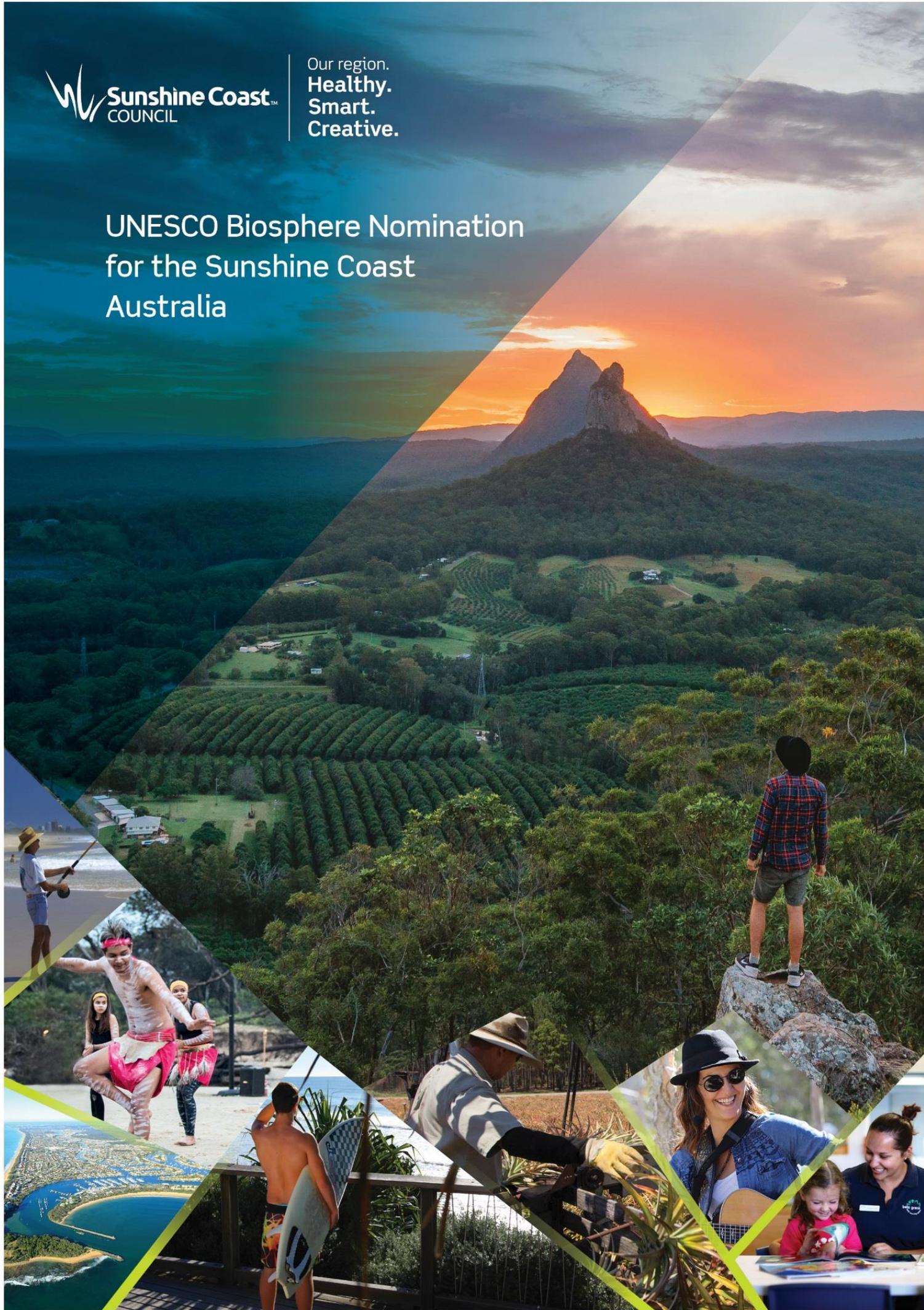




Our region.
Healthy.
Smart.
Creative.

UNESCO Biosphere Nomination for the Sunshine Coast Australia



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Acknowledgements

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Disclaimer

Information contained in this document is based on available information at the time of writing. All figures and diagrams are indicative only and should be referred to as such. While the Sunshine Coast Regional Council has exercised reasonable care in preparing this document it does not warrant or represent that it is accurate or complete. Council or its officers accept no responsibility for any loss occasioned to any person acting or refraining from acting in reliance upon any material contained in this document.

BIOSPHERE RESERVE

NOMINATION FORM

[January 2013]

INTRODUCTION

Biosphere reserves are areas of terrestrial and coastal/marine ecosystems, or a combination thereof, which are internationally recognized within the framework of UNESCO's Program on Man and the Biosphere (MAB). They are established to promote and demonstrate a balanced relationship between humans and the biosphere. Biosphere reserves are designated by the International Coordinating Council of the MAB Program at the request of the State concerned. Individual biosphere reserves remain under the sovereign jurisdiction of the State where they are situated. Collectively, all biosphere reserves form a World Network in which participation by States is voluntary.

The World Network is governed by the Statutory Framework adopted by the UNESCO General Conference in 1995 which presents the definition, objectives, criteria and the designation procedure for biosphere reserves. The actions recommended for the implementation of biosphere reserves are set out in the "Seville Strategy" and were further developed in the Madrid Action Plan (2008-2013). These documents should be used as basic references for the completion of this nomination form.

The information presented on this nomination form will be used in a number of ways by UNESCO:

- (a) for examination of the site by the International Advisory Committee for Biosphere Reserves and by the Bureau of the MAB International Coordinating Council;
- (b) for use in a world-wide accessible information system, notably the UNESCO-MABnet and publications, facilitating communications and interaction amongst persons interested in biosphere reserves throughout the world.

The nomination form consists of three parts:

Part one is a summary indicating how the nominated area responds to the functions and criteria for biosphere reserves set out in the Statutory Framework, and presents the signatures of endorsements for the nomination from the authorities concerned. Part two is more descriptive and detailed, referring to the human, physical and biological characteristics as well as to the institutional aspects. Part three consists of two annexes: the first annex will be used to update the Directory of Biosphere Reserves on the MABnet, once the site has been approved as a biosphere reserve. The second annex will be used to provide promotional and communication materials of the biosphere reserve. Tables, illustrations and maps as appropriate throughout the nomination form are welcomed.

The form should be completed in English, French or Spanish. Two copies should be sent to the Secretariat, as follows:

1. The original hard copy, with the original signatures, letters of endorsement, zonation map and supporting documents. This should be sent to the Secretariat through the Official UNESCO channels, i.e. via the National Commission for UNESCO and/or the Permanent Delegation to UNESCO;
2. An electronic version (on diskette, CD, etc.) of the nomination forms and of maps (especially the zonation map). This can be sent directly to the MAB Secretariat:

UNESCO
Division of Ecological and Earth Sciences
7, Place de Fontenoy
F-75352 Paris 07 SP, France
Tel: +33 (0)1 45 68 41 51
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Email: mab@unesco.org
<http://www.unesco.org/mab>

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ANNEXES

ACKNOWLEDGEMENT OF COUNTRY

Sunshine Coast Council (Council) acknowledge the Kabi Kabi peoples and the Jinibara peoples whose lands, winds and waters we all now share. Council further acknowledges their unique values, and their ancient and enduring cultures, which deepen and enrich the life of our communities.

Council was among the first local governments in Queensland to endorse a Reconciliation Action Plan (RAP). Council is committed to working with Aboriginal and Torres Strait Islander people and will establish a First Peoples Advisory Committee to partner with council on this journey.

Through important cultural events such as the Bunya Festival, this region was a place of celebration, abundance, connection and kinship for thousands of years. Every three years from December to February, thousands of First Nations people descended on the Sunshine Coast to feast on the Bunya nut, meet friends and relatives, engage in cultural activities which included marriage arrangements, to settle disputes and to trade. Many people walked hundreds of kilometres for this important festival. This region was a place of celebration, connection and abundance, however the legacy issues resulting from colonisation are still experienced by Traditional Owners and First Nations people.

Truth telling is a significant part of our journey and Council is committed to better understanding the collective history of the Sunshine Coast and the impacts on Aboriginal and Torres Strait Islander peoples. Council recognises this shared history, and will continue to work in partnership to provide a foundation for building a shared future with the Kabi Kabi peoples and the Jinibara peoples.

Council acknowledges the Traditional Owners of the Sunshine Coast, and pays respects to their elders past and present, and the emerging leaders. The lived experiences and the voices of Traditional Owners are important as we work together to develop a community that builds on the strengths, culture and heritage of our First Nation peoples.

Together, we are all stronger.

Image credits:

Front: J. Hill – Summit of Mt Ngungun, Ben Vos Productions – Horizon Festival, B. Alsop, Bella Grace Early Learning Centre, Greg Gardner Photography – Maroochy Regional Bushland Botanic Garden, Adventure Race, A. Canard – Mooloolaba Harbour, L. Herman – Mountain Sunrise, B. Alsop, Ben Vos Productions – Horizon Festival, T. Gillespie – Ferris Wheel, Kids in Action, S. Pass – Admiring Force, R. Cash.

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PART I SUMMARY

1. PROPOSED NAME OF THE BIOSPHERE RESERVE

[It is advisable to use a locally accepted geographic, descriptive or symbolic name which allows people to identify themselves with the site concerned (e.g. Rio Platano Biosphere Reserve, Bookmark Biosphere Reserve). Except in unusual circumstances, biosphere reserves should not be named after existing national parks or similar administrative areas.]

Sunshine Coast Biosphere

2. NAME OF THE COUNTRY

Australia

The Sunshine Coast region is located in South East Queensland, Australia (Figure 2.1). The southern boundary of the Sunshine Coast local government area is 53 kilometres north of the capital Brisbane. The Sunshine Coast local government area is managed by the Sunshine Coast Regional Council (the Council). The Country of two distinct First Nations groups, Kabi Kabi and the Jinibara people, extends across the area.



Figure 2.1: The Sunshine Coast is located in the state of Queensland, Australia.

The whole of the Sunshine Coast local government area is being nominated for UNESCO Man and the Biosphere designation. Within the local government area there are legally protected areas for the purpose of long term conservation, rural and rural living areas and an urban footprint where people live and work sustainably. A map of the Sunshine Coast Biosphere Area can be found in section 6.

3. FULFILMENT OF THE THREE FUNCTIONS OF BIOSPHERE RESERVES

[Article 3 of the Statutory Framework presents the three functions of conservation, development and logistic support. Explain in general terms how the area fulfils these functions.]

This section provides the background, purpose, aims and objectives of the Sunshine Coast Biosphere nomination and how implementation will fulfil the functions of conservation, development and logistic support.

Sunshine Coast Regional Council has a vision to be:
Australia's most sustainable region – Healthy. Smart. Creative.

The UNESCO Man and the Biosphere program aligns with this vision and the ongoing potential for conservation, sustainable development, research and education in the region is strong, due to the commitment of both Council and the community.

Community and Council – a commitment to sustainability

Becoming a biosphere supports the aspirations of the Sunshine Coast community and Sunshine Coast Regional Council.

The Sunshine Coast community has consistently given Council a clear message: The community wants a balanced approach to managing growth, to maintain and enhance the liveability of the Sunshine Coast for current and future generations. The community's vision encompasses the four pillars of sustainability; people, environment, economy and culture. It also recognises that the four pillars need to be balanced, integrated, leverage off each other and that collaboration and innovation are key to achieving this.

As a local government, it is Council's role to support and regulate sustainable development, by maintaining and enhancing the region's environmental assets, strengthening the social fabric of its communities and developing the present and future prosperity of the region.

The foundation of the Sunshine Coast Biosphere is based on Council and the community's visions for the future, combined with embracing the opportunities that may arise from the pressures influencing the Sunshine Coast.

Background

Since first formed in 2008, Council has been consulting with the community about how best to respond to future pressures and maintain the liveability and natural assets valued by the community. As an evolving region, with an increasing population, along with pressures such as climate change and a changing economy, there are both challenges and opportunities to be met in the future.

Sunshine Coast Regional Council has demonstrated its commitment to sustainable development over the past decade and continues to plan for a sustainable future across the region. The actions and achievements of Council, in partnership with the community, have established a healthy and liveable region, creating a strong platform to respond proactively to change.

As the Sunshine Coast continues to grow as a city-region, it is well positioned to respond to changes. It is a living laboratory that can demonstrate a high standard of sustainable development, so that its people can live, work and play sustainably in a landscape that is valued for its environmental significance and important wildlife habitat and ecosystems.

To support its vision, Council has community-endorsed tools to guide the development of the region, providing a balance between social, environmental, cultural and economic outcomes. Council is committed to protecting and enhancing the region's liveability, economy, built environment and natural assets for both current and future generations.

Tools to manage sustainable development

The Council has a five staged approach to sustainable development in the region:

1. A vision to be *Australia's most sustainable region – Healthy. Smart. Creative*;
2. Long term strategies in place, developed in consultation with the community:
 - *Community Strategy 2019–2041*;
 - *Environment and Liveability Strategy 2017*; and
 - *Regional Economic Development Strategy 2013–2033*;
3. The *Sunshine Coast Planning Scheme 2014* (section 9.3) which helps Council to regulate land use and development across the Council area in a sustainable manner (section 13.1);
4. A *Corporate Plan 2019-2023* with the goals of a strong community, a healthy environment, a smart economy, service excellence and an outstanding organisation, to position the Sunshine Coast at the forefront of economic prosperity, liveability and sustainability (section 13.1); and
5. Major projects and programs to deliver sustainable on-ground outcomes for the community, the environment and the economy.

The three long term strategies (stage 2 in the approach) each have policy focus areas to deliver sustainable outcomes for the region.

Policy focus areas for the *Community Strategy 2019–2041* include:

- Healthy active communities;
- Vibrant communities;
- Inclusive communities;
- Connected resilient communities; and
- Creative, innovative communities.

Policy focus areas in the *Environment and Liveability Strategy 2017* include:

- The natural environment;
- The environment we create (the built environment); and
- Living in the environment (section 16.2).

Policy focus areas in the *Regional Economic Development Strategy 2013–2033* include:

- Health and wellbeing;
- Education and research;
- Knowledge industries and professional services;
- Tourism (section 15.2), sport and leisure;

- Food and agribusiness (section 15.3);
- Clean technologies; and
- Aviation and aerospace.

Council works in partnership with the community, business and industry, and other levels of government to deliver its strategic intent in terms of managing growth, promoting economic development, providing infrastructure, supporting community cohesion and resilience, and protecting and enhancing our natural assets.

Council's vision and its three long term strategies guide and influence the *Sunshine Coast Planning Scheme 2014* (section 13). The Planning Scheme supports sustainable development by addressing short and medium term priorities for sustainable growth management based on current community expectations and other considerations.

Biosphere Nomination

As well its policy and planning framework, Council recognised further opportunities to:

- Assist with protecting and enhancing the liveability of the Sunshine Coast for current and future generations;
- Establish greater levels of national and international recognition for work that has already been delivered; and
- Engage in appropriate initiatives that raise the profile of the region's economy, tourism, research, sustainability and liveability while at the same time recognising the region's natural assets.

Council conducted a review of national and international protection mechanisms to determine how best to support its existing policy framework and to achieve recognition and raise the profile of the region. The review identified the UNESCO Man and the Biosphere Program as the most appropriate mechanism. It aligns with Council's vision (stage 1 in the approach), supports and integrates with Council's existing policy framework and planning tools, and is a credible, well known program that offers opportunities and benefits for the region that align with community aspirations.

Council then engaged the community and key stakeholders to identify their level of support for submitting a biosphere nomination and the outcomes that might be achieved as a result. Community and key stakeholder feedback during the consultation process, advice from the Biosphere Nomination Community Reference Group, as well as UNESCO Man and the Biosphere functions, have been used to develop the Sunshine Coast Biosphere Nomination.

Purpose of the biosphere

The purpose of becoming a biosphere is to assist and support council and the community to achieve their visions for the future of the region. Collectively, we want to be a sustainable region with a balance between people, environment, economy and culture, now and into the future.

The Sunshine Coast wants to become a biosphere because:

- It will help to secure a liveable Sunshine Coast for current and future generations;
- International recognition, through a UNESCO Biosphere credential, will enable Sunshine Coast residents and businesses to leverage the opportunities and benefits that come with this;
- Being a UNESCO Biosphere will support, encourage and unite residents, industry, businesses and Council to collaborate and continue with sustainable practices;
- The biosphere will wrap around and complement our three long term strategies, to support the management of sustainable growth while maintaining the region's liveability into the future; and
- The UNESCO Biosphere program will provide third party, independent recognition and validation, that collectively, residents, industry, businesses and Council are progressing toward achieving our vision – to become *Australia's most sustainable region – Healthy. Smart. Creative.*

Aim and objectives of the biosphere

The aim and objectives for the Sunshine Coast Biosphere have been developed based on both the community's aspirations and Council's vision for the region. The aim and objectives are:

Governing Principle: Balancing the environmental, social, cultural and economic needs of today, without compromising the ability to meet the needs of future generations.

Aim: The Sunshine Coast Biosphere will be internationally renowned as a place where people live, learn, work and play sustainably.

- Objective 1: People – A Sunshine Coast community that actively fosters and promotes sustainable practices, use and stewardship.
- Objective 2: Conservation – Conserving, maintaining and enhancing our natural environment from the hinterland to the coast, and connecting people and nature.
- Objective 3: Development – Demonstrating leadership in delivering a diverse and resilient economy.
- Objective 4: Logistical support – Inspiring and celebrating creativity, innovation, research and a learning community.

The aim and objectives (section 13.1) will inform and guide the development of a management and performance measurement framework that will be used to monitor progress of the Sunshine Coast Biosphere.

3.1 "Conservation - contribute to the conservation of landscapes, ecosystems, species and genetic variation".

(Stress the importance of the site for conservation of biological and cultural diversity at the regional or global scales).

The proposed biosphere covers a total of 2,585 square kilometres and features protected marine and terrestrial areas, rural lifestyle and rural living, as well as urban areas where people live and work.

The region features both biological and cultural diversity, with rich Indigenous and multicultural history that has resulted in a range of lifestyles and historical places that are valued by the community.

Across the mosaic of landscapes in the region, from mountains in the hinterland to coastal foreshores, is a large number of habitats with native plants and animals that create our rich biodiversity and highly regarded natural environment.

The natural environment in this region is a living network of landforms and catchments, wetlands, waterways, terrestrial ecosystems, coastal foreshores and marine waters. It includes the smallest lichen on Mount Coolum through to the tallest eucalypt in the hinterland, the humble brush turkey to the striking Richmond birdwing butterfly, the rarely seen water mouse to the towering Glass House Mountains and the internationally (Ramsar) recognised Pumicestone Passage.

With a subtropical climate and a long coastal strip, the Sunshine Coast is a region where two climate zones meet and overlap. Tropical habitats that extend southward are intermingled with temperate habitats extending northward to form a unique region which showcases the landforms and rich biodiversity of both climate zones and enriches the biological diversity of the region.

A Sunshine Coast Biosphere recognises the special features of the region and actively supports stewardship including valuing cultural diversity, mitigating climate change, adapting to climate change, enhancing resilience, protecting genetic diversity and caring for the ecosystems and species that make this an abundant biodiverse region.

3.2 "Development - foster economic and human development which is socio-culturally and ecologically sustainable".

(Indicate current activities and the potential of the proposed biosphere reserve in fulfilling the objective of fostering sustainable economic and socio-cultural development, including by securing flows of ecosystem services from the biosphere reserve).

The Sunshine Coast is shaped by a rich Indigenous and multicultural history, resulting in multiple land uses and land users. The Traditional Owners are custodians of the land and provide local knowledge of traditional ways of using the land.

The Sunshine Coast is a community of communities that stretch from the coast to the hinterland. These diverse communities are connected and defined by their unique natural and built environments and associated geological, ecological and cultural histories.

As the Sunshine Coast continues to grow and emerge as a city-region, it is well positioned to foster sustainable development by proactively and deliberately responding to changes that will present both challenges and opportunities in the future.

The Sunshine Coast is highly regarded as a lifestyle region due to its subtropical climate, picturesque coastline and beaches, extensive waterways and wetlands, and the hinterland mountain ranges. The natural environment and distinct landscapes are the foundations of the Sunshine Coast way of life.

The Sunshine Coast is experiencing continued growth, with a forecast annual population growth of around 8,000 people, increasing from a current population of approximately 328,030 to a forecast population of over 500,000 by 2041, with further increases expected thereafter.

The Sunshine Coast's food and agribusiness industry is characterised by a diverse range of sectors including poultry, seafood, horticulture, cattle, dairy and specialty dairy production. The Sunshine Coast already has a reputation for producing high-quality fresh food in a clean green environment.

Tourism is an important industry, attracting visitors from around the world, as well as day visitors from the wider region, with about eight million visitor nights per year enjoying the natural assets of the region.

The *Sunshine Coast Planning Scheme 2014* regulates land use and development across the Sunshine Coast Regional Council area (the extent of the biosphere) in a sustainable manner. It recognises the Sunshine Coast as a 'community of communities' and is tailored to keep these diverse communities unique.

The actions and achievements of Council, in partnership with the community, have established a healthy and liveable region, creating a strong platform to respond to change.

Council has a strong focus on sustainable outcomes and has, and continues to demonstrate, a commitment to fostering sustainable practices through the delivery of major projects and programs for the community, the environment and the economy.

This approach will enable the Sunshine Coast to continue toward a diverse, robust and sustainable economy. A thriving economy supports human development, which then fosters the creation of strong, resilient communities, able to protect and enhance natural assets.

Good management of population growth will ensure the natural environment is protected, including impacts on ecosystem services, and that the liveability of the region is not only maintained but also enhanced.

3.3 "Logistic support - support for demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development".

(Please indicate current or planned activities.)

Research and education are highly valued on the Sunshine Coast. A number of research facilities, including the world class University of the Sunshine Coast, have delivered and will continue to deliver research that will help inform the operation and management of the biosphere.

The Sustainability Research Centre, based at the University of the Sunshine Coast, has a collaborative and cross-disciplinary approach, focused on understanding sustainability as it applies to people and places and the transition toward sustainability.

Education for sustainability has been a key focus for the Sunshine Coast region, with the Council formally providing sustainability education to the community since 2009. Informal education and activities provided by community groups have contributed to an activated and educated community. There are now more than one hundred sustainability programs and

events hosted annually by community groups, educational institutions, the Queensland Government and Sunshine Coast Regional Council.

Schools within the region include sustainability as part of the core curriculum and students apply this knowledge to projects including improved recycling, tree planting, turtle care and studies of coastal erosion. Environmental learning for young people is supported by the Kids in Action program, hosted by the Sunshine Coast Regional Council.

Commercial ventures such as Sea Life Mooloolaba and Australia Zoo in Beerwah also contribute to educating residents and tourists.

Environment centres within the region provide a wide range of learning opportunities, as well as citizen science projects, to engage people in conservation and the understanding of sustainability.

Partnerships with a wide variety of stakeholders, including academic, economic and community organisations, have been a key feature of the region in the past decade and have been facilitated and supported by the Sunshine Coast Regional Council and the University of the Sunshine Coast in their Regional Partnership Agreement.

The Sunshine Coast has two neighbouring biospheres, Noosa and Great Sandy, creating substantial opportunity for the three biospheres as well as the World Network of Biosphere Reserves to connect, collaborate, share and learn from our combined experiences.

As part of a global network of UNESCO biospheres, the Sunshine Coast Biosphere anticipates contributing to global knowledge of conservation and sustainable development, by partnering in research initiatives with other biospheres and by sharing its own knowledge and research.

4. CRITERIA FOR DESIGNATION AS A BIOSPHERE RESERVE

[Article 4 of the Statutory Framework presents 7 general criteria for an area to be qualified for designation as a biosphere reserve which are given in order below.]

Section 4 demonstrates how the Sunshine Coast Biosphere responds to the criteria for designation as a biosphere reserve and provides section references for further information.

4.1 "Encompass a mosaic of ecological systems representative of major biogeographic region(s), including a gradation of human interventions".

(The term "major biogeographic region" is not strictly defined but it would be useful to refer to the Udvardy classification system (http://www.unep-wcmc.org/udvardys-biogeographical-provinces-1975_745.html).

The Sunshine Coast has diverse plant and animal populations sustained in niches from the tropical north to the temperate south. This biogeographical region includes marine waters, headlands and beaches in the east, tidal waters, wetlands and woodlands over a broad coastal plain, to rugged ranges, river valleys and rainforests in the west (Table 4.1).

Table 4.1: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
The area is a mosaic of ecosystems.	8.0	<ul style="list-style-type: none"> Diverse plant and animal populations sustained in niches from the tropical north to the temperate south.
Encompass a mosaic of ecological systems representative of major biogeographic region(s), including a gradation of human interventions.	11.2 14.1	<ul style="list-style-type: none"> Biogeographical region includes: <ul style="list-style-type: none"> marine waters, headlands, dunes and beaches in the east; tidal waters, wetlands and woodlands over a broad coastal plain; and rugged ranges, river valleys and rainforests in the west. 75 recognised vegetated ecosystem types grouped into six broad vegetation communities. The Sunshine Coast is located within the Queensland Coastal province of the Australian realm (Udvardy, 1975).

4.2 "Be of significance for biological diversity conservation".

(This should refer not only to the numbers of endemic or rare species, but may also refer to species on the IUCN Red List or CITES appendices, at the local, regional or global levels, and also to species of global importance, rare habitat types or habitats with unique land use practices (for example traditional grazing or artisanal fishing) favouring the conservation of biological diversity.)

The region is renowned for the extent and quality of its natural features as well as flora and fauna species (Table 4.2). As stewards, the Sunshine Coast community strives to savour, share and preserve our natural assets.

Table 4.2: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
It has significant biodiversity.	14.2	<ul style="list-style-type: none"> • The Sunshine Coast's subtropical location, climate and varied landform supports a rich and diverse range of plants and animals from tropical through to temperate and marine through to lowland and upland species. • 2,600 recorded plant species; <ul style="list-style-type: none"> - 75 plant species are EVNT. • 850 recorded animal species; <ul style="list-style-type: none"> - 66 animal species are EVNT. <p><i>EVNT = listed as endangered, vulnerable or near-threatened.</i></p>

4.3 "Provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale".

(Describe in general terms the potential of the area to serve as a site of excellence for promoting the sustainable development of its region (or "eco-region").)

Development on the Sunshine Coast is built on strong policies to deliver transformational projects that drive economic growth, create strong, connected and resilient communities and at the same time, protect natural assets (Table 4.3). An established process of monitoring, evaluation and reporting facilitates continual learning and improvement.

Table 4.3: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
There is opportunity to explore and demonstrate sustainable development.	13.1	<ul style="list-style-type: none"> • The Sunshine Coast continues to grow, change and experience challenges and opportunities related to population growth, economic growth, climate change and technological innovation. • Sunshine Coast Regional Council has been consulting the community about how to best respond to these pressures. • The community's clear and consistent message is to have a balanced approach to managing growth (Figure 13.1). • Council has developed three strategies to manage growth over the long term, and all have a focus on sustainable outcomes. • The three key strategies that will drive sustainable development are: <ul style="list-style-type: none"> - <i>Community Strategy 2019–2041</i>; - <i>Environment and Liveability Strategy 2017</i>; and - <i>Regional Economic Development Strategy 2013–2033</i>. • The Sunshine Coast has earned credentials for its effort toward sustainability and the benefits that its policy and projects have brought to the region. • Council's three long term strategies, along with the community's aspirations for the region, will continue to facilitate the opportunity to explore and demonstrate sustainable development into the future.

4.4 "Have an appropriate size to serve the three functions of biosphere reserves"

(This refers more particularly to (a) the surface area required to meet the long term conservation objectives of the core area(s) and the buffer zone(s) and (b) the availability of areas suitable for working with local communities in testing and demonstrating sustainable uses of natural resources.)

The Sunshine Coast Biosphere area is 258,535 hectares including terrestrial areas and marine waters (Table 4.4).

Table 4.4: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
The area is of appropriate size.	7.0	<ul style="list-style-type: none"> • Covers a total of 2,585 square kilometres (or 258,535 hectares); and

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
		<ul style="list-style-type: none"> • Having sufficient size, the biosphere features: <ul style="list-style-type: none"> - protected marine and terrestrial areas; - rural lifestyle and rural living; and - urban areas where people live and work.

4.5 Through appropriate zonation:

The Sunshine Coast Biosphere has sufficient size and a range of appropriate zones to demonstrate sustainable development activities relating to the UNESCO Man and the Biosphere zones identified as core, buffer and transition (Table 4.5).

In the Sunshine Coast Biosphere, these zones have been renamed to reflect local terminology and are to be known as “Areas”.

Table 4.5: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
It includes biosphere zones - core, buffer and transition, named as: <ul style="list-style-type: none"> - Protect and Enhance Areas (core zone); - Special Manage and Care Areas (buffer zone); - Manage and Care Areas (buffer zone); and - Live and Work (transition zone). 	7.1 – 7.3	Biosphere Areas in the Sunshine Coast Biosphere have names to reflect local terminology: <ul style="list-style-type: none"> • Protect and Enhance Area (core zone): 43,649 hectares or about 17% of the total biosphere area; • Special Manage and Care and Manage and Care Area (buffer zone): 182,164 hectares or about 70% of the total biosphere area; and • Live and Work (transition zone): 32,722 hectares or 13% of the total biosphere area.

"(a) a legally constituted core area or areas devoted to long term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives".

(Describe the core area(s) briefly, indicating their legal status, their size, the main conservation objectives.)

Protect and Enhance Areas (core zones) in the Sunshine Coast Biosphere are either Commonwealth Government, Queensland Government or Council owned land that is designated as a national park, state forest or state reserve for conservation purposes.

Protect and Enhance Areas are publicly owned land and sea, legally protected for the purpose of long term conservation, and of sufficient size (20 hectares or larger). Examples include larger national parks, part of some marine parks and the Sunshine Coast Council's larger environment reserves.

"(b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place".

(Describe briefly the buffer zones(s), their legal status, their size, and the activities which are ongoing and planned there).

Manage and Care Areas (buffer zones) are a mix of publicly and privately owned land and sea where rural lifestyle and rural living occurs. Primary producers use the land and sea in these areas for business. Care is taken to manage land and sea activities so as to minimise impact on the surrounding Protect and Enhance Areas. Manage and Care Areas surround Protect and Enhance Areas but can stand alone. They also connect Protect and Enhance Areas with Live and Work Areas.

The additional Special Manage and Care Area was developed to acknowledge community and key stakeholder values, as well as foster further conservation stewardship and sustainable living practices. The Special Manage and Care Area can coexist with UNESCO Man and the Biosphere's requirements for biosphere zonation because it is equivalent to a buffer zone. The name Special Manage and Care Area has been applied to areas that would have been designated as Protect and Enhance Area if of sufficient size (20 hectares or larger).

Special Manage and Care Areas are publicly owned and legally protected areas mostly surrounded by a Live and Work Area and include for example, several small national parks, such as Mount Coolum National Park in the northern end of the Live and Work Area.

Special Manage and Care Areas also serve as a 500 metre buffer between Live and Work and Protect and Enhance Areas so as to minimise the impacts of human activity. Where the Special Manage and Care Areas act as this buffer, the area sits within the publicly owned legally protected area (e.g. within a national or marine park) rather than over the top of the houses or infrastructure in the adjacent Live and Work Area.

Some biosphere areas that are publicly owned land and legally protected for the purpose of long term conservation and mostly surrounded by a Live and Work Area, have not been designated as a Special Manage and Care Area. These places are mostly located along the coastline and foreshores and are very small or narrow. As such they do not meet the principle of ensuring the map is clear, simple and easy to understand. These areas will continue to be legally protected areas and managed accordingly. The community and key stakeholders engaged in the design of the biosphere area map intend for these very small and narrow areas to be acknowledged as significant, highly valued and protected areas.

"(c) an outer transition area where sustainable resource management practices are promoted and developed".

(The Seville Strategy gave increased emphasis to the transition area since this is the area where the key issues on environment and development of a given region are to be addressed. Describe briefly the transition area(s), the types of questions to be addressed there in the near and the longer terms. The Madrid Action Plan states that the outer boundary should be defined through stakeholder consultation.)

Transition zones in the Sunshine Coast Biosphere are known as Live and Work Areas.

Live and Work Areas (transition zones) have multiple land uses where people live and make a living, for example, suburbs and townships. Sustainable development and resource management practices are promoted and developed in these areas which also contain green spaces, parks, waterways, beaches and very small legally protected areas, such as conservation reserves. These areas are all key natural assets and require conservation and protection within the Live and Work Area. The boundary of the Live and Work Area mostly reflects the Urban Footprint within Queensland Government planning policy and legislation.

(d) Please provide some additional information about the interaction between the three areas.

The three main UNESCO Man and the Biosphere areas represented in the Sunshine Coast Biosphere are much more than three simple, concentric standalone areas. These areas represent a patchwork of the land formations and land use across the region with multiple examples of each area across the region. For example, there are several Protect and Enhance Areas and multiple Live and Work Areas, with a large mix of Manage and Care Areas between the two.

This range of different areas creates many opportunities to examine and balance the needs of people and development within the natural environment.

People in the region, both residents and tourists, move across all three biosphere areas in a range of activities including active conservation, recreation, learning, business and household living. This movement means the challenges of each area need to be managed in a way that best supports its function, at the same time as supporting the needs of the people living in the region and achieving a balance of people living sustainably in nature.

