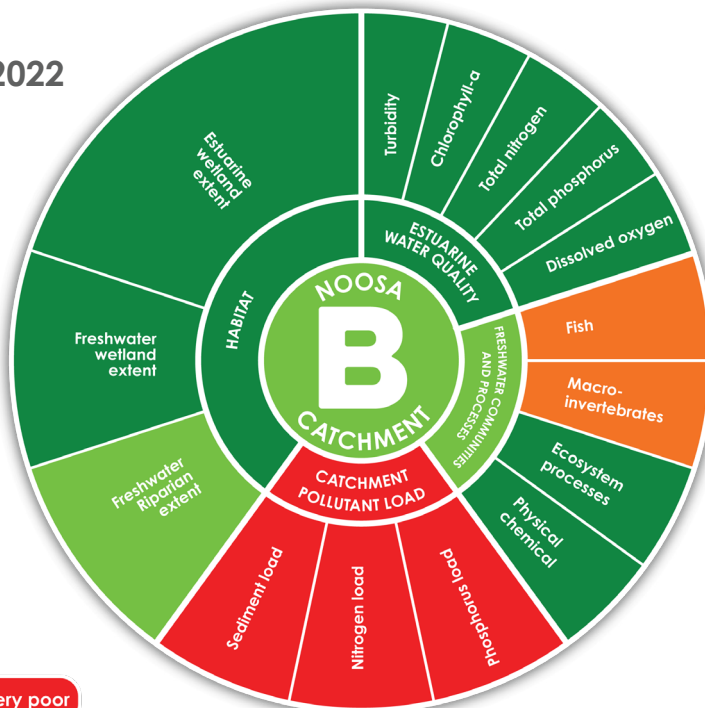
2022

B

2021



2022



Excellent

Very good

Fair

Poor

Very poor

Maroochy

2016

B

2017

B-

2018

B-

2019

B-

2020

C+

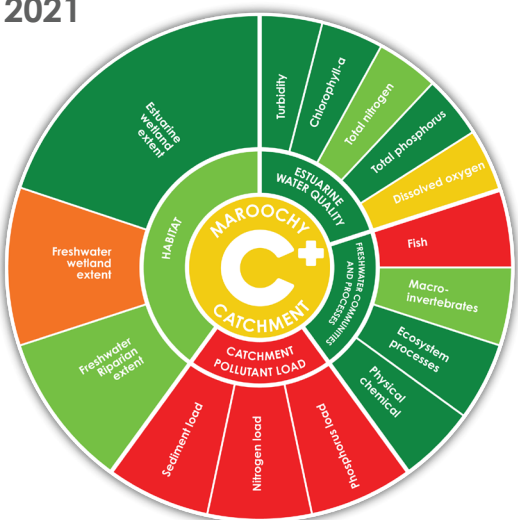
2021

C+

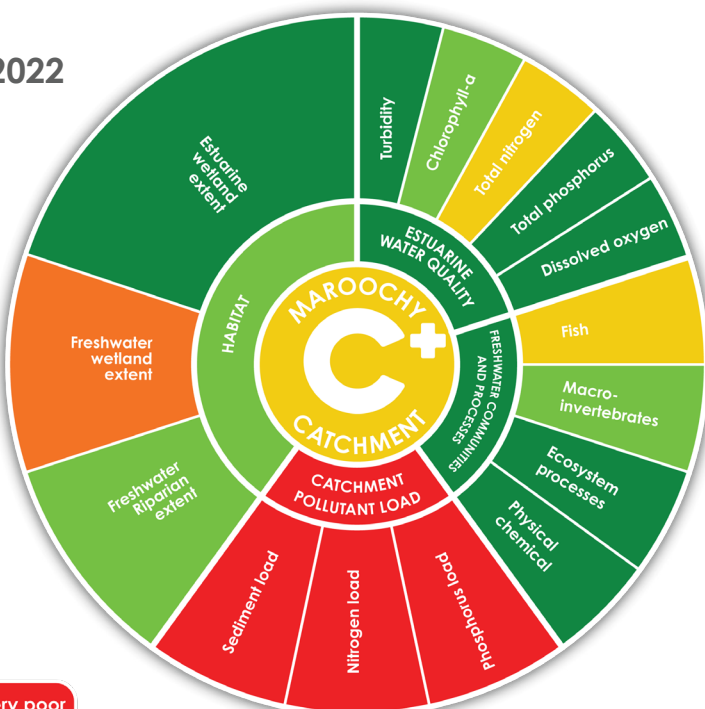
2022

C+

2021



2022



Excellent

Very good

Fair

Poor

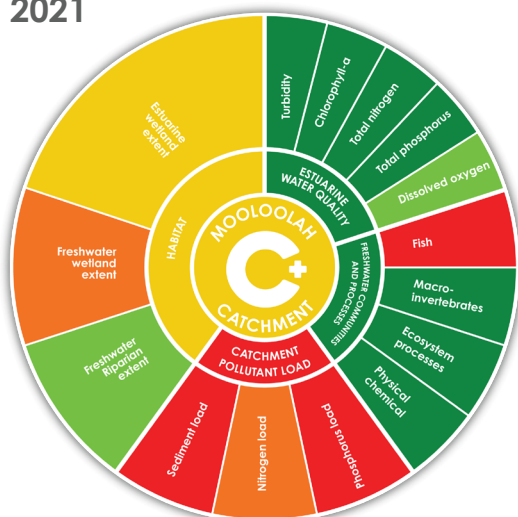
Very poor

Northern Catchments

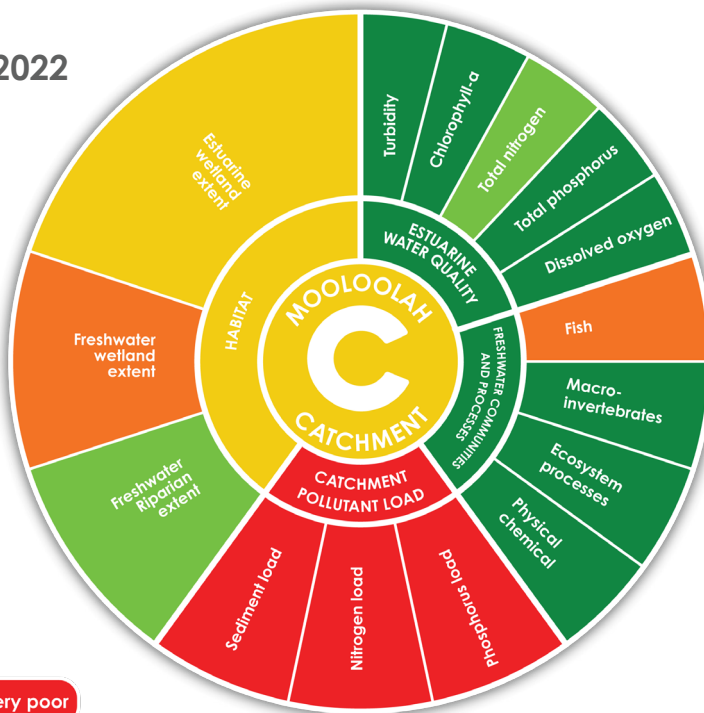
Mooloolah

2016 **B** 2017 **B-** 2018 **C+** 2019 **C+** 2020 **C** 2021 **C+** 2022 **C**

2021



2022

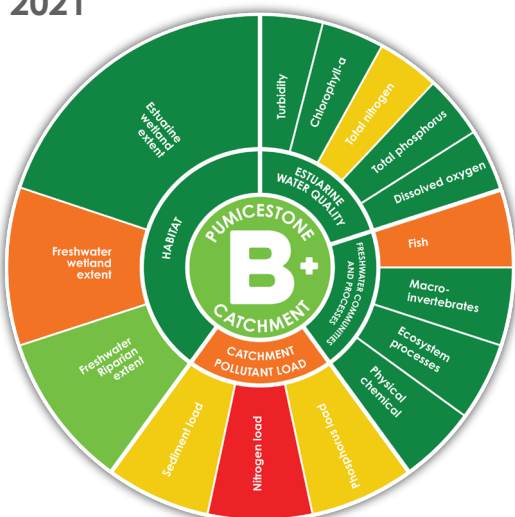


Excellent Very good Fair Poor Very poor

