

# Noosa Environment Strategy Monitoring Report 2019-2021

February 2022



NOOSA COUNCIL



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# Introduction

The plan outlines key strategies for the protection and enhancement of the Noosa environment. It includes strategies on:

- Management of ecosystems
- Expansion of vegetation networks
- Key threatened species
- Health of waterways and wetlands
- Protection and management of coastal environments and foreshores
- Landfill waste
- Sustainable buildings
- Sustainable agriculture
- Carbon emission reduction
- Climate change resilience and adaptation

This monitoring program has been prepared to support the Environment Strategy and demonstrate performance on metrics using available datasets.

Data has been gathered where available since 2014 to current date (2021)

A number of strategies are yet to have data available, and are indicated for capture in future monitoring reports and, a number of the strategies that have been reported on are missing components of monitoring data and or programs. These will be included in future reports also.

It is considered that monitoring reports will be prepared every 2 years.

More information on the Noosa Council Environment Strategy 2019 and associated Implementation Plan are available on Council's website at <https://www.noosa.qld.gov.au/environment-waste/environment>



# Theme 1 – Biodiversity

Goal: by 2030 the condition and extent of our natural ecosystems has improved

## Strategy 1.1 Protect and enhance existing ecosystems, vegetation networks and habitats

### Target:

By 2030, there is no net loss of ecosystem values across the shire, and the condition of Council's priority bushland reserves are enhanced.

### Dataset:

Version 9 (2019) and version 12 (2021) regional ecosystem mapping data.

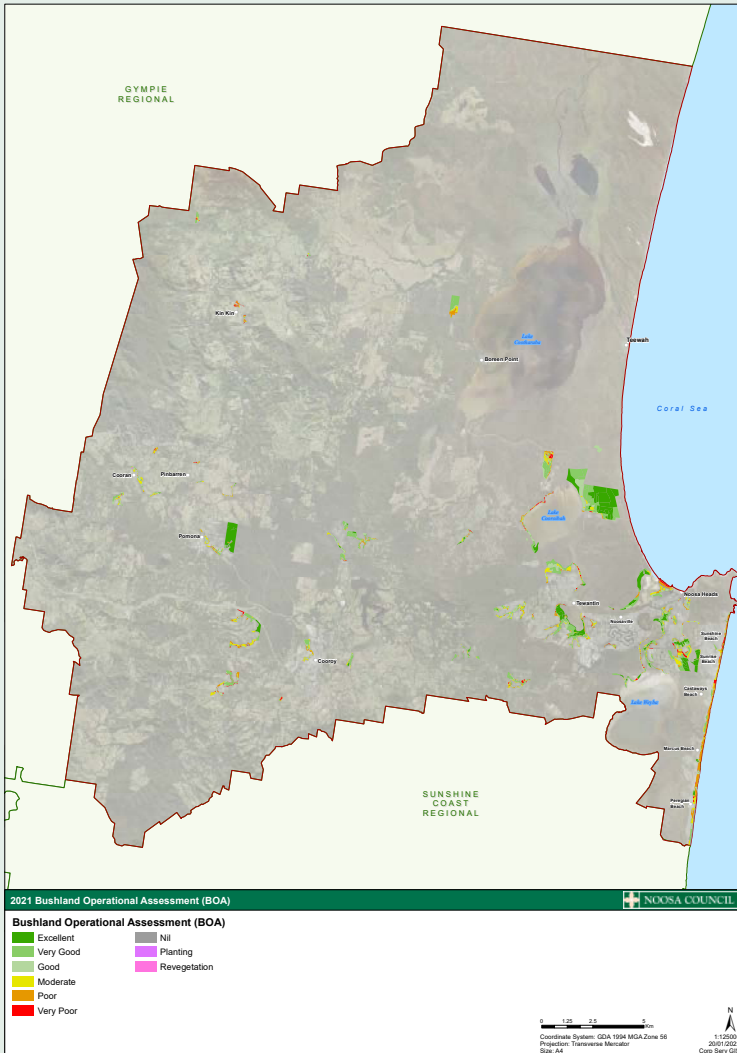
Vegetation Type (BVG)	Number of RE's/Vegetation Type v9	Number of RE's/Vegetation Type v12	Number of Re's declined in extent	Number of Re's increased in extent
Rainforest/scrubs	10	10	8	2
Wet Eucalypt/ open forests	11	12	10	2
Eucalypt woodland	23	24	14	10
Eucalypt woodland on floodplains	2	3	2	1
Melaleuca woodlands	4	4	2	2
Heaths and other coastal communities	11	11	5	7
Wetlands	3	5	0	5
Mangrove and saltmarshes	2	2	1	1

### Methodology:

Version 9 and Version 12 regional ecosystem data is calculated and compared to track changes in the extent and abundance of the regional ecosystems found in the Noosa Shire. For the purpose of this report, the 67 regional ecosystems found in the Noosa Shire have been grouped into their vegetation types to show changes. The full dataset is available upon request.

### Definitions:

Regional Ecosystems: vegetation communities classified by the Queensland Herbarium based on the following attributes; region, geology (Land zone) and vegetation characteristics.