This interaction across the region is one the key reasons the Sunshine Coast Biosphere meets all three functions for becoming a biosphere – the conservation function, the development function and the logistical (research and learning) function. The diverse region offers both challenges and opportunities to implement sustainable development and sustainable living practices. Becoming a biosphere will assist and support meeting these challenges and opportunities.

4.6 "Organizational arrangements should be provided for the involvement and participation of a suitable range of inter alia public authorities, local communities and private interests in the design and the carrying out of the functions of a biosphere reserve".

Stakeholders have been consulted extensively about the Sunshine Coast Biosphere and have indicated their willingness to remain involved and contribute to the biosphere.

Existing legislation and policy complement governance arrangements for the operation and management of the biosphere which will be balanced, transparent, inclusive and responsive.

There is opportunity for Sunshine Coast Regional Council to provide leadership and form partnerships to deliver an integrated management and performance measurement framework that drives a successful biosphere where our biosphere will be a collective story; our story (Table 4.6).

Table 4.6: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
Governance arrangements have community, key stakeholder and government involvement.	17.1.8 17.1.9	<ul style="list-style-type: none"> A wide range of stakeholders and the community have been consulted and are prepared to be actively involved. Council, in consultation with stakeholders, intend to lead the development of a management and performance measurement framework that will be used to monitor progress of the Sunshine Coast Biosphere. Biosphere Group/s, consisting of key stakeholder representatives, may work with Council as the lead government body. Other existing stakeholder groups may also wish to be involved in the operational delivery of biosphere projects.

The leading decision making body, Sunshine Coast Regional Council, will investigate forming a biosphere group/s to provide high level coordination of biosphere activities and advice to Council to guide decisions.

The role of the biosphere group/s could be to:

- Coordinate activities across all biosphere areas;
- Ensure community views and needs are represented and that the community is kept informed;
- Provide a conduit for community feedback which informs the management of the biosphere;
- Provide a forum for discussions with community groups and individuals regarding relevant biosphere opportunities, benefits and risks;

- Foster ownership of the biosphere by key stakeholders and the community;
- Build community advocacy, understanding, trust and acceptance of the biosphere;
- Ensure there is a high level of transparency;
- Support the codesign of communication messages and strategies to provide for effective communication and engagement with the broader public; and
- Assist in managing community perception and community expectations of the biosphere.

Governance Principles

Draft governance principles, to guide the arrangement of the biosphere coordination group, have been developed as part of the consultation with stakeholders. The draft principles are:

- Overarching principle: *Biosphere brings people and nature together.*
- Principle 1 – Balanced;
- Principle 2 – Transparent;
- Principle 3 – Inclusive; and
- Principle 4 – Responsive.

Caveat for all principles: In accordance with Australian law.

4.6.1 Describe arrangements in place or foreseen.

(Describe involvement of public and/or private stakeholders in support of the activities of the biosphere reserve in core, buffer and transition areas (such as agreements, protocols, letters of intent, protected area(s) plans).)

Section 4.6 has clearly outlined the governance principles which have been established with input from community, key stakeholders, a Biosphere Nomination Community Reference Group and Sunshine Coast Regional Council (section 17).

In building on these principles, frameworks to support the management and performance monitoring of the biosphere will continue to be developed and finalised in partnership with stakeholders ahead of the expected UNESCO Man and the Biosphere announcement in June 2021.

4.6.2 Have any cultural and social impact assessments been conducted, or similar tools and guidelines been used?

(e.g. Convention on Biological Diversity (CBD)'s Akwé: Kon guidelines; Free, Prior, and Informed Consent guidelines, Biocultural Community Protocols, etc.). (UNESCO's Program on Man and the Biosphere (MAB) encourages biosphere reserves to consider and respect indigenous and customary rights through programs or tools, in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf when relevant and appropriate).)

The social and cultural capacity of the Sunshine Coast has been assessed over the past decade through a range of studies and strategies including the *Reconciliation Action Plan March 2017 to June 2019* which ensures respect and interaction with the Traditional Owners of

the region. Adopted by Council in 2012, this plan underpins any Council project undertaken in the region.

Other cultural studies and social impact assessments have been conducted as a part of developing the *Community Strategy 2019-2041* and the *Sunshine Coast Heritage Plan 2015-2020*.

4.7 Mechanisms for implementation:

Existing legislation, policy, research and sustainability education programs will complement governance arrangements for the operation and management of the biosphere (Table 4.7).

Table 4.7: Summary of how the Sunshine Coast meets UNESCO Man and the Biosphere criteria.

Criteria for designation as a biosphere	Section reference	Sunshine Coast responses
<p>There are mechanisms to manage human use.</p> <p>There is a designated authority for management.</p> <p>There is research and monitoring in the biosphere.</p>	<p>17.1.3</p> <p>17.1.6</p> <p>16.1</p>	<ul style="list-style-type: none"> • <i>Managing human use:</i> Legislation and planning policy provides mechanisms to manage human land use in each biosphere area. • <i>Designated authority:</i> Sunshine Coast Regional Council. Council proposes that its role should be to provide leadership and resources for the biosphere's governance, operation, management and implementation. • <i>Research and monitoring:</i> A number of research facilities, including the University of the Sunshine Coast, have delivered and will continue to deliver research and monitoring that will inform the operation and management of the biosphere. A number of community groups and other organisations conduct monitoring which may also inform the implementation of the biosphere. • <i>Sustainability education:</i> Over 100 sustainability education events and programs are delivered across the region by community groups and government agencies, including Sunshine Coast Regional Council. More than 277,000 people visit Council's three environmental education centres each year. Schools on the Sunshine Coast are actively involved in events and education centres as well as the Kids in Action program which aims to grow a culture of caring for the natural world.

Does the proposed biosphere reserve have:

"(a) mechanisms to manage human use and activities in the buffer zone or zones?"

If yes, describe. If not, describe what is planned.

Managing human use:

Legislation provides mechanisms to manage human land use in each biosphere area and is managed by the following bodies:

- Commonwealth Government Department of Environment and Energy;
- Queensland Government Department of Environment and Science;
- Queensland Government Department of Agriculture, Forestry and Fisheries;
- Seqwater (statutory authority for bulk water storage and water grid management);
- HQ Plantations (lease and manage Queensland Government land for the purpose of forestry);
- Unitywater (statutory authority for water and sewerage service); and
- Sunshine Coast Regional Council.

"(b) a management policy or plan for the area as a biosphere reserve?"

(If yes, describe. If not, state how such a plan or policy will be developed, and the timeframe. (If the proposed area coincides with one or more existing protected natural area(s), describe how the management plan of the proposed biosphere reserve will be complementary to the management plan of the protected area(s).)

This will be developed between October 2019 and June 2021 in consultation with key stakeholders and in alignment with Sunshine Coast Regional Council's vision and long term strategies.

"(c) a designated authority or mechanism to implement this policy or plan?"

Designated authority for management:

Sunshine Coast Regional Council

Council proposes that its role should be to provide leadership and resources for the biosphere's governance, operation, management and implementation.

As the leading decision-making body Council will investigate forming a biosphere group/s to provide high level coordination of biosphere activities and advice to Council to guide decisions.

Council will form partnerships to deliver an integrated management framework and performance measurement framework that drives a successful biosphere.

“(d) programs for research, monitoring, education and training?”

If yes, describe. If not, describe what is planned.

Research and education are highly valued on the Sunshine Coast.

A number of research facilities, including the University of the Sunshine Coast and Universities in the nearby capital city of Brisbane, deliver research that will inform the operation and management of the biosphere.

The University of the Sunshine Coast’s Sustainability Research Centre has a particular focus on sustainability research across social, behavioural and economic sciences, applied to issues such as climate change, coastal management and sustainable livelihoods.

A range of organisations, including community groups, conduct monitoring, which informs the management of the region. Research and monitoring are recognised as a foundation for the prosperity of the Sunshine Coast and are expected to continue as usual, as many programs are ongoing.

Annually, there are more than 100 sustainability education programs and events that are hosted by community groups, key stakeholders and Sunshine Coast Regional Council. For example, the Kids in Action program grows a culture that values caring for the natural world. It brings together over 300 students and teachers from more than 20 schools across the region to share experiences and learnings. The conference is part of National Kids Teaching Kids Week, where students become the teachers sharing the environmental projects they have been working on across the Kids Teaching Kids community.

There are three environmental education centres in the region that are managed by Sunshine Coast Regional Council. These centres offer tourists, locals and schools the opportunity to experience and connect with nature through walking tracks, events, citizen science and innovative interpretive displays. About 277,000 people immerse themselves in environmental education offered by these facilities each year.

5. ENDORSEMENTS

(If a large number of Authorities are involved, please enclose the additional endorsement letters as a separate Annex).

Nomination Sponsor - Sunshine Coast Regional Council (Mayor)	Sunshine Coast Biosphere Nomination Community Reference Group (Independent Chair)
<p>Full name and title: Mayor Mark Jamieson</p> <p>Signature:</p> <p>Date:</p> <p>Sunshine Coast Regional Council Locked Bag 72, Sunshine Coast Mail Centre, QLD, Australia, 4560 Telephone: 61 – 07 54757277 Email: mail@sunshinecoast.qld.gov.au</p>	<p>Full name and title: Mr Will Shrapnel</p> <p>Signature:</p> <p>Date:</p> <p>Cnr Pathfinder Drive and Henebery Place Caloundra Airport Caloundra, QLD, Australia 4551 Phone +61 7 5491 7990 Email: info@helimods.com</p>

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5.1 Signed by the authority/authorities in charge of the management of the core area(s):

Organisation: Sunshine Coast Regional Council

Full name and title: Mayor Mark Jamieson

Signature:

Date:

Sunshine Coast Regional Council

Locked Bag 72, Sunshine Coast Mail Centre, QLD, Australia, 4560

Telephone: 61 – 07 54757277

Email: mail@sunshinecoast.qld.gov.au

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

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5.2 Signed by the authority/authorities in charge of the management of the buffer zone(s):

Organisation: Sunshine Coast Regional Council

Full name and title: Mayor Mark Jamieson

Signature:

Date:

Sunshine Coast Regional Council
 Locked Bag 72, Sunshine Coast Mail
 Centre, QLD, Australia, 4560
 Telephone: 61 – 07 54757277
 Email: mail@sunshinecoast.qld.gov.au

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

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5.3 Signed as appropriate by the National (or State or Provincial) administration responsible for the management of the core area(s) and the buffer zone(s):

Organisation: Sunshine Coast Regional Council

Full name and title: Mayor Mark Jamieson

Signature:

Date:

Sunshine Coast Regional Council
 Locked Bag 72, Sunshine Coast Mail
 Centre, QLD, Australia, 4560
 Telephone: 61 – 07 54757277
 Email: mail@sunshinecoast.qld.gov.au

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

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5.4 Signed by the authority/authorities, elected local government recognized authority or spokesperson representative of the communities located in the transition area(s).

Organisation: Sunshine Coast Regional Council

Full name and title: Mayor Mark Jamieson

Signature:

Date:

Sunshine Coast Regional Council
 Locked Bag 72, Sunshine Coast Mail
 Centre, QLD, Australia, 4560
 Telephone: 61 – 07 54757277
 Email: mail@sunshinecoast.qld.gov.au

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

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5.5 Signed on behalf of the MAB National Committee or focal point:

Organisation:

Full name and title:

Signature:

Date:

Address, phone number, email:

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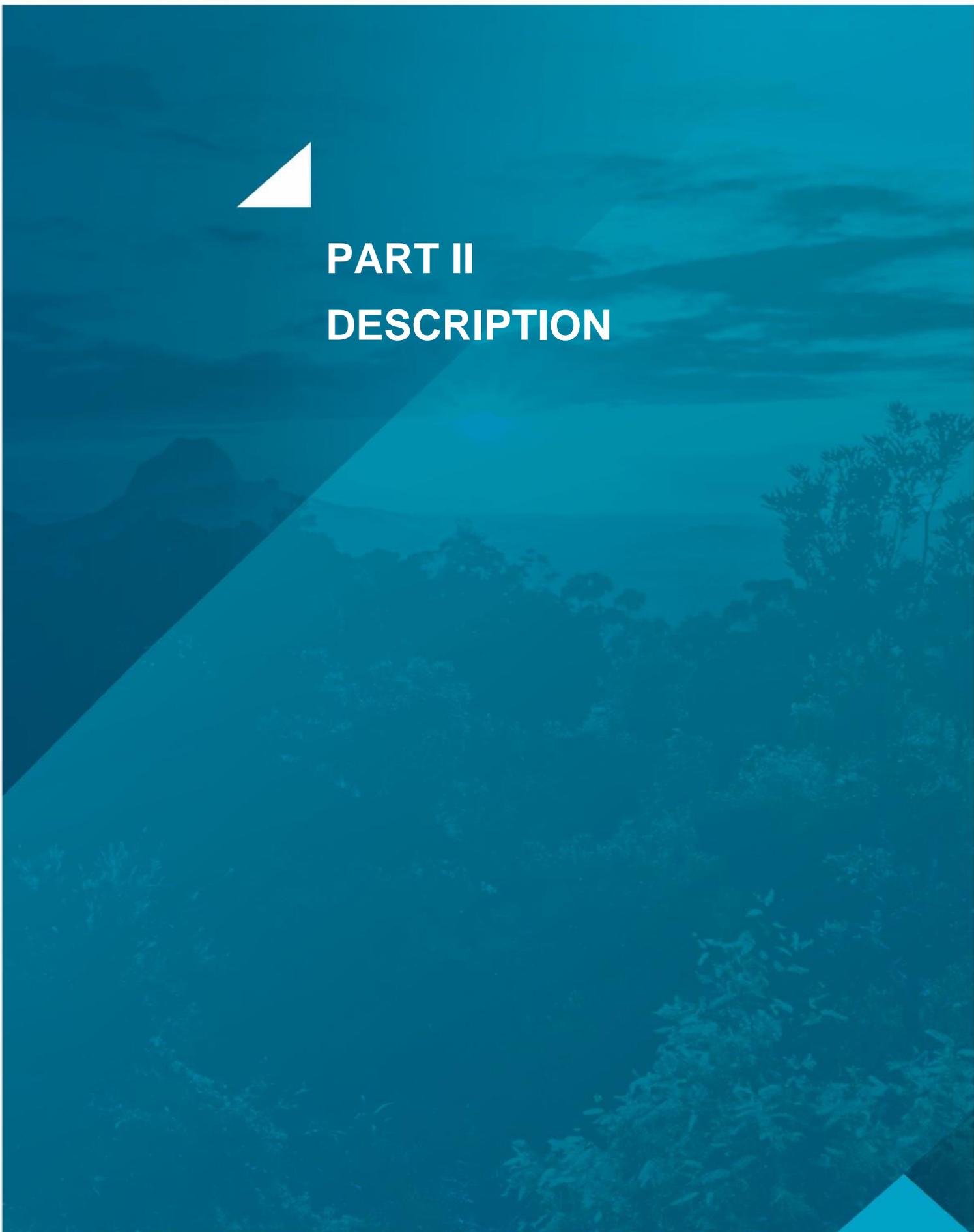
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PART II

DESCRIPTION



6. LOCATION (COORDINATES AND MAPS)

The beautiful Sunshine Coast is located in South East Queensland, Australia. The southern boundary of the local government area is about 53 kilometres north of the capital city of Brisbane. The biosphere covers the entire Sunshine Coast local government area and adjacent marine waters out to three nautical miles. The Sunshine Coast is widely acknowledged as a highly desirable place to live, work and play with abundant natural resources and a unique lifestyle.

6.1. Provide the biosphere reserve's standard geographical coordinates (all projected under WGS 84)

Table 6.1: The Sunshine Coast Biosphere coordinates.

Cardinal points	Longitude (Decimal degrees)	Latitude (Decimal degrees)	Longitude (Degrees minutes seconds)	Latitude (Degrees minutes seconds)
CENTRE	152.900973	-26.699153	152 54 03.50 E	26 41 56.95 S
NORTH	153.050131	-26.43105823	153 03 00.47 E	26 25 51.81 S
SOUTH	153.0030754	-26.98467988	153 00 11.07 E	26 59 04.85 S
WEST	152.5511072	-26.70310527	152 33 03.99 E	26 42 11.18 S
EAST	153.1508555	-26.80221503	153 09 03.08 E	26 48 07.97 S
With Marine Zone CENTRE	152.930157	-26.701013	152 55 48.57 E	26 42 03.65 S
With Marine zone EAST	153.206726	-26.802157	153 12 24.21 E	26 48 07.76 S

6.2 Provide a map(s) on a topographic layer of the precise location and definition of the three zones of the biosphere reserve (Map(s) shall be provided in both paper and electronic copies).

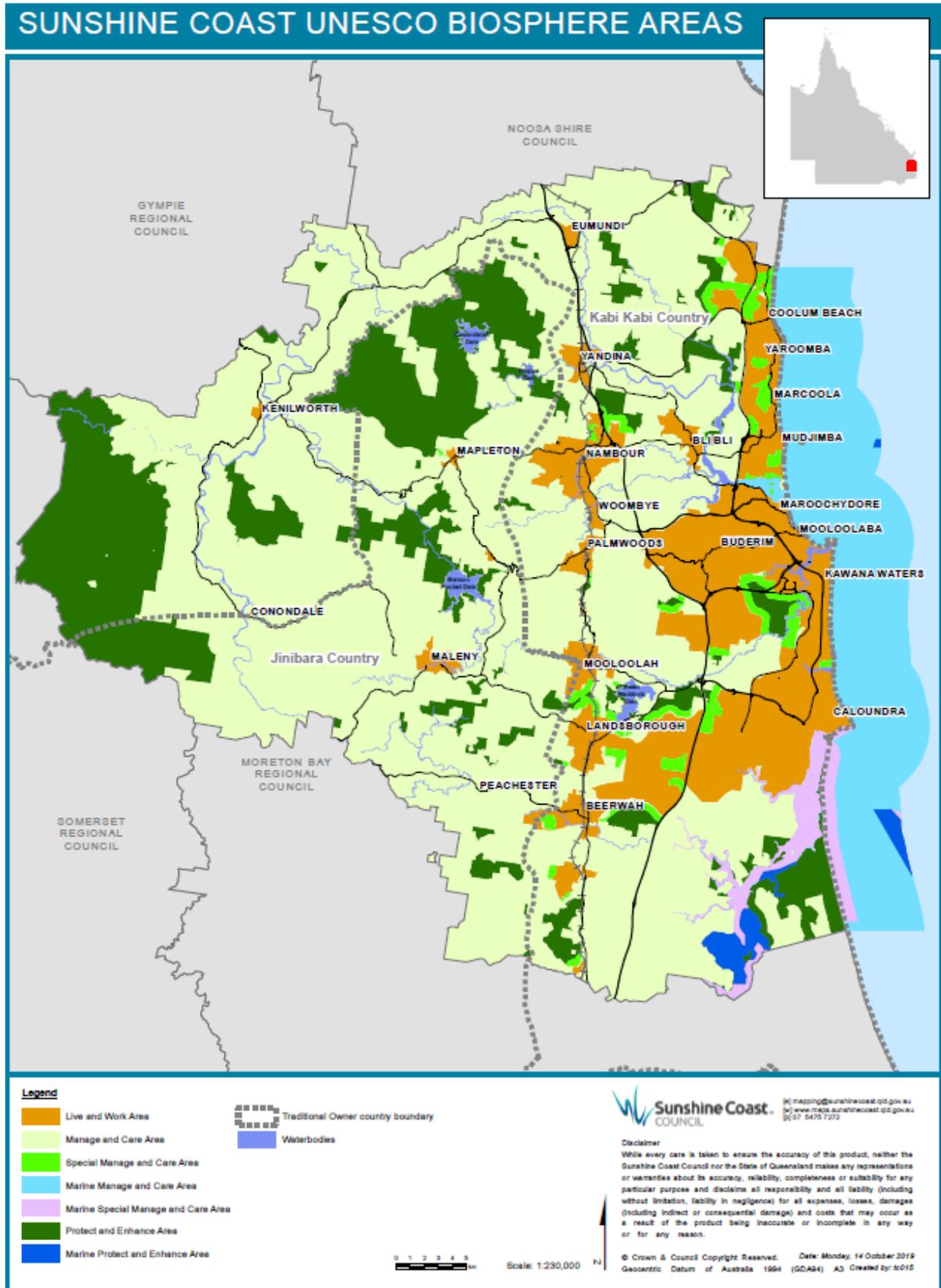
(Shapefiles (also in WGS 84 projection system) used to produce the map must be attached to the electronic copy of the form. If possible, also provide a link to access this map on the internet (e.g. Google map, website).)

The biosphere area map (Figure 6.1) can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Nomination-for-Biosphere>.

Sunshine Coast Regional Council, community and key stakeholders have developed the Sunshine Coast Biosphere Areas Map (Figure 6.1) using local terminology and biosphere areas that are equivalent to UNESCO Man and the Biosphere terminology and zones.

A biosphere map that uses UNESCO Man and the Biosphere terminology is included in section 19, supporting document 1.

The rationale and explanation of this biosphere map is discussed in section 7.



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

Figure 6.1: Sunshine Coast Biosphere boundaries and areas.

7. AREA (SEE MAP)

The proposed biosphere covers a total of 2585 square kilometres and features protected marine and terrestrial areas, rural lifestyle and rural living, as well as urban areas where people live and work. Activities that occur in the biosphere are developed according to Commonwealth, Queensland and Local Government policy and legislation.

Table 7.1 below outlines the extent of the various biosphere areas, as both a percentage of the whole biosphere area and as the number of hectares.

Table 7.1: Biosphere core, buffer and transition areas.

Area	Terrestrial		Marine		Total area (hectares)
	Hectares	% of the total Sunshine Coast Biosphere area	Hectares	% of the total Sunshine Coast Biosphere area	
7.1 Protect and Enhance (core zones).	41,937	16.2	1,712	0.7	43,648
7.2 Special Manage and Care (buffer zones).	4,247	1.6	3,889	1.5	8,136
7.2.1 Area of Manage and Care (buffer zones).	145,667	56.3	28,361	11	174,028
7.3 Area of Live and Work (transition zones).	32,722	12.7	0	0	32,722
TOTAL AREA	224,573 hectares	86.8%	33,962 hectares	13.2%	258,535 hectares

7.4. A brief rationale of this zonation in terms of the representative function of the biosphere reserve.

(If a different type of zonation also exists indicate how it can coexist with the requirements of the biosphere reserve zonation (e.g. if national criteria exist for the definition of the area or zones, please provide brief information about these).)

Approach to map and zones

The approach to mapping the biosphere area was based on the overarching principles of:

- The map must be clear, simple and easy to understand;
- Zone functions and activities must be easy to understand and explain; and
- Zoning should facilitate people's stewardship of, and connection with zone purpose, intent and function.

Design of the biosphere zones was then developed according to Commonwealth, Queensland and Local Government planning policy including:

- *Sunshine Coast Environment and Liveability Strategy 2017*;
- *Sunshine Coast Planning Scheme 2014*;
- *South East Queensland Regional Plan 2017* (also known as *ShapingSEQ*);
- National Park and Marine Park management plans; and
- International and Commonwealth protected areas policy e.g. Ramsar.

Traditional Ownership has also been considered in the design of the Biosphere Area Map. This includes:

- *United Nations Declaration on the Rights of Indigenous People*;
- *Human Rights Act 2019* (s28 Cultural rights – Aboriginal peoples and Torres Strait Islander peoples);
- *Native Title Act 1992*;
- *Aboriginal Cultural Heritage Act 2003*;
- *Planning Act 2016*;
- *State Planning Policy* as it relates to Aboriginal and Torres Strait Islander interests; and
- *Advancing Aboriginal and Torres Strait Islander interests in land use planning – Guidance for local governments*.

Design of the Biosphere Area Map also considered the following to achieve greater alignment with land and sea use:

- Future land use and infrastructure planning;
- Adjoining Noosa Biosphere Reserve zones; and
- Protected environmental areas in adjoining local government areas including Gympie Regional Council, Moreton Bay Regional Council and Somerset Regional Council.

The Sunshine Coast is a patchwork of various different land uses and while they are not all represented on the Biosphere Area Map, they contribute significantly to the liveability of the Sunshine Coast that the biosphere seeks to support. An important element of these land uses

is the open space network of land and water that supports recreation and sport, trails and paths, nature conservation and visual relief from the urban environment. These open spaces complement and contrast with the built environment. Some of the activities that help to support the Biosphere Area Map can be found in supporting document 8.

Another important element that was considered in the development of the Biosphere Area Map is the Regional Inter-Urban Break. The Regional Inter-Urban Break is an expanse of non-urban land which spans the southern part of the Sunshine Coast region and the northern part of the Moreton Bay region and which separates the Sunshine Coast from the Greater Brisbane Metropolitan Area. The Regional Inter-Urban Break has significant environmental, community, cultural and economic values and is fundamental to defining the identity of the Sunshine Coast as a place which is connected to but clearly distinguishable from the rest of South East Queensland. The Regional Inter-Urban Break supports a mix of land uses including protected areas, such as the iconic Glass House Mountains and Pumicestone Passage as well as areas of agriculture, forestry and recreation. When designing the Biosphere Map consideration was given to reflecting the Urban Footprint as well as the protected areas, agricultural and general rural areas, and forestry plantations within the Regional Inter-Urban Break.

When designing the Biosphere Map, it was also recognised that some features, such as waterways, corridors of vegetation, and roads, provide connectivity between habitats, ecosystems and between people and nature. This was considered on a local scale and in a broader regional context.

Terminology used

Locally, the biosphere zones are referred to as biosphere 'areas' so as to avoid local confusion with zones already established in the *Sunshine Coast Planning Scheme 2014*. The functions of the biosphere areas are consistent with UNESCO Man and the Biosphere's *Seville Strategy* and *Madrid Action Plan*. Local terminology and an additional area have been applied to the biosphere map (Figure 6.1 and Table 7.2) to better reflect the local understanding and recognition of the functions of biosphere areas. From this point forward the biosphere zones will be referred to as areas.

Table 7.2: Local names used for biosphere areas.

UNESCO Man and the Biosphere names	Local names
Core	Protect and Enhance Area
Buffer	Special Manage and Care Area
	Manage and Care Area
Transition	Live and Work Area

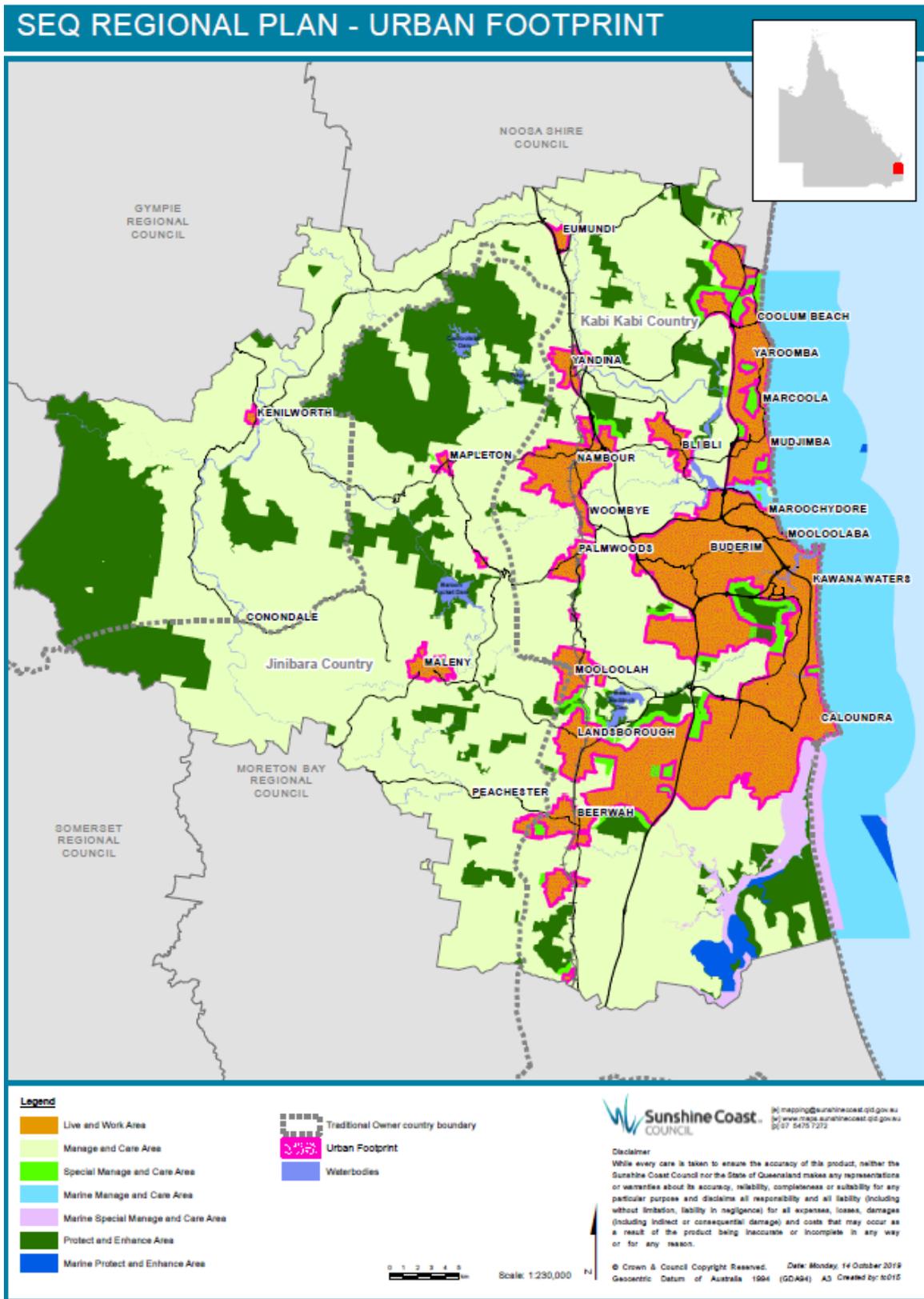
Biosphere areas

Jinibara Aboriginal Corporation's Native Title determination and Kabi Kabi First Nation Traditional Owners Native Title Group application exist across the biosphere areas. These are discussed in section 9.3.

Live and Work Areas

Live and Work Areas have multiple land uses where people live and make a living, for example, suburbs and townships. Sustainable living, development and resource management practices are promoted and developed in these areas. These areas also contain green spaces, parks, waterways, beaches, and smaller legally protected areas which are all key natural assets and require conservation and protection within the Live and Work Area.

The boundary of the Live and Work Area mostly reflects the Urban Footprint within *ShapingSEQ* (Figure 7.1). The area excluded is the Council managed Lower Mooloolah River Environment Reserve which has been incorporated into the Protect and Enhance Area.



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

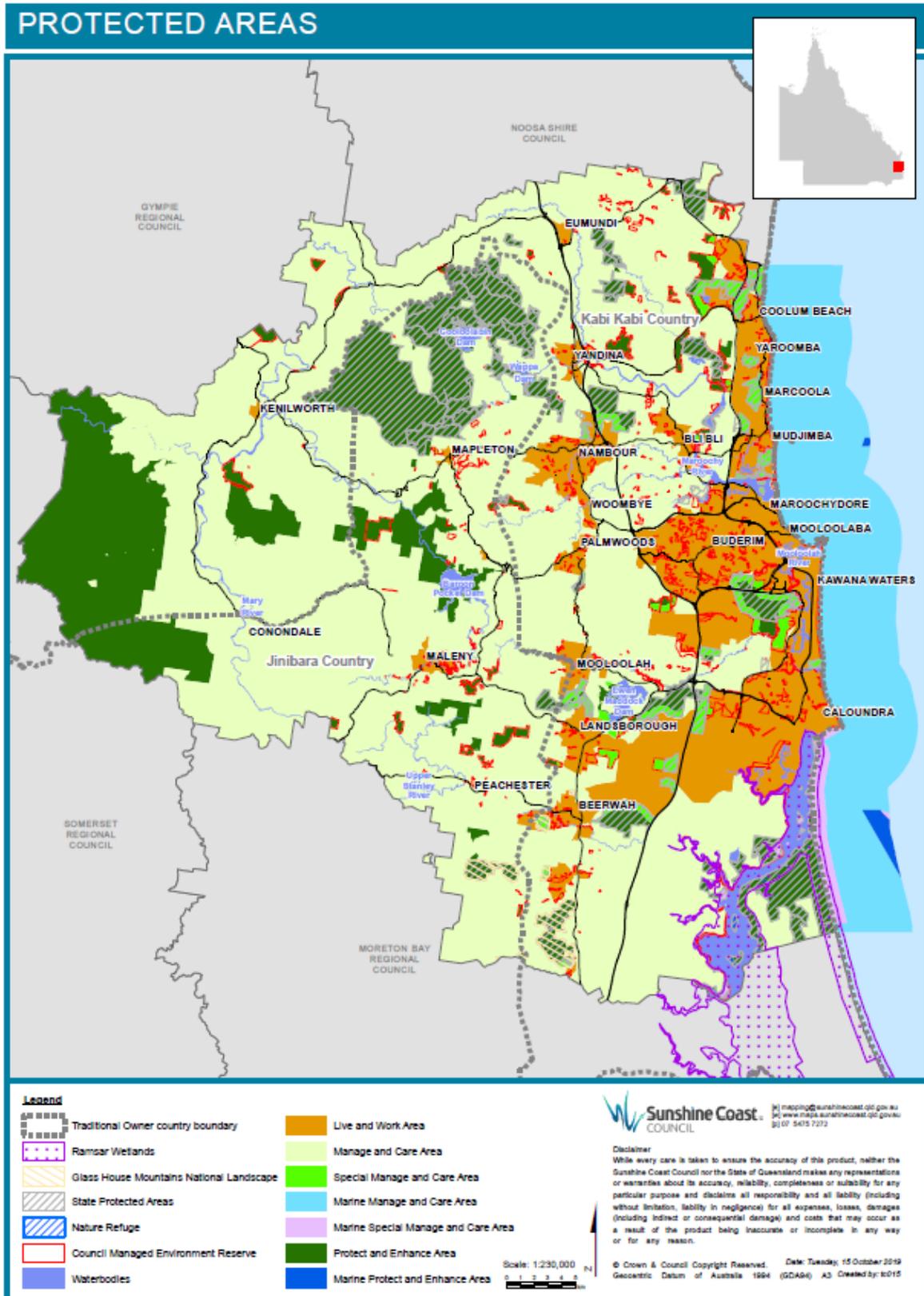
Figure 7.1: Biosphere areas and alignment with the Urban Footprint defined in ShapingSEQ.