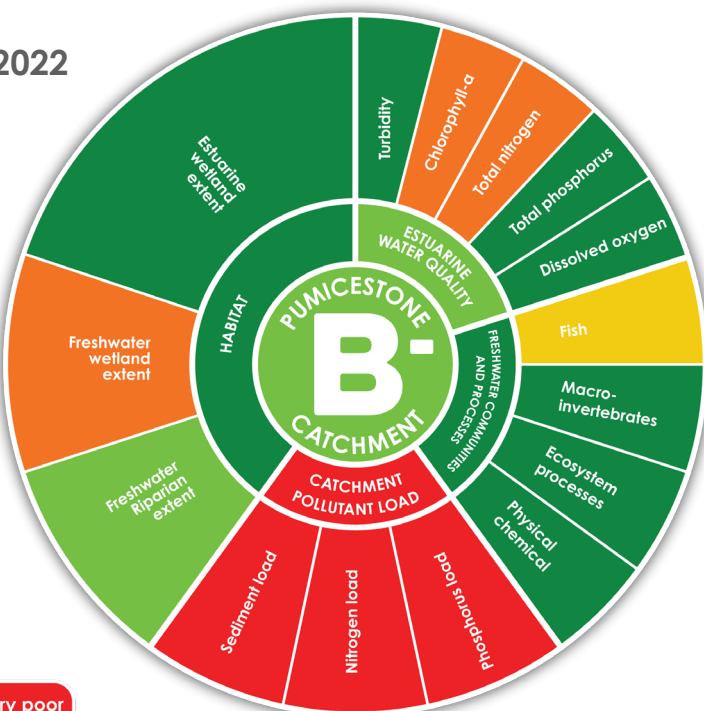
Pumicestone

2016 **B+** 2017 **A-** 2018 **B+** 2019 **A-** 2020 **A-** 2021 **B+** 2022 **B-**

2021



2022



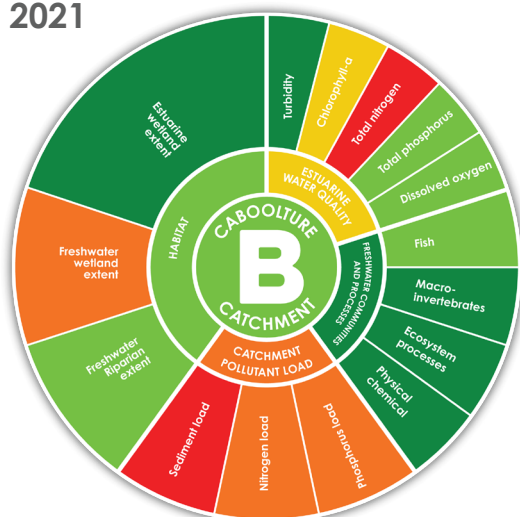
Excellent Very good Fair Poor Very poor

Central Catchments

Caboolture

2016 **B** 2017 **B** 2018 **B+** 2019 **B+** 2020 **B+** 2021 **B** 2022 **C**

2021



2022

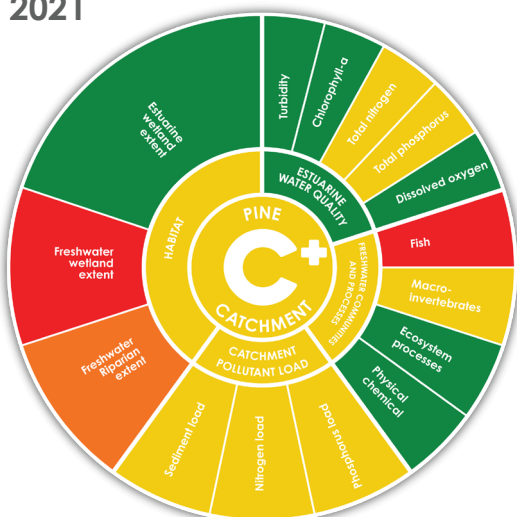


Excellent Very good Fair Poor Very poor

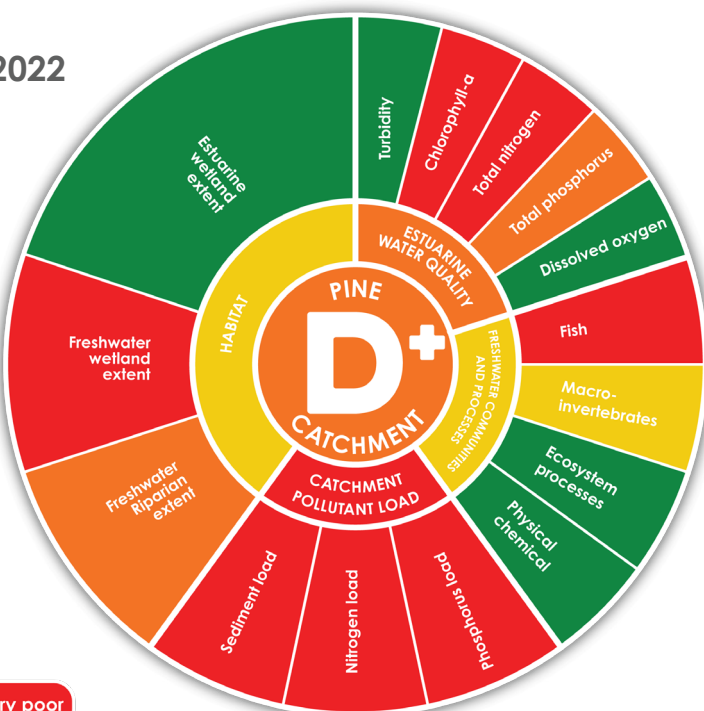
Pine

2016 **B-** 2017 **B-** 2018 **B-** 2019 **B** 2020 **B** 2021 **C+** 2022 **D+**

2021



2022



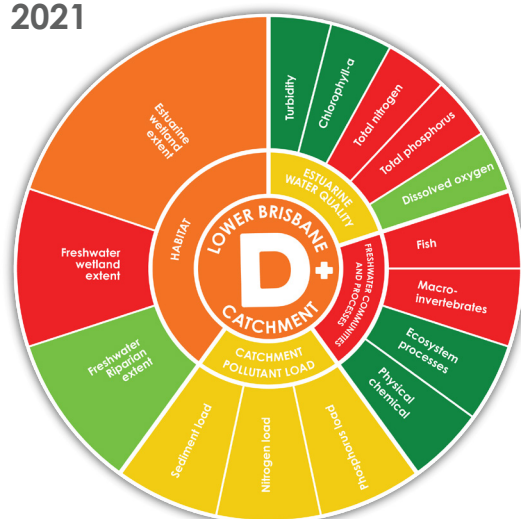