“Bushland Operational Assessment baseline data as outlined in the Bushland Reserve Strategic Management Plan”

### Dataset:

Area of Bushland Operational Assessments which are undertaken on Priority Bushland Reserves in Noosa Shire.

**2021  
= 1509.6 ha**

### Methodology Description:

A Bushland Operational Assessment or BOA is a resilience-based method for mapping vegetation condition. A range of physical attributes are assessed within a specified area and allocated a score ranging Nil (no vegetation) through to excellent.

### Definitions:

**Priority Bushland Reserve:** A bushland reserve that has been ranked by the Bushland Reserve Strategic Plan as being tier 3 and above on a scale of 1 to 5 with 1 being the highest priority and 5 the lowest. Scores are allocated based on a range of attributes including biodiversity value, waterway value, carbon sink value, social value, cultural value and likelihood of success.

A baseline for a third Dataset associated with Strategy 1.1 that tracks the condition of our regional ecosystems and compares them to the Biocondition Benchmarks for Regional Ecosystems in South East Queensland is yet to be developed.

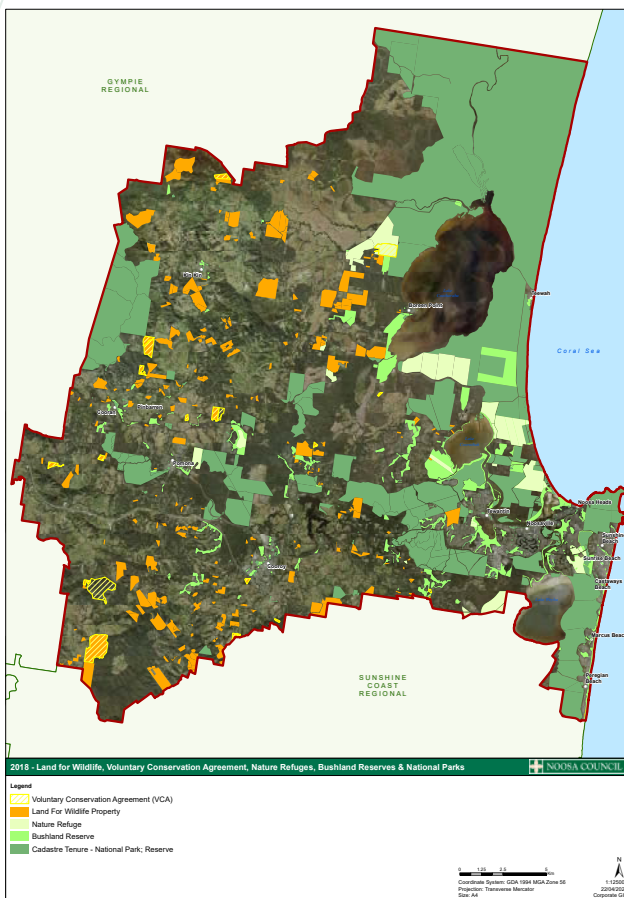
## Strategy 1.2 Expand Vegetation Networks and Habitat

### Target:

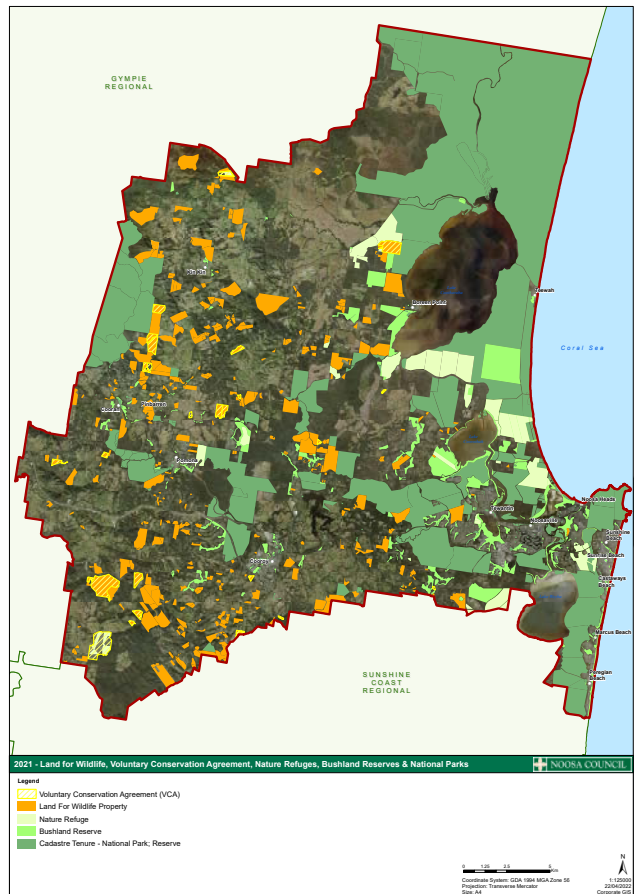
By 2030, half of all land in the Noosa shire is being managed for its' environmental values.

### Dataset:

Area of land that is in secure conservation tenure being managed for environmental values.