Manage and Care Areas

Manage and Care Areas are a mix of publicly and privately owned land and sea where rural lifestyle and rural living occurs. Primary producers use the land and sea in these areas for business. Care is taken to manage land and sea activities so as to minimise impact on the surrounding Protect and Enhance Areas. Manage and Care Areas surround Protect and Enhance Areas but can stand alone. They also connect Protect and Enhance Areas with Live and Work Areas.

Protect and Enhance Areas

Protect and Enhance Areas are publicly owned land and sea, legally protected for the purpose of long term conservation, and of sufficient size (20 hectares or larger). Examples include larger national parks, part of some marine parks and the Sunshine Coast Regional Council's larger environment reserves (Figure 6.1 and 7.2).



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

Figure 7.2: Biosphere areas and alignment with Commonwealth, Queensland Government and Sunshine Coast Regional Council managed protected areas.

Additional biosphere area

The additional Special Manage and Care Area was developed to acknowledge community and key stakeholder values, as well as foster further conservation stewardship and sustainable living practices. The Special Manage and Care Area can coexist with UNESCO Man and the Biosphere's requirements for biosphere zonation because it is equivalent to a buffer zone. The name Special Manage and Care Area has been applied to areas that would have been designated as Protect and Enhance Area if of sufficient size (20 hectares or larger).

Special Manage and Care Areas are publicly owned and legally protected areas, mostly surrounded by a Live and Work Area (Figure 7.2) and include for example, several small national parks, such as Mount Coolum National Park in the northern end of the Live and Work Area.

Special Manage and Care Areas also serve as a 500 metre buffer between Live and Work and Protect and Enhance Areas so as to minimise the impacts of human activity. Where the Special Manage and Care Areas act as this buffer, the area sits within the publicly owned legally protected area (e.g. within a national or marine park) rather than over the top of the houses or infrastructure in the adjacent Live and Work Area.

Some biosphere areas that are publicly owned land and legally protected for the purpose of long term conservation and mostly surrounded by a Live and Work Area, have not been designated as a Special Manage and Care Area on the map. These places are mostly located along the coastline and foreshores and are very small and or narrow. Islands in and around the Maroochy River mouth, including Mudjimba Island, are also very small. As such these coastal areas and islands do not meet the principle of ensuring the map is clear, simple and easy to understand. These areas will continue to be legally protected areas and managed accordingly. The community and key stakeholders engaged in the design of the biosphere area map intend for these very small and narrow areas to be acknowledged as significant, highly valued and protected areas.

Function of areas and mapping criteria

Biosphere areas, functions and mapping criteria are discussed in Table 7.3.

Table 7.3: Biosphere areas, functions and mapping criteria.

UNESCO Man and the Biosphere naming and functions of zones (as per Seville Strategy and Madrid Action Plan)	Equivalent local naming	Area type	Mapping criteria
<p>Core zone</p> <ul style="list-style-type: none"> Legally constituted core area. Devoted to long term protection, according to conservation objectives of the Biosphere Reserve. Must be of sufficient size to meet objectives. Serves a conservation function. Contributes to range of ecosystem services which, in terms of development functions can be calculated in economic terms (e.g. carbon sequestration, soil stabilisation, supply of clean water and air). Can have conservation goals that complement employment opportunities (e.g. environmental education, research, ecotourism). Can have development functions of education, research, monitoring and capacity enhancement as integral to conservation function. 	Protect and Enhance Area	Terrestrial	<ul style="list-style-type: none"> Publicly owned terrestrial areas legally protected for purpose of long term conservation, and of sufficient size. Sufficient size is greater than 20 hectares (determined by Sunshine Coast <i>Environment and Liveability Strategy 2017</i>). Must be at least 500 metres from Live and Work Areas (areas within Urban Footprint as defined by <i>ShapingSEQ</i>). Examples: Queensland Government owned and managed national parks, and Council owned and managed environmental reserves.
		Marine	<ul style="list-style-type: none"> Marine areas legally protected for the purpose of long term conservation. Moreton Bay Marine Park (green zone) areas. Must be at least 500 metres from Live and Work Areas (areas within South East Queensland Urban Footprint as defined by <i>ShapingSEQ</i>). Examples: Queensland Government managed Moreton Bay Marine Park and Ramsar wetlands.
<p>Buffer zone</p> <ul style="list-style-type: none"> Clearly identified and surrounding or contiguous to the core area/s, where only activities compatible with conservation objectives can occur. 	Special Manage and Care Area	Terrestrial	<ul style="list-style-type: none"> Publically owned terrestrial areas legally protected for purpose of long term conservation, less than 20 hectares and mostly surrounded by Live and Work Area. Outer 500 metres of Protect and Enhance Areas that are mostly surrounded by Live and Work Areas (areas within Urban Footprint as defined by <i>ShapingSEQ</i>).

UNESCO Man and the Biosphere naming and functions of zones (as per Seville Strategy and Madrid Action Plan)	Equivalent local naming	Area type	Mapping criteria
<ul style="list-style-type: none"> • Role is to minimise negative effects and external effects of human induced activities on core areas. • Can have intrinsic stand-alone functions for maintaining anthropogenic, biological and cultural diversity. • Can have important connectivity function in larger spatial context as buffer zones connect biodiversity components within core areas, with those in transition areas. 			<ul style="list-style-type: none"> • Examples: Smaller Queensland Government owned and managed national parks and smaller Council owned and managed conservation reserves mostly surrounded by Live and Work Area.
		Marine	<ul style="list-style-type: none"> • Marine areas legally protected for the purpose of long term conservation, and of sufficient size. • Moreton Bay Marine Park habitat protection (yellow zone) and conservation zones (blue zone). • Must be at least 500 metres from Live and Work Areas (areas within South East Queensland Urban Footprint as defined by <i>ShapingSEQ</i>). • Examples: Queensland Government managed Moreton Bay Marine Park and Ramsar wetlands.
	Manage and Care Area	Terrestrial	<ul style="list-style-type: none"> • Privately and publically owned areas outside the Live and Work Areas and Protect and Enhance Areas where activities, such as rural lifestyle, rural living and primary production occur (zoned 'rural' or 'rural residential' in the <i>Sunshine Coast Planning Scheme 2014</i>). • Examples: Forestry plantations, rural and rural living areas.
	Manage and Care Area	Marine	<ul style="list-style-type: none"> • All marine water outside Marine Special Manage and Care, and Marine Protect and Enhance areas. Areas where activities such as commercial fishing using sustainable practices, occur. • Example: Out to three nautical miles from most of coastline.
Transition zone <ul style="list-style-type: none"> • Central function is socio-economic development. • Area where people live and make a living. • Characterised by multiple land uses. 	Live and Work Area	Terrestrial	<ul style="list-style-type: none"> • Urban Footprint areas mapped in <i>ShapingSEQ</i>. • Examples: Townships, suburbs, business centres, industrial estates, airports and landfills.

UNESCO Man and the Biosphere naming and functions of zones (as per Seville Strategy and Madrid Action Plan)	Equivalent local naming	Area type	Mapping criteria
<ul style="list-style-type: none"> • Development functions of education, research, monitoring and capacity enhancement are integral and can occur. • Considers conservation / environmental goals and elements. • Needs boundaries that are clear, easy to understand, accepted (must be specified) while acknowledging the arbitrary or fuzzy nature of the transition area. 			

Where a road or waterway occurs in a biosphere area, it is designated as that area. This is because roads and waterways are generally too narrow to comply with the 'clear and simple' principle. For example, if there is a road in a Protect and Enhance Area, it has been mapped as Protect and Enhance.

If a waterway occurs in a Live and Work Area, it has been mapped as Live and Work but will continue to be managed for environmental values and outcomes. For example, mapping the mouth of the Mooloolah River, at Mooloolaba (Figure 6.1) as a biosphere area, other than Live and Work, would not comply with the 'clear and simple' principle.

Exceptions to mapping criteria

- Exception 1 – Peregrian Breeze (north of Coolum Beach) is a location where the mapped Live and Work Area comes to within 50 metres of the boundary between Sunshine Coast Regional Council and Noosa Shire Council local government areas. As a result, a full 500 metre boundary could not be established.
- Exception 2 – Marine waters are mapped as Marine Manage and Care Area. Queensland Fisheries legislation regulates and ensures sustainable commercial fishing practices which are in keeping with the functions of this biosphere area. It is recognised that this biosphere area directly adjoins Noosa Biosphere Reserve's Marine Transition Zone.
- Exception 3 – The Maroochy River mouth located between the Sunshine Coast Motorway and the coastline is mapped as Marine Manage and Care Area. It has been mapped this way rather than Live and Work because it is large enough to not conflict with the 'clear and simple' principle, and parts are also a declared Fish Habitat Area under the Queensland Fisheries Act 1994.

Activities in biosphere areas

The purpose of Table 7.4 is to provide a broad perspective only of the types of activities likely to occur in the different Biosphere areas. Exceptions and exemptions may be provided by applicable Commonwealth, Queensland and local government planning and environmental legislation as well as relevant development approvals issued under this legislation.

Table 7.4: Summary of activities likely to occur in biosphere areas.

Activity	Live and Work Area	Manage and Care Area (Terrestrial and Marine)	Special Manage and Care Area (Terrestrial and Marine)	Protect and Enhance Area (Terrestrial and Marine)
Conservation and protection (including coastal management and stabilisation)	✓	✓	✓	✓
Research, monitoring and education	✓	✓	✓	✓
Camping, hiking, horse riding, bike riding and other recreational activities [□]	✓	✓	✓	✓
Boating	✓	✓	✓	✓
Tourism	✓	✓	✓	✓
Infrastructure as determined by government infrastructure planning (e.g. cables, power lines, roads, railway)	✓	✓	○	○
Recreational fishing	✓	✓	✓	x
Sports, including water sports	✓	✓	✓	x
Dredging (e.g. for navigation channels) and sand renourishment	✓	✓	✓	x
Forestry	✓	✓	x	x
Rural living and rural activities such as agriculture, horticulture, grazing and supporting infrastructure	✓	✓	x	x
Commercial fishing	✓	✓	x	x
Water reservoirs	✓	✓	x	x
Urban living (estates and houses)	✓	x	x	x
Industrial, commercial, manufacturing, retail and healthcare	✓	x	x	x
Waste (e.g. landfills)	✓	x	x	x

Caveat for all activities: Exceptions and exemptions may be provided by applicable Commonwealth, Queensland and local government legislation and planning policy as well as current development approvals.

□ Note that these activities in Protect and Enhance and Special Manage and Care Areas vary according to relevant management plans.

○ There is existing infrastructure in some of these biosphere areas, however, infrastructure is not encouraged.

8. BIOGEOGRAPHICAL REGION

[Indicate the generally accepted name of the biogeographical region in which the proposed biosphere reserve is located.] The term “major biogeographic region” is not strictly defined but you may wish to refer to the Udvardy classification system (http://www.unep-wcmc.org/udvardys-biogeographical-provinces-1975_745.html)).

The Sunshine Coast has diverse plant and animal populations sustained in niches from the tropical north to the temperate south. This biogeographical region includes marine waters, headlands, dune systems and beaches in the east, tidal waters, wetlands and woodlands over a broad coastal plain, to mountain ranges, river valleys and rainforests in the west.

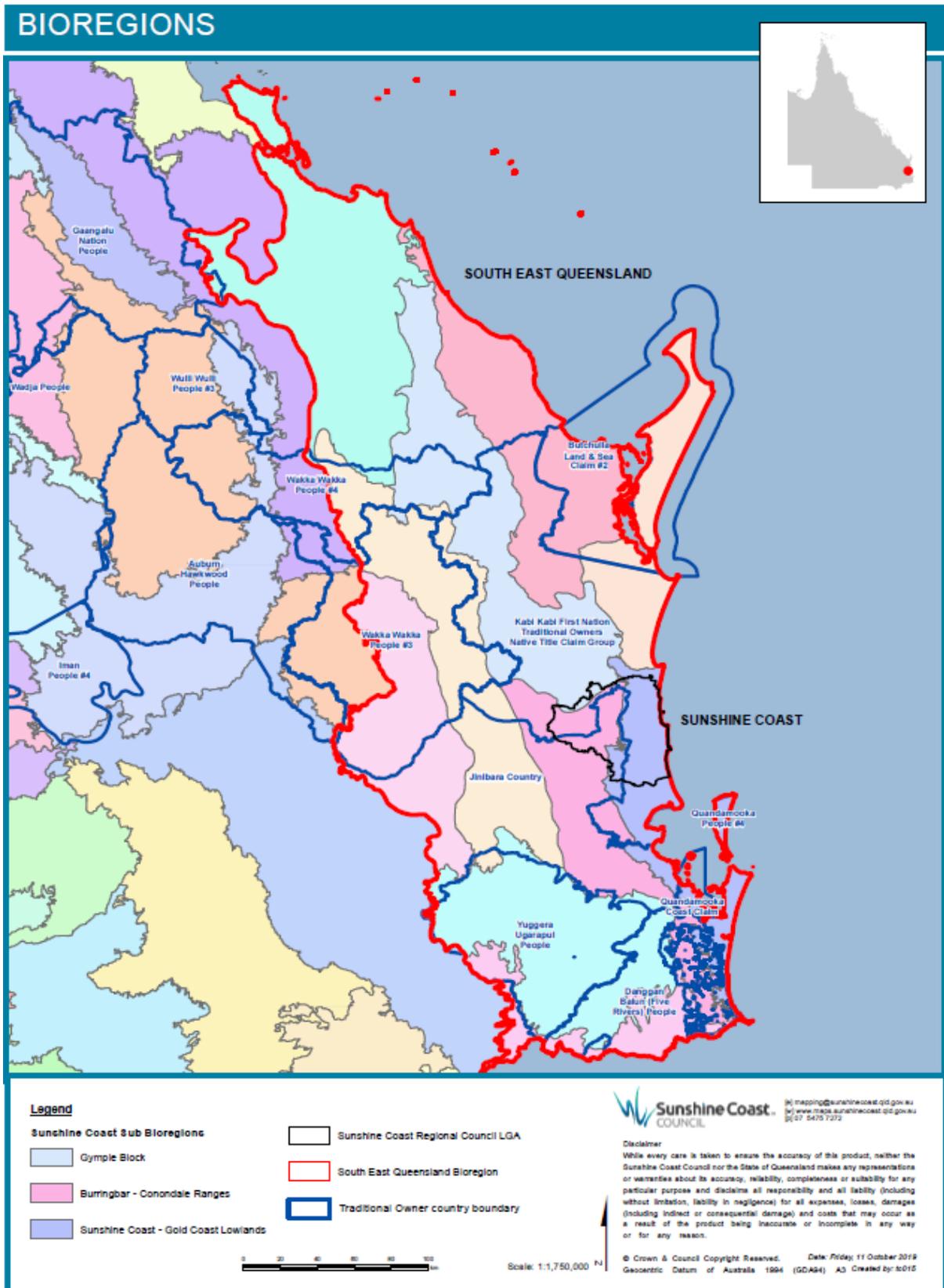
Environmental planning and conservation in Queensland is underpinned by the seminal and sophisticated approach presented in *The Conservation Status of Queensland's Bioregional Ecosystems* (Sattler and Williams, 1999). This bioregional classification method is the model for the current Australia-wide system – the Interim Biogeographic Regionalisation for Australia (IBRA).

Under the IBRA, the Sunshine Coast:

- Is within the South Eastern Queensland bioregion (Figure 8.1) - with moderate to high rainfall, warm to hot summers and cool winters, a coastal plain of varying width, hills and ranges, several river basins, and coastal mainland and island sand masses, including the World Heritage-listed Fraser Island;
- Has its eastern half located mostly within the Sunshine Coast-Gold Coast Lowlands sub-region – underpinned by sedimentary rocks, marine and estuarine sediments and coastal and island dunes. Predominant vegetation types are heathland and banksia woodlands, paperbark and mangrove forests, sedgeland and open eucalypt forests; and
- Has its western half located mostly within the Burringbar-Conondale Ranges sub-region – underpinned by older metamorphic rocks and acid volcanic intrusions. Predominant vegetation types are eucalypt forests and complex araucaria rainforests.

The international classification system of Udvardy and Olson *et al.*, positions the Sunshine Coast and South Eastern Queensland bioregion within the:

- Queensland Coastal province of the Australian realm (Udvardy, 1975); and
- Temperate broadleaf and mixed forests biome – based on vegetation communities and climate (Olson *et al.*, 2001).



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

Figure 8.1: Biogeographic region and sub-regions of the proposed biosphere (Australian Government Department of Environment and Energy, 2019).

9. LAND USE

The Sunshine Coast is shaped by a rich natural, First Nations, settlement and multicultural history, resulting in multiple land uses and land users. The Kabi Kabi and Jinibara people have maintained an enduring connection to the land and water over tens of thousands of years. The way the land in the proposed biosphere is used and who can use it is directed by Commonwealth, Queensland and Local Government planning policy and legislation.

9.1 Historical

(If known, give a brief summary of past / historical land use(s), resource uses and landscape dynamics of each zone of the proposed biosphere reserve.)

Natural history

The landscape and environment of the Sunshine Coast has been formed over millions of years through changing climatic conditions and geological processes. The Glass House Mountains and Mount Coolum are volcanic plugs providing evidence that the landscape was once volatile. Along the coast, a fluctuating sea level continues to reshape our beaches, estuaries and wetlands. A range of ecosystems, such as mangroves and saltmarshes along the coastline and rainforest in the hinterland, reflect the diverse geology, soils and climate of the region (section 11). This rich mosaic of ecosystems has changed over time (section 14.1.2) according to land use.

Traditional Owner history

The Sunshine Coast is rich in Indigenous heritage, with numerous sites steeped in cultural significance and a long oral history which is still very much alive today.

Jinibara and Kabi Kabi and country extends across the biosphere. The Traditional Owners have maintained an enduring connection to land and water over tens of thousands of years.

Aboriginal people from hundreds of kilometres away came to the region to meet, trade, secure marriages and alliances and engage in cultural activities at the Bunya festival held every four or so years. The Bunya tree, which grows in some parts of the Sunshine Coast, is an Aboriginal food source and the focus of the festival (Sunshine Coast Council Heritage Study, 2019).

Many Aboriginal words are used today to describe the geography and landscape of the Sunshine Coast. For example, the town of Nambour, comes from the Kabi Kabi name, Naamba, for the Willow bottlebrush / ti-tree; Maroochydore comes from the Yuggera (Brisbane River area) name, Murukutchi-dha, which means place of the black swan; and Bli Bli (Billai) refers to swamp oak trees (Sunshine Coast Council Heritage, 2019).

As part of recent investigations undertaken in relation to post-contact cultural heritage, thematic history studies have been prepared to provide a supporting contextual overview of the era of Sunshine Coast history following contact between Aboriginal people and Europeans (the post-contact era). The Jinibara Traditional inputs for the Sunshine Coast Heritage Study can be viewed here <https://heritage.sunshinecoast.qld.gov.au/en/Stories/Thematic-History>

The recorded oral history of Kabi Kabi woman, June Bond, can be viewed at <https://heritage.sunshinecoast.qld.gov.au/Stories/Oral-Histories/June-Bond> (Sunshine Coast Council Heritage, 2019).

The Aboriginal Protection and Restriction of the Sale of Opium Act 1897, one of the more infamous pieces of legislation introduced by the Queensland Government, provided broad-ranging controls over all aspects of the lives of First Nations Queenslanders. The Act allowed authorities to forcibly remove Traditional Owners of the Sunshine Coast to Cherbourg (previously Barambah Aboriginal Mission) and other government or church run missions and reserves (Sunshine Coast Council Heritage Study, 2019).

Today the Indigenous community on the Sunshine Coast includes Traditional Owners, South Sea Islanders, and Aboriginal people who have moved into the area since 1965, when the *Aboriginal and Torres Strait Islander Act* of that time repealed previous laws that restricted Indigenous people's rights to own land, travel and vote.

Settlement history

Settlement on the Sunshine Coast followed Lieutenant James Cook's observation in 1770 of the Glass House Mountains and Matthew Flinders survey of these mountains some 29 years later.

The new comers to the Sunshine Coast were drawn to the abundant timber and grazing potential with most of the land in the Eumundi district forming part of three cattle runs by the mid nineteenth century.

Once the Mooloolah River mouth and harbour were surveyed and charted in 1861 and Tom Petrie explored the region in the early 1860s, the first settlers came to Landsborough a decade later, building the first house at Caloundra in 1875.

The agricultural potential of the Sunshine Coast emerged in the late 1860s, and the first sugar mill was established in Buderim in 1876. Buderim farmers also turned to large-scale fruit production in the following decades.

South Sea Islander workers made a significant contribution to the economic development of the Sunshine Coast through the early sugar industry. Between 1863 and 1904 about 60,000 South Sea Islander people were transported to Queensland to supply labour to sugar plantations in Queensland, including the Sunshine Coast. Some South Sea Islander people moved on the promise of income, whilst others were abducted and enslaved. The Commonwealth decided to deport most Islanders between 1904 and 1908 as part of the implementation of the *Immigration Restriction Act 1901* (referred to as the 'White Australia Policy'). South Sea Islander people removed to the Sunshine Coast have a historical and enduring connection to the Sunshine Coast and the Kabi Kabi people.

Historical land use and landscape dynamics changed in 1868 when Cobb & Co coaches, carrying passengers, mail and goods, travelled through the Sunshine Coast between Gympie (to the north) and Brisbane (to the south). Bankfoot House, a heritage residence set in the Glass House Mountains and now owned by the Sunshine Coast Regional Council, was built as an accommodation stop for coaches travelling this Old Gympie Road.

The development of the Brisbane to Gympie railway in the 1800s significantly impacted the development and settlement patterns of the Sunshine Coast by opening the hinterland and spawning the railway towns of Beerburrum, Beerwah, Mooloolah, Nambour and Yandina.

Simultaneously, the establishment of the Moreton Central Sugar Mill in 1897 saw Nambour emerge as a centre of industry and business, with the dairy industry dominating the Kenilworth and Belli areas and agriculture developing on the Blackall Range. Mapleton had become a leading citrus producing area by the early 1900s and citrus orchards and pineapple farms covered the plateau at Montville. This area became known for macadamia nuts and avocados as well as its dairy industry in the following decades (Figure 9.1).

On the coast, the sale of residential allotments in 1908 began the development of Maroochydore as a seaside resort. Coolum homed settlers between 1922 and 1925 when the first genuinely trafficable road provided vehicle access from Coolum to Yandina. Cane farming

provided the main source of financial stability in this area until the advent of tourism in the 1960s.

The population of the Sunshine Coast increased throughout the 1930s as roads improved and automobiles became more reliable and affordable. There was an influx of Australian and American armed service personnel to Caloundra and Bribie Island following World War Two, creating a building boom on the coast, at the same time wealthier people from surrounding areas built simple holiday homes in prime beachfront positions.

The name 'Sunshine Coast' was launched in December 1958 by the Sunshine Coast branch of the Real Estate Institute of Queensland, replacing the term 'Near North Coast', so as to create a distinctive brand. The Sunshine Coast covered the Maroochydore, Noosa and Landsborough Shires.

It was the 1960s that marked a new era for the Sunshine Coast with major social changes resulting from a movement away from a hinterland based rural farming economy to a new focus on coastal development, accompanied by the growth of the tourism industry. The real breakthrough for tourism arrived with the completion of the David Low (Motor) Way from Maroochydore to Noosa in 1959 and the opening of the Maroochydore Airport in 1961. Both contributed to a flourishing surfing culture along the pristine coastline and beach breaks. People seeking an alternative lifestyle or a move from the city to the country began to flock to the Sunshine Coast.

The population of the Sunshine Coast Regional Council area increased from about 21,000 in 1947 to about 36,000 in 1971, rising to about 98,000 in 1986.

The renamed Sunshine Coast Airport now has more than a million passengers passing through its gates annually. It recently became Australia's first carbon neutral airport certified under the International Airport Carbon Accreditation Program, and in keeping with the region's sustainability values. Expansion of the David Low (Motor) Way system opened ribbons of coastal subdivisions, with further urbanisation leading to the construction of the Sunshine Coast Motorway which opened in 1988.

The Sunshine Coast University College was founded at Sippy Downs in 1994 and now, as the University of the Sunshine Coast, creates new opportunities for the region's residents and the local economy. Its Sustainability Research Centre provides a collaborative, transdisciplinary approach to support the region's transition towards sustainability, focusing on understanding the relationships between people, place and change.

There has always been a strong nature preservation and conservation movement in the region, advocating for the protection of natural areas and the enlargement of conservation tenures. National Parks have been established in the region, for example, Kondallilla Falls in 1945, the Mooloolah River National Park in 1960 and the Glass House Mountains in 1994 (Figure 9.1). The significance of the Sunshine Coast regional ecosystems and community efforts to preserve these ecosystems has received significant international recognition in the last two decades. In 1993 the Pumicestone Passage was included in the declaration of the Moreton Bay Marine Park and later that year the Park was recognised as an internationally significant wetland and bird habitat under the Ramsar Convention.



Figure 9.1: Land use on the Sunshine Coast has changed over time.

Local architects and designers began to experiment with environmentally sensitive designs so that by the 1990s they had earned a national reputation for innovative buildings that helped to define the character of the coast.

Sunshine Coast Regional Council was created in March 2008, almost sixty years since the Real Estate Institute of Queensland's actions, and following the State Government's Local Government reform process to merge Caloundra City with the former shires of Maroochydore and Noosa into a single local government.

Noosa de-amalgamated from Sunshine Coast Regional Council in 2014 to once again become its own local government.

At its inception, Sunshine Coast Regional Council adopted the vision to be Australia's most sustainable region and commenced work in developing a new Planning Scheme with a suite of strategies and plans (referred to as a policy framework) to guide future community, environmental and economic opportunities and growth of the region. A Regional Economic Development Strategy for the Sunshine Coast was developed in 2013. This strategy began to deliver projects to diversify and create a new economy, focusing on:

- Health and wellbeing;
- Education and research;
- Knowledge industries and professional services;
- Tourism, sport and leisure;
- Food and agribusiness;
- Clean technologies; and
- Aviation and aerospace.

Change in land use has reflected the new economy focus with an extension of the Sunshine Coast Airport, a new hospital and a shift back to local food production as an important part of our economy (Figure 9.1).

A fiftieth anniversary community film montage shows how the Sunshine Coast has changed over the past fifty years. The film can be viewed at https://www.youtube.com/watch?v=0eAK8rcCK_E&list=PLwgOsh308O_A9hzNyowPUIDihBPi0TIGP&index=10 (Sunshine Coast Libraries, 2017).

Current land use

The main land uses are primary production, parkland (national parks, conservation areas, green space and open space) as well as residential land. Other land uses (Figure 9.2) include commercial, education, hospital / medical, industrial, transport, water storage and infrastructure.

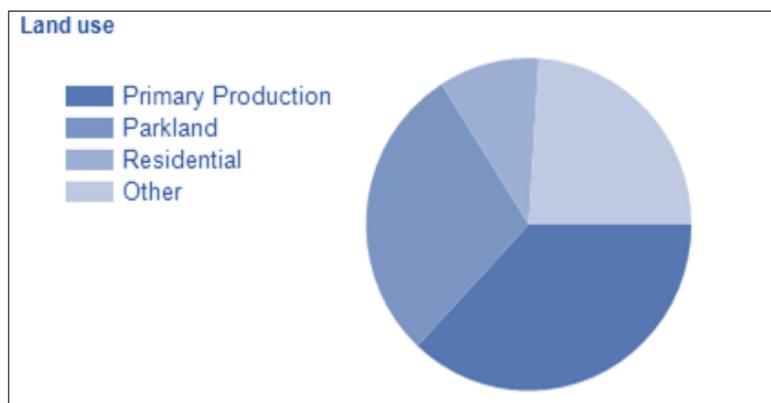


Figure 9.2: Current land use in the Biosphere (Sunshine Coast Council, 2019).

9.2 Who are the main users of the biosphere reserve? (for each zone, and main resources used).

(If applicable, describe the level of involvement of indigenous people taking into account the “United Nations Declaration on the Rights of Indigenous Peoples”.
(http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.)

Protect and Enhance Areas and Special Manage and Care Areas are owned, managed and used by either the Queensland Government or Sunshine Coast Regional Council for the purpose of long term conservation. Visitors, the main users of these areas, include local residents, domestic and international tourists or day trippers from other parts of South East Queensland who primarily use the land and sea for recreational activities (as permitted in relevant legislation and policy for each area) and educational purposes (nature awareness) (Table 9.1).

Terrestrial Manage and Care Areas are a mix of publically and privately owned land where local residents use the land and water for rural living, rural lifestyle, tourism and primary production, including agriculture and forestry. Marine Manage and Care Areas are owned and managed by the Queensland Government for recreation, tourism and commercial fishing purposes.

Live and Work Areas are also a mix of publically and privately owned land where people reside in an urban environment, work and operate businesses. The main users here are approximately 328,030 (June 2019) local residents, over two million tourists (who stay overnight) and about four million day visitors (annually) who travel from destinations such as Brisbane (about 53 kilometres from the southern boundary of the Sunshine Coast Regional Council area). Resources used include space for housing, visitor accommodation, retail, commercial operations, recreation, treatment of waste (e.g. landfills), social infrastructure (e.g. sports grounds, parks and libraries) and transport infrastructure (e.g. roads). Some small, legally protected areas do exist in this space and are for the purpose of long term conservation, recreation and education.

Table 9.1: Main users of biosphere areas and resources used.

Biosphere area	Primary purpose of use	Resource used	Main users													
			Traditional Owners	Commonwealth Government	State Government	Sunshine Coast Regional Council	Educational institutions	Residents	Visitors	Community groups	Tourism industry	Agricultural industry	Forestry industry	Commercial fishing industry	Other industries	
Protect and Enhance (terrestrial and marine).	Conservation, protection, education, monitoring, research, cultural and traditional practices.	Land	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Sea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Flora	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Fauna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
Special Manage and Care (terrestrial and marine).	Conservation, protection, education, monitoring, research, cultural and traditional practices.	Land	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Sea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Flora	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X
		Fauna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	X

Biosphere area	Primary purpose of use	Resource used	Main users												
			Traditional Owners	Commonwealth Government	State Government	Sunshine Coast Regional Council	Educational Institutions	Residents	Visitors	Community groups	Tourism industry	Agricultural industry	Forestry industry	Commercial fishing industry	Other industries
Manage and Care (terrestrial and marine).	Reduce impact of human activity on Protect and Enhance Areas. Support human life and socio-economic systems (food production), conservation, protection, education, monitoring, research, cultural and traditional practices.	Land	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
		Sea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
		Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
		Flora	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
		Fauna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X
Live and Work.	Support human life and socio-economic systems (e.g. housing, major infrastructure), conservation, protection, education, monitoring, research, cultural and traditional practices.	Land	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Sea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Flora	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Fauna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

9.3 What are the rules (including customary or traditional) of land use in and access to each zone of the biosphere reserve?

The rules for land use in the biosphere are directed by Commonwealth, Queensland and Local Government planning policy and legislation and apply to all biosphere areas, including Native Title, and the local government Planning Scheme.