Excellent Very good Fair Poor Very poor

Central Catchments

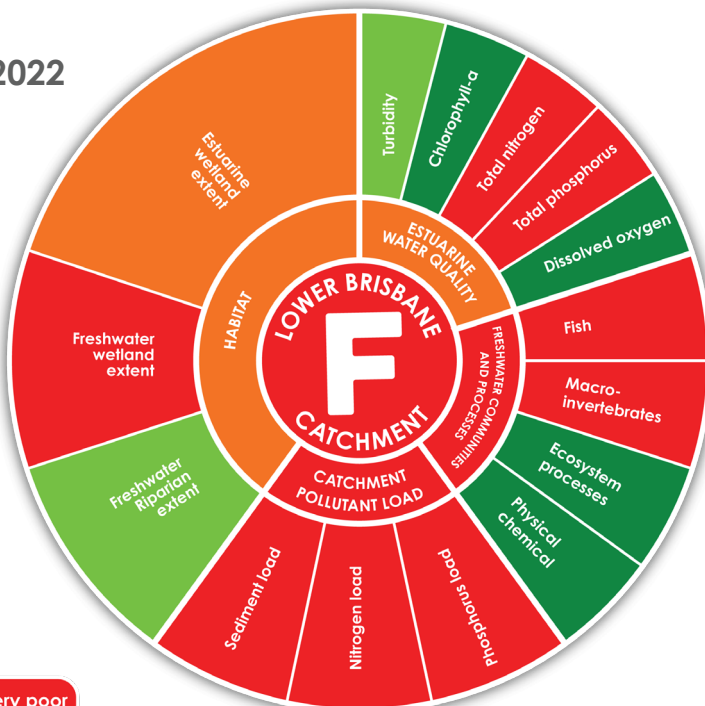
Lower Brisbane

2016 C- 2017 D+ 2018 D+ 2019 C- 2020 D+ 2021 D+ 2022 F

2021



2022

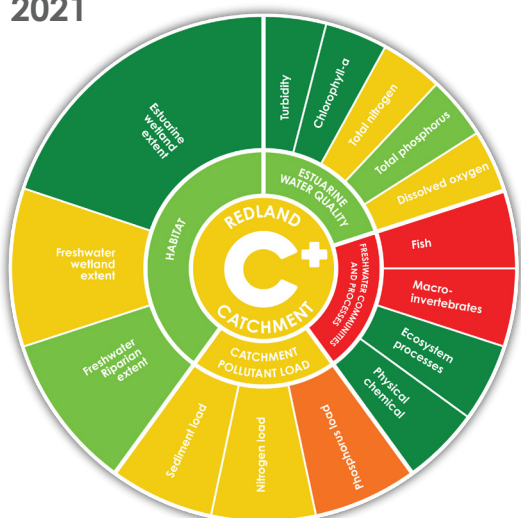


Excellent Very good Fair Poor Very poor

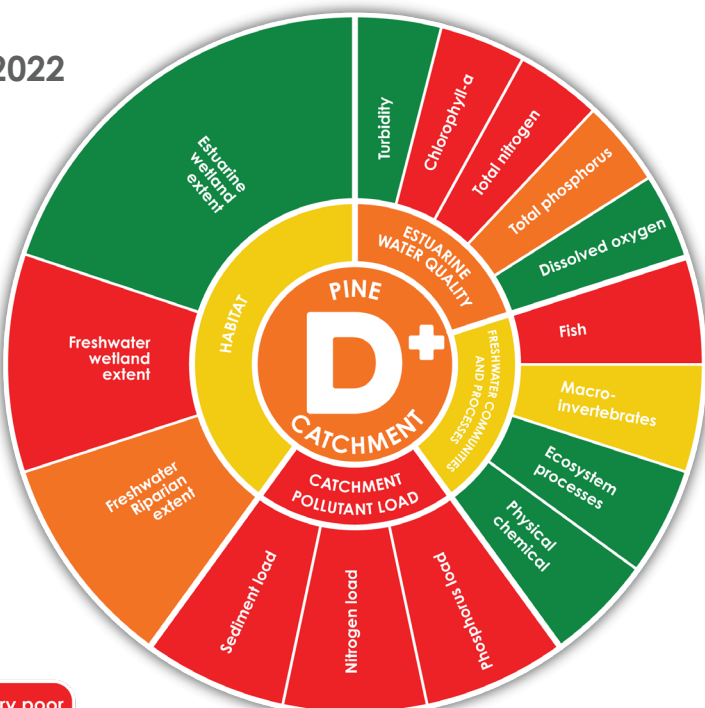
Redland

2016 C+ 2017 C+ 2018 C 2019 C+ 2020 C+ 2021 C+ 2022 D+

2021



2022



Excellent Very good Fair Poor Very poor

Southern Catchments

Logan

2016

C-

2017

C-

2018

C-

2019

C

2020

C+

2021

C+

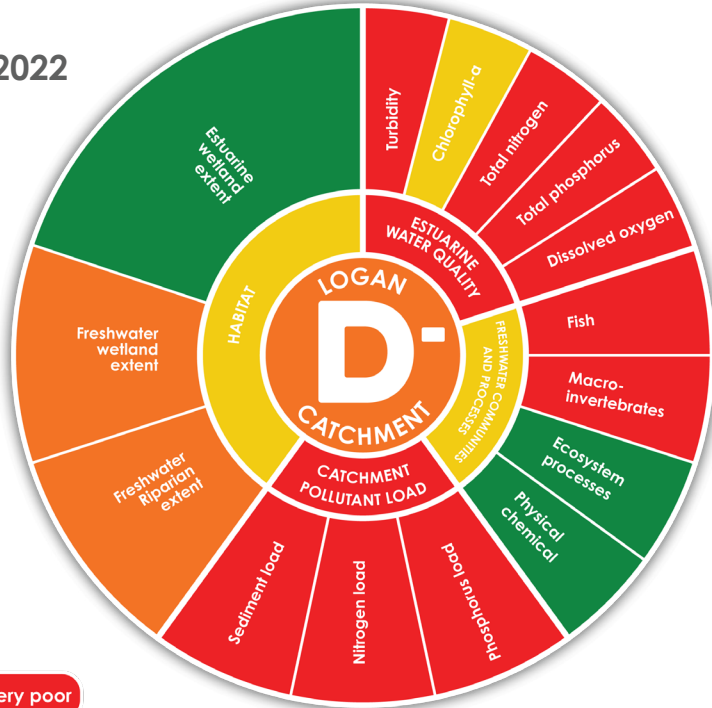
2022

D-

2021



2022



Excellent