**2018 = 34.75%**  
(30,235.5 ha)



**2021 = 40.8%**  
(35,534.6 ha)

### Methodology:

Councils' GIS tenure mapping and data from Councils private property programs, Land for Wildlife and Voluntary Conservation Agreements is assessed to identify changes to the percentage of land being managed for its' environmental values.

### Definitions:

"Land being managed for its' environmental values" includes National Parks, State and Council managed Conservation Reserves, Land for Wildlife or private Voluntary Conservation Agreements.



### Dataset:

The Statewide Landcover and Trees Study (SLATS) Woody Vegetation Extent.

**2019 = 70.56%**  
(61374.5 ha)

### Methodology:

The Statewide Landcover and Trees Study (SLATS) is a scientific monitoring program that maps total woody vegetation cover (remnant, high value regrowth and non-remnant) using high resolution satellite imagery. The intention of SLATS is to track vegetation clearing patterns. The 2019 calculation sets the baseline for the Noosa Environment Strategy and changes will be included in future reports.

The above dataset is supplementary data to the target for Strategy 1.2. SLATS is considered to be the standard for tracking changes in vegetation cover and networks which why it has been and will continue to be included as a metric for Strategy 1.2.

## Strategy 1.3 Improve long-term survival for key threatened species and ecological communities

### Target:

By 2030, populations of key threatened species remain viable.

It is noted that there are currently 5 established programs that monitor threatened species in the Noosa Shire, these are; Glossy Black Cockatoo monitoring which is facilitated by Council and has been running for 17 years, a 3 year Koala monitoring program delivered by QUT, the National Flying-Fox monitoring project, the Find a Frog in February citizen science initiative delivered by MRCCC and Migratory Shore Bird monitoring by NICA. A comprehensive integrated monitoring program is under development that will identify multiple indicator species across key habitats and will provide a Road Map for the recovery and management of threatened species in Noosa.

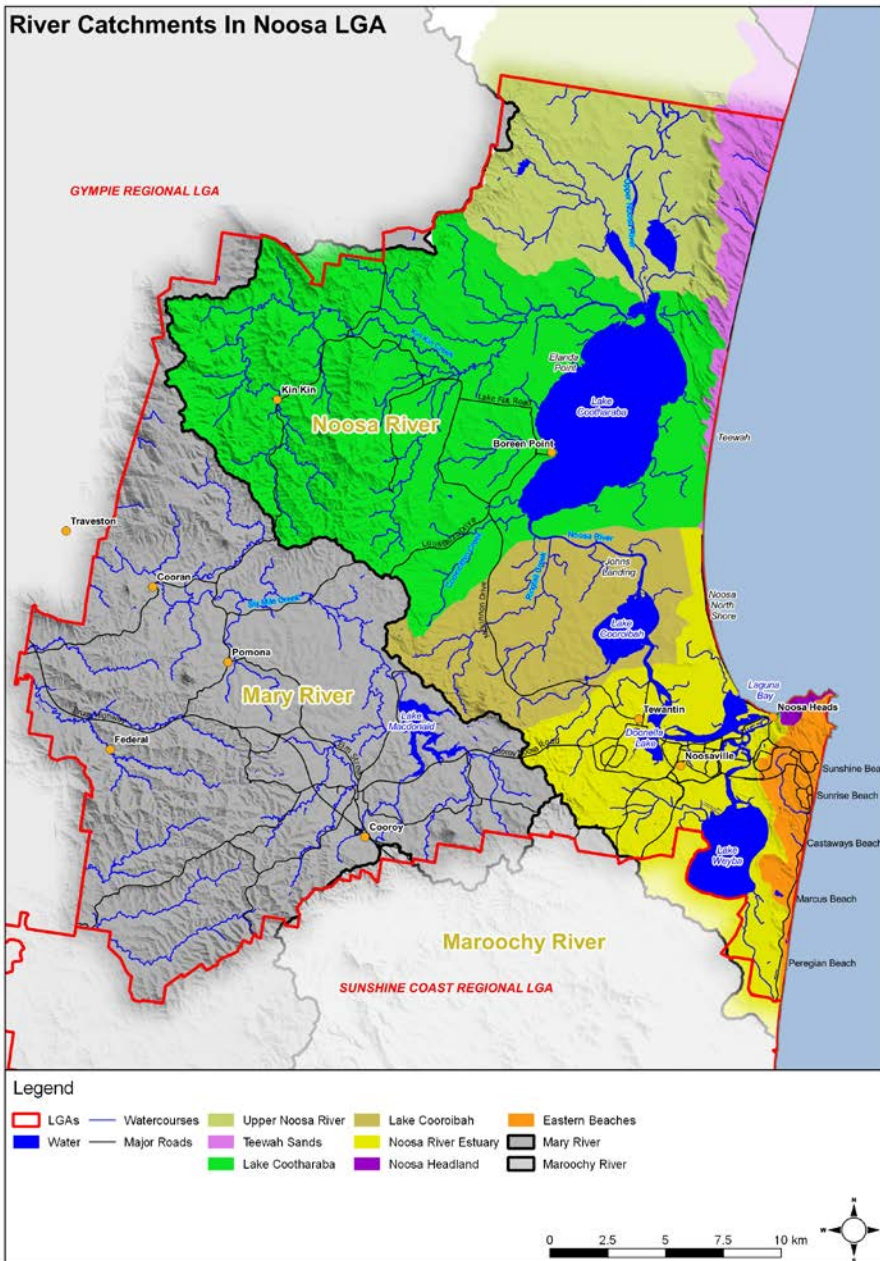




## Theme 2 – Waterlands, Wetlands and Coast

Goal: by 2030 waterways, wetlands and coasts are healthy, resilient to change and valued by the community

Strategy 2.1 Maintain and improve the health of waterways, wetlands and catchments.