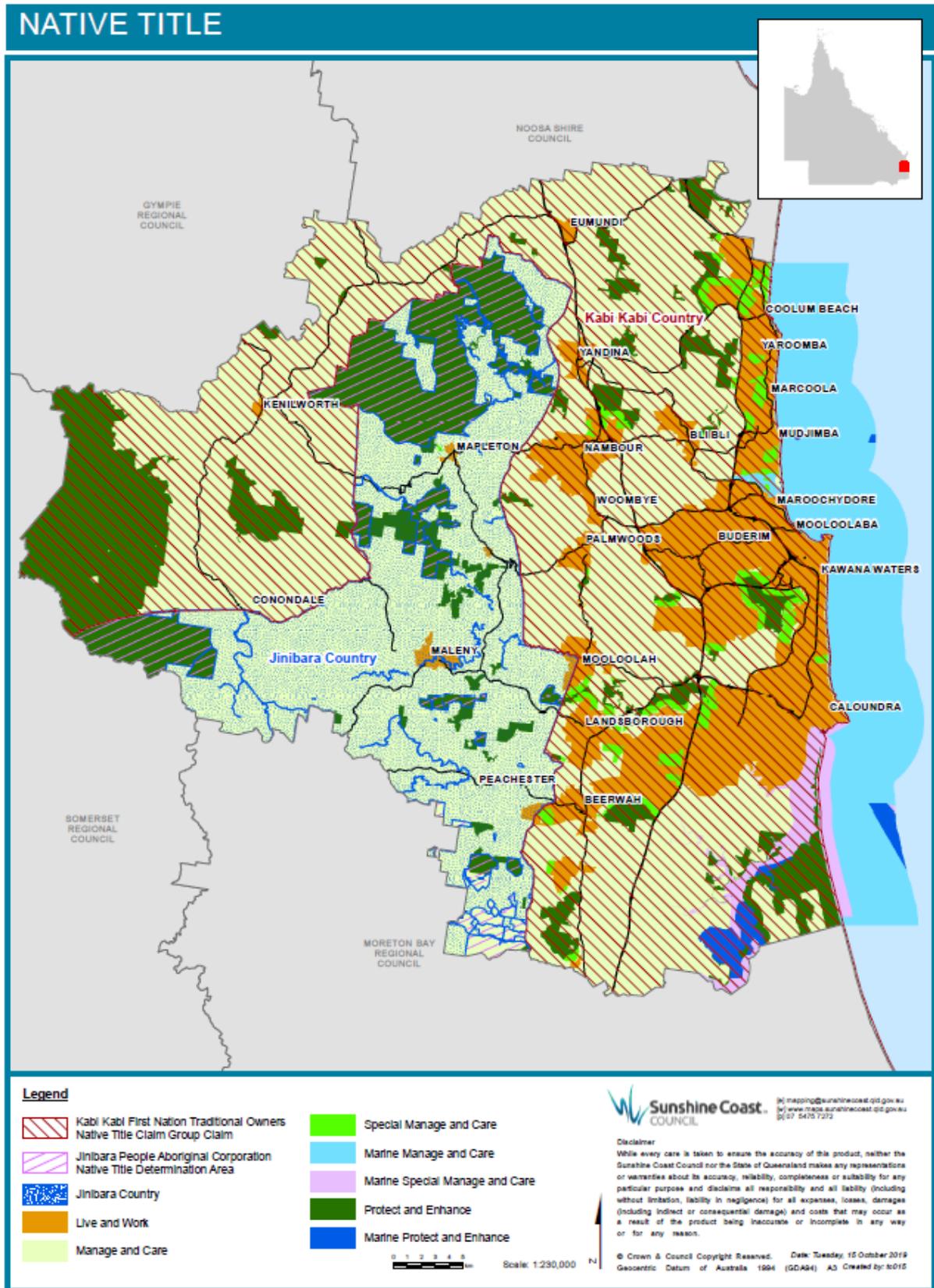
Native Title is a legal mechanism concerning the rights and interests of Aboriginal and Torres Strait Islander peoples to land and waters according to their traditional laws and customs. The members of the native title claim group seek a decision from the Court that native title exists, so their rights and interests are recognised by the common law of Australia. This is called a native title determination. A determination is a decision by the Federal Court or High Court of Australia, or a recognised body, that native title either does or does not exist in relation to a particular area of land or waters.

If the Court finds that native title rights and interests exist, the group must set up a prescribed body corporate to hold the rights and interests, as an agent, or in trust, for the group (National Native Title Tribunal, 2019).

Native title groups are able to use the land for activities, such as hunting and fishing, in areas as specified by Native Title registration. The *Native Title Act 1993* is the legislation that provides a national system for the recognition and protection of native title and for its co-existence with the national land management system. The *Native Title Act 1993* applies to any area of the biosphere where there has been a successful native title claim. Native title can co-exist with non-Aboriginal property rights (National Native Title Tribunal, 2019).

Some of the main users of the biosphere area include the Jinibara People Aboriginal Corporation who in 2012 became the registered body for native title over a portion of the Sunshine Coast. In 2017 a National Native Title Tribunal Ruling (QUB280/2013) found that the Kabi Kabi First Nation Traditional Owners Native Title Claim Group had the right to lodge a claim (National Native Title Tribunal, 2019) (Figure 9.3).

The *Aboriginal Cultural Heritage Act 2003* provides recognition, protection and conservation of Aboriginal cultural heritage. The Act can be viewed at <https://www.legislation.qld.gov.au/view/html/inforce/current/act-2003-079>



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

Figure 9.3: Jinibara Aboriginal Corporation’s Native Title and Kabi Kabi First Nation Traditional Owners Native Title Claim Group application areas in the biosphere (ShapingSEQ, 2017).

State legislation and the *Planning Act 2016* in particular, serve to establish an efficient, effective, transparent, integrated, coordinated, and accountable system of land use planning, development assessment and related matters that facilitate the achievement of ecological sustainability. A system for achieving ecological sustainable land use planning, set out in the Act, includes the development and implementation of regional plans, such as *ShapingSEQ* (*South East Queensland Regional Plan 2017*), and local planning schemes, such as the *Sunshine Coast Planning Scheme 2014* (Figure 9.4).



Figure 9.4: Land use management policy framework for the biosphere (*ShapingSEQ*, 2017).

The Queensland Government's *ShapingSEQ* is a framework for managing the growth of South East Queensland, of which the Sunshine Coast is a part. It identifies an Urban Footprint for existing and future development and aims to encourage growth within the existing Urban Footprint to limit urban sprawl and protect the liveability, landscape and character of the region. The location, shape and size of the Urban Footprint is influenced by future population growth, the identification of a network of green spaces, biodiversity corridors, scenic landscape values, the impacts of climate change, the protection of inter-urban breaks between major centres, transit orientated development, and capacity to deliver housing diversity closer to public transport to reduce greenhouse gas emissions. *ShapingSEQ* also recognises the rights of Traditional Owner Groups and Native Title.

At a local level, the *Sunshine Coast Planning Scheme 2014* aligns with the *Planning Act 2016* and *ShapingSEQ*. The Planning Scheme regulates land use and development across the Sunshine Coast Regional Council area (the extent of the biosphere) in a sustainable manner. It recognises the Sunshine Coast as a 'community of communities' and is tailored to keep these diverse communities unique.

The Planning Scheme provides local plans with specific provisions to help protect the individuality and identity of our communities. It also seeks to ensure that bushland, beaches and waterways are protected. It includes overlays that identify areas sensitive to the effects of development, and assessment benchmarks that protect these areas including significant vegetation and areas subject to natural hazards.

Through the allocation of zones and clearly defined growth management boundaries, the Planning Scheme seeks to achieve a settlement pattern that provides for a compact urban form, efficient infrastructure provision and the protection of rural land for their rural production potential and landscape values. The *Sunshine Coast Planning Scheme 2014* can be viewed at <https://www.sunshinecoast.qld.gov.au/Development/Planning-Documents/Sunshine-Coast-Planning-Scheme-2014>

9.4 Describe men and women's different levels of access to and control over resources.

(Do men and women use the same resources differently (e.g. for subsistence, market, religious/ritual purposes), or use different resources?)

Men and women have equal levels of opportunity to access and control resources. Council promotes a diverse and inclusive workplace and is committed to gender equity for employees. Council has actively engaged with and supported the involvement of the entire Sunshine Coast community through:

- Representation of both women and men in the wider biosphere community consultation process which received 63% of female respondents to the 'Have Your Say' survey and 36% male (supporting document 9); and
- Ensuring gender balance of members in the Biosphere Nomination Community Reference Group (supporting document 10).

Gender balance and equity will continue to be encouraged throughout all stages of the biosphere design and implementation. This approach will be supported by the adoption of a governance principle that seeks to foster inclusiveness (section 17.1.9).

10. HUMAN POPULATION OF THE BIOSPHERE

The Sunshine Coast is a city-region, a community of communities that stretches from the east coast up to the hinterland in the west. These diverse communities are connected and defined by their unique natural and built environments and associated geological, ecological and cultural histories.

Table 10.1: Approximate population of the proposed biosphere.

AREA	Permanently	Seasonally
10.1 Protect and Enhance, and Special Manage and Care Areas	0	0
10.2 Manage and Care Areas	76,650	87,660
10.3 Live and Work Areas	251,380	295,440
Total	328,030	383,100

This population of the Sunshine Coast is expected to grow to over 500,000 people by 2041 with further increases expected thereafter.

10.4 Brief descriptions of local communities living within or near the proposed biosphere reserve.

(Indicate ethnic origin and composition, minorities etc., main economic activities (e.g. pastoralism, tourism) and the location of their main areas of concentration, with reference to the map (section 6.2).)

The Sunshine Coast has a permanent population of approximately 328,030 people (June 2019) with the most common age group being people aged 45 to 59 years. Approximately 52% of residents are female and 48% male.

About 22% of the community attend an educational institution with 38% of these being primary school students, 29% being high school students and 24% attending university or technical education. About 19% of people work in a professional role, 16% are trades people or technicians, 13% clerical or administrative workers, 12% work in the community and personal services and about 12% are managers.

The Sunshine Coast has a diverse and growing multicultural population. One in every five people are born overseas (19.3% of the population) representing 156 countries, 45 faiths and 96 languages (Sunshine Coast Council, 2017).

Approximately 6% of the population on the Sunshine Coast reported needing assistance with their day to day lives due to disability (in 2016). Around half of those needing care were aged over 70 years while about one quarter were aged between 20 and 59 years. About 11% of people on the Sunshine Coast aged 15 years and over (in 2016) provided the role of unpaid care to those needing assistance.

The SEIFA Index of Disadvantage measures the relative level of socio-economic disadvantage in Australian local government areas based on a range of Census characteristics. The index is derived from attributes such as low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations. The higher the SEIFA Index of Disadvantage

score, the less socio-economic disadvantage in an area, in comparison to other areas. The most recent SEIFA assessment (2016) rated the Sunshine Coast local government area with the sixth highest score in Queensland. This score reflects a relatively low level of socio-economic disadvantage on the Sunshine Coast in comparison to the other 76 Queensland local government areas. When investigating the SEIFA Index of Disadvantage on a more localised level, Nambour (Figure 6.1) is the most socio-economic disadvantaged community in the Sunshine Coast local government area while some of the southern Sunshine Coast coastal communities are more disadvantaged than northern coastal communities (Sunshine Coast Council, 2019).

An estimated 80% of residents live within five kilometres of the coastline (in the Live and Work Area), with the remainder living in rural, semi-rural and agricultural lands (in Manage and Care Areas).

The areas with the highest population concentrations are all close to the coastline and include Kawana Waters, Buderim, Maroochydore and Caloundra (including the area south of Caloundra). The exception is Nambour, which is one of the oldest towns and is considered the focal point for the rural and hinterland communities (Figure 6.1).

Most Sunshine Coast residents can trace their heritage to England, Ireland, Scotland or Germany. Almost 20% were born outside Australia (with over half being born in either the United Kingdom or New Zealand). First Nations (Aboriginal or Torres Strait Islander) ancestry comprises 2% of the total population.

Traditionally, the main economic activities of the Sunshine Coast include construction, tourism and retail services. The region's economy is rapidly evolving across diverse high value and knowledge based sectors including professional business services, healthcare, education and finance.

10.5 Names(s) of the major settlements within and near the proposed biosphere reserves with reference to the map (section 6.2)

The major settlements within the Sunshine Coast are listed and discussed in section 10.4, namely Maroochydore, Caloundra (including Caloundra South), Nambour, Kawana Waters and Buderim (Figure 6.1).

10.6 Cultural significance

Briefly describe the proposed biosphere reserve's importance in terms of past and current cultural values (religious, historical, political, social, ethnological) and others, if possible with distinction between material and intangible heritage (c.f. UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage 1972 and UNESCO Convention for the Safeguard of the Intangible Cultural Heritage 2003 (http://portal.unesco.org/en/ev.php-URL_ID=13055&URL_DO=DO_TOPIC&URL_SECTION=201.html and http://portal.unesco.org/en/ev.php-URL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html))

Foundations of cultural significance

The cultural significance of the Sunshine Coast is embodied in its places, objects, stories, practices, meanings and values. It is the essence of the region and defines our identity. Our natural history, stories and memories strengthen our connection to the land, environment and each other. These connections can be traced back tens of thousands of years with the First Nations' Peoples of the Sunshine Coast, the Kabi Kabi and Jinibara peoples.

Today, every person and community has a different experience with the natural and built environment, and it is these connections that create a unique sense of place. The Sunshine Coast consists of a diversity of places, each with their own distinctive identity. The natural and built environments create our local and iconic views and vistas, scenic corridors, open space environments and the character of our region. The conservation, agricultural and recreational lands form a green frame that separate our neighbourhoods, towns and centres and contribute significantly to our community of communities.

This section presents selected examples of the rich and complex cultural significance of the Sunshine Coast, from the perspective of different people within various communities and how they are linked to places, objects, stories, practices, meanings and values. A more complete list and description of culturally significant places can be found in the Sunshine Coast Heritage Discovery Guide which can be viewed at

<https://heritage.sunshinecoast.qld.gov.au/Places/Heritage-Discover-Guide>.

Cultural significance to Traditional Owners

The Sunshine Coast is home to the Jinibara and the Kabi Kabi First Nations' peoples (Figure 9.3).

The Jinibara people acknowledge the Kabi Kabi people as their neighbours and know them as mwoirnewar, the saltwater people. The wider community should understand that while the Jinibara and Kabi Kabi Peoples each acknowledge the other as neighbours, there is no so-called shared country. By traditional law, only the Jinibara can only speak for Jinibara traditional country, and Kabi Kabi for their traditional country.

The First Nation Peoples of the Sunshine Coast mountain region are the Jinibara. The tribal name of Jinibara means this by implication, as bara means people and Jini means lawyer vine. In other words, the Jinibara People are the people of the lawyer vine, the traditional people who live in the mountains and valleys where lawyer vine grows. Their traditional country extends from Old Gympie Road to the west and north. To illustrate Jinibara connection to country, the following story of the Glass House Mountains is shared:

Tibrogargan and his family are ancestral beings who lived at Nandur in Jinibara traditional country.

One day, Tibrogargan was moving through his country when he looked out over the coastal country of the neighbours. He saw something that horrified him - the sea was rushing inland led there by a strange sea-being, the like of which Tibrogargan had never seen before.

Tibrogargan fought the sea-being valiantly, eventually chasing it back into the sea.

Although the sea stopped moving across the land once the sea-being had disappeared, it did not retreat. Much of Tibrogargan's neighbours' land was now covered in water.

Tibrogargan decided he should stay on the ground where he had conquered the sea-being, to guard his country. This is why he always looks out to sea. His wife Beerwah and their children joined him.

Old Gympie Road in the Glass House Mountains represents a pathway which was shared by both the Jinibara and Kabi Kabi. The Kabi Kabi visited the Glass House Mountains to celebrate the bunya season. The following Kabi Kabi story illustrates their connection to country as coastal and Mary River Valley First Nations Peoples.

A beautiful young girl named Maroochy was to marry Coolum, a handsome young warrior. When Coolum was out hunting, Ninderry, a warlike warrior, stole Maroochy.

When Ninderry woke to find Coolum had rescued Maroochy, he became angry. When he found the lovers, he threw a huge nulla (club). It knocked Coolum's head off, which rolled into the sea to form Mudjimba island. His headless body turned to stone and became Mount Coolum. Beeral, the spirit God, was so upset that he turned Ninderry to stone, which became Mount Ninderry.

Maroochy fled to the Blackall Ranges where she wept for her beloved Coolum. Her tears flowed from the mountains to form Maroochy River. She then turned herself into a swan so she could search for Coolum's spirit. To this day she swims the river, and visits swamps and lakes in search of Coolum.

Culturally significant places

The Glass House Mountains

The National Heritage-listed Glass House Mountains are renowned for their natural beauty and volcanic peaks. The Glass House Mountains were named by Lieutenant James Cook, when sailing north along Australia's east coast in 1770. Cook wrote "these hills lie but a little way inland, and not from each other: they are remarkable for the singular form of their elevation, which very much resembles a glass house, and for this reason I called them Glass Houses", a reference to the glass making foundries in his native Yorkshire, England.

The National Heritage list of mountains in the Glass House Mountains National Park includes Beerwah (556 metres); Coonowrin (Crookneck) (377 metres); Tibrogargan and Cooee (364 metres and 177 metres); Ngungun (253 metres); the Coochin Hills (235 and 230 metres); Miketeebumulgrai (199.5 metres); and Elimbah (Saddleback) (109 metres). There are a further three mountains: Beerburrum (278 metres); Tunbubudla (the twins) (294 and 338 metres); and Tibberooowuccum (220 metres) (Sunshine Coast Council Heritage, 2019).

The Glass House Mountains can be seen from most of Moreton Bay and to the far north of Caloundra and were claimed to be of national significance. In 2006 the former Prime Minister, John Howard, named them as the 32nd entry on the National Heritage List, joining important Australian sites such as the Sydney Opera House.

Bankfoot House

Bankfoot House is a state heritage listed property and the oldest surviving residence in the Glass House Mountains. Built in 1868 it greeted the first Cobb & Co coach on its way from Brisbane to the Gympie Gold Fields and remained in the same family for three generations, 134 years. The property is a time capsule with a collection that represents the ingenuity, resourcefulness and resilience of early pioneers and later timber getters and farmers.

Used for a variety of purposes, Bankfoot House had its own dairy herd, was the Post Office and overnight stop for travellers. Members of the Grigor, Burgess and Ferris families, who occupied Bankfoot House, made a significant contribution to the district, being involved in local industries, local government and community life. When the last resident of Bankfoot House, Jack Ferris, died in 2002 the former Caloundra City Council (as it was then known) purchased the house and contents with a commitment to establishing the property as a House Museum. Bankfoot House is now managed by Sunshine Coast Regional Council who constructed the purpose-built Mary Grigor Centre.

This centre is for the:

- Archival of the significant Bankfoot House collection;
- Multimedia educational interpretive centre;

- Events, performance and workshops;
- Amenities; and
- Conservation workspace for Friends of Bankfoot House (Sunshine Coast Council Heritage, 2019).

A short video of Bankfoot House and the Mary Grigor centre can be viewed at https://www.youtube.com/watch?v=NMQ5HVzDYtk&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=16 (Sunshine Coast Libraries, 2017).

Fairview

Fairview is a state heritage listed property located in Maleny on 2.5 hectares of land. Surrounded by gardens and fruit trees, Fairview and its early twentieth century farmhouses provide an understanding of the heritage of the area and life as it once was.

The property includes a lowset house made of hand worked beech boards, a building representative of the era, as well as the dairy industry, and typical of the early 1900s to when the industry restructured in the mid-1990s. Jean Larney and her family leased the J.R. Pattermore property between 1927 and 1947 and a digital recording presents life on the land and dairy farming at that time. It can be viewed at https://www.youtube.com/watch?v=G7fnIMP1X6E&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=18 (Sunshine Coast Libraries, 2017). Sunshine Coast Regional Council now owns and manages Fairview with the help of a 'friends' group and is currently restoring the house and heritage gardens (Sunshine Coast Council Heritage, 2019).

Mary Cairncross Scenic Reserve

Mary Cairncross Scenic Reserve comprises 55 hectares of subtropical rainforest, and is a living museum of the diverse plant and animal life overlooking the Glass House Mountains National Park.

The origins of the establishment of Mary Cairncross Scenic Reserve began with settlement in the Maleny area. One hundred acres of land was transferred to the former Landsborough Shire Council in 1941 by sisters Elizabeth, Mabel and Mary Thynne. The sisters transferred the land to the Council through a Deed of Trust, with the aim of preserving the rainforest in perpetuity, and honouring their mother Mary Thynne (nee Cairncross). Subsequently, on 11 December 1966, the sole remaining daughter of Mary Cairncross, Miss Elizabeth Thynne, donated a further five acres to the Council. Council continues to honour this Deed of Trust.

As the reserve became increasingly popular, a caretaker's residence was established so that a care taker could be present to manage visitors. Visitors today can now access the Rainforest Discovery Centre; stroll through the Habitat rooms and discover the hidden plants and animals of the Reserve's ecosystem; use the tracks and bushwalks with boardwalks, viewing platforms and educational signs, so as to learn more about this special and unique rainforest remnant (Sunshine Coast Council Mary Cairncross Scenic Reserve, 2019). The Reserve is a special place for the Jinibara First Nations people.

Heritage Tramways

The Buderim - Palmwoods Heritage Tramway Inc. was established in 2003 to preserve and promote the history of the Buderim Tramway and its contribution to Buderim's history. Built to service the needs of the farmers and residents of Buderim and district, the Buderim to Palmwoods tramway was a narrow gauge (2 feet 6 inch) railway that enabled farm produce, fruit, and timber to access Brisbane via the mainline at Palmwoods.

The first tram ran in 1914 and the last in 1935. Only a section of the original railway remains, which runs adjacent to Mons Road. This section is an example of the cut-and-fill process used to create a gentle gradient for the train through the steep terrain, includes remnants of the original sleepers, and some rock faces showing remains of the drill holes used to dynamite the rocks (Sunshine Coast Council Heritage, 2019).

Stories of the Buderim to Palmwoods Tramway and how it contributed to the cultural significance of the Sunshine Coast can be viewed at https://www.youtube.com/watch?v=hNzhak-vUgo&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=13 (Sunshine Coast Libraries, 2016).

The cultural significance of another tramway that existed between Nambour and Mapleton can be viewed at https://www.youtube.com/watch?v=zVTJGO1bHq&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=14 (Sunshine Coast Libraries, 2016).

Buderim Pioneer Cottage

The Pioneer Cottage is an original 1882 house filled with historical furniture, home wares, period decor, photographs, clothing and fascinating curios. Now a museum, the Pioneer Cottage is maintained by the Buderim Historical Society, established in 1966, which works to preserve and maintain the Cottage and the history of the area (Sunshine Coast Council Heritage, 2019).

Eumundi Heritage and Visitor Centre

Eumundi's Heritage and Visitor Centre displays the life of early Eumundi settlers and its industries; contemporary history including the famous Eumundi Markets; and the natural history along with a collection of Indigenous artefacts from the region. A historic walk of the town is also available (Sunshine Coast Council Heritage, 2019).

Nambour and District Historical Museum

Nambour and District Historical Museum allows visitors to step back in time and experience life across the generations since the first settlers arrived in the district. The museum showcases the rich heritage of the local district, major industries such as sugar cane, telecommunications and health as well as many other facets of country life (Sunshine Coast Council Heritage, 2019).

Yandina Historic House

This homestead is representative of construction in the Sunshine Coast hinterland, 1899, and was relocated to the current site in 1996. Run by volunteers, Yandina Historic House serves light refreshments, presents regional historical publications, has an arts and crafts shop, art gallery and its museum features historic photographs, tools, machinery and artefacts (Sunshine Coast Council Heritage, 2019).

Maroochy River

The Maroochy River is the key river of the Sunshine Coast. Its cultural significance begins with the First Nations People and then, after settlement of new comers, through use for transport of timber, people and produce. It rises from the eastern slopes of the Blackall Range and flows

east through the Eumundi area before entering the sea at Cotton Tree. The two main arms of the river are known as North and South Maroochy Rivers. The Maroochy's tributaries include Petrie Creek with the main tributary Paynters Creek, as well as the creeks of Eudlo, Coolum, Doonan and Yandina.

One example of Traditional Owner connections to the river is demonstrated through stories told by the Davis and Chilli families, who tell in the video, *Maroochy Gunya* what the river means to them and how it is used by their families. This video can be viewed at https://www.youtube.com/watch?v=CPk0M1EcPmM&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=7 (Sunshine Coast Libraries, 2017).

Another example is a video featuring Lyndon Davis (Kabi Kabi) who tells the stories and significance of his artwork *His Native Place*. In this video about his art, Lyndon describes the local knowledge and perspective of how his people saw the country and what the land and sea provided. This work is displayed at the Sunshine Coast Airport (situated near the Maroochy River) and featured in the *Sunshine Coast Council's Reconciliation Action Plan 2017 – 2019*. The video can be viewed at <https://youtu.be/t6hnte-RnGA>.

There is a culturally significant site to local South Sea Islanders and some Traditional Owner families, Old Place, which is located on the banks of the Maroochy River near Bli Bli. Why and how the Old Place is valued and stories about its history are told by the descendants of Australian South Sea Islanders through Rex Eggmolesse, a third generation Australian South Sea Islander. Rex's story can be viewed at https://www.youtube.com/watch?v=7a3m3AIDciU&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=20 (Sunshine Coast Libraries, 2017). A second video presenting the significance of the Old Place can be viewed at https://www.youtube.com/watch?v=rBI9Jw9SS88&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP&index=22.

During the early days of settlement rafts of cedar, beech and pine logs were common in the Maroochy, and Mooloolah Rivers, till the late 1800s with Chambers Island being the collection point for rafting grounds situated further up the Maroochy River.

The river was the only way of travelling from the inland town of Yandina to the coastal town of Maroochydore. Goods were delivered between Maroochydore and Nambour, taken by paddle steamer to Deepwater and then punted up river for collection.

While the opening of the North Coast railway line in the late 1880s eliminated the need for coastal steamers and the coaches of Cobb & Co, O'Connor's boats continued to provide river transport services for passengers and goods up until 1918. Later a motor boat service transported mail, goods and passengers along the Maroochy River from Yandina until the 1960s.

River traffic was important to tourists who loved a day on the Maroochy River cruises for example, up the river to Dunethin Rock. Boats such as the 'Favourite' sailed up and down the river to Petrie Creek and on to Deepwater, where it connected with the cane trams which carried passengers and goods from Nambour.

Caloundra Light Houses

The Caloundra Light Houses mark the entry to Moreton Bay and the North West Channel, the main shipping route into Brisbane. The 1896 lighthouse is the oldest surviving building in Caloundra and was replaced by the new Signal Station, Light and Radar Installation in 1968.

The Friends of the Caloundra Lighthouses provide guided tours of the buildings, allowing visitors to explore these icons and learn more about the part they played in the history of the town.

The SS Dicky at Caloundra

The SS Dicky was an iron-hulled steamer, driven ashore at Caloundra during a cyclone in 1893. Efforts to refloat the Dicky were unsuccessful so in 2015 Council endorsed the long term strategy for the wreck which includes:

- Removal of the exposed stern, starboard and port ribs;
- Ongoing management of loose pieces as the wreck breaks up into the future;
- Main portion of the wreck to remain in situ;
- Delivery of a wreck interpretive display as part of a greater open space landscape plan for the area;
- Conservation of remaining removed pieces; and
- Creation of a short film and mobile display that documents the community connection of the historic shipwreck to the area.

Council recognises the iconic status of the SS Dicky and proposes to relocate the wreck to the open space of the Dicky Beach precinct (Sunshine Coast Council Heritage, 2019). A video describing how the SS Dicky wreck became, and remains, part of the culture of the Sunshine Coast can be viewed at

https://www.youtube.com/watch?v=41RR_Bd7njw&feature=youtu.be&list=PLwgOsh308O_A9hzNyowPUIDihBPj0TIGP (Sunshine Coast Libraries, 2016).

10.7 Specify the number of spoken and written languages (including ethnic, minority and endangered languages) in the biosphere reserve.

(Refer to, for instance, to the UNESCO Atlas of Endangered languages (<http://www.unesco.org/culture/languages-atlas/index.php>).

English is the predominant language of the Sunshine Coast with almost 90% of residents speaking English only. Other languages spoken at home include German, French, Afrikaans, Italian and Mandarin (Table 10.2).

Table 10.2: Languages spoken by the Sunshine Coast community other than English (Sunshine Coast Council, 2019).

Language (other than English)	Number of people	% of total Sunshine Coast population
German	1,577	0.5
French	832	0.3
Afrikaans	822	0.3
Italian	793	0.3
Mandarin	780	0.3

The traditional languages of the Kabi Kabi and Jinibara people are no longer spoken, however grammar is in use and both groups are working to revive their traditional languages. The majority of First Nations Australian languages are severely endangered, critically endangered or extinct (Language Map in State Library of Queensland, 2019).

11. BIOPHYSICAL CHARACTERISTICS

The Sunshine Coast has a multi-faceted biophysical environment of hinterland ranges, coastal foothills, river valleys, coastal plains, dune systems and beaches. A subtropical climate has created a wide diversity of ecosystems and species of regional and national significance.

11.1 General description of site characteristics and topography of area: (Briefly describe the major topographic features (wetlands, marshes, mountain ranges, dunes etc.) which most typically characterize the landscape of the area.)

The Sunshine Coast spans the following broad landscape zones (Figure 11.1):

- Zone 1: The coast – 60 kilometres of open beaches and dunes, rocky shores and headlands and adjoining waters of the Coral Sea;
- Zone 2: Coastal plains (predominantly 0–15 metres above mean sea level (AHD)) – coastal lowlands adjacent to the coastline and adjoining, low-lying river valleys;
- Zone 3: Central foothills (predominantly 15–150 metres AHD) – local hills and ridges between the coastal plain and a ridgeline that bisects the region east to west; and
- Zone 4: Hinterland ranges (150–870 metres AHD) – higher lands in the central to western region, including the Blackall Range (Maleny-Mapleton plateau) and the Conondale Ranges to the west.

Further to these four zones is the Mary River Valley (90–150 metres AHD) a lower-lying area of the upper catchment of the north flowing Mary River, near Kenilworth.

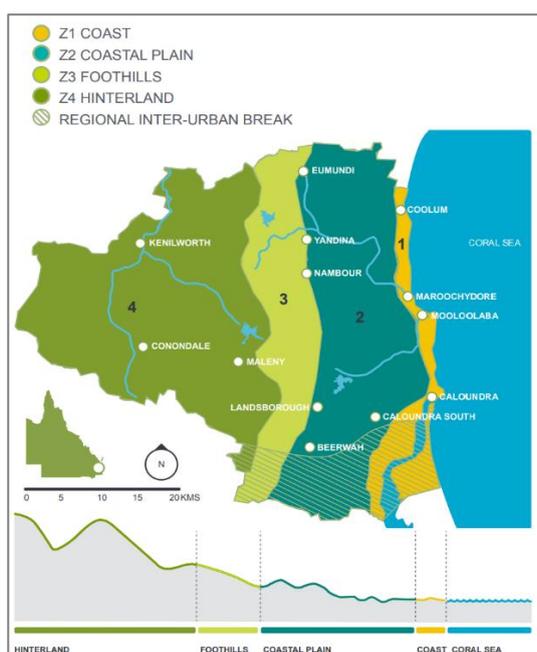


Figure 11.1: Sunshine Coast landscape zones.

This topography creates the rainfall catchments for six regional waterways:

- 223 square kilometres (all) of the Mooloolah River catchment;
- 632 square kilometres (99%) of the Maroochy River catchment;
- 458 square kilometres (58%) of the Pumicestone Passage catchment;
- 848 square kilometres (9%) of the Mary River catchment;
- 112 square kilometres (7%) of the Stanley River catchment; and
- 12.6 square kilometres (1.5%) of the Noosa River catchment (Figure 11.2).

These catchments sustain independent waterway and wetland networks that collectively include:

- 12,000 kilometres of mapped gullies, streams and estuaries;
- 8,600 hectares of waterbodies, including:
 - The Maroochy and Mooloolah River estuaries, the Pumicestone Passage and several coastal lagoons;
 - Five regional drinking water reservoirs;
 - Canal systems and large lakes connected to coastal estuaries and lagoons; and
 - Many urban and rural freshwater lakes and water storage areas.
- 22,000 hectares of vegetated wetlands, including:
 - Saltmarshes and mangroves;
 - Near-permanent freshwater wetlands;
 - Ephemeral freshwater wetlands; and
 - River-fringing wetlands.

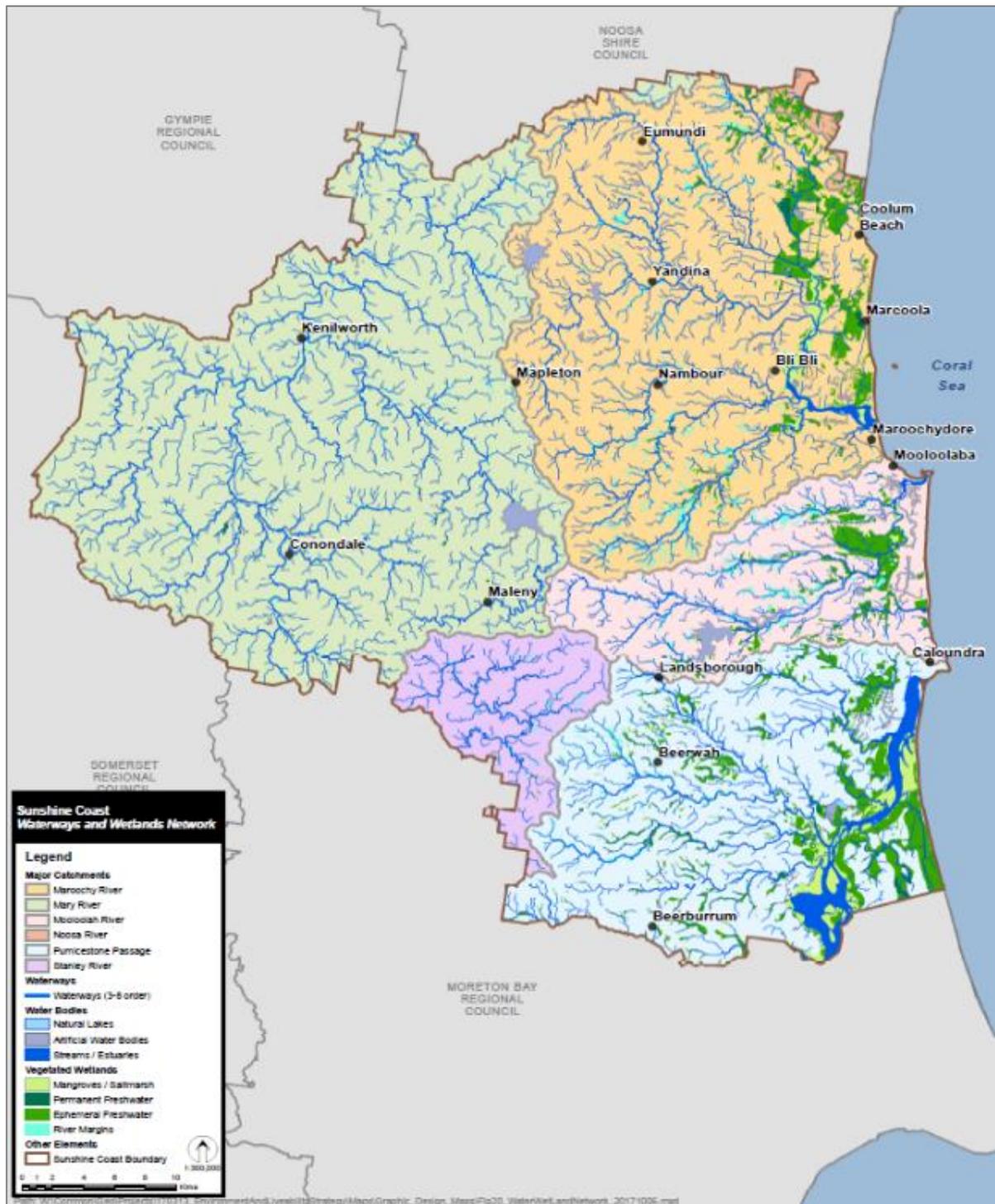


Figure 11.2: Sunshine Coast catchments, waterways and wetlands.