Very good

Fair

Poor

Very poor

Albert

2016

C+

2017

C

2018

C

2019

B-

2020

B-

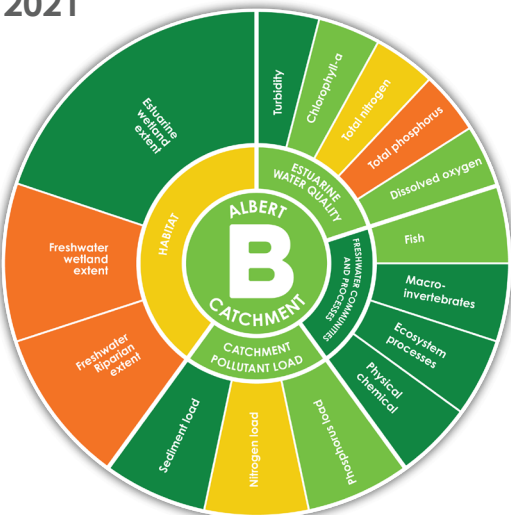
2021

B

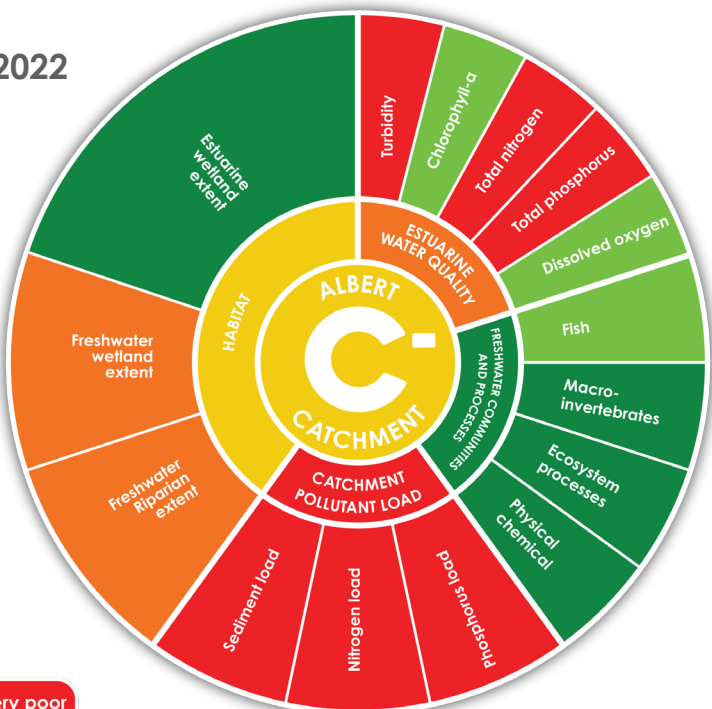
2022

C-

2021



2022



Excellent

Very good

Fair

Poor

Very poor

Southern Catchments

Pimpama-Coomera

2016

B

2017

B-

2018

B

2019

B-

2020

B

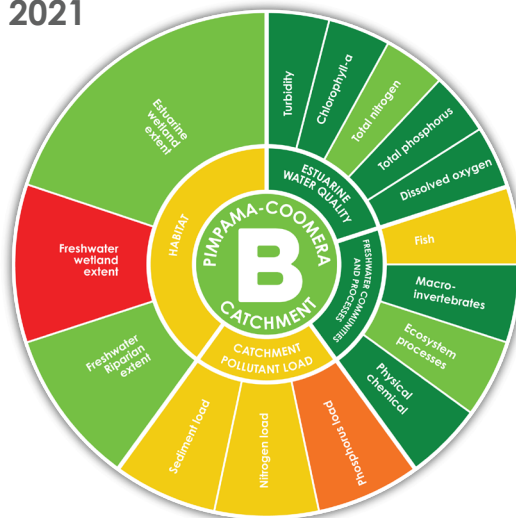
2021

B

2022

C+

2021



2022



Excellent

Very good

Fair

Poor

Very poor

Nerang

2016

C

2017

C-

2018

C+

2019

C

2020

C

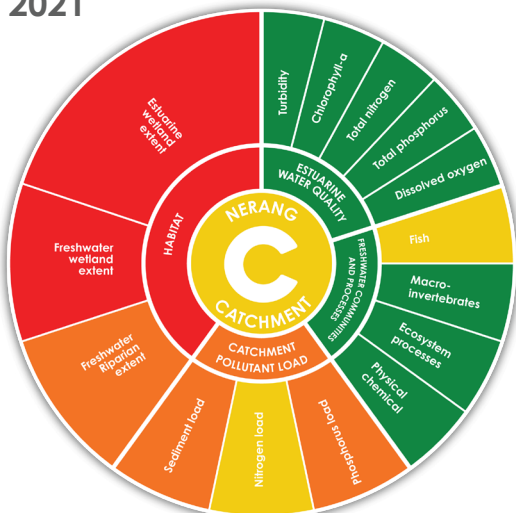
2021

C

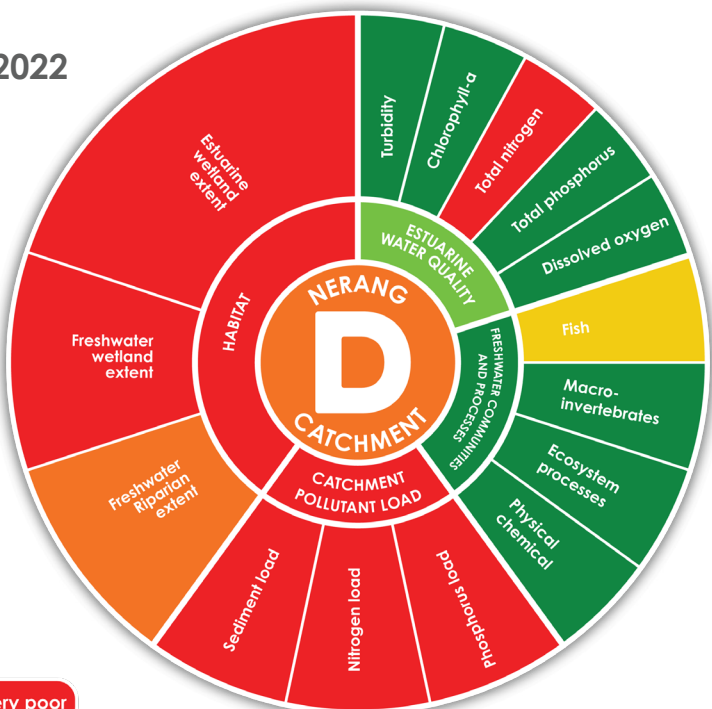
2022

D

2021



2022