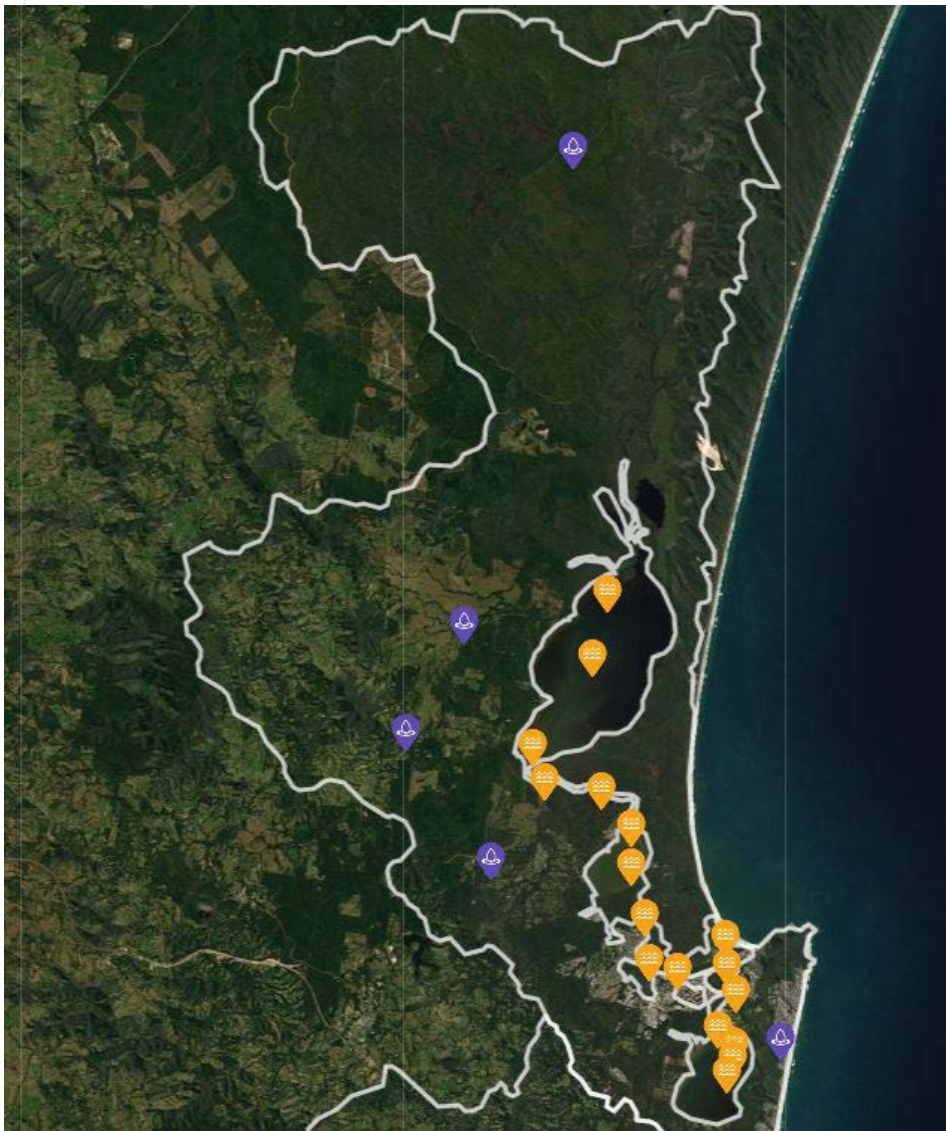
### Target:

By 2030, the Noosa River and Mary River Sub-catchments within Noosa Shire achieve an A rating (or equivalent) for their environmental health.

River Catchments in Noosa

### Dataset:

Healthy Land Water Report Card Rating for the Noosa River.



Healthy Land and Water sampling sites for the Noosa River

### Methodology:

**Noosa River:** Department of Environment and Science staff take annual readings, from land and boat, of water quality parameters in 17 estuarine and 5 freshwater sites. Readings are assessed against statewide benchmarks to produce a report card rating.