11.2. Altitudinal range

The altitudinal range is from **0 metres** to **868 metres** above mean sea level.

Range = **868 metres**

11.2.1 Highest elevation above mean sea level:

868 metres

11.2.2 Lowest elevation above mean sea level:

0 metres

11.2.3 For coastal/marine areas, maximum depth below mean sea level:

- 36 metres.

11.3. Climate

(Briefly describe the climate of the area, you may wish to use the regional climate classification by Köppen as suggested by WMO (http://www.wmo.int/pages/themes/climate/understanding_climate.php.)

The Sunshine Coast region is located within the world's southern temperate zone. It is a few hundred kilometres south of the tropical zone and has a climate between tropical and temperate. Under the Koppen-Geiger climate system, the Sunshine Coast climate is classified as "humid subtropical" (Kottek et al. 2006) with rainfall higher in summer months, and the adjacent Coral Sea bringing high moisture and rainfall to moderate extremes of temperatures.

Maps of average temperature and rainfall conditions published by the Bureau of Meteorology (2019) (Figure 11.3) show that:

- The Sunshine Coast is within an east-west band across the middle of the continent with average temperatures between 18 and 21 degrees Celsius; and
- Most of the Sunshine Coast has an average rainfall greater than 1500 millimetres per year.

These Bureau of Meteorology maps also show the region has:

- High relative humidity (70–80% 9am average and 50–60% 3pm average);
- High evapotranspiration (900–1100 millimetres/year);
- Moderate solar exposure (SE; 18–21 megajoules/m²); and
- Moderate thunder-day frequency (TD; 20–25 days/year).

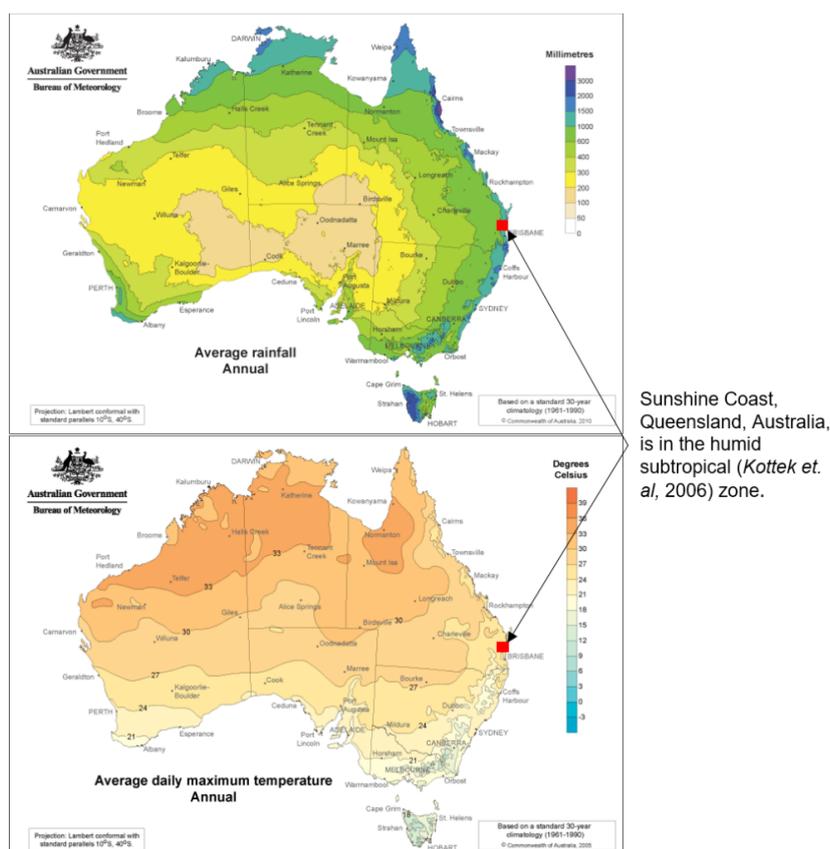


Figure 11.3: Maps showing average annual rainfall and daily maximum temperature for Australia and the Sunshine Coast (Bureau of Meteorology, 2019).

Climate statistics from meteorological stations in coastal, central and western locations of the Sunshine Coast (Table 11.1) show a notable variability in climatic conditions across the region, for example:

- Rainfall increases from the coast to the windward Blackall Range then decreases notably to the west; and
- Temperatures are warmer on the coast and decrease in higher, western areas.

Table 11.1: Climate statistics for the Sunshine Coast.

Statistic type	Coastal	Central	Western
Location (altitude)	Sunshine Coast Airport (3 metres)	Maleny (425 metres)	Jimna Forestry (523 metres)
Station Label	040861	040121	040651
Average max / min temperature – Warmest month (January) (degrees C)	29.1 / 21.3	27.1 / 18.9	28.2 / 17.5
Average max / min temperature – Coolest month (July) (degrees C)	21.1 / 9.6	18.7 / 9.2	18.0 / 5.3
Mean annual precipitation	1,470 millimetres	2,000 millimetres	850 millimetres

11.3.1 Average temperature of the warmest month:

29.1 °C

11.3.2 Average temperature of the coldest month:

5.3 °C

11.3.3 Mean annual precipitation:

2,000 millimetres recorded at an elevation of **425 metres**.

11.3.4 Is there a meteorological station in or near the proposed biosphere reserve? If so, what is its name and location and how long has it been operating?

The three meteorological stations on the Sunshine Coast are located at the Sunshine Coast Airport near Marcoola, Maleny, and Jimna Forestry in the western part of the Sunshine Coast. Meteorological stations have been operating across Australia for more than 100 years.

11.4 Geology, geomorphology and soils

(Briefly describe important formations and conditions, including bedrock geology, sedimentary deposits, and important soil types).

The surface geology of the Sunshine Coast has been formed through a number of processes over hundreds of millions of years. This geology has been classified by the Queensland Government into “land zones”, which in turn influence the function of overlying ecosystems and rich biodiversity (Figure 11.4; Wilson and Taylor, 2012).

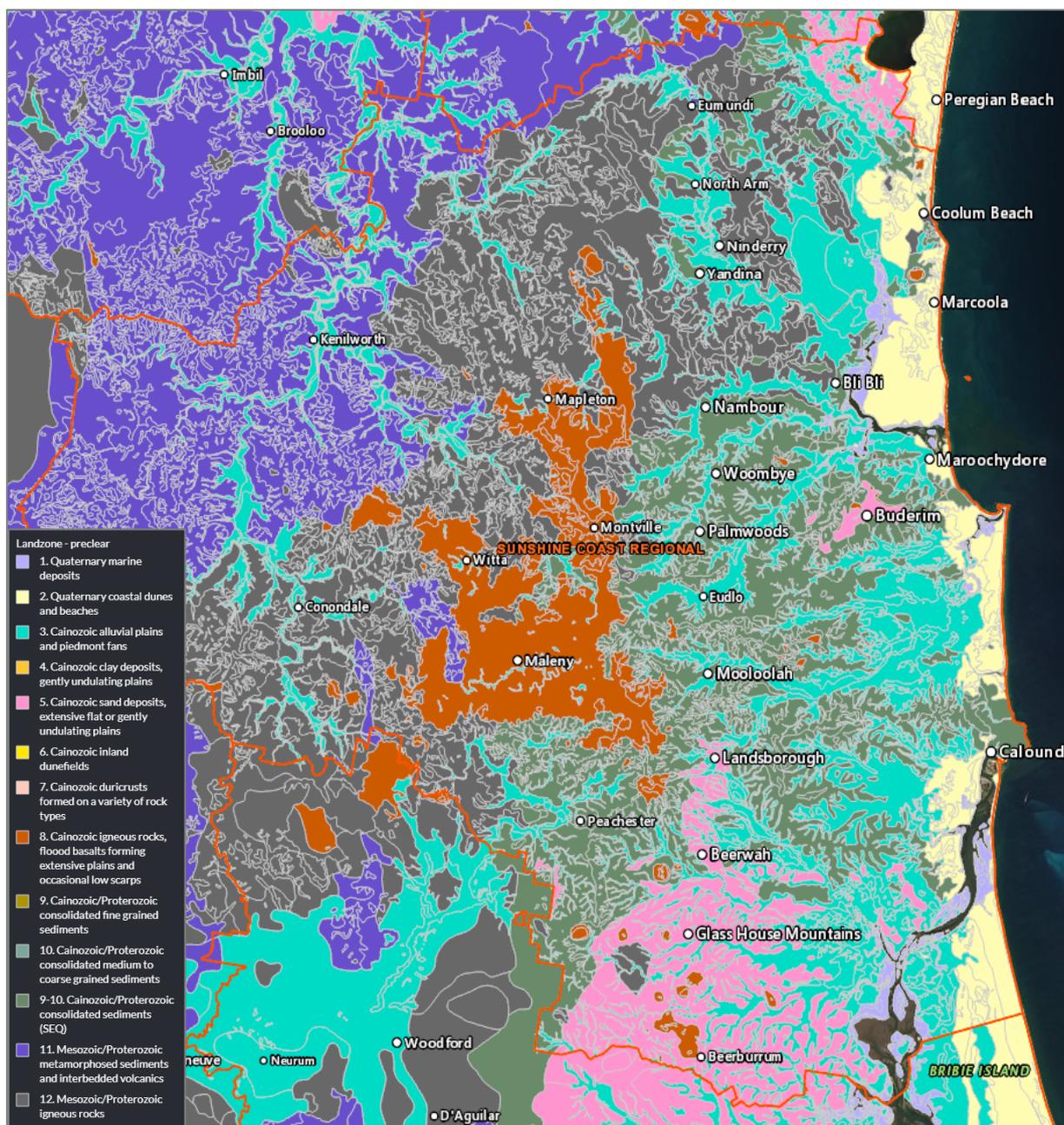


Figure 11.4: Sunshine Coast land zones (Queensland Globe mapping portal, 2019).

The major rock formations at the surface of our present-day region, and their corresponding land zones, are outlined below.

- Old meta-sediments and volcanics (land zone 11–375–265 million years ago (mya); west formed by:
 - Compression, deformation and uplifting of offshore sedimentary and volcanic sediments as the “New England Fold Belt” was added to the eastern Australian coastline; and
 - Deposition of marine sediments and lavas over the older rocks when shallow seas spread across the continental edge.
- Meta-sediments of the Gympie Province (land zone 11–280–235mya; northern border) formed by deposition, compression and uplifting of marine sediments and volcanic rocks, expanding the continent further eastward;

- Triassic Volcanics (land zone 12–235–210mya; centre-west and north) formed by:
 - Intrusion of molten magma up through older rocks, cooling into granitic rocks below the surface and exposure after erosion of overlying rocks; and
 - Explosive eruptions and lava flows over vast areas from one or more giant calderas, generating the North Arm Volcanics.
- Triassic-Jurassic sedimentary rocks (land zone 9-10–210–180mya; mostly south and central, some north-east):
 - Great expanses and depths of sandstone, siltstone and mudstone formed by erosion of older mountains and deposition and compression in a vast sagged area of the eastern continent, the Nambour Basin.
- Jurassic-Cretaceous granitic intrusions (land zone 12–145-130mya; north-east) formed by:
 - Localised intrusions of molten magma up through the sedimentary rocks.
- Basalt lavas (land zone 8–31–27mya; mostly central, some centre-east):
 - The Maleny-Mapleton plateau and outlying remnants including Buderim Mountain, formed by numerous eruptions and high-volume lava flows from a volcano south-west of Maleny.
- Rhyolite and trachyte plugs (land zone 8–27–26mya; south and north-east):
 - The Glass House Mountains, Mount Coolum and other steep peaks, formed by magma pushing up into vents and subsurface bulges in surface rocks and hardening, exposed through erosion of the overlying softer rocks.
- Coastal sediments and alluvium, formed by:
 - Erosion and lowering of the older landscape over millions of years and deposition of alluvial sediments along stream valleys – land zone 3; and
 - Accumulation of sands and muds along the coastline during recent periods of high sea level, in particular, 120,000 years ago and 6,000 years ago to the present – land zone 2 (Willmott, 2007).

The dominant soil types on the Sunshine Coast (Figure 11.5) are:

- Kandosols – these soils have a sandy to loamy-surface soil, with porous sandy-clay subsoils with low fertility and poor water-holding capacity. A range of crops can be grown on these soils where rainfall is higher or where irrigation is available;
- Ferrosols – these soils are well-drained with red or yellow-brown colour and have clay-loam to clay textures. Ferrosols are associated with ancient volcanic activity and can support intensive crop production; and
- Hydrosols – these soils exist in very small areas on the Sunshine Coast. It is soil that is saturated with water for long periods of time, covers less than 1% of Australia and is usually found in coastal areas (Queensland Government, 2019).

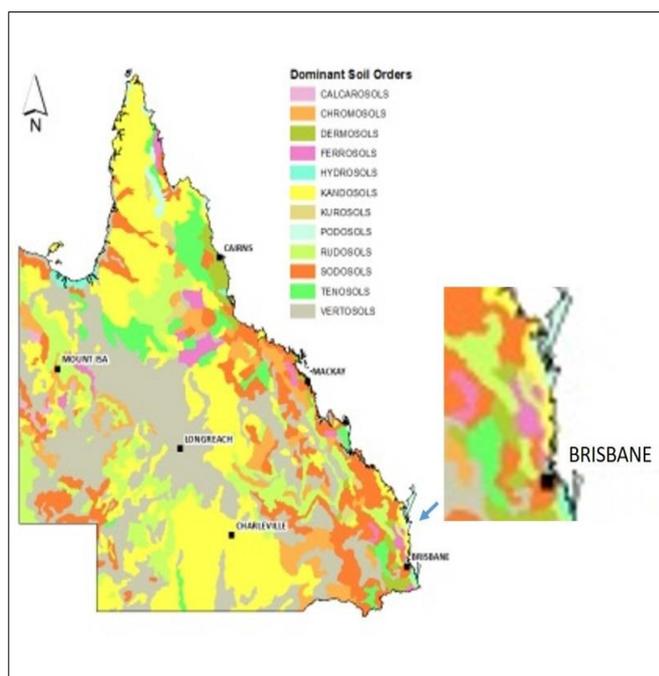


Figure 11.5: Dominant soil types on the Sunshine Coast (Queensland Government, 2019).

11.5. Bioclimatic zone

(Indicate the bioclimatic region in which the proposed biosphere reserve is located, refer to the table below and tick the appropriate box for each area of the biosphere reserve.)

The average annual precipitation figures (Table 11.1) indicate the eastern (coastal) to central Sunshine Coast is in the “per-humid” bioclimatic zone, while the western area is in the “moist sub-humid” zone. The Protect and Enhance (core), Special Manage and Care, and Manage and Care (buffer), and Live and Work (transition) areas all occur across both zones (Table 11.2).

Table 11.2: Aridity index resulting from the use of P/ETP – Mean annual precipitation (P)/mean annual potential evapotranspiration (ETP).

Areas	Average annual rainfall (mm)	Aridity index		Protect and Enhance (core)	Special Manage and Care (buffer)	Manage and Care (buffer)	Live and Work (transition)
		Penman	(UNEP)				
Hyper-arid	$P < 100$	< 0.05	< 0.05	-	-	-	-
Arid	100-400	0.05-0.28	0.05-0.20	-	-	-	-
Semi-arid	400-600	0.28-0.43	0.21-0.50	-	-	-	-
Dry Sub-humid	600-800	0.43-0.60	0.51-0.65	-	-	-	-
Moist Sub-humid	800-1,200	0.60-0.90	> 0.65	✓	✓	✓	✓
Per-humid	$P > 1,200$	> 0.90		✓	✓	✓	✓

11.6. Biological characteristics

(List main habitat types (e.g. tropical evergreen forest, savanna woodland, alpine tundra, coral reef, kelp beds) and land cover types (e.g. residential areas, agricultural land, pastoral land, cultivated areas, rangeland).)

The Sunshine Coast has 75 vegetated ecosystem types (“Regional Ecosystems” or “REs”). They are grouped into six broad vegetation communities (supporting document 11):

- Eucalypts (36 REs);
- Heath and wallum (15 REs);
- Rainforest (10 REs);
- Melaleuca and casuarina (9 REs);
- Mangroves and saltmarsh (3 REs); and
- Coastal dunes (2 REs).

Combined with regrowing “non-remnant” vegetation, these native vegetation communities make up 54% of the terrestrial Sunshine Coast area.

The region also includes the following aquatic and marine habitats:

- Natural estuarine open waters;
- Constructed estuarine lakes and canals;
- Freshwater lakes, dams and reservoirs;
- Inter-tidal sandy beaches and rocky shores;
- Sub-tidal sandflats and rocky reefs; and
- Marine waters.

Other widespread land cover types include:

- Rural and urban residential areas;
- Urban commercial and industrial areas and public infrastructure;
- Resource extraction areas (for example, sand mines and rock quarries);
- Grazing in natural, modified and irrigated areas;
- Plantation and production forestry;
- Irrigated and non-irrigated horticulture and cropping; and
- Transitional lands.

(For each habitat type, indicate:

- REGIONAL if the habitat or land cover type is widely distributed within the biogeographical region within which the proposed biosphere reserve is located, to assess the habitat's or land cover type's representativeness.

For each habitat or land cover type, list characteristic species and describe important natural processes (e.g. tides, sedimentation, glacial retreat, natural fire) or human impacts (e.g. grazing, selective cutting, agricultural practices) affecting the system. As appropriate, refer to the vegetation or land cover map provided as supporting documentation.)

For conservation purposes, the Queensland vegetated regional ecosystems are classified according to the remaining fraction of their "pre-clearing extent" that is, their natural distribution across each bioregion before settlement. The classifications are:

- Least concern: 30–100% remaining;
- Of concern: 10-30% remaining; and
- Endangered: <10% remaining (or 10–30% remaining but area remaining is <10,000 hectares).

The conservation status for each of the Sunshine Coast's 75 REs is:

- Seven ecosystems – one melaleuca-casuarina, four eucalypt and two rainforest – are endangered (Table 11.3);
- Twenty-eight ecosystems – one mangrove/saltmarsh, nine heath/wallum, one melaleuca/casuarina, fourteen eucalypt, and three rainforest – are of concern; and
- The remaining forty ecosystems are of least concern.

Table 11.3: Sunshine Coast (SC) ecosystems endangered across the South East Queensland (SEQ) bioregion.

Broad vegetation community	RE code	Remaining SEQ extent (ha)	Remaining SC extent (ha)	Description
Melaleuca / Casuarina	12.3.20	3,000	505	<i>Melaleuca quinquenervia</i> , <i>Casuarina glauca</i> +/- <i>Eucalyptus tereticornis</i> , <i>Eucalyptus siderophloia</i> open forest on low coastal alluvial plains.
Eucalypt	12.5.2a	5,000	19	<i>Corymbia intermedia</i> , <i>Eucalyptus tereticornis</i> open forest on remnant Tertiary surfaces, usually near coast. Usually deep red soils.
	12.5.3	6,000	1,397	<i>Eucalyptus racemosa</i> subsp. <i>racemosa</i> woodland on remnant Tertiary surfaces.
	12.5.6c	8,000	290	<i>Eucalyptus siderophloia</i> , <i>Eucalyptus propinqua</i> , <i>Eucalyptus microcorys</i> and/or <i>Eucalyptus pilularis</i> open forest on remnant Tertiary surfaces. Usually deep red soils.
	12.11.27	2,000	32	<i>Eucalyptus racemosa</i> subsp. <i>racemosa</i> and/or <i>Eucalyptus seeana</i> and <i>Corymbia intermedia</i> woodland on metamorphics +/- interbedded volcanics.

Broad vegetation community	RE code	Remaining SEQ extent (ha)	Remaining SC extent (ha)	Description
Rainforest	12.3.1a	4,000	1752	Gallery rainforest (notophyll vine forest) on alluvial plains.
	12.5.13a	5,000	0.8	Microphyll to notophyll vine forest +/- <i>Araucaria cunninghamii</i> on remnant Tertiary surfaces.

Table 11.3 indicates that the Sunshine Coast has a very high proportion of the three regionally endangered ecosystems within the SEQ bioregion:

- 17% of 12.3.20 (melaleuca and casuarina open forest);
- 23% of 12.5.3 (*Eucalyptus racemosa* woodland); and
- 44% of 12.3.1a (gallery rainforest).

The Sunshine Coast has a substantial proportion of the two key nationally-significant vegetation communities restricted to South East Queensland and adjacent bioregions (between Bundaberg to the north and Byron Bay in New South Wales, to the south):

- Wallum – the Sunshine Coast has some of the best remaining examples of this vegetation community type, including sections of the Noosa National Park within the “Maroochy-Noosa Wallum Corridor” and in the Mooloolah River National Park; and
- Sub-tropical lowland rainforest of eastern Australia — the Sunshine Coast has retained substantial areas of this vegetation community, despite significant local clearing and the fact that it has been mostly cleared in northern New South Wales.

(For each habitat type, indicate:

- LOCAL if the habitat or land cover type is of limited distribution within the proposed biosphere reserve, to assess the habitat's or land cover type's uniqueness.

For each habitat or land cover type, list characteristic species and describe important natural processes (e.g. tides, sedimentation, glacial retreat, natural fire) or human impacts (e.g. grazing, selective cutting, agricultural practices) affecting the system. As appropriate, refer to the vegetation or land cover map provided as supporting documentation.)

The Biodiversity Report, completed by Sunshine Coast Regional Council in 2016, shows the pre-clearing and current extent and fractional loss of the 75 ecosystem types within the Sunshine Coast (Sunshine Coast Council, 2016).

Many ecosystems have restricted current extents (nominally, <100 hectares) because their original distribution was restricted or they have been extensively cleared, or both.

Ten ecosystems – four heath/wallum, five eucalypt and one rainforest – are now locally endangered or highly restricted. These REs have lost:

- >90% of their pre-clearing extent; or
- 70–90% of their pre-clearing extent and their remaining extent is <100 hectares; or
- 0–70% of their pre-clearing extent but their remaining extent is <10 hectares (Table 11.4).

Table 11.4: Locally endangered Sunshine Coast ecosystems.

Broad vegetation community	RE code	Description	Current extent (ha)	Loss from pre-clearing (%)
Heath/Wallum	12.2.15a	Closed sedgeland in coastal swamps and associated water bodies. Permanent and semi-permanent window lakes.	2	0
	12.9-10.22	Closed sedgeland/shrubland on sedimentary rocks. Generally coastal.	18	93
	12.12.10	Shrubland of rocky peaks on Mesozoic to Proterozoic igneous rocks.	7	0
	12.12.19	Vegetation complex of rocky headlands on Mesozoic to Proterozoic igneous rocks.	12	71
Eucalypt	12.2.6	<i>Eucalyptus racemosa</i> subsp. <i>racemosa</i> open forest on dunes and sand plains. Usually deeply leached soils.	6	85
	12.2.8	<i>Eucalyptus pilularis</i> open forest on parabolic high dunes.	8	70
	12.3.11	<i>Eucalyptus tereticornis</i> +/- <i>Eucalyptus siderophloia</i> , <i>Corymbia intermedia</i> open forest on alluvial plains usually near coast.	584	95
	12.5.2a	<i>Corymbia intermedia</i> , <i>Eucalyptus tereticornis</i> open forest on remnant Tertiary surfaces, usually near coast. Usually deep red soils.	19	96
	12.8.13	Araucarian complex microphyll vine forest on Cainozoic igneous rocks.	1	96
Rainforest	12.5.13a	Microphyll to notophyll vine forest +/- <i>Araucaria cunninghamii</i> on remnant Tertiary surfaces.	0.84	43

12. ECOSYSTEM SERVICES

The Sunshine Coast hinterland, coastline, waterways and wetlands include a range of ecosystems with abundant biodiversity, each of which is fundamental to the liveability of the Sunshine Coast. Work is currently underway to value these Sunshine Coast natural assets and this knowledge will inform the ongoing management of the nominated biosphere.

12.1 If possible, identify the ecosystem services provided by each ecosystem of the biosphere reserve and the beneficiaries of these services

(Please refer to the Millennium Ecosystem Assessment Framework and The Economics of Ecosystems and Biodiversity (TEEB) Framework (<http://millenniumassessment.org/en/Framework.html> and <http://www.teebweb.org/publications/teeb-study-reports/foundations/>).

The ecosystems of the Sunshine Coast range from marine and coastal to cultivated and urban environments, each providing a range of services that benefit all residents and visitors (Figure 12.1) according to the Millennium Ecosystem Assessment Framework.

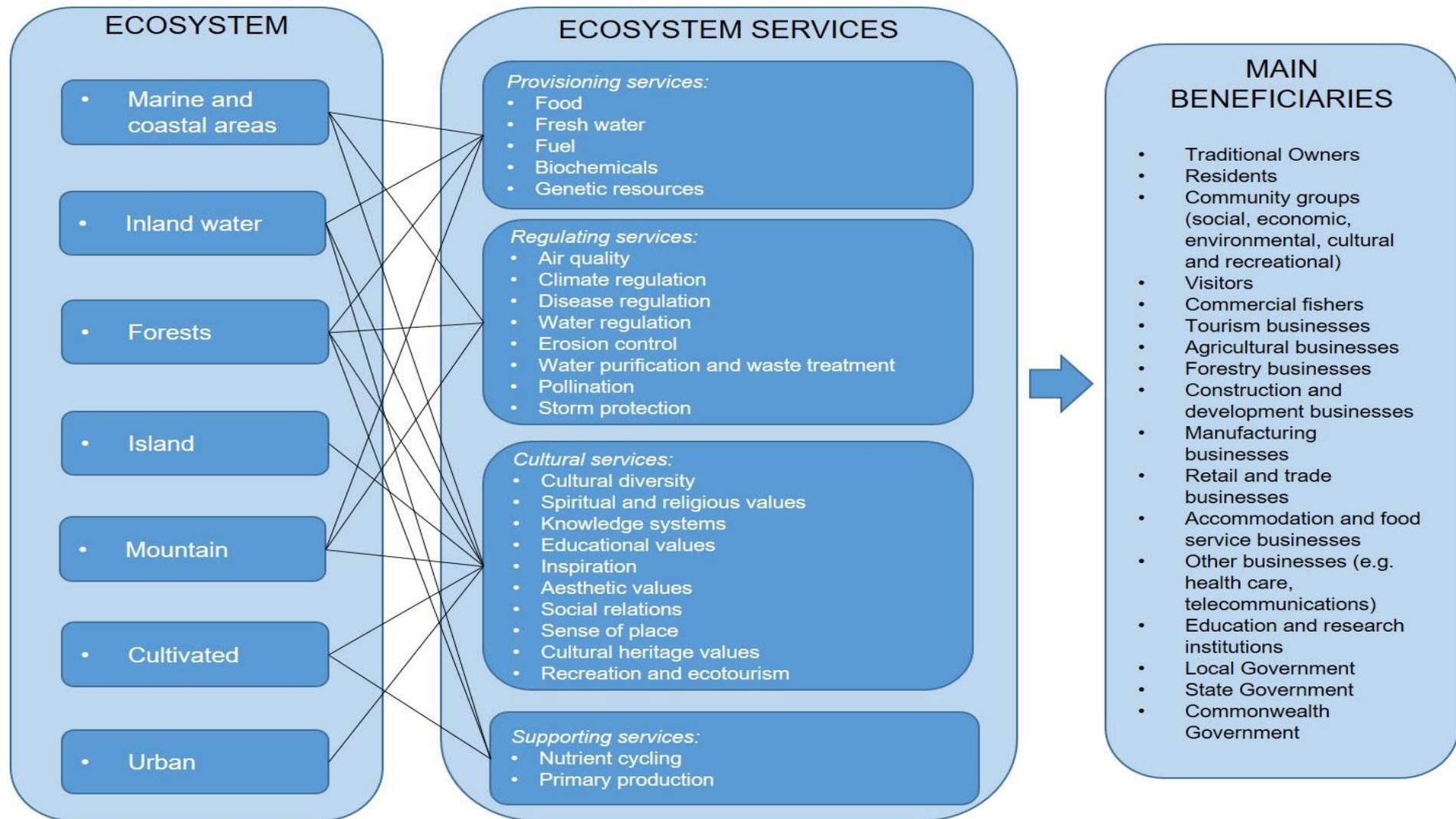


Figure 12.1: An overview of Sunshine Coast ecosystems, type of ecosystem services provided and beneficiaries.

12.2 Specify whether indicators of ecosystem services are used to evaluate the three functions (conservation, development and logistic) of biosphere reserves. If yes, which ones and give details.

'Valuing the Sunshine Coast's Natural Assets' is a Sunshine Coast Regional Council project, currently in progress, to establish an ecosystem services valuation method with indicators. This project stems from the *Environment and Liveability Strategy 2017* which identified the need for transformational action that focuses on growing the natural economy and strengthening the economic base of natural assets, distinctive landscape features and cultural experiences.

The project has commenced, and in partnership with the University of the Sunshine Coast, has undertaken preliminary background research. It is estimated the project will take approximately three years to complete.

The project objectives are to:

- Critique a range of ecosystem service valuation methods;
- Select preferred method/s in consultation with Council and other key stakeholders (to also facilitate periodical updates that ensure key messages remain current);
- Identify the direct and indirect use and non-use values of the Sunshine Coast Local Government Area's natural assets, including all biodiversity, waterways and wetlands, and coastline values across the region and across all tenures;
- Undertake an economic assessment of the identified values;
- Develop key messages to raise awareness of the realistic values of the region's natural assets;
- Develop key messages to contribute to debate and discussions regarding the region's natural assets and the importance of ongoing strategic investment;
- Determine the Council's return on investment from annual 'environment' expenditure; and
- Highlight the economic consequences of maintaining current environment management investment levels.

Council would like to gain a comprehensive understanding of the economic value of its natural assets: biodiversity, waterways and wetlands, and coastline; and cultural experiences based on a robust and defensible research and methodology. This economic value assessment will enable Council to communicate the economic value of the region's natural assets to a range of stakeholders and guide strategic investment decisions. It is anticipated that the outputs from this project will support the continued need to invest in the protection, enhancement and management of the region's natural environment by identifying the return on investment.

12.3 Describe biodiversity involved in the provision of ecosystems services in the biosphere reserve (e.g. species or groups of species involved).

The Sunshine Coast natural environment can be categorised into three main assets:

- Biodiversity (including the conservation estate across all tenures, vegetation communities and the flora and fauna for which it provides a habitat);
- Waterways and wetlands; and
- Coastline.

The region's vegetation comprises 75 different regional ecosystems that can be grouped into the six broad vegetation communities of: foredune, mangrove and saltpan, heath and wallum, melaleuca, eucalypt and rainforest. A number of these communities are considered to be critically listed flora and fauna species, including 142 rare and threatened species, some of which are endemic to the region.

The local government area has six major river catchments: Maroochy and Mooloolah Rivers; Pumicestone Passage and the northern portion of Bribie Island; the headwaters of the Mary and Upper Stanley Rivers; and a very small portion of the Noosa River catchment. These catchments vary as a mix of rural, urban and coastal landscapes, with some having very little 'natural' environment remaining and others, large conservation areas.

The Sunshine Coast has 60 kilometres of open shoreline and 70 kilometres of lower estuary foreshores including many world-class beaches and iconic rocky headlands. These environments are highly valued by locals and tourists for their cultural, ecological and recreational functions.

The species groups involved in the provision of ecosystem services are listed in Table 12.1.

Table 12.1: Groups of species associated with the provision of ecosystem services.