Excellent

Very good

Fair

Poor

Very poor

Southern Catchments

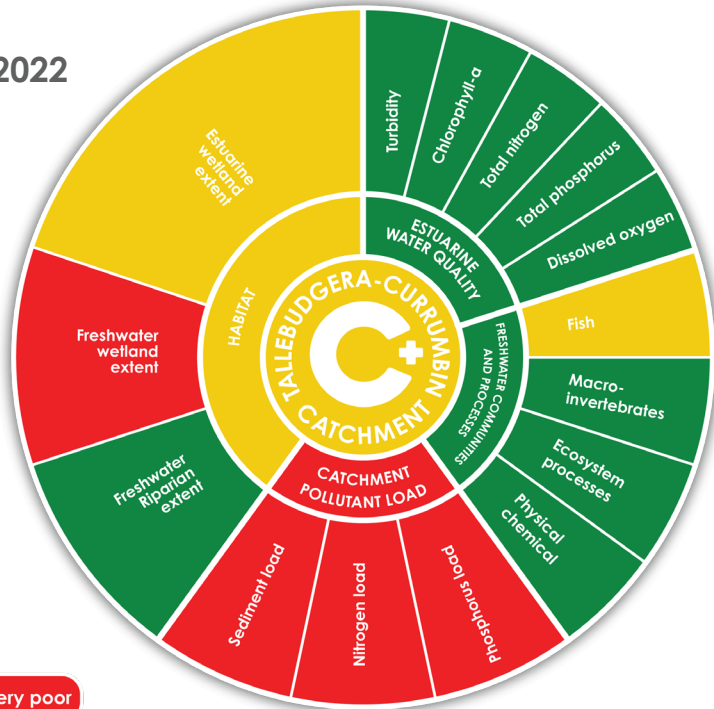
Tallebudgera-Currumbin

2016 **B** 2017 **B-** 2018 **B** 2019 **B+** 2020 **B** 2021 **C+** 2022 **C+**

2021



2022



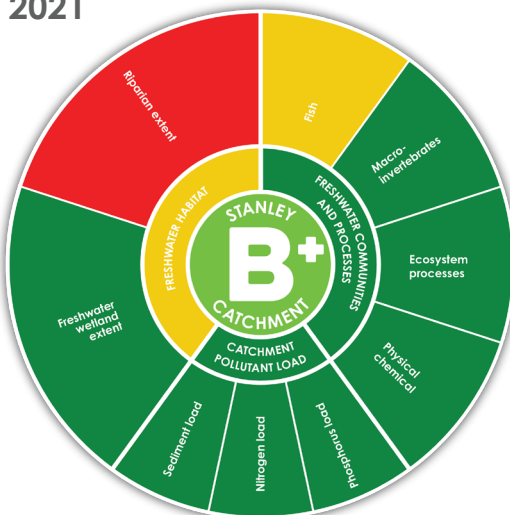
Excellent Very good Fair Poor Very poor

Western Catchments

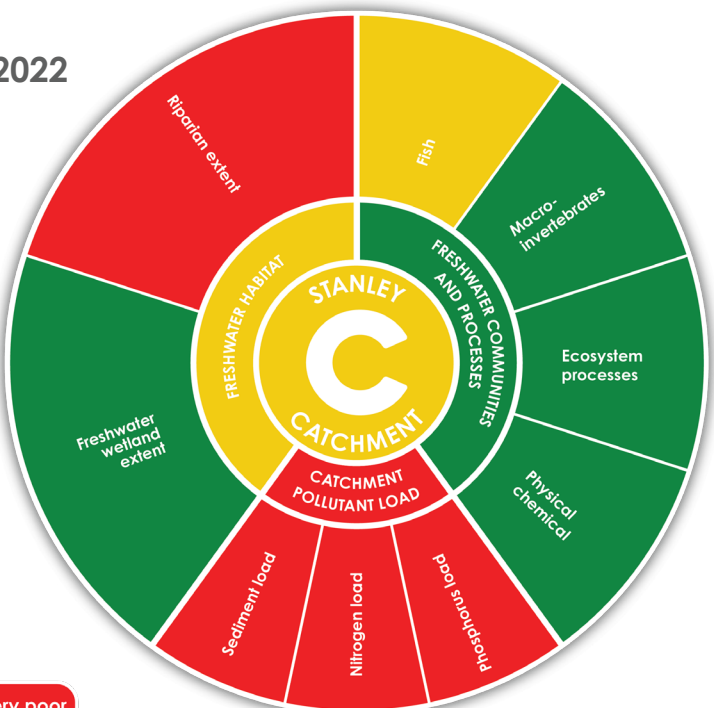
Stanley

2016 **B** 2017 **B-** 2018 **B** 2019 **B-** 2020 **B** 2021 **B+** 2022 **C**

2021



2022



Excellent Very good Fair Poor Very poor

Western Catchments

Upper Brisbane

2016 2017 2018 2019 2020 2021 **2022**

D

D

D