**Mary River:** Extensive water quality monitoring has been undertaken in the areas of the Mary River catchment found in Noosa Shire, though a report card is yet to be developed

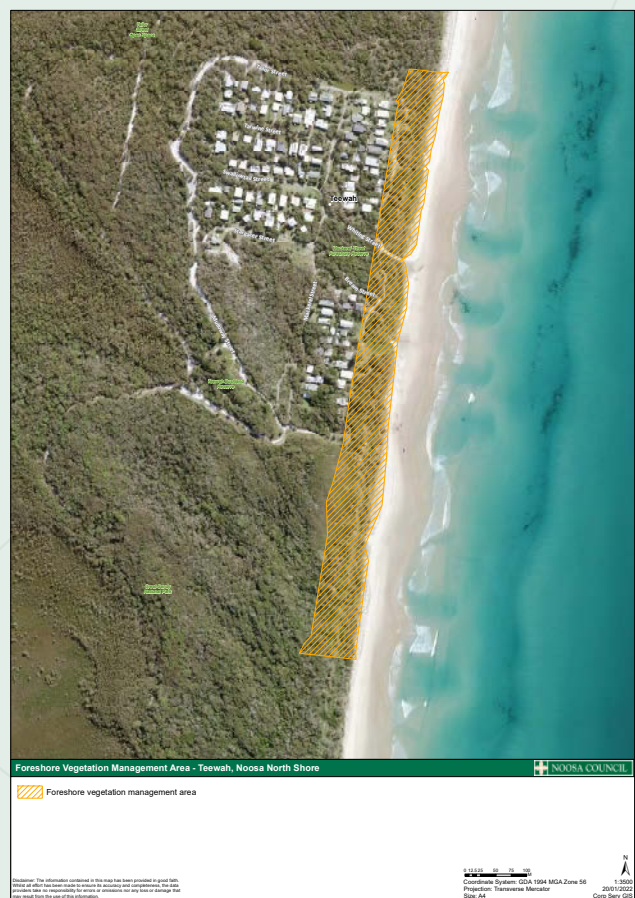
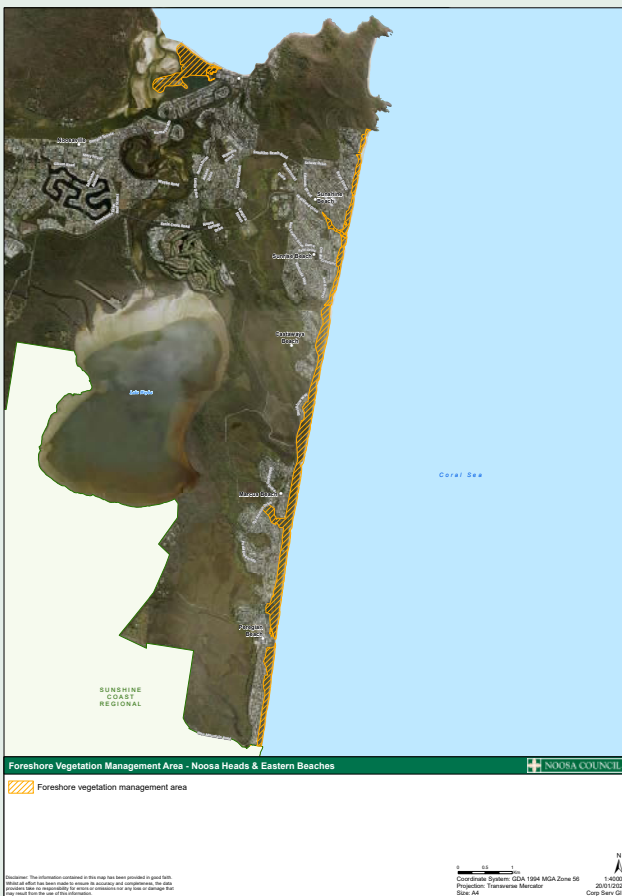
## Strategy 2.2 Protect and enhance coastal environments and vegetated buffers to coastal foreshores.

### Target:

by 2030, maintain the extent of vegetated buffers and improve diversity of coastal ecosystems.

### Dataset:

Area of vegetated buffers.



**2021 = 187 ha**

### Methodology:

Mapping of the vegetated area between the foreshore and private property along the exposed coast of Noosa including Eastern Beaches, the vegetated area at the Noosa Spit and the vegetated area east of the Teewah village on the Noosa North Shore.

### Definitions:

“Vegetated buffers” include the vegetated area between property boundaries and the bare sand along the length of the coastal foreshore in Noosa Shire. To be clear this excludes:

- the rocky cliffs of the Noosa Headland
- foreshore areas immediately adjacent to Hastings Street (but does include the Spit)
- Noosa North Shore except the area adjacent to the Teewah village.

### Dataset:

Near shore reef condition and biodiversity.

### Methodology:

Reef Check Australia (RCA) have been collecting data and reporting on the condition and biodiversity of Noosa’s near shore reefs since 2010. RCA’s survey methods collect quantitative data for substrate cover, key invertebrate species, target fish species, as well as anthropogenic and natural impacts in reef habitats. The 2018/2019 report sets the baseline for monitoring for the Noosa Environment Strategy 2019 and significant changes will be discussed in future reports. A copy of the 2018/2019 report can be found at <https://www.reefcheckaustralia.org/publications>

A third Dataset associated with this Strategy that monitors the diversity and condition of terrestrial coastal ecosystems across the shire is yet to be developed.