Flora	Fauna
Seagrass	Protozoa e.g. single celled organisms
Algae	Echinoderms e.g. starfish
Mangroves	Coelenterates e.g. jellyfish and coral
Dune vegetation	Crustaceans e.g. crabs
Riparian vegetation	Molluscs e.g. snails
Wetland vegetation	Fish e.g. marine and freshwater
Heathland vegetation	Reptiles e.g. snakes and lizards
Rainforests	Amphibians e.g. frogs
Sclerophyll forests	Birds
Native plantations	Mammals e.g. domestic and native
Exotic plantations	Arachnids e.g. spiders
Native regrowth	Insects e.g. bees, beetles, butterflies
Native and improved grasslands	

Flora	Fauna
Agricultural crops	
Vegetation in parks, along streets and in residential gardens	

12.4 Specify whether any ecosystem services assessment has been done for the proposed biosphere reserve. If yes, is this assessment used to develop the management plan?

The Queensland Government, in partnership with South East Queensland Catchments and the University of the Sunshine Coast, have developed and applied an ecosystem services framework for the whole of South East Queensland, of which the nominated biosphere is a part. It is an 'agreed' framework that serves to identify, measure and value the services of 28 ecosystems in South East Queensland using a consistent approach, and so inform natural resource management, policy and planning (Table 12.2).

Table 12.2: South East Queensland Ecosystem Services Framework - applied to South East Queensland (SEQ Ecosystem Services Framework, 2019).

Ecosystem Service Category	Ecosystem Service	Description
Provisioning services	Food products	The range of food products derived from plants, animals and microbes (including food products obtained through the recreational and commercial gathering of wild species, crops, fisheries and livestock).
	Water for consumption	The provision (retention and storage) of water for consumptive use for a variety of purposes (e.g. aquaculture, production, humans, stock, irrigation and cooling).
	Building and fibre resources	Renewable biotic resources for building and fibre materials (e.g. timber, wool, cotton).
	Fuel resources	Wood, gas and other biological materials that can serve as sources of energy.
	Genetic resources for cultivated products	The maintenance of the genetic vitality of productive cultivars (including genes and genetic information used for microbe, plant and animal breeding and biotechnology e.g. cross breeding, new cultivars).
	Biochemical, medicinal and pharmaceutical resources	Biological materials that can be used for medicines, biocides and food additives (including test and assay organisms, medical tools, drugs and specimens for students).
	Ornamental resources	Animal products such as skins, shells and flowers that can be used as ornaments (e.g. ornamental plants, souvenirs, handicraft, fashion and cultural/religious ceremonies).

Ecosystem Service Category	Ecosystem Service	Description
	Transport infrastructure	Ecosystems provide infrastructure for the transportation of people and goods (e.g. navigation on rivers, lakes and marine waters).
Regulating services	Air quality	The role of ecosystems in maintaining good air quality through the extraction of chemicals and dust from the atmosphere.
	Habitable climate	Maintenance of a favourable climate at local and global scales (temperature, precipitation, greenhouse gases) for human habitation and cultivation.
	Water quality	The role of ecosystems in the purification of water (e.g. pollution control, detoxification and waste assimilation).
	Arable land	Arable land relates to the area and extent of land capable, without much modification, of producing crops.
	Buffering against extremes	The role of ecosystems in maintaining normal situations (e.g. buffering against extreme natural events such as droughts, floods, storms, tidal waves), natural irrigation and drainage (e.g. water table regulation) that are important to the provision of safety to human life, structures and other assets.
	Pollination	The pollination of plant species (e.g. agricultural and horticultural crops).
	Reduce pests and diseases	Reduction of pests and diseases, vectors and pathogens (including the reduction of crop damage by herbivory (e.g. insects) and reducing the risk of disease to animals and humans).
	Productive soils	Maintenance of natural productive soils (e.g. soils that are chemically fertile, structurally sound and contain a high diversity and biomass of soil organisms).
Cultural services	Iconic species	Species revered as emblematic or charismatic (e.g. whales, dugongs, koalas, platypus, echidnas, wattles, bunya pine, bottle trees, macadamia, cattle).
	Cultural diversity	The diversity of landscapes is one factor that influences the range of shared and accepted values and practices common to those in a particular landscape (e.g. Traditional Owner and multicultural values and practices; rural and urban values and practices).
	Spiritual and religious values	Many ecosystems, processes and/or components are of special significance to groups of people.
	Knowledge systems	The variety of ecosystems affects the variety of knowledge systems (e.g. education, social learning and understanding) and provides the resources necessary for their generation, transmission, maintenance, adaptation and use.
	Inspiration	Ecosystems provide a rich source of inspiration for art, folklore, national symbols, architecture and personal or group motivation.
	Aesthetic values	Various aspects of ecosystems provide opportunity for aesthetic enjoyment (e.g. beauty of the landscape, smell

Ecosystem Service Category	Ecosystem Service	Description
		of the bush, sound of the surf, and the feeling of sand between the toes).
	Effect on social interactions	Ecosystems influence the types and qualities of social relationships and interactions found in a particular place.
	Sense of place	Ecosystems (particularly shared places) provide opportunities for people to develop a sense of belonging, commitment, identity and community.
	Iconic landscapes	Ecosystems provide historically or culturally significant landscapes which form part of the heritage of the area.
	Recreational opportunities	Ecosystems can provide a spectrum of leisure opportunities for such activities as tourism, sports, hunting, fishing and other outdoor pursuits.
	Therapeutic landscapes	Ecosystems provide for the restoration, maintenance, development of emotional, mental and physical health and wellbeing.

The outcomes of the South East Queensland Ecosystems Services Assessment, together with Sunshine Coast Regional Council's 'Valuing the Sunshine Coast's Natural Assets' project. Along with other projects that recognise that natural assets and the economy are inextricably linked, can be used to inform the management of the proposed biosphere. These projects will also offer an insight into how landscape scale ecosystem services transcend local government boundaries. Together, this data will facilitate a more holistic management approach.

13. MAIN OBJECTIVES FOR THE BIOSPHERE'S DESIGNATION

Sunshine Coast Regional Council has a vision to be *Australia's most sustainable region – Healthy. Smart. Creative*. The UNESCO Man and the Biosphere program aligns with this vision and sustainable development objectives in Council's existing long term strategies for the region. This alignment, the community's aspirations, and opportunities arising from pressures influencing the Sunshine Coast, are the foundation for the aim and objectives of the biosphere.

13.1 Describe the main objectives of the proposed biosphere reserve, integrating the three functions (conservation, development and logistic), presented below (sections 14 to 16), including components of biological and cultural diversity. Please specify the indirect pressures and/or organizational issues.

The aim and objectives of the biosphere have been developed from understanding:

- Pressures on the Sunshine Coast;
- How the Sunshine Coast is responding to those pressures;
- Why the Sunshine Coast wants to become a biosphere; and
- What the Sunshine Coast would like the biosphere to achieve for the region.

A clear understanding of these elements has ensured that the aim and objectives of the biosphere align with values of the Sunshine Coast as well as the three functions of the UNESCO Man and the Biosphere program.

Pressures

The Sunshine Coast has always been recognised as a desirable place to live, work and play which means the region has continued to grow and change. Pressures on the region include population growth, economic growth, climate change and technological innovation, all of which impact the health of our environment, the lifestyles we lead, and the resilience of our community.

Population growth

Population growth is predicted to increase from 328,030 (June 2019) to over 500,000 by 2041 with an expectation the population will continue to grow thereafter. This increase in population represents an average of approximately 8,000 new residents each year.

People moving to the Sunshine Coast from other parts of Australia account for over 94% of the population growth to date, a trend that is expected to continue.

Increases are likely to occur across all age groups, with the two largest cohorts being those over 65 years, and to a lesser extent, residents aged 35 to 44 years (including corresponding

children below 15 years of age). It is forecast that the Sunshine Coast will maintain an older than Queensland average age cohort even with the anticipated increases over the next 25 years.

Around 90,000 additional dwellings are likely to be needed to house these new residents, or approximately 3,600 new dwellings per year. To facilitate this growth within the Sunshine Coast's defined urban footprint it is expected people will live in more compact urban forms and within a diversity of neighbourhoods. This will change the shape of the built form in some areas of the Sunshine Coast.

Approximately 55% of the growth is forecast to occur in the emerging areas of Kawana, Caloundra South, Sippy Downs, Palmview and Beerwah East, with the balance spread throughout the defined urban footprint.

In addition to the 90,000 dwellings required for residential growth, an expanding tourism industry will require accommodation, demanding additional infrastructure, such as an integrated multi-modal transport network, responsive services, efficient and secure utilities and new local employment opportunities.

Careful planning and delivery around population growth is important, as it has the potential to adversely impact our natural environment and liveability. If managed well, increased population also provides opportunities to improve the shape of our urban form, increase access to services and facilities and create more vibrant and diverse communities.

Economic growth

The regional economy was valued at approximately \$17 billion in 2016. It is primarily based on service industries, tourism, retail and construction. The region has been recognised as having the second highest performing regional economy in Queensland with the highest level of business confidence, and in 2016 was identified by Infrastructure Australia as one of five cities that, along with the state capitals, will be a focal point for future national productivity.

By 2033, the Sunshine Coast economy is forecast to double, based on a greater diversity of business types. Industries forecast to expand include:

- Health and wellbeing;
- Education and research;
- Knowledge industries and professional services;
- Agribusiness;
- Aviation and aerospace;
- Clean technologies; and
- Tourism, sport and leisure.

At least 100,000 jobs are forecast to be created on the Sunshine Coast by 2041. This forecast trend of economic growth and diversification is expected to have a range of impacts and opportunities.

The number and diversity of buildings needed to facilitate and accommodate this growth may increase, while an expanding workforce employed across a range of occupations will require additional residential housing, driving the demand for housing diversity and affordability.

Additional infrastructure for transport, facilities, tourism and utilities (e.g. water and electricity) will also be required, along with improved services (e.g. internet and smart technology) to support new and expanding businesses.

Focusing future economic development within the Enterprise Corridor, which stretches along the coastal strip from the Sunshine Coast Airport to Caloundra South (Aura), to take advantage

of existing utilities and infrastructure, will bring specific challenges of balancing competing land uses in a coastal zone increasingly subject to climatic risks.

This increased demand for land along the coastal strip, along with a growing demand for access to natural assets, including the beaches and waterways, will add further pressure on our open space network, natural environment and access to services and facilities that underpin our lifestyle.

Careful planning and delivery around economic growth is required to ensure the healthy environment that underpins our liveability, is protected and enhanced, enabling a prosperous region built on a diverse local and global economy and our natural advantage.

Climate change

The global climate is changing (IPCC, 2014), with analysis by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) indicating that sea levels around Australia are already rising at an average rate of 3.1mm per year. The mean surface air temperature of the Sunshine Coast has increased by almost 1⁰C between 1910 and 2013.

Modelling (Clarke, Wilson and Heady, 2016) shows that over time, the Sunshine Coast will be exposed to:

- Increases in average temperatures and in the number of days per year in excess of 35°C;
- More extreme rainfall events;
- Changes in the frequency and magnitude of extreme events including cyclones, storms, droughts, heat waves and flooding;
- Rising sea level; and
- Becoming drier with total annual rainfall and soil moisture likely to decrease.

These forecast changes are expected to have an impact on both the natural environment and liveability of the Sunshine Coast.

In response, our biodiversity, habitats and ecosystems are expected to change. Studies indicate that for highly vulnerable locations across the state the potential exists for less than 10% of current native species to remain in that location by 2070 (Williams et.al, 2012). Locally, species may disappear, become extinct, move to more habitable locations both within and outside the region, and new species may migrate into the region. Biodiversity monitoring indicates that some local rainforests are already being replaced by eucalypt-dominated vegetation communities.

Water quality and natural values are likely to be impacted, affecting the amenity and recreational values of our waterways, wetlands, estuaries and coasts.

Our built environment and communities will also be exposed to the likely impacts of climate change. A greater number of extreme events may result in increased damage to buildings and infrastructure; emerging diseases, heat waves and extreme temperatures may affect public health, and community resilience may be affected by higher repair and maintenance costs, as well as changes to the insurability of homes and assets (Figure 13.1).

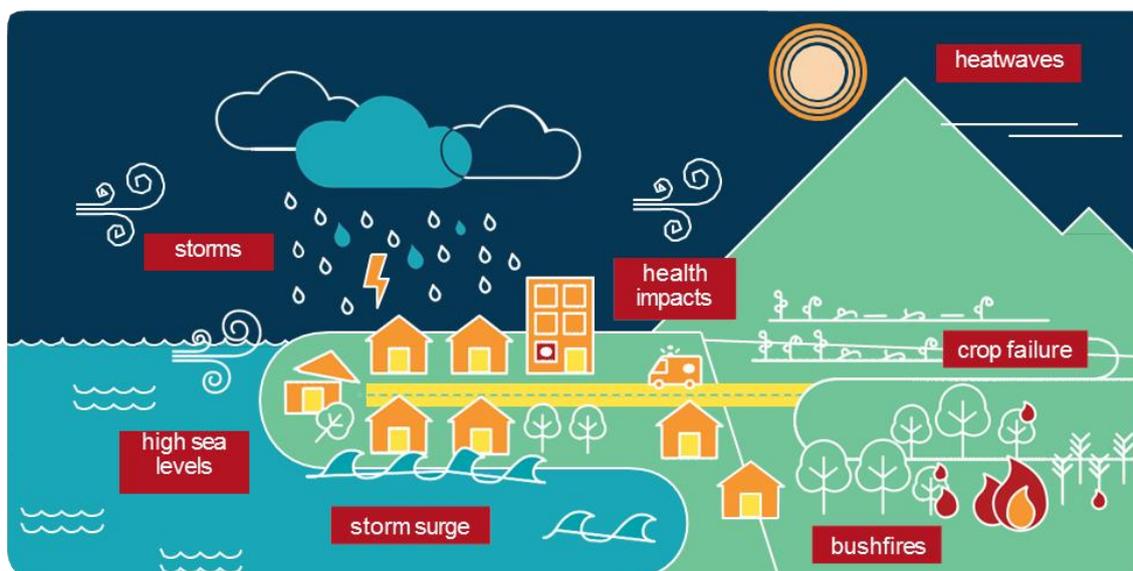


Figure 13.1: Extreme events and likely impacts of climate change (NCCARF Coast Adapt, 2017).

These impacts will compound as more people, homes and built assets are exposed to predicted hazards.

Emissions are recognised as driving climate change. As a community, the Sunshine Coast generates greenhouse gas emissions directly through the consumption of electricity and fuels, the landfilling of our wastes and the clearing of vegetation. Indirectly, emissions are generated through the services we utilise and the production, storage and transportation of the goods we use and consume, including foods.

Our region's greenhouse emissions are steadily increasing, fuelled by population growth and economic development. As an organisation, Council's own greenhouse emissions are forecast to grow as a result of additional community and industry demand for council services. Consumer choices will make a significant contribution to this total as nearly 65% of Council's emissions are generated by landfilling of community waste (Sunshine Coast Council, 2019).

It is important for the Sunshine Coast to address the predicted impacts of climate change in a progressive and responsive way, one that encourages the involvement of the whole community, and at the same time balances the needs of a growing economy and emerging industry and business sector. Climate change can also be a catalyst for driving new ideas, creative solutions, business opportunities and community action.

Technological innovation

Technology has become a critical catalyst for change, providing the capacity for innovative solutions to many of our challenges and creating new opportunities for economic growth and social change.

Technological innovation is often characterised by doing more with less and has the potential to fundamentally change the way in which we consume energy, create goods and services, diagnose and treat disease and spend our leisure time. It can provide solutions that help live, work and do business in a more sustainable way.

Current examples of transformational change driven by technology include:

- A reducing reliance on fossil fuels and a move to renewable energy sources and storage;
- Increased connectivity, both locally and globally;
- Design and construction of more sustainable buildings and homes and a reduction in waste generation; and
- Localised regeneration of plants and species.

Technological innovation has the capacity to generate change at a far greater rate than traditional drivers and the task is to acknowledge, respond to and where appropriate, adopt emerging trends. The Sunshine Coast Regional Council has demonstrated leadership by focusing on clean technologies through policy (section 15.4), implementing the Smart City program (section 15.4), facilitating an International Broadband submarine cable to position the Sunshine Coast as Australia's leading smart city region (section 15.4), creating Australia's first, high-tech, underground automated waste collection system for a central business district (section 15.4) and building a 15 megawatt solar farm. There might be further opportunity for the Sunshine Coast to continue as leaders in creating and implementing technological solutions that might be shared on a global scale.

Response to pressures and the biosphere nomination

Sunshine Coast Regional Council, since its formation in 2008, has been consulting the community about how to best respond to pressures (Figure 13.2). The community's clear and consistent message is that it is important to:

- **Retain our distinct character:** People are passionate about 'their' Sunshine Coast, and want to see the distinct qualities of our 'community of communities' and village feel retained and the natural areas preserved. Recognising the contribution made by the First Nations people and the importance of our shared history and connection with the land are also important.
- **Protect natural assets:** There is recognition that the protection, management and enhancement of our environment (plants, animals and ecosystems) and distinct landscape are fundamental to the future of the region, as is the need for protection against the loss of native vegetation and habitat, to ensure the biodiversity values of our neighbourhoods are enhanced and understood. Continuing the tradition of the coast's strong stewardship for our natural environment is strongly supported.
- **Find the balance:** The community recognise the need to find the 'sweet spot' that manages the competing needs and desires of individuals, communities, businesses and industries. It is recognised that transitioning to a more compact urban form is necessary to protect natural assets. Retention of the character, scale and lifestyle we have now is also important – creating vibrant places for people and ensuring housing opportunities for everyone. There is strong recognition that supporting infrastructure (especially transport, recreation facilities and technology) is critical to accommodate population growth and ensure our liveability.
- **Be sustainable:** Integrating 'good sustainability practices' into all we do to manage both present and future impacts and understanding the link between (and achieving) sustainability and affordability are important. Residents are embracing renewable energy and understand the importance of moving to sustainable practices. Supporting this behavioural change is considered an important role for council. Reducing litter and consumptive practices are identified as concerns. The need to be prepared for understanding the risks associated with climate change are identified as needing more attention and the community expresses an interest in being more actively involved.

- **Involve community:** It is important to the community to be involved in future decisions, seeking to be engaged regularly by Council on major issues as change occurs. Maintaining the integrity of the *Sunshine Coast Planning Scheme 2014* is also considered very important. Recognising that the community are the custodians of the Sunshine Coast's natural environment, and liveability, are also important to them.

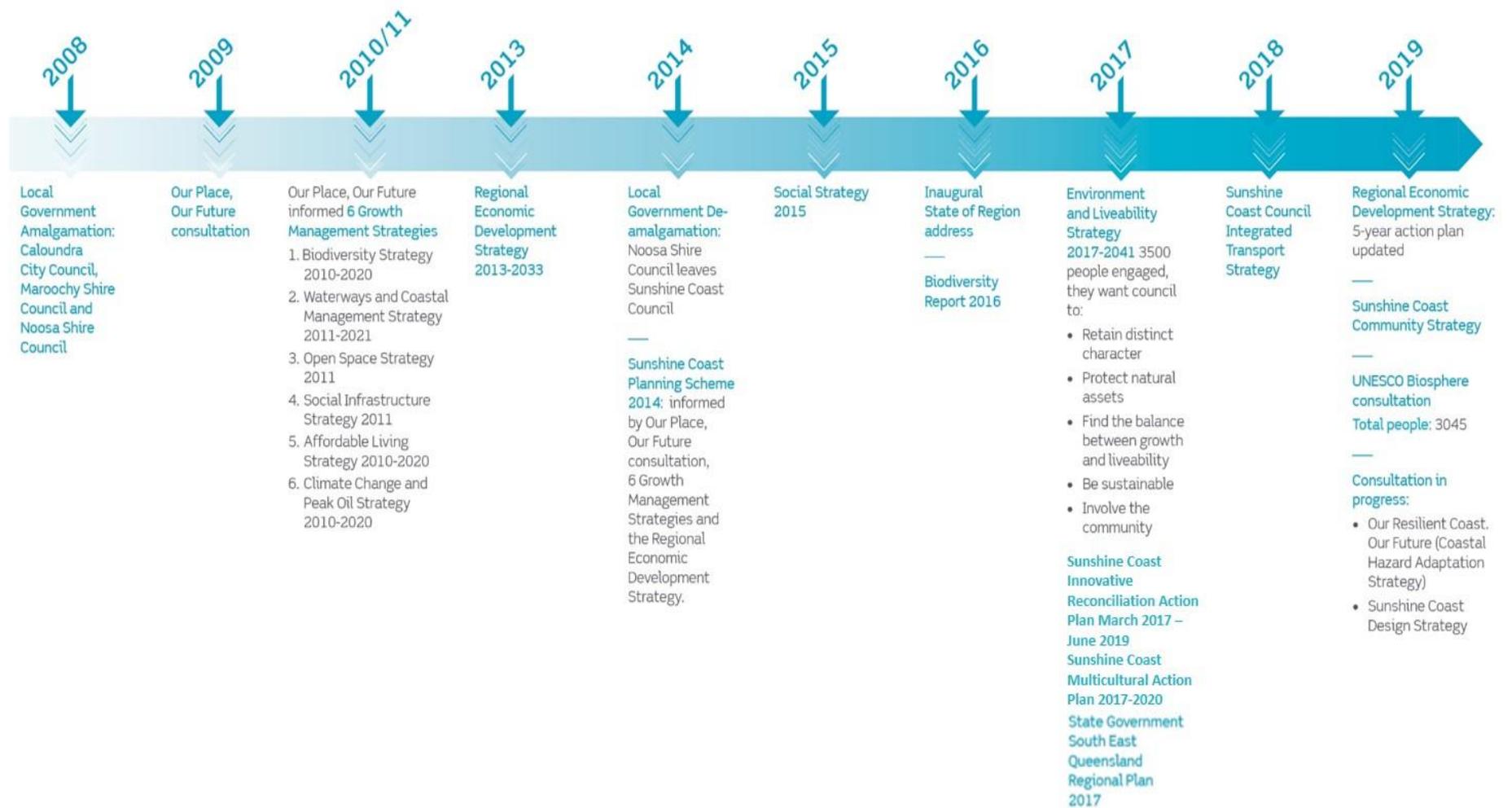


Figure 13.2: Community and key stakeholder consultation that informed the decision to submit a biosphere nomination.

In response to consistent key messages received from the community through consultation since 2008 (Figure 13.1), and as a part of Sunshine Coast Regional Council's vision to be *Australia's most sustainable region – Healthy. Smart. Creative*, Council has developed and implemented a suite of community, environment and liveability, and economic strategies and plans to guide the growth of the region to 2041 and support the vision for the region (Figure 13.3).

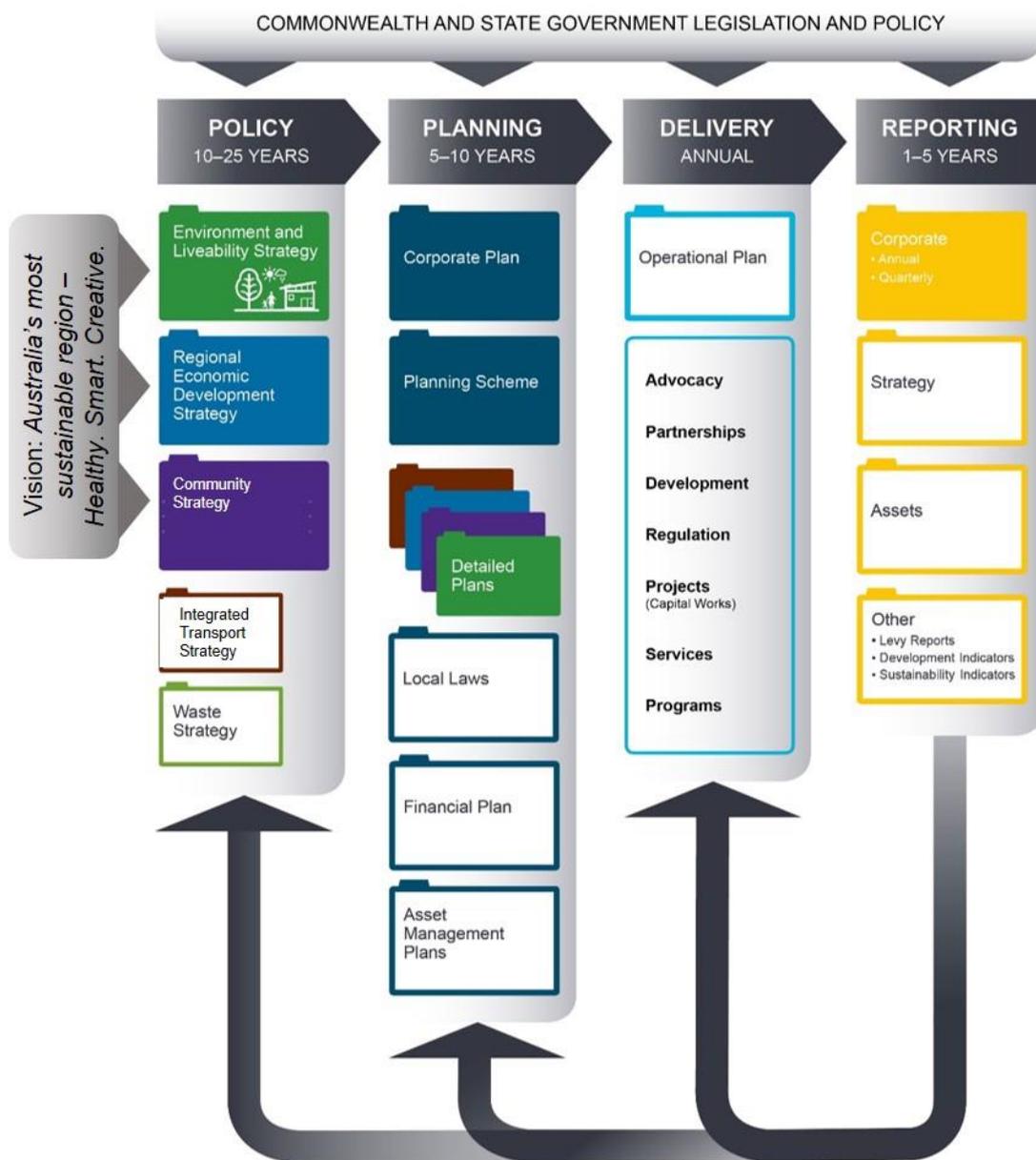


Figure 13.3: Policy and planning framework for the Sunshine Coast.

Council's three long term strategies (Figure 13.3) are the *Community Strategy 2019–2041*, the *Environment and Liveability Strategy 2017* and the *Regional Economic Development Strategy 2013–2033*. These three strategies address the triple bottom line of sustainability – people, environment and economy.

The purpose of the three long term strategies is:

- *Community Strategy 2019–2041*: Outline a framework for how our community will advance their aspirations for a strong community through to 2041;
- *Environment and Liveability Strategy 2017*: Provide long term strategic direction to shape the region by guiding growth and delivering the transformational change required to maintain a healthy environment and liveable Sunshine Coast through to 2041; and
- *Regional Economic Development Strategy 2013–2033*: Provide a vision and blueprint for sustainable economic growth that helps to ensure the region actively participates in the global economy while maintaining and enhancing lifestyle and opportunities for local residents and businesses alike.

The vision and the three long term strategies guide and influence the *Sunshine Coast Planning Scheme 2014* (Figure 13.3). The Planning Scheme, reviewed about every ten years, seeks to achieve sustainable development outcomes by addressing short and medium term priorities for sustainable growth management based on current community expectations and other considerations. The strategic intent and other components of the Planning Scheme's strategic framework (e.g. maps identifying environmental values) seek to deliver the best possible outcomes for the Sunshine Coast for both existing and future generations.

The strategic intent of the *Sunshine Coast Planning Scheme 2014* includes the following elements:

- Shaping growth and pattern of development (e.g. infill development, defined urban and rural areas);
- Priority investment areas;
- Greenspace for future generations;
- Preserving our community of communities (the landscape and character of the Sunshine Coast);
- An integrated and accessible transport system;
- Infrastructure for the future;
- Emergence of the Sunshine Coast as a modern sub-tropical coastal region; and
- Spatial concepts that include urban areas, rural residential areas, rural enterprise and landscape areas, major conservation areas, the Regional Inter-Urban Break, activity centre networks and major transport elements.

Council works in partnership with the community, business and industry and other levels of government to deliver the strategic intent in terms of managing growth, promoting economic development, providing much needed infrastructure, building community cohesion and resilience and protecting and enhancing our natural assets.

The Corporate Plan (Figure 13.3) sets the directions that Council pursue, on behalf of the community, and distributes Council's corporate responsibility and resources to implement our vision. The Corporate Plan establishes five goals that are embedded into culture and process to achieve this:

- A strong community - in all our communities, people are included, treated with respect and opportunities are available to all;
- A healthy environment - maintaining and enhancing the region's natural assets, liveability and environmental credentials;
- A smart economy - a prosperous, high-value economy of choice for business, investment and employment;

- Service excellence - positive experiences for our customers, great services to our community; and
- An outstanding organisation – high performing, innovative and customer focused organisation marked by great people, good governance and regional leadership.

The Corporate Plan also refers to priorities for the region, one being to link our community with our past, present and future. The *Sunshine Coast Reconciliation Action Plan* is advancing a shared future, with progress towards reconciliation with the region's Jinibara and Kabi Kabi First Nation peoples, and Aboriginal and Torres Strait Islander people from other First Nation groups.

Further to the policy and planning framework (Figure 13.3), Council recognised additional opportunities to establish greater levels of national and international recognition for work that has already been delivered; and, for future initiatives that raise the profile of the region's economy, tourism, research, sustainability and liveability while at the same time recognising the region's natural assets.

Council conducted a review of national and international protection mechanisms to determine how best to support its existing policy framework, and to achieve recognition and raise the profile of the region. This review identified the UNESCO Man and the Biosphere program as the most appropriate mechanism. That is, it aligns with Council's vision, supports and integrates with Council's existing policy framework and planning tools, and is a credible, well known program that offers benefits and opportunities for the region that align with community aspirations.

Council engaged the community and key stakeholders to identify their level of support for submitting a biosphere nomination and the outcomes that might be achieved as a result. Results from the consultation period indicated strong support for Council to proceed with developing a biosphere nomination for the Sunshine Coast on behalf of community and key stakeholders.

Why the Sunshine Coast wants to be a biosphere

Before developing a biosphere nomination, it was imperative that Sunshine Coast Regional Council, community and key stakeholders understood why collectively we wanted to become a biosphere. Results from the consultation period (supporting document 9) and advice received from the Biosphere Nomination Community Reference Group (supporting document 10) indicate that the Sunshine Coast wants to become a biosphere because:

- It will help to secure a liveable Sunshine Coast for current and future generations;
- International recognition, through a UNESCO Biosphere credential, will enable Sunshine Coast residents and business to leverage the benefits and opportunities that come with this;
- Being a UNESCO Biosphere will support, encourage and unite residents, industry, businesses and Council to collaborate and continue with sustainable practices;
- The biosphere will wrap around and complement our three long term strategies, to support the management of sustainable growth while maintaining the region's liveability into the future; and
- The UNESCO Biosphere program will provide third party, independent recognition and validation that collectively residents, industry, businesses and Council are progressing toward achieving our vision – to become *Australia's most sustainable region – Healthy. Smart. Creative.*

Knowing why the Sunshine Coast wants to become a biosphere has provided clarity around what we want to achieve when implementing and managing the biosphere in the future.

What the Sunshine Coast wants the biosphere to do

The Sunshine Coast community, key stakeholders and Council have a shared vision for the future of the Sunshine Coast. Collectively, we want to be a more sustainable region (Figure 13.2).

This vision encompasses the four pillars of sustainability; people, environment, economy and culture. It also recognises that the four pillars need to be balanced, integrated, leverage off each other and that collaboration and innovation are key to achieving this. The Sunshine Coast wants to be a biosphere to assist and support our region to achieve our vision for our future (Figure 13.4).

Vision for the Sunshine Coast:

Australia's most sustainable region – Healthy. Smart. Creative.

In the future, the distinctive natural landscape and character of the Sunshine Coast has been retained and travelling north from Brisbane, the green inter-urban break and lush food bowl welcomes you.

The rich biodiversity, pristine waterways and beaches and the majestic Glass House Mountains are defining features. The rivers, creeks, beaches and the ocean are places for safe and healthy experiences to connect with nature and refresh. The plants and animals thrive and have adapted to the changing conditions we are experiencing, retaining a natural and healthy state.

Corridors of green connect the Coast's rich biodiversity to our neighbourhoods and green fingers (strips of nature) connect our neighbourhoods and people. Living in vertical neighbourhoods in our centres and along public transit corridors, cascading down to medium and low density neighbourhoods and towns mixed with pockets of rural residential and rural living, there is housing choice for all. The Sunshine Coast architectural style has matured into a model for sustainable and subtropical design excellence, renowned around the world.

Getting around on the Sunshine Coast is supported by an effective and efficient network of active and contemporary public transport systems linking the hinterland to the coast and supporting key employment, education and tourist hubs.

Neighbourhoods operate in self-contained models with energy and food resources sourced locally, providing access to facilities and services, reducing car travel and increasing cycle and walking opportunities, keeping us active and healthy. Streets are places for people and for supporting local enterprises and businesses and creating vibrant spaces and places for community and economic activity.

Affordable living options give everyone a home, and generations live together supporting each other. Everyone is welcome. It is an age, family friendly and safe place to live.

Opportunities to work from home or close to home improve work life balance and support stronger social connections and collaboration. A strong local economy gives residents employment opportunities based around sustainable industries and technologies.