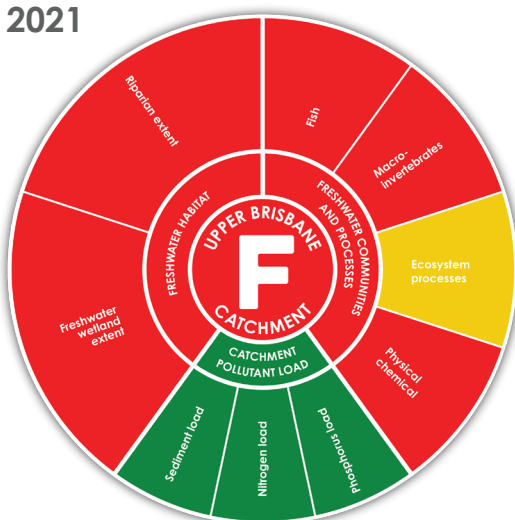
D

D

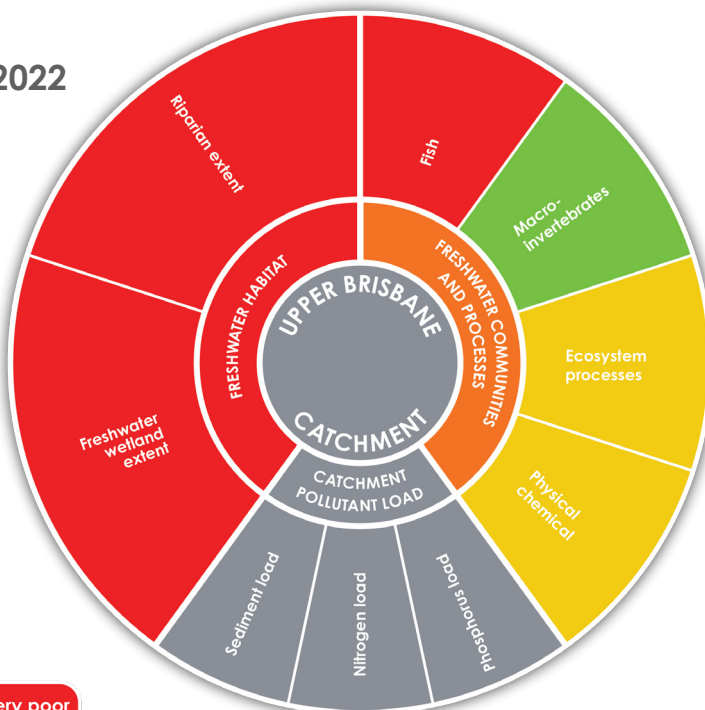
F

-

2021



2022



Excellent

Very good

Fair

Poor

Very poor

Lockyer

2016 2017 2018 2019 2020 2021 **2022**

D+

D+

D+

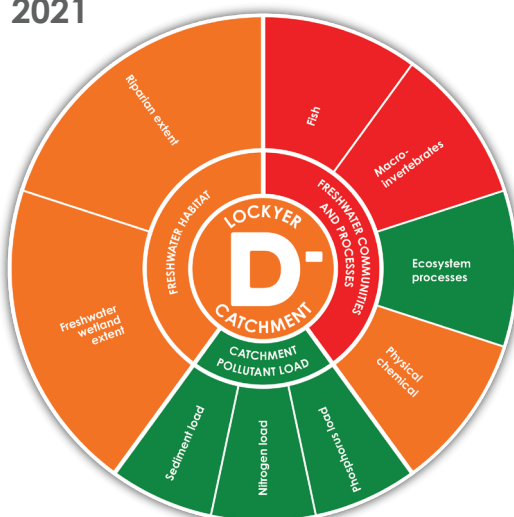
D

D-

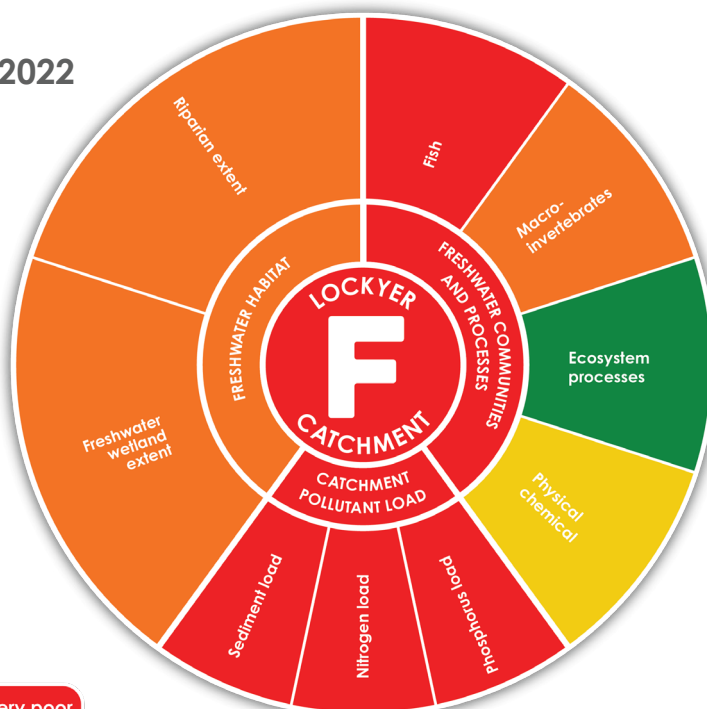
D-

F

2021



2022



Excellent

Very good

Fair

Poor

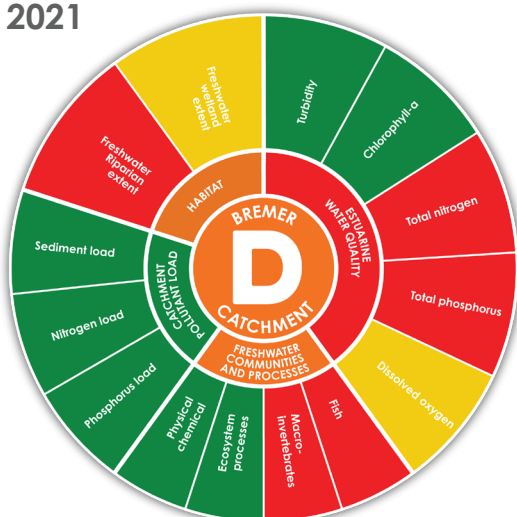
Very poor

Western Catchments

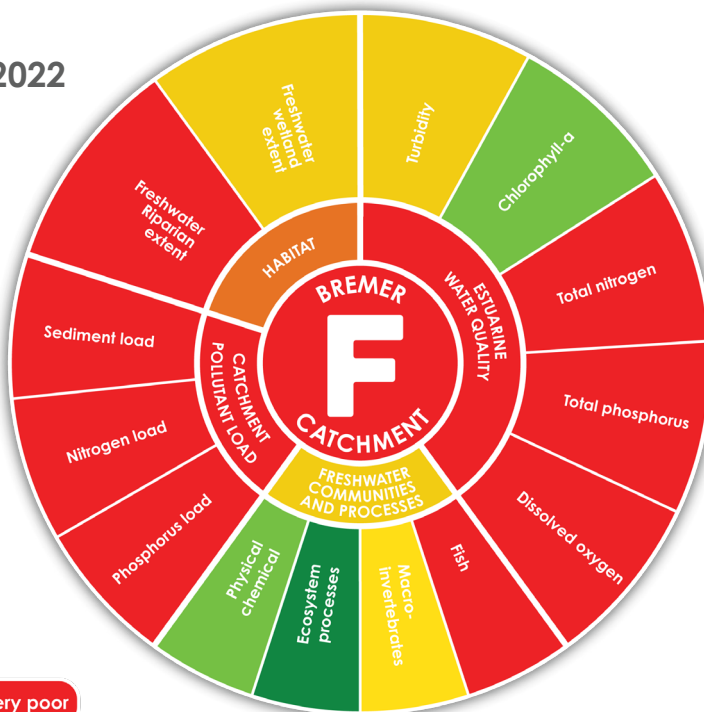
Bremer

2016 **D+** 2017 **D-** 2018 **D+** 2019 **D+** 2020 **D** 2021 **D** 2022 **F**

2021



2022

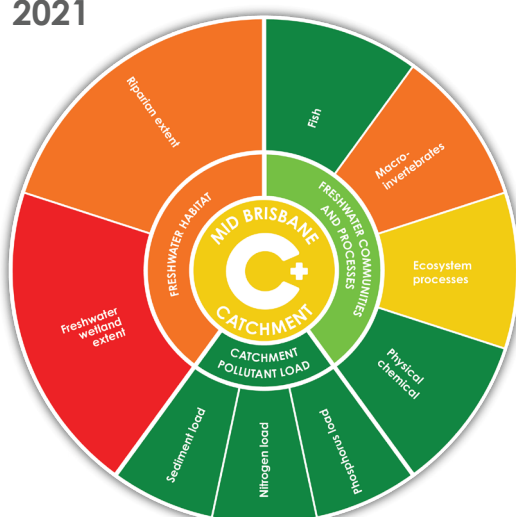