## Strategy 2.3 Manage waterways and coasts to protect environmental values while enabling sustainable public access, recreation and commerce.

### Target:

By 2030, Noosa has a sustainable fishing industry and increased opportunity for recreational fishing.

### **Monitoring program will be developed in the future.**

Noosa Council is exploring the development and delivery of a long-term monitoring program that monitors the state of fish stocks (commercial and recreational) by collecting data on a number of indicator species across distinct habitats through different seasons.

It is also noted that the current target for Strategy 2.3 is focused on commercial and recreational fishing, and does not cover all elements of this Strategy. Further information on public beach accesses including equitable access for disabilities is being collated as part of the Coastal Foreshores Management Plan for Eastern Beaches and more information on the other elements of this strategy are still to come.

## Theme 3 – Sustainable Living

Goal: by 2030 the Noosa community is living more sustainably and is carbon neutral



### Strategy 3.1 Reduce waste to Landfill.

#### Target:

By 2030 all green waste and food waste is diverted from the Landfill.

#### Dataset:

Amount of green waste and food waste diverted from landfill and change over time



#### Methodology:

Volume of green waste a food waste diverted from landfill from municipal collection services.

#### Definitions:

Nil

## Strategy 3.2 Encourage incorporation of more sustainable building elements.

### Target:

By 2030, sustainable building outcomes are delivered through regulation, education and showcasing best practice design.

The environmental monitoring indicators for this strategy have been amended to be more focused and making use of existing available data.

2018/19			
Region	Res LPD	Non-Res LPD	Serviced Population
Noosa	266	108	44,640
SEQ	175	77	3,357,661
2019/2020			
Region	Res LPD	Non-Res LPD	Serviced Population
Noosa	278	109	45,096
SEQ	177	87	3,429,052

### Average water consumption Noosa

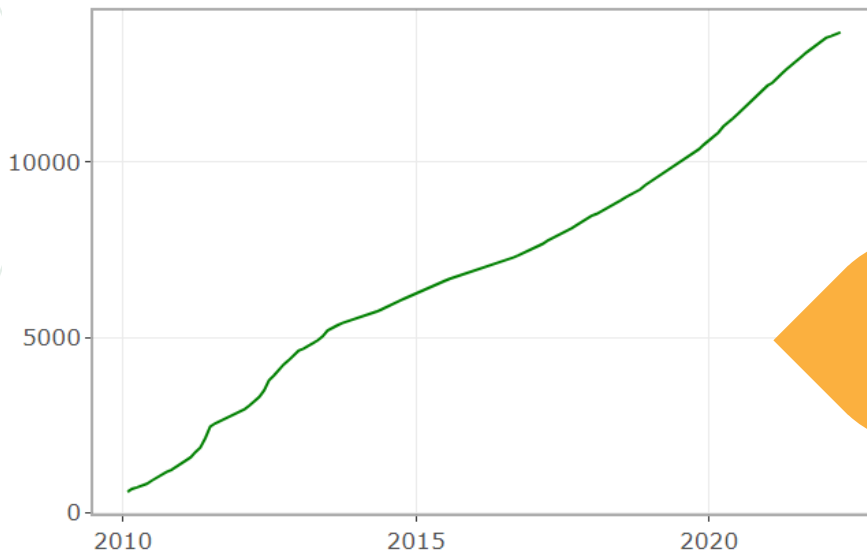
### Dataset:

SEQ Water per capita residential water consumption data by Local Government Area for SEQ 2018/2019 and 2019/2020 financial years.

### Methodology:

Data is collected from publicly available data supplied by SEQ Water. Noosa's average Liters per day (LPD) are compared to SEQ average.

### Noosa LGA Solar Installations by year



Number of solar installations in Noosa at 30th June 2021

**= 12892**

#### Dataset:

Number of Commercial and residential buildings with solar systems installed.

#### Methodology:

Data is collected from Energy Queensland and the Clean Energy Regulator and collated and generously supplied to Council by Geoff Acton on behalf of Zero Emissions Noosa inc. Data provided shows the number of residential and commercial buildings using solar in the Noosa Shire as at June 30 2021.

Full dataset available at <https://rpubs.com/geremida/Noosa-Electricity-Generation>

## Strategy 3.3 Adopt sustainable agriculture practices.

#### Target:

By 2030 80% of all grazing land achieves best practice management for agriculture.

A baseline is to be developed using the ABCD framework and classification for grazing lands.