Vibrant public spaces and places host a wide variety and diverse range of activities – keeping healthy and creative communities alive. Community gardens, street markets and community events demonstrate the commitment of residents to create and buy locally, strengthening the region's liveability and sustainability.

The warmer climate and more frequent extreme weather events have been planned for and community responsiveness and resilience are now part of the local culture. The environment and community are able to absorb change, manage major events and bounce forward to a stronger, resilient state.

Local energy sources are integral to the landscape and landfill stations are now powerful economic hubs for composting, recycling and generating energy. As a leader in sustainability, the greenhouse gas emissions on the Sunshine Coast are the lowest in the southern hemisphere.

International and interstate visitors keep returning to enjoy the strong connection to nature and to experience the relaxed local culture. Major sporting events showcase the region's attributes and regularly host competitors, spectators, families and friends. Local food production, creative industries and nature based activities are key features of the region.

As a region of choice, a good quality of life is enjoyed by all residents.

Figure 13.4: Community and key stakeholder vision for the future of the Sunshine Coast.

To develop the aim and objectives of the biosphere, it is necessary to understand the pressures the Sunshine Coast is experiencing, how we are responding, why the Sunshine Coast wants to be a biosphere and what we want the biosphere to achieve.

Proposed biosphere aim and objectives

Community and key stakeholder feedback during the consultation process, advice from the Biosphere Nomination Community Reference Group as well as UNESCO Man and the Biosphere functions, have been used to develop the aim and objectives for biosphere operation and management (Figure 13.5).

The aim and objectives are written from the perspective of the community and designed to align with Council's vision and policy.

Governing Principle: Balancing the environmental, social, cultural and economic needs of today, without compromising the ability to meet the needs of future generations.

Aim: The Sunshine Coast Biosphere will be internationally renowned as a place where people live, learn, work and play sustainably.

Objective 1: People – A Sunshine Coast community that actively fosters and promotes sustainable practices, use and stewardship.

Focus areas include:

- Increasing options for, and encouraging sustainable choices and actions, in everything we do.
- Mobilising the significant “will” within the community for active participation and involvement.
- Encouraging and facilitating our communities to work collectively towards a healthy, liveable and sustainable Sunshine Coast.
- Protecting, sharing and celebrating the cultural heritage of our communities.
- Improving connectedness within and between our ‘community of communities’.
- Celebrating and recognising the values, actions and achievements of our sustainability journey, and acknowledging contributions that inspire ongoing action.
- Reducing greenhouse gas emissions and improving the resilience of people and infrastructure to the impacts of climate change.

Objective 2: Conservation – Conserving, maintaining and enhancing our natural environment from the hinterland to the coast, and connecting people and nature.

Focus areas include:

- Recognising, increasing understanding, strengthening and communicating the significance of the intrinsic and ecosystem service values of our diverse natural assets.
- Enhancing the condition and capacity of the natural environment to continue to provide essential services.
- Maintaining and enhancing the extent of Regional Ecosystems that underpin our significant terrestrial, waterway, marine and coastal biological diversity.
- Facilitating opportunities for Indigenous leadership and knowledge sharing for improved conservation outcomes.
- Encouraging community connections with and stewardship of our land and sea scapes.

Objective 3: Development - Demonstrating leadership in delivering a diverse and resilient economy.

Focus areas include:

- Promoting the attraction and development of high-value industries that are critical to strengthening the region's economy and supporting our region's sustainability journey.
- Recognising and promoting the region as a location where high-value products and innovative services are produced, delivered and exported in a way that reflects and is consistent with the region's values.
- Acknowledging and enhancing the land and sea that supports and leverages sustainable agriculture, forestry and fisheries as important parts of a stronger and more resilient economy, and the character of the Sunshine Coast.
- Promoting and encouraging the establishment of premium and sustainable nature-based and cultural tourism experiences that celebrate people, culture and nature.
- Encouraging responsible and sustainable development that contributes positively to our economy and community, while supporting affordable living outcomes.
- Promoting an integrated transport network that enhances connectivity, accessibility, economic performance and supports the retention and improvement of our region's environment and liveability.
- Creating an investment environment and infrastructure that supports and attracts business, including digital industries and sustainable technologies, which align with Biosphere ideals.

Objective 4: Logistical support – Inspiring and celebrating creativity, innovation, research and a learning community.

Focus areas include:

- Maintaining a future focus, with a commitment to youth involvement and the continuous improvement of our healthy, smart, creative region.
- Fostering a culture of collaboration between schools, academia, industry, business, community and government on issues and projects that enhance understanding, liveability, creativity and sustainable outcomes.
- Demonstrating leadership in the development of local solutions to current and emerging sustainability challenges and opportunities, and sharing them globally.
- Positioning the Sunshine Coast globally as a demonstration of excellence in balanced sustainability that actively contributes to strengthening the world network of Biospheres.

Figure 13.5: Aim and objectives for the operation and management of the biosphere.

How the aim and objectives will be used

The aim and objectives are statements of intent that set out what the biosphere hopes to achieve. They will be used to inform and guide the development of a biosphere management framework as well as a performance measurement framework which will have indicators to measure, monitor and track the progress of sustainability outcomes on the Sunshine Coast. It is expected that once a management framework and governance structure for the biosphere has been developed, these aims and objectives could be further refined.

13.2 Describe the sustainable development objectives of the biosphere reserve. (If appropriate, please refer to Agenda 21, Rio+20 and SDG post 2015).

The UNESCO Man and the Biosphere program is an overarching mechanism that aligns with the Sunshine Coast existing vision, to be *Australia's most sustainable region – Healthy. Smart. Creative.*

It also aligns with outcomes, targets, policy directions and actions within Sunshine Coast Regional Council's three long term strategies (Figure 13.6) that address sustainable development for the region.

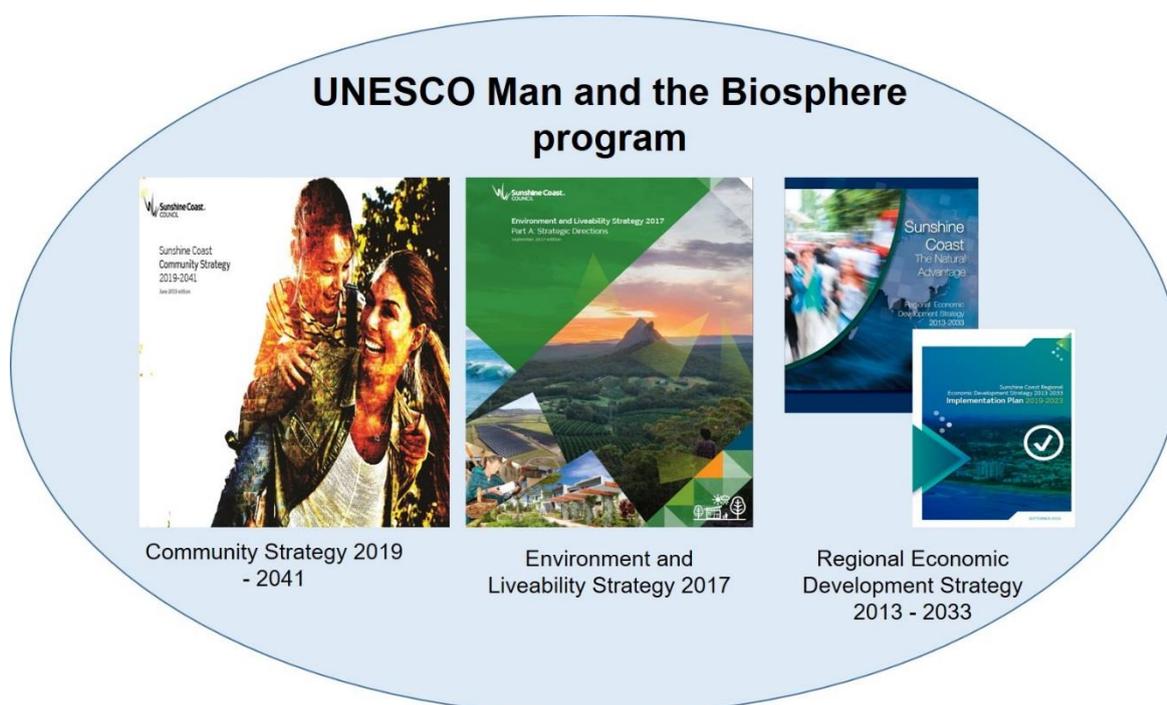


Figure 13.6: Alignment with existing Sunshine Coast three long term strategies; the Community Strategy 2019–2041, Environment and Liveability Strategy 2017 and Regional Economic Development Strategy 2013–2033.

Therefore, the sustainable development objectives for the proposed biosphere lie within Sunshine Coast Regional Council's long term strategies. An overview of three long term strategy objectives is presented in Table 13.1.

Table 13.1: Objectives of Sunshine Coast Council's long term strategies.

Overview of long term strategy	Objectives
<p>Sunshine Coast Community Strategy 2019-2041</p> <p>The recently adopted <i>Sunshine Coast Community Strategy 2019-2041</i> has a 20 year vision that ensures the Sunshine Coast continues to grow as a strong community.</p> <p>During the first phase of community engagement in late 2018, Council asked the people what a strong community means to them.</p> <p>Shaped by feedback, the Community Strategy outlines a framework for how our community will advance as a strong community through to 2041.</p> <p>The draft version of the <i>Sunshine Coast Community Strategy 2019–2041</i> can be viewed at https://haveyoursay.sunshinecoast.qld.gov.au/draft-community-strategy.</p>	<ul style="list-style-type: none"> • Strengthen connection, inclusion and opportunity for all people in our communities; • Build the capacity of the community to respond to local issues; • Ensure that community places and spaces are inclusive, accessible, adaptable and meet the needs of people of all ages, abilities and backgrounds; • Empower the community to live healthy, active and engaged lifestyles; • Nurture creativity and innovation; and • Work with our community (and our partners) to measure outcomes and report progress regularly.
<p>Sunshine Coast Environment and Liveability Strategy 2017</p> <p>There are many challenges and opportunities in this rapidly changing world for the Sunshine Coast way of life – increasing population, changing climate, economic growth and emerging technologies.</p> <p>Identifying these for the next 25 years, means the strategy can set a course for proactive action through the setting of policy positions, targets and identification of transformational actions.</p> <p>The Sunshine Coast <i>Environment and Liveability Strategy 2017</i> can be viewed at https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Regional-Strategies/Environment-and-Liveability-Strategy-2017.</p>	<ul style="list-style-type: none"> • Maintain and nurture our natural environment; • Respond to the challenge of population growth; • Build resilience against the potential impacts of climate change; • Create liveable spaces and places to live, work and play; • Drive renewable energy, efficiency and technical know-how; and • Live up to the expectations of future generations.
<p>Regional Economic Development Strategy 2013-2033</p> <p>Working with leading business, industry and university representatives and the Queensland Government, this strategy outlines a comprehensive agenda to improve the resilience and strength of the regional economy and position the Sunshine Coast as one of Australia's leading city regions.</p> <p>The <i>Regional Economic Development Strategy 2013–2033</i> can be viewed at https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Regional-Strategies/Regional-Economic-Development-Strategy-2013-to-2033.</p>	<ul style="list-style-type: none"> • Greater stability to the regional economy in terms of a broader industry and investment base; • Generate investor confidence so the region and businesses are geared to respond to demand from a wider market place; • Provide employment opportunities locally and enable the region to acquire the talent and skills to respond to the workforce demands of the New Economy;

Overview of long term strategy	Objectives
<p>The <i>Regional Economic Development Strategy Implementation Plan 2019 – 2023</i> can be viewed at https://invest.sunshinecoast.qld.gov.au/Economic-Strategy/REDS-Implementation-Plan-2019</p>	<ul style="list-style-type: none"> • Achieve sustainability of the region’s economy, community, environment and lifestyle; and • The 2033 goals are: <ul style="list-style-type: none"> ○ A \$33 billion economy; ○ 20% of goods and services produced for export outside the region; ○ High value industries provide at least 100,000 employment opportunities; and ○ Household income levels above the state average.

In addition to the Council’s three long term strategies, there are additional strategies (Figure 13.2) that aim to support the delivery of sustainable development. For example:

Sunshine Coast Integrated Transport Strategy

Adopted in 2018, this strategy outlines the policy direction for transport in the region. It responds to the challenges and opportunities by focusing on achieving a connected, smart, integrated, safe and efficient transport system that services and supports a rapidly growing Sunshine Coast.

The Sunshine Coast Integrated Transport Strategy intends to:

- Support economic development;
- Respond to new growth areas and trends;
- Balance the consideration of all modes of transport;
- Respond to emerging technologies and business models such a ride sharing, car sharing, autonomous vehicles and big data;
- Advocate and apply a one network approach;
- Align with relevant strategic policy and planning documents;
- Update data, analysis and projections and identify system performance indicators for tracking and decision-making;
- Be an effective information and advocacy tool for Council and the community; and
- Reduce adverse environmental impacts through a lower carbon transport system.

Sunshine Coast Waste Strategy 2015–2025

This strategy has been developed to shape Council’s future waste management infrastructure needs and develop strong resource recovery markets. It aims to ensure that this essential community service remains both cost effective and customer focused while protecting the health of the public and the natural environment. Goals and actions in the strategy include:

- An initial research and development phase including;
 - Review of current and emerging alternate waste technology / treatment systems; and
 - Delivery of innovative, financially viable 21st century waste infrastructure for future generations that will support projected growth and deliver landfill diversion targets.
- Construction of a new Resource Recovery Centre at Nambour;
- Expansion of waste and recycling collection services to cover >95% of the region's premises;
- Adopting an advocacy role for Producer Responsibility and introduction of a Container Deposit Scheme in Queensland;
- Continuing to work with and engage our community to help change personal behaviours; and
- Continuing to trial and introduce initiatives to increase recycling rates, reduce organics disposal to landfill and increase landfill diversion.

Alignment of long term strategies with Sustainable Development Goals

In Australia, our social and economic systems generally provide social protection and a relatively high standard quality of life. Our legislation and practices generally support a healthy and sustainable environment. It is recognised that there are many within our community who are disadvantaged economically, and that there are significant pressures on our natural and built environments now and in to the future.

A high level assessment (Table 13.2), based on policy direction, goals, outcomes, targets and actions in each of the existing long term strategies, shows how the strategies address the Sustainable Development Goals (SDG).

Council's strategies contribute to all of the Sustainable Development Goals. Contribution is stronger to some goals than others (Table 13.2). Where contribution is weakest, it is generally because the State or Commonwealth Government addresses this Sustainable Development Goal as it is their role. For example, the Queensland Government's Department of Justice and Attorney-General works towards justice for Queensland residents through safe, fair and responsible community outcomes while Seqwater and Unitywater, statutory authorities under the Queensland Government, are responsible for supplying clean water.

At the time of completing this proposal the *Community Strategy 2019–2041* was not yet complete. Alignment with Sustainable Development Goals may change in the future.

Table 13.2: Link between Sunshine Coast Regional Council Strategies and Sustainable Development Goals.

Key to strength of contribution		
Contributes	Moderately addresses SDG	Strongly addresses SDG

Assessment results

Sustainable Development Goals	Council policies and strength of alignment to SDGs		
	<i>Draft Sunshine Coast Community Strategy 2019–2041</i>	<i>Environment and Liveability Strategy 2017</i>	<i>Regional Economic Development Strategy 2013-2033</i>
No poverty			
Zero hunger			
Good health and well-being			
Quality education			
Gender equality			
Clean water and sanitation			
Affordable and clean energy			
Decent work and economic growth			
Industry, innovation and infrastructure			
Reduce inequities			
Sustainable cities and communities			
Responsible consumption and production			
Climate action			
Life below water			
Life on land			
Peace, justice and strong institutions			
Partnerships for the Goals			

13.3 Indicate the main stakeholders involved in the management of the biosphere reserve.

The main stakeholders involved in the management of the biosphere include government agencies, peak bodies and organisations with environmental, social, economic, cultural, education and research interests (Table 13.3).

Table 13.3: Main stakeholders involved in the management of the biosphere, their role and associated biosphere areas.

Main stakeholders	Role in the management of the proposed biosphere	Relevant biosphere area
Traditional Owners		
Traditional Owners (Jinibara and Kabi Kabi First Nations)	Kabi Kabi and Jinibara Peoples are the Traditional Owners and custodians of the Sunshine Coast who have cultural, spiritual, social and economic connections and responsibilities to their traditional lands.	All nominated biosphere areas according to each group's traditional country.
Government		
Commonwealth Government Department of Environment and Energy	Designs and implements Australian Government policy and programs to protect and conserve the environment, water and heritage, promote climate action, and provide adequate, reliable and affordable energy.	Protect and Enhance (marine and terrestrial); Special Manage and Care (marine and terrestrial); Manage and Care (marine).
Queensland Government Department of Environment and Science	Responsible for environmental planning and protection policy, pollution and waste management, marine and national park management, science strategy, and arts policy and programs.	Protect and Enhance (marine and terrestrial); Special Manage and Care (marine and terrestrial).
Queensland Government Department of State Development, Manufacturing, Infrastructure and Planning	Responsible for state development, manufacturing, economic development, urban growth, programs for priority industry sectors, and the recovery and reconstruction following natural disaster events.	Live and Work.
Queensland Government Department of Innovation, Tourism Industry Development and Commonwealth Games	Responsible for tourism development and promotion, major events, innovation policy, strategy and programs, and the Commonwealth Games.	Live and Work.
Queensland Government Agriculture and Fisheries	Responsible for the agriculture, fisheries and forestry industries, including the provision of agricultural research, development and extension for the management of biological, animal welfare and product integrity risks.	Manage and Care (marine and terrestrial).

Main stakeholders	Role in the management of the proposed biosphere	Relevant biosphere area
Sunshine Coast Regional Council	Provides a forum as the local government for local decision making and assists to deliver Queensland Government priorities on a local and regional level.	Protect and Enhance (terrestrial); Special Manage and Care (terrestrial); Manage and Care (terrestrial); Live and Work.
Education and Research		
University of the Sunshine Coast (USC)	Main university in the proposed biosphere and works in collaboration with other organisations, groups and universities to deliver research, monitoring and education services. More information can be viewed at https://www.usc.edu.au/ .	All nominated biosphere areas.
Environmental		
Sunshine Coast Environment Council (SCEC)	Peak environmental advocacy group protecting the Sunshine Coast for 40 years. Advocate for better environmental policy, support local groups on campaigns to protect our natural landscape and marine environments, and encourage action on climate change through education and community engagement. More information can be viewed at https://www.scec.org.au/ .	All nominated biosphere areas.
Take Action for Pumicestone Passage	A community group based on the Sunshine Coast who aim to protect the beautiful environment of the Pumicestone Passage (which includes Ramsar). More information can be viewed at https://takeactionpumicestonepassage.com.au/	All biosphere areas with a focus on Marine Protect and Enhance, and Marine Special Manage and Care .
Economic		
Visit Sunshine Coast (VSC)	Not-for-profit, membership based, destination marketing organisation whose role is to lead the management and development of tourism on the Sunshine Coast. As the Regional Tourism Organisation (RTO), Visit Sunshine Coast is responsible for a geographical area that encompasses the Glass House Mountains in the south, to Rainbow Beach in the north and hinterland and Mary Valley to the west and includes three council regions - Sunshine Coast, Noosa and Gympie. More information can be viewed at http://www.visitsunshinecoast.com/Corporate/About-us .	All nominated biosphere areas.
Food and Agribusiness Network (FAN)	Food and agribusiness cluster, currently encompassing the Sunshine Coast, Gympie, Noosa and Moreton Bay. FAN is the conduit for communication, collaboration and co-operation, promoting knowledge acquisition and sharing amongst members and the broader industry. FAN also advocate for the development of food and agribusiness for the	Manage and Care (terrestrial).

Main stakeholders	Role in the management of the proposed biosphere	Relevant biosphere area
	region. More information can be viewed at https://foodagribusiness.org.au/ .	
HQ Plantations	A company who lease land from the Queensland Government for forestry purposes. They sustainably manage plantations that produce timber that supports both domestic and export industries. HQPlantations also protect native forests which provide a range of conservation, recreation and community values.	Manage and Care (terrestrial).
Urban Development Institute of Australia - Queensland, Sunshine Coast Branch (UDIA)	Peak body for the property development industry whose members are property development professionals, and their business is building communities. More information can be viewed at http://www.udiaqld.com.au/About-Us/Regional-Branched/Sunshine-Coast/Sunshine-Coast-Branch-Overview .	Live and Work.
Social		
Organisation Sunshine Coast Association of Residents (OSCAR)	A non-partisan and not-for-profit umbrella/peak organisation covering resident and community organisations on the Sunshine Coast. More information can be viewed at https://www.oscar.org.au/ .	Live and Work.
Speak Up and Engage Youth Advisory Council	The youth engagement and development program for 12 -24 year olds is about giving young people a voice. Some members are from a range of schools and educational institutions. More information can be viewed at https://www.sunshinecoast.qld.gov.au/sitecore/content/Global-Content/News/Council-TV/Speak-Up-Engage-Youth-Engagement-Team-161117 .	All nominated biosphere areas.

13.4 What consultation procedure was used for designing the biosphere reserve?

The proposal for the Sunshine Coast Regional Council to lead a UNESCO Biosphere nomination, for the local government area, and on behalf of the community, was considered by Council at the Ordinary Meeting, 28 March 2019. Council resolved to proceed with the proposed nomination by taking it to community consultation (OM19/40).

A media launch of the proposed nomination and preliminary discussions with key stakeholders began 22 March. The formal community consultation program commenced 29 March and closed 28 June 2019 at 5pm. Engagement with key stakeholder groups continued through July 2019 and will remain ongoing.

During the consultation period the Sunshine Coast community and key stakeholders were asked:

1. Do you support Sunshine Coast Regional Council leading a UNESCO Biosphere nomination on behalf of community?

2. Is the UNESCO Biosphere program a good fit for the Sunshine Coast Regional Council area?
3. Does the draft biosphere map need adjusting and if so, why and how?
4. Do the draft governance principles need adjusting and if so, why and how?
5. What are the benefits, opportunities, challenges or risks (perceived or real) associated with achieving a UNESCO Biosphere credential?

A wide range of consultation tools and activities were used to seek answers to these questions and to understand the community's thoughts on the proposed biosphere nomination (Table 13.4).

In summary, there were:

- 89 external engagement activities;
- 3,045 people connected face-to-face in conversations with staff and councillors;
- 609 surveys submitted; and
- 83% of survey responses supportive of the proposed nomination.

Table 13.4: Overview of engagement activities.

Consultation Tool/Activity	Total
Surveys completed	609
Face-to-face engagement (detailed below)	3045
Community and Business Focus Group	1 meeting 20 attendees from 15 organisations
Queensland Government Focus Group	1 meeting 11 attendees from 8 departments
Presentation to Council Advisory Groups (Youth – Speak Up and Engage group)	1 presentation 11 people engaged
Presentations at conferences/events	3 presentations 165 people
Briefings to external organisations e.g. State Agencies, Community Groups, Environment Groups, Sunshine Coast University	26 briefings 231 people engaged
Briefings to businesses and peak business groups e.g. Development industry, Food and Agriculture industry, Tourism industry	22 briefings 93 people engaged
Attendance at events, displays and expos e.g. Sunshine Coast Agriculture Show, Cleantech conference, World Environment Day	17 occasions 2514 people
Photobooth and table drawings at community events (both activities displayed messages, chosen by participants, that indicated their feedback about the biosphere)	256 groups of people displayed messages in photos (at 2 events) 19 sheets of table drawings and messages (at 6 events)
Citizen science at Doonan Open Day	35 pieces of information contributed

Consultation Tool/Activity	Total
	52 people engaged
Media activity (detailed below)	
Media releases	4 releases
Media stories	12 stories
Media paid advertising	7 print adverts multiple TV adverts repeated multiple radio adverts repeated cinema advertisements at 3 cinemas repeated
Social media stories (Facebook, Twitter, LinkedIn, YouTube)	7 in total 3 Facebook posts
Social media - Facebook comments	71 comments top audience: women aged 35-44 years
Other engagement channels	
Biosphere 'Have Your Say' website hits	1,800+
Phone enquiries	3
Email enquiries	3
Councillor conversations	1
Submissions received	12
Internal staff engagement Attendance at branch meetings and informal staff walk around office buildings	6 branch sessions - 85 staff walk around office - 40 staff

The proposed nomination was well received by the community, business and government as an opportunity to protect and enhance liveability, natural assets, the local economy and the community across the region.

Feedback collected from the consultation process was gathered, analysed and presented in a report giving an overview of each activity conducted during the public consultation period and a summary of the key issues identified (refer to attached Consultation Activities Report in supporting document 9). The report was presented to Council who provided direction to proceed with developing this nomination.

Community Reference Group, was formed to provide further advice for the development of the nomination. An independent chair, who represented community, environment and economy, was appointed and representatives from the main stakeholder groups (Table 13.3) and Sunshine Coast Councillors formed the body of standing members (supporting document 10). The Queensland and Commonwealth Government agencies, HQ Plantations as well as Kabi Kabi and Jinibara First Nations People were engaged in a parallel process to develop the nomination.

13.5 How will stakeholder involvement in implementing and managing the biosphere reserve be fostered?

Sunshine Coast residents and visitors will continue to be engaged through activities, media and events that communicate key messages and encourage involvement in implementing projects. Effective and targeted communication tools will be key to fostering engagement.

A Community Reference Group, similar to the group who advised the development of the nomination, will continue to provide advice about governance and management should this nomination be successful (section 17).

Governance will be inclusive to allow different community and key stakeholders to be involved in a way that appeals to them. It is likely that a number of partnerships will be needed to implement biosphere projects. For example, young people want to be leading trends, especially in the technological realm. They may prefer to engage with the biosphere through technological tools that support them in developing local solutions and share learnings globally.

Traditional Owners have been explicit about their priorities involving the biosphere. The Kabi Kabi people have a priority to establish a Ranger Program while the Jinibara people have a priority for eco-cultural tourism opportunities.

13.6 What are the expected main sources of resources (financial, material and human) to implement the objectives of the biosphere reserve and projects within it? (Please provide formal commitments and engagements.)

It is expected that biosphere projects will be resourced and delivered in a number of ways including:

- Sunshine Coast Regional Council and key stakeholder existing and planned projects that have allocated resources and funds, and align with the aim and objectives of the biosphere;
- New Council, key stakeholder or biosphere projects, that will gain funding and resources through partnership arrangements, grants, Council budget allocations or other sources; and
- In-kind contributions from the wider community and key stakeholders.

Council supports the region achieving biosphere status and intends to provide resources and funding to facilitate administration of the governance group/s (section 17).

14. CONSERVATION FUNCTION

The Sunshine Coast draws ecological riches from its tropical north and temperate south, and from coastal waters and lowlands up through hinterland ranges. Despite ongoing and intensifying development, our terrestrial and aquatic habitats remain diverse and extensive and support iconic, regionally and nationally significant plants and animals.

As stewards, the Sunshine Coast community strive to savour, share and preserve these natural riches. We face significant and escalating challenges from population growth and climate change, and we have the vision, regulatory framework and well-resourced and collaborative conservation programs to succeed.

14.1. At the level of landscapes and ecosystems (including soils, water and climate).

14.1.1 Describe and give the location of ecosystems and/or land cover types of the biosphere reserve.

The Sunshine Coast lies within a subtropical climate zone that has enabled temperate flora and fauna species to reach their northern extents and tropical flora and fauna species to reach their southern extents. The region sustains a unique and diverse ecosystem and species assemblage, including many regionally-endemic species (Burbidge, 1960). Our climate and geology have combined to create a roughly east-west gradient of environmental zones including:

- Coastal dune communities, featuring casuarinas and pandanus, and estuarine mangrove, saltmarsh and casuarina habitats;
- Melaleuca, wallum heath, eucalypt and lowland rainforest areas across the low-lying coastal floodplains of the Maroochy and Mooloolah Rivers and the Pumicestone Passage;
- Central foothills between the coastal plains and a north-south ridgeline bisecting the region, supporting predominantly eucalypt and rainforest vegetation communities; and
- Western ranges of the hinterland, where eucalypt and rainforests dominate, cradling the lower-lying Mary River Valley, which has been predominantly cleared for agriculture (Figure 11.1).

Some of these ecosystems are iconic. For example:

- The big scrub which are lowland rainforests (called the big scrub) of sub-tropical Australia, originally found between Bundaberg to the north through to Byron Bay in northern New South Wales;
- Melaleuca and casuarina woodlands on the coastal plains; and
- Wallum heath, within the Sunshine Coast-Noosa Wallum Corridor.

Within those broader environmental zones, the Sunshine Coast has 75 mapped terrestrial, freshwater and tidal vegetated ecosystem types (regional ecosystems) (section 11.6) spanning 92,900 hectares or 41% of the region. These are grouped into six broad vegetation communities:

1. Foredunes;
2. Mangroves and saltmarsh;
3. Heath and wallum;
4. Melaleuca and casuarina (paperbarks and sheoaks);
5. Eucalypts (gums) – the most diverse community, including 36 different types of wet and dry and open and closed ecosystems, collectively, two-thirds of the Sunshine Coast's remnant vegetation; and
6. Rainforest (notophyll vine forests).

The foredune, mangrove and saltmarsh, heath and wallum and melaleuca and casuarina communities are more limited in area, occurring mostly along the coastline and eastern coastal plains. The eucalypt and rainforest communities are more widely distributed from the coastal midlands, up and across the central and western ranges (Figure 14.1).

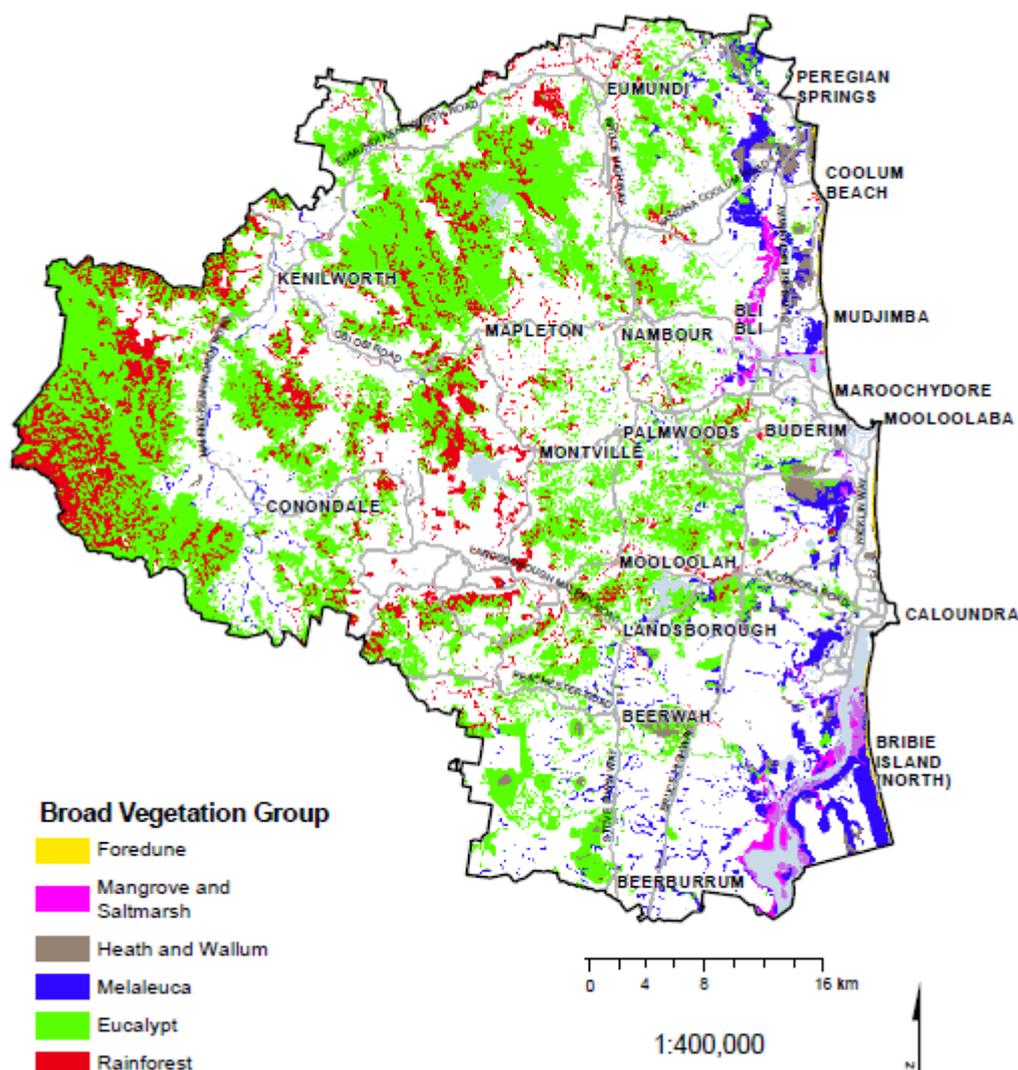


Figure 14.1: Sunshine Coast vegetation communities (Sunshine Coast Council, 2016).

The region's 60 kilometres of open shoreline and 70 kilometres of lower estuaries supports a range of additional ecosystem types, including beaches, dunes, rocky shores, coastal lagoons, estuarine and nearshore marine waters, and rocky and sandy inter-tidal and sub-tidal habitats.

14.1.2 Describe the state and trends of the ecosystems and/or land cover types described above and the natural and human drivers of the trends.