Excellent Very good Fair Poor Very poor

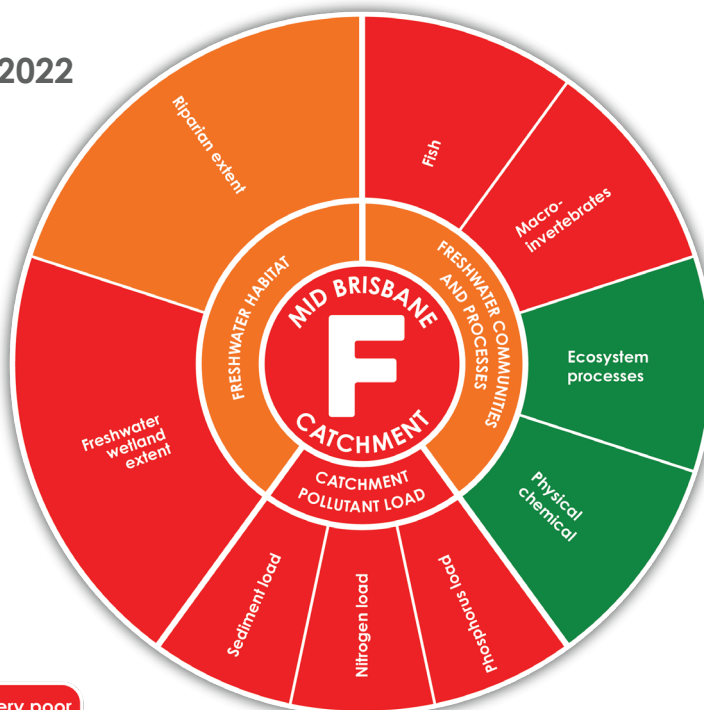
Mid Brisbane

2016 **D+** 2017 **B-** 2018 **C+** 2019 **C+** 2020 **C** 2021 **C+** 2022 **F**

2021



2022

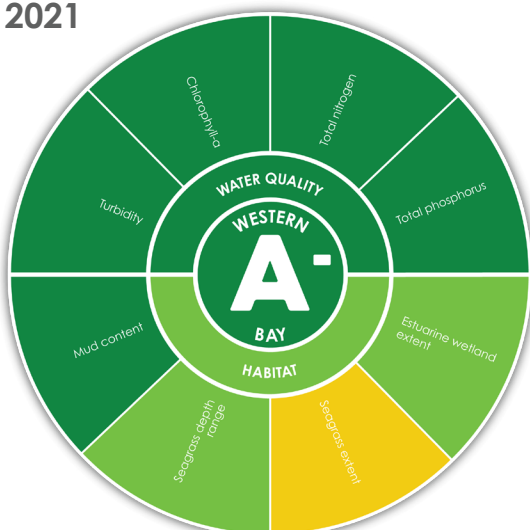


Excellent Very good Fair Poor Very poor

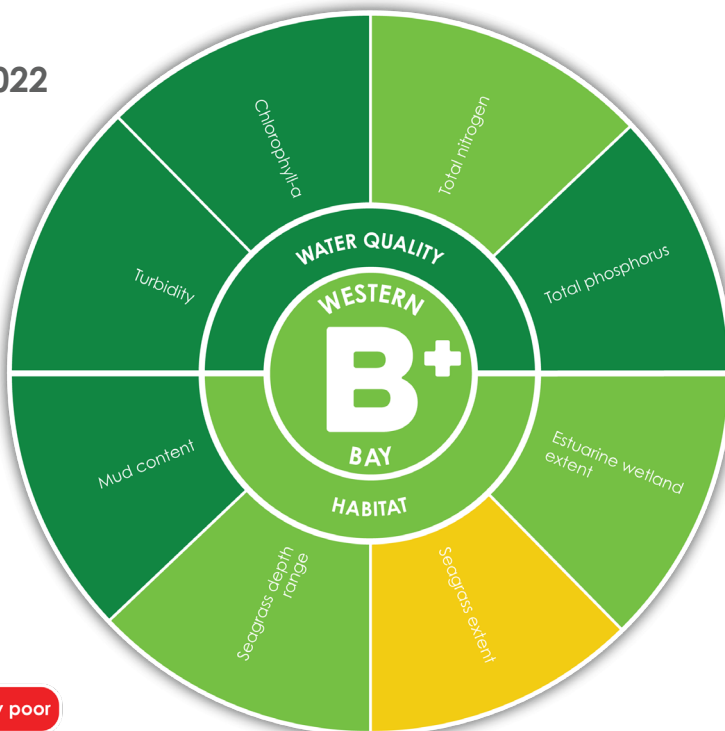
Western Bay

2016 **B** 2017 **B** 2018 **B+** 2019 **A-** 2020 **A-** 2021 **A** **2022 B+**

2021



2022

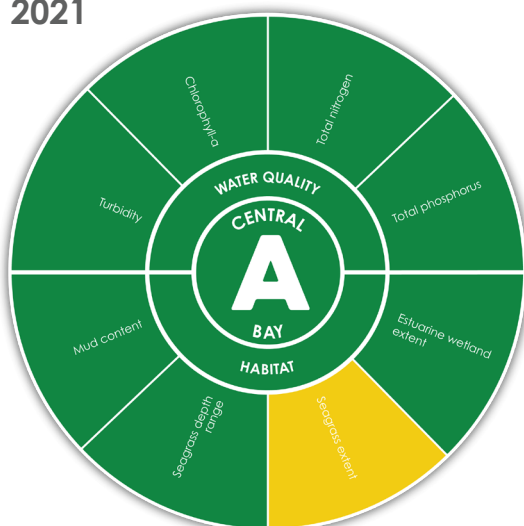


Excellent Very good Fair Poor Very poor

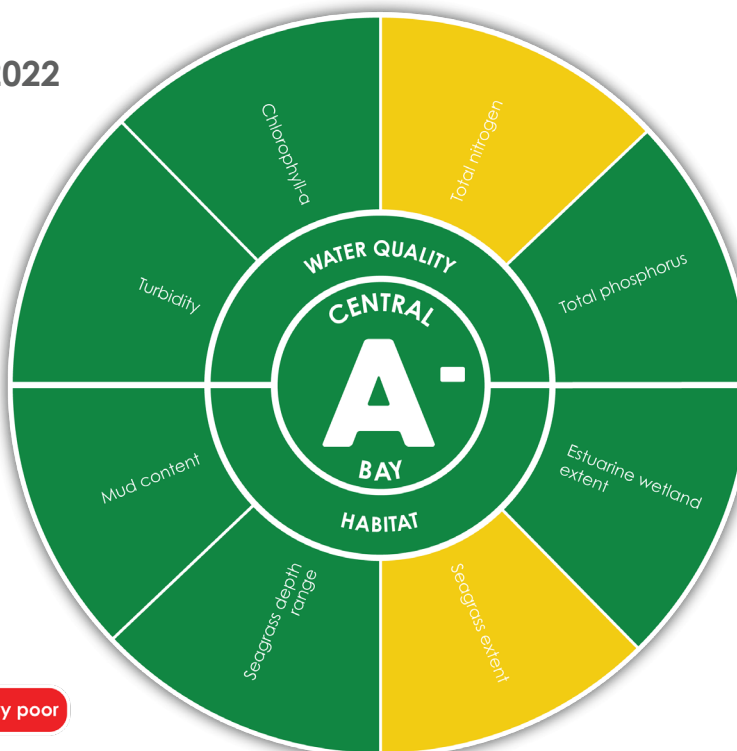
Central Bay

2016 **B+** 2017 **A-** 2018 **A-** 2019 **A-** 2020 **A-** 2021 **A** **2022 A-**