## Theme 4 – Climate Change Adaptation and Resilience

Goal: by 2030 the Noosa community is living more sustainably and is carbon neutral

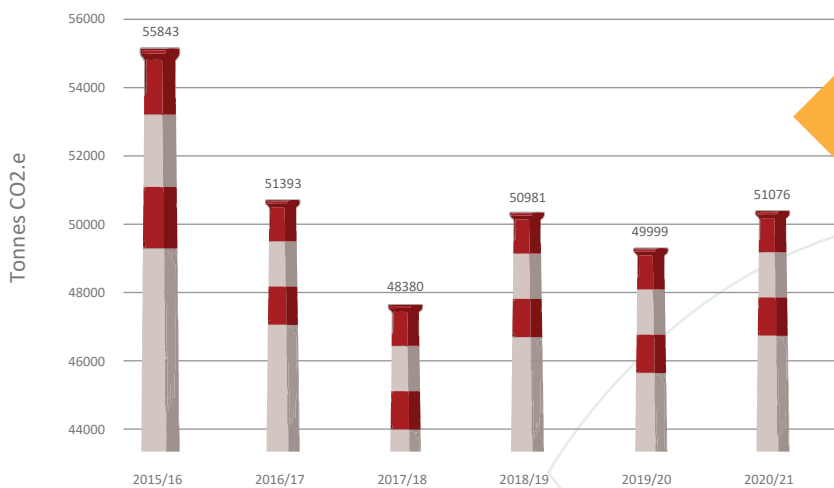
### Strategy 4.1 Reduce emissions and resource consumption.

#### Target:

Noosa Council operations and service activities, and the Noosa community as a whole, will reach zero net emissions by 2026.

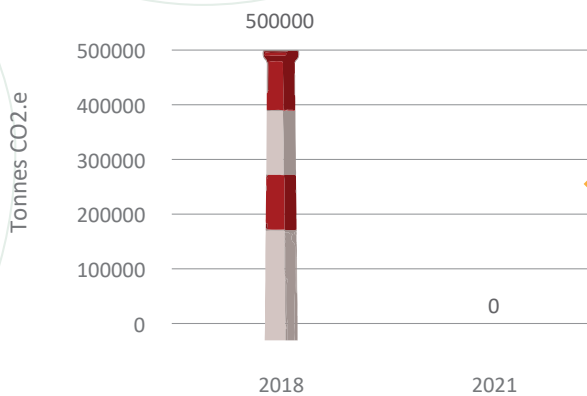
#### Dataset:

Emissions from Council operations and community annual emissions. Change is mapped over time.



Noosa Council Corporate Emissions per Year

*Note: Council's carbon footprint for 20/21 is slightly higher than 2019/20. This is because the accounting methods have changed and we are including more embedded emissions from purchased goods and services.*



Community Emmissions  
2018 and 2021

*Community emissions for 2021 not yet calculated*

In 2018 council’s annual emissions were 50,000 tons and community annual emissions were 500,000 tons. Council’s carbon footprint for 20/21 is slightly higher than 2019/20. This is because the accounting methods have changed and we are including more embedded emissions from purchased goods and services. Community emissions for 2021 not yet calculated.

### Methodology:

Council corporate emissions are calculated annually and community emissions are calculated every three years.

### Definitions:

“Emissions”: Greenhouse gasses produced as a result of human activities include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulphur hexafluoride (SF<sub>6</sub>) and specified kinds of hydro fluorocarbons and perfluorocarbons. Greenhouse gas emissions are measured as kilotonnes of carbon dioxide equivalence (CO<sub>2</sub>-e). This means that the amount of a greenhouse gas that is emitted is measured as an equivalent amount of carbon dioxide which has a global warming potential of one.

## Strategy 4.2 Increase community resilience and capacity to adapt to climate change.

### Target:

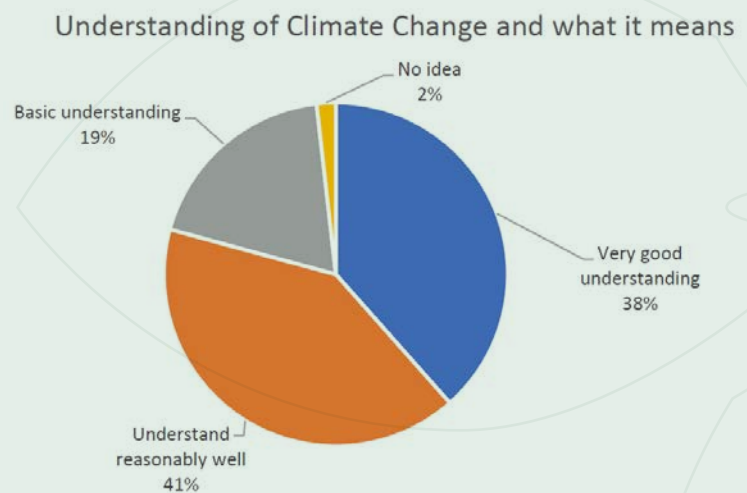
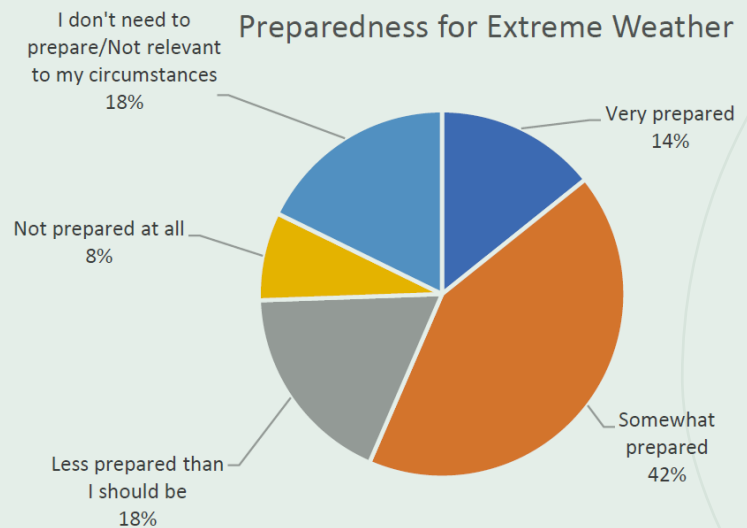
By 2030 community awareness, planning and preparedness for natural hazards and climate change is increased.

### Dataset:

Survey results from questions regarding climate change awareness and preparedness from participants who took part in the Community satisfaction Survey 2019. This data sets the baseline for Strategy 4.2.

### Methodology statement:

Participating community members were asked a question regarding their understanding of climate change to determine overall awareness in the community. They were also informed of the likely impacts of climate change and asked series of questions to determine their preparedness for each of the likely impacts. Questions are to be replicated in future surveys to track changes in the community. For the purpose of this report, results for Understanding of Climate Change and what it means, and Preparedness for Extreme Weather have been included. The full dataset is available in the Community Satisfaction Survey 2019.



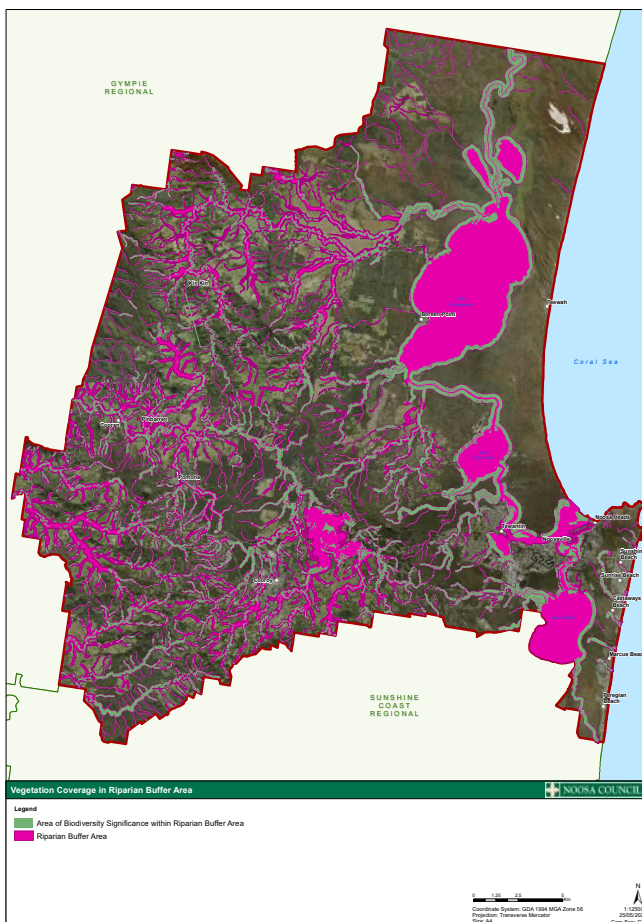
## Strategy 4.3 Manage the natural environment in a way that improves resilience to climate change

### Target:

Ecosystem health of wetlands and riparian areas is improved.

### Dataset:

Area of vegetation cover within Riparian Buffers as identified in the Noosa Planning Scheme.



**2018 = 41.8%**  
**2021 = 41.8%**

### Methodology:

GIS mapping is used to determine the percentage of land within riparian buffers that has woody vegetation cover.

### Definitions:

“Riparian Buffer” is the land adjacent to a water course. The width of a riparian buffer as defined in the Noosa Planning Scheme, is allocated based on attributes used to determine the likelihood of erosion.

Noosa Council is exploring options for the development of a program that monitors the health of wetland in the Shire. It is intended that this dataset will be included in future reports.

# Environment Levy Expenditure

Item	2018/2019	2019/2020 FY	2020/2021 FY
Community Grants and Biosphere	\$196,355	\$253,797	\$372,313
Land Acquisitions and Maintenance	\$2,298,268	\$91,544	\$1,008,490
Environmental Projects and Programs	\$41,596	\$289,250	\$148,432
Corporate Overheads	\$158,559	\$187,839	\$178,307
Employee Costs	\$0	\$78,847	\$98,849
Unallocated Levy	\$0	\$29,350	\$83,490
Total	\$2,694,779	\$930,627	\$1,889,881

*The above table shows the expenditure for the Environment Levy between 2018 and 2021.*

## Environmental projects and programs include.

- Voluntary Conservation Agreement (VCA) and Land for Wildlife (LFW) programs.
- Oyster reef project.

## New land acquisitions in this reporting period.

- 325 Lake Flat Road (2020/2021).
- Yurol Ringtail (2018/2019).
- 1675 Louis Bazzo Drive (2018/2019).