2021



2022



Excellent Very good Fair Poor Very poor

Eastern Bay

2016 2017 2018 2019 2020 2021 2022

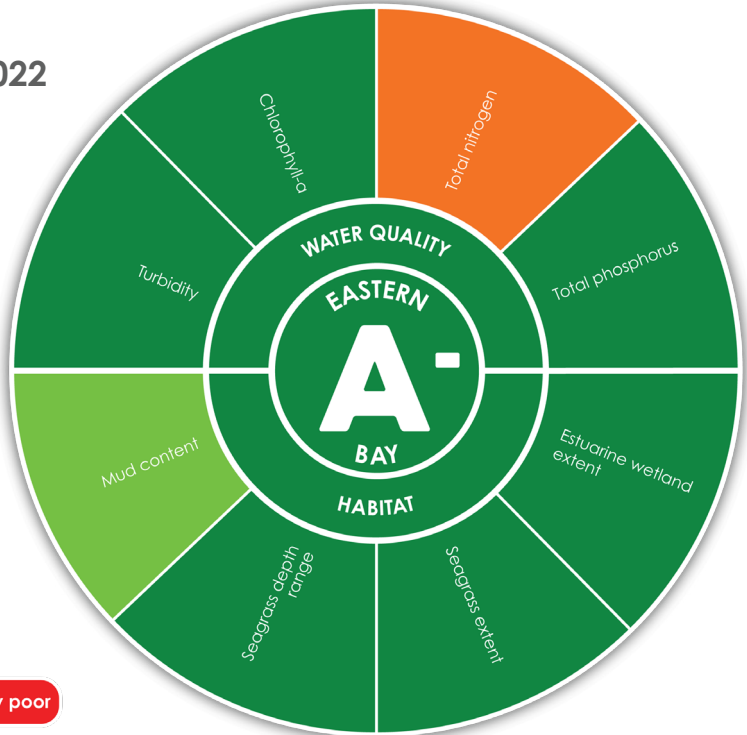
A- A A- A A A A-

2021



Excellent Very good Fair Poor Very poor

2022

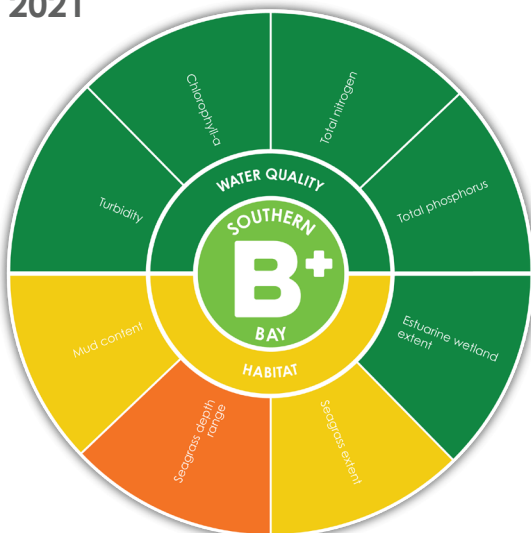


Southern Bay

2016 2017 2018 2019 2020 2021 2022

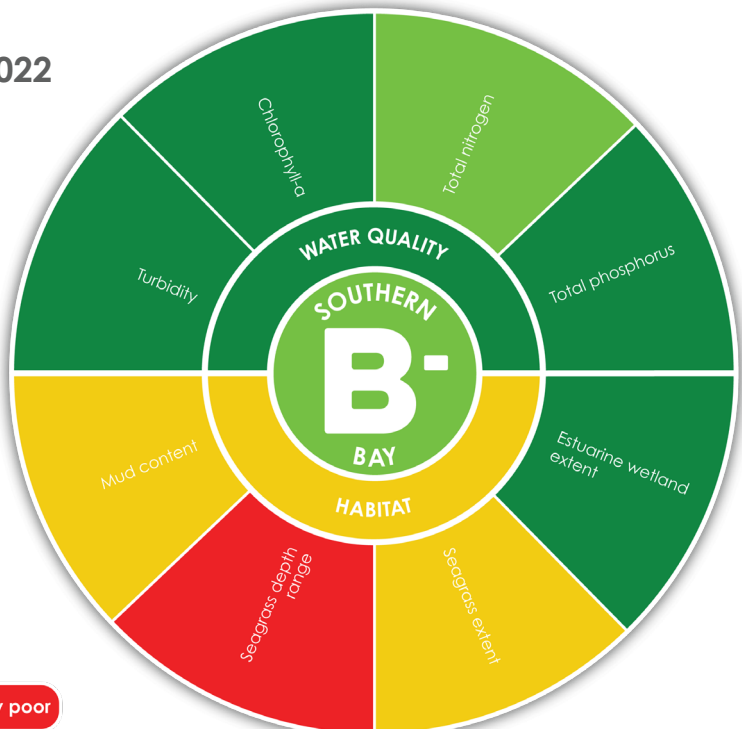
B B B B+ B+ B+ B-

2021



Excellent Very good Fair Poor Very poor

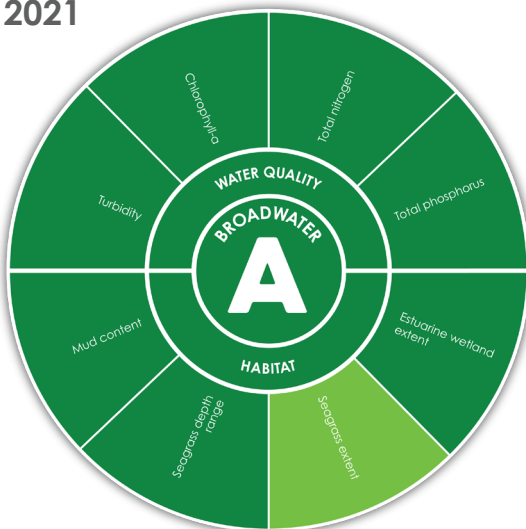
2022



Broadwater

	2016	2017	2018	2019	2020	2021	2022
Broadwater	B+	A-	A	A	B+	A	A-

2021



2022



Excellent

Very good

Fair

Poor

Very poor