In response to population growth and the impacts of climate change, our biodiversity, habitats and ecosystems are expected to change. Habitat loss and fragmentation, decreased ecological resilience, altered species behaviour, more invasive species, decline of water quality and an increase in the demand for community access and use of natural resources will influence the extent and quality (functionality) of ecosystems. A number of monitoring projects and programs have been implemented across the Sunshine Coast to understand the state of ecosystems, track changes and position the Sunshine Coast to respond.

State of native vegetation

Prior to settlement, the council area had more than 225,000 hectares of vegetation. Today, 54% (124,000 hectares) of the vegetation remains, the rest being cleared for urban and agricultural development.

Eucalypt and rainforest vegetation communities have been the most heavily cleared, by area, with some of their constituent ecosystems now listed as endangered and vulnerable. Heath and wallum as well as melaleuca communities have also lost more than half the pre-clearing extent.

The degree of vegetation clearing, in hectares, is summarised in Table 14.1 for the Sunshine Coast's broad vegetation communities.

Table 14.1: Pre-clearing and current extent of native vegetation.

Vegetation community	Pre-clearing extent (ha)	Current extent (ha)	% loss
Foredunes	615	338	45%
Mangrove and saltmarsh	3,010	2,530	16%
Heath and wallum	8,270	2,920	65%
Melaleuca	28,300	8,560	70%
Eucalypt	146,000	61,700	58%
Rainforest	39,200	16,800	57%
<i>Non-remnant / Regrowth</i>	–	31,400	<i>n/a</i>

Recent data shows that clearing of vegetation remains an ongoing issue, with a further 350 hectares of remnant vegetation lost between 2014 and 2017 (unpublished analysis of state regional ecosystems mapping).

There has been re-growth of native vegetation across some previously cleared areas. The region has 31,000 hectares of non-remnant "regrowing" native vegetation, a quarter of the total native vegetation extent (Figure 14.2).

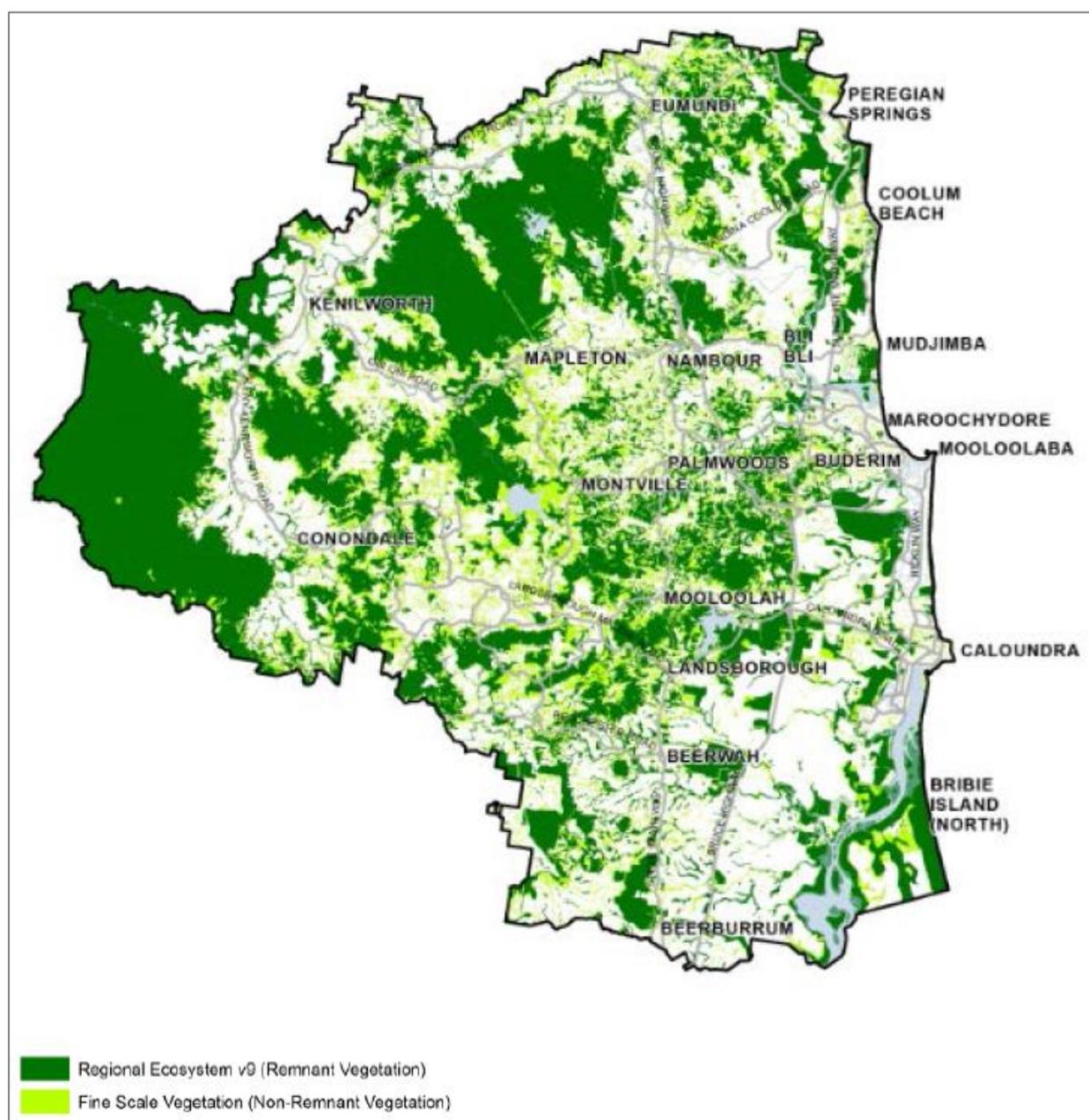


Figure 14.2: Sunshine Coast native vegetation extent (Sunshine Coast Council, 2016).

State of core and connecting habitat areas

The Sunshine Coast's remnant and non-remnant native vegetation collectively defines habitat areas which can be classified into three categories:

1. Core habitat areas which are connected and consolidated vegetation areas greater than 50 hectares and provide high-quality ecological functionality (Figure 14.3). These areas are the primary element of the biodiversity network;
2. Connecting habitat areas which provide critical refuge areas and vegetated corridors that enable wildlife to move between core areas (Figure 14.3), and

3. Other habitat areas which is the remaining vegetation of more isolated and fragmented habitat patches across the landscape.



Figure 14.3: Conceptual model of core and connecting habitat areas (Sunshine Coast Regional Council, 2017).

The Sunshine Coast currently has 89,400 hectares of core habitat area and 27,700 hectares of connecting habitat areas which collectively support diverse plant and animal populations (Figure 14.4). The Maroochy-Noosa Wallum Area exemplifies a cluster of core and connecting habitat areas. It extends from the lower Maroochy River estuary to Noosa National Park and includes significant mangrove, casuarina, eucalypt, melaleuca and wallum vegetation communities, all of which support numerous important and iconic fauna species.

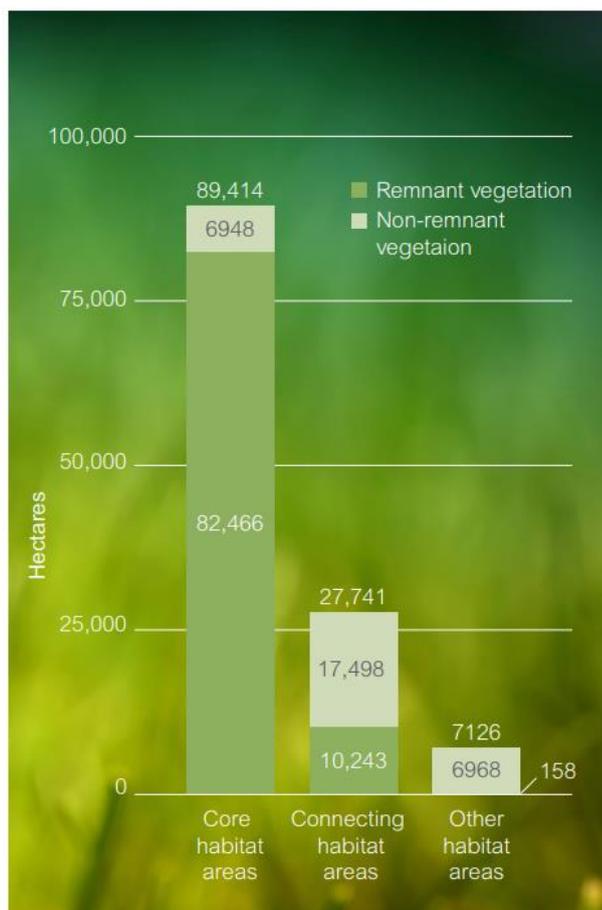


Figure 14.4: Areas of core, connecting, and other habitats.

State of waterways and catchments

The health of South East Queensland's major waterways and catchments has been monitored, assessed and reported since 2000 through a regional *Healthy Land and Water Report Card*.

The report presents an annual ecological health grade for each catchment including four catchments, wholly or partly within the Sunshine Coast Regional Council area. It also allocates a one-to-five star rating for social and economic benefits obtained from waterways.

Results for the 2017/18 year report that the:

- Maroochy River, Pumicestone Passage and Stanley River catchments were within the 'good' ecological health range while the Mooloolah River catchment was 'fair'; and
- Pumicestone Passage catchment had a 'very high' social and economic rating while the remaining catchments were 'high'.

These ratings remain at the upper end of catchments across South East Queensland, indicating that the community values its waterways which provide a high level of economic benefit (such as clean water for drinking and recreational fishing).

Ecological health grades and benefit ratings for 2018 (2017/18) and the three preceding years are shown in Table 14.2 (before 2015, the ecological grades were calculated differently, and with no benefit ratings).

Table 14.2: Ecological health grades and benefit ratings for Sunshine Coast catchments.

Catchment	Ecosystem health grade (2018)	Range of grades (2015–2017)	Benefit star rating (2018)	Range of ratings (2015–2017)
Maroochy River	B- (Good)	C+ to B	3.5-star (High)	4-star
Mooloolah River	C+ (Fair)	C+ to B	3.5-star (High)	4 to 4.5-star
Pumicestone Passage	B+ (Good)	B- to A-	4-star (Very high)	4 to 4.5-star
Stanley River	B (Good)	B- to B	3.5-star (High)	2.5 to 3.5-star

Ecological results for all catchments in 2018 were no worse than the previous three years. Short term year-to-year variations in health grades is typically driven by rainfall, with poorer grades in wetter years being the result of higher pollutant run-off loads.

The *Healthy Land and Water Report Card* can be viewed at <https://hlw.org.au/project/ecosystem-health-monitoring-program/>.

State of coastal habitats

The Sunshine Coast is on the southern margin of the Great Barrier Reef. With its cool sea temperatures and predominantly sandy habitats, it lies within the Central Eastern Shelf Transition (an overlap between tropical and temperate waters) marine bioregion (Figure 14.5).

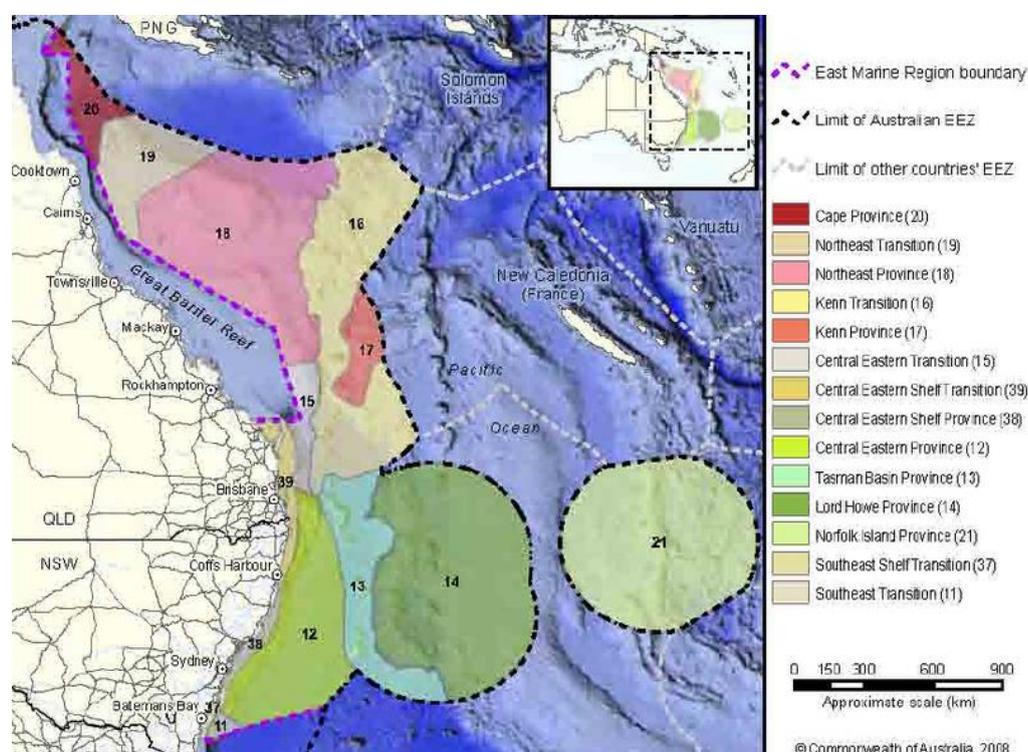


Figure 14.5: Provincial bioregions of the East Marine Region (IMCRA v4.0) (Commonwealth of Australia, 2008).

An inventory of near-shore reef fauna species was undertaken in this marine bioregion (DeVantier *et al.*, 2010) and identified 105 reef-building coral species, 222 fish species and 835 mollusc species, from 14 nearshore reefs between Noosa and Caloundra. This range of species illustrates the transitional nature of the bioregion. For example, 81 mollusc species are considered endemic, local coral species are uncommon on the Great Barrier Reef, and both tropical and temperate fish species were found.

The inventory identified a low abundance of some aquarium and recreational fish species which could indicate impacts from harvesting. Some early evidence of changes to species distribution due to increasing sea temperatures was also found. For example, tropical giant clams were recorded, whereas temperate nudibranchs are becoming rarer.

Council has recently developed a framework (section 14.1.4), and is coordinating baseline monitoring, to assess and report on the health of beaches, lower estuaries, lagoons and headlands.

14.1.3 What kind of protection regimes (including customary and traditional) exist for the core area(s) and the buffer zones(s)?

Protection of the Sunshine Coast's ecosystems and rich biodiversity occurs across all biosphere areas, and is driven through:

- Policy, planning and legislation aligned between national, state and local government;
- Maintenance and expansion of a considerable conservation estate; and
- On-ground maintenance of natural areas and ecological restoration programs.

Policy, planning and legislation

On a Commonwealth and Queensland Government level there are several legislative acts that protect the environment and biodiversity (Table 14.3).

Table 14.3: Legislation and associated protection.

Legislation	Protection
Commonwealth level	
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Conservation of biodiversity, for example, through: <ul style="list-style-type: none"> • Listing of nationally threatened species and ecological communities, migratory species and marine species; • National recovery plans and wildlife conservation plans for listed species' and • Protection and management of National and Commonwealth Heritage places and Ramsar wetlands.
State level	
<i>Nature Conservation Act 1992</i>	Conservation of nature, for example, through: <ul style="list-style-type: none"> • Dedication and management of protected areas, including national parks, conservation parks and private nature refuges; and

Legislation	Protection
	<ul style="list-style-type: none"> • Listing of endangered, vulnerable and near-threatened wildlife and critical habitat areas.
<i>Vegetation Management Act 1999</i>	Regulation of vegetation clearing to conserve remnant vegetation, prevent land degradation and maintain biodiversity and ecological processes.
<i>Biosecurity Act 2014</i>	Management of risks from emerging, endemic and exotic pests and diseases that impact plant and animal industries or biodiversity and the natural environment.
<i>Fisheries Act 1994</i>	Provides for the use, conservation and enhancement of the community's fisheries resources and fish habitats, through management and protection of fish habitats, fishing, diseases in fish, and aquaculture.
<i>Environmental Protection Act 1994</i>	Protection of Queensland's environment while allowing for ecologically sustainable development, through establishing environmental values and protecting them in land use planning and natural resource management, and preventing environmental harm.
<i>Marine Parks Act 2004</i>	Provides for the conservation of the marine environment.

At the local level, the *Sunshine Coast Planning Scheme 2014* is the primary planning instrument to protect ecosystems and biodiversity across the Sunshine Coast. It contains strategic outcomes for the natural environment which include:

- By 2031, the Sunshine Coast is still one of the most biologically diverse areas in Australia. It supports a wealth of environmental assets and values, including ecological, biodiversity and natural history attributes of national and international significance which contribute to the region's natural (competitive) advantage;
- The region continues to be renowned for the extent and quality of its natural features, which include: the Ramsar Convention protected Pumicestone Passage wetlands; the National Estate listed Noosa-Maroochy Wallum corridor; the National Heritage listed Glass House Mountains; the Mooloolah, Blackall and Conondale mountain ranges; the coastal plain and foothill forests; and the extensive network of natural waterways and wetlands, and wide array of coastal foreshore environments including beaches, high dune areas and rocky headlands;
- A diverse array of ecosystem types is protected across the Sunshine Coast from coastal wallum to dry and wet eucalypt forest and sub-tropical rainforests. These ecosystems provide habitats for nationally and internationally recognised flora and fauna species;
- Koala habitat and connectivity is maintained and improved thereby contributing to the long term stabilisation and recovery of koala populations on the Sunshine Coast and in South East Queensland more generally;
- Terrestrial and aquatic biodiversity values and water quality within the Maroochy, Mooloolah, Mary and Stanley River systems and Pumicestone Passage is protected;
- The natural environment is protected and enhanced in a way that maintains and improves biodiversity, ecological processes, habitat and habitat connectivity, landscape character and amenity, economic and community wellbeing, resilience and capacity to evolve and adapt to the predicted impacts of climate change;
- The largest possible land area is maintained for environmental protection purposes and environmental conditions and indicators of health are improved relative to their reported status in 2014;

- In 2031, the Sunshine Coast is recognised as a region that has been successful in protecting and restoring its natural environment and as a leader in natural resource management; and
- The value of ecosystem services provided by the natural environment is recognised with a high air quality and acoustic environment continuing to distinguish the Sunshine Coast from other parts of metropolitan South East Queensland.

In support of these strategic outcomes, the *Sunshine Coast Planning Scheme 2014* contains a map (Figure 14.6) which identifies valuable features, such as ecologically important areas and ecological linkages so as to guide land use and development on the Sunshine Coast.

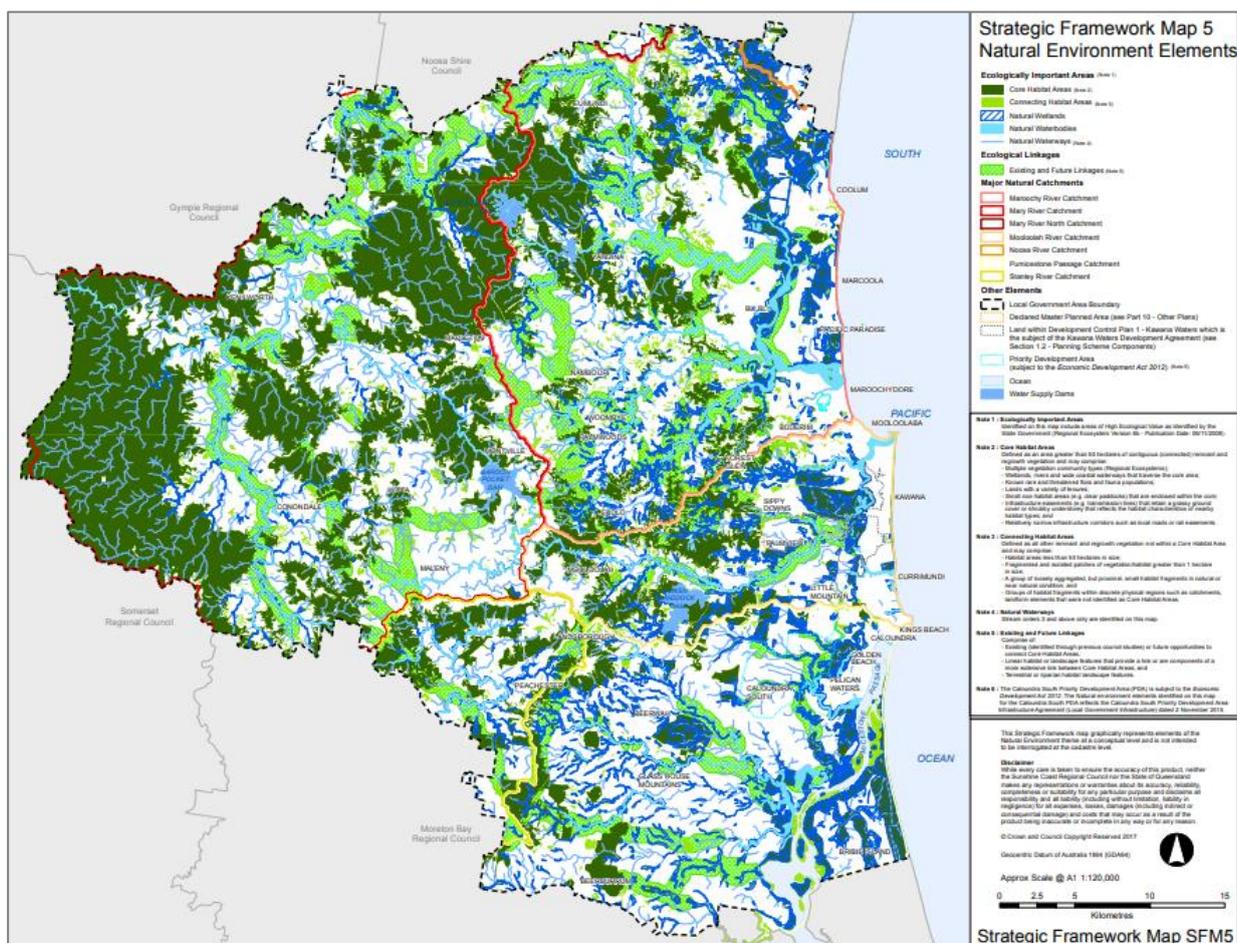


Figure 14.6: Valuable features of the natural environment under the Sunshine Coast Planning Scheme 2014.

Strategic policy directions for the Sunshine Coast's natural environment are set out in the Sunshine Coast *Environment and Liveability Strategy 2017*. These directions include outcomes and policy positions for the next 25 years, to be achieved through the collective efforts of government, the community and industry (Table 14.4).

Table 14.4: *Environment and Liveability Strategy 2017 strategic directions for the natural environment.*

Theme	Outcome – 2041	Policy positions
Landscape and character	The landscape, character and unique identity is preserved and enhanced.	The distinctive and diverse landscape is preserved to maintain the beauty of the area. The landscape, character and heritage values retain the unique identity of the area. The visual amenity and community view lines are preserved and enhanced.
Biodiversity	Our native plants, animals and habitats are healthy, resilient and valued by the community.	Natural ecosystems and the native plants and animals they support are preserved. Priority habitat areas are protected, enhanced, connected and responsive to changing environmental conditions. Biodiversity is valued, respected and used sustainably to support our lifestyle, livelihoods and sense of place.
Waterways and wetlands	Waterways and wetlands are healthy, resilient to change and valued by the community.	Natural waterways and wetlands are preserved and enhanced to support healthy and diverse aquatic habitats and species. Constructed waterbodies are minimised and managed efficiently to provide social and economic outcomes and preserve environmental values. Waterways and wetlands are valued, respected and used sustainably to support our lifestyle, livelihoods and sense of place.
Coastal	Coastal areas are healthy, resilient to climate change impacts and support sustainable use.	The natural values and function of coastal environments are preserved. A healthy coast and near-shore marine environment are preserved to sustain our valued coastal lifestyle and economy. Coastal hazard risks are known and avoided or otherwise adequately addressed, forming part of long term adaptation planning.

Strategic policy directions from the *Environment and Liveability Strategy 2017* contribute to the protection of the natural environment through maintaining and expanding the conservation estate across the Sunshine Coast.

Conservation estate

Council's 2016 Sunshine Coast Biodiversity Report documented that about 26% of the Sunshine Coast area is managed for conservation. The conservation estate, made up of state and council reserves and private landowners, preserves more than 44% (54,200 hectares) of the existing remnant and non-remnant vegetation, predominantly within the Protect and Enhance, and Manage and Care Areas on the nominated biosphere map (Figure 6.1). The report also outlined that the conservation estate included:

- 39,700 hectares in state protected areas (national parks and conservation parks);
- 5,140 hectares in Council owned and managed reserves (including Council nature refuges);

- 666 hectares in private nature refuges;
- 1,480 hectares in environmental covenants; and
- 7,300 hectares in Land for Wildlife properties.

While the state protected areas make up the majority of the protected estate, in 2019 Council owns and/or manages approximately 6,900 hectares of environment reserves. Council's Environment Levy Land Acquisition Program has contributed significantly to this estate, acquiring more than 3,550 hectares of land for conservation purposes since the early 1990s (Figure 14.7).

Additional conservation action includes:

- Environmental areas within the urban footprint are routinely protected, restored and contributed to the public estate by property developers through the development planning and assessment process;
- The contribution of private landowners to the conservation estate continues to grow, through establishment of nature refuges and environmental covenants, and participation in the voluntary Land for Wildlife program which now spans more than 1,000 properties across the Sunshine Coast and is the largest Land for Wildlife program in Queensland; and
- Other public entities acquire and manage some habitat areas for conservation in situations where the area complements their primary land uses (for example, water quality treatment or protection of water quality for drinking water supply).

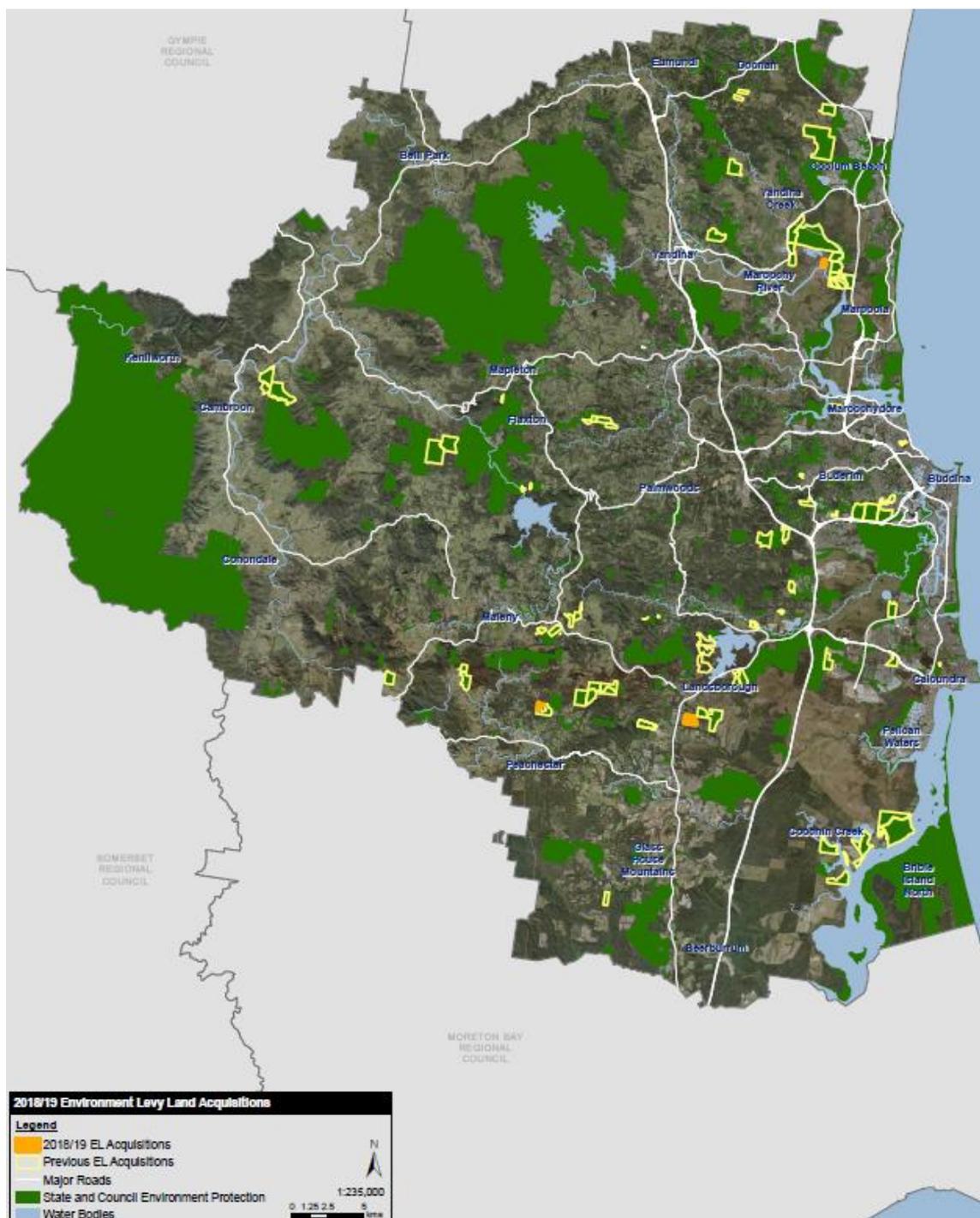


Figure 14.7: Land acquired for conservation in 2018/19 under Sunshine Coast Regional Council's Environment Levy.

Habitat maintenance and restoration

Council and the Queensland Government invest considerable resources into ongoing maintenance and restoration of the habitats across the Sunshine Coast's protected estate, and are supported by a range of community groups and many landowners. For example, in 2018/19 under Council's Environment Levy:

- \$2.28 million was spent on purchasing three new properties across the local government area, adding approximately 56 hectares to Council's reserve network;
- \$845,000 contributed to the protection and sustainable use of our coastal areas through on-ground ecological restoration works;
- \$247,000 was invested into the delivery of riparian restoration projects to enhance waterway health across the Mary and Mooloolah catchments and at Currimundi Creek;
- Over \$700,000 was invested into the strategic management of invasive plants and animals through on-ground officers and community action and engagement as guided by the Sunshine Coast Local Government Area Biosecurity Plan 2017;
- \$609,000 was invested to support 22 Environment Levy-partnership groups;
- \$90,000 was invested into the Land for Wildlife program for more than 30,550 native plant seedlings and 162 nest boxes provided; and
- More than \$410,000 was invested into building our knowledge through a range of research management and monitoring projects.

There are also number of community group driven habitat maintenance and restoration projects and programs on the Sunshine Coast. Examples include:

1. Caring for salt water country and fish habitat – Maroochy River Mangrove Nursery and revegetation project: This project, led by the Bunya Country Aboriginal Corporation aims to re-vegetate areas of eroding riverbank along the Maroochy Estuary by planting 2,500 trees. This is a continuation of the Maroochy River Mangrove Nursery Project established in 2009 and provides opportunities for local Kabi Kabi Traditional Owners to assist landowners and stakeholders in mangrove revegetation projects. The project enhances and links quality fish habitat areas within the Maroochy River through mangrove revegetation.

2. TS Onslow Shoreline Management Project: In 2018 a community group, Take Action for Pumicestone Passage, received funding to undertake erosion control and mangrove rehabilitation at a state owned foreshore reserve in front of the TS Onslow Australian Navy Cadets headquarters on the Esplanade at Golden Beach on the Pumicestone Passage. Funding was contributed by:

- The Commonwealth Government's National Landcare grant;
- Queensland Government Department of Environment and Science Sustainability grant; and
- Caloundra Powerboat Club.

The objective of the project is to maximise the ability of the natural processes to re-establish a natural shoreline ecosystem that incorporates fish habitat, assisted by the positive sand budget in the northern Pumicestone Passage. The project was divided into two phases:

- Immediate attention with pinned coir logs to protect the casuarinas on the high bank from falling; and
- More extensive work incorporating mangrove planting, after all approvals were received and the Council dredged sand from the Passage for nourishment of the area.

The project has built community understanding of the value of natural ecosystems and strengthened links between government, local organisations and the Traditional Owners of the area. Healthy Land and Water provided management support while Sunshine Coast Regional Council provided operational support. Community groups, including members of TS Onslow, Take Action for Pumicestone Passage, Night Eyes Water and Landcare, Bunya Bunya Country Aboriginal Corporation, Mangrove Watch, as well as local residents were actively involved in

designing, planting and other required work. This collaboration ensured the success of the project with work successfully completed 3 August 2019, and is an example of effective action to increase capacity and resilience of our coastal environment.

3. Maroochy Waterwatch: This community based organisation is engaged in the protection and enhancement of the Maroochy River catchment and region. It is involved in many strategic planning activities for broader Maroochy River issues and has a strong volunteer workforce actively improving the health of the river and its catchment.

Under the Maroochy Waterwatch umbrella, there is a team of scientists, land managers and environmental educators who deliver environmental programs across the region, including:

- Ambient and event based water and air monitoring;
- Flora and fauna surveys;
- Aquatic and terrestrial weed biocontrols; and
- Ecological restoration activities.

4. TurtleCare Sunshine Coast: TurtleCare Sunshine Coast is a voluntary organisation formed in 2005 in response to an identified need to protect the nests of marine turtles nesting on Sunshine Coast beaches.

TurtleCare volunteers are responsible for the implementation of an ongoing turtle monitoring program for nesting activity on beaches between Golden Beach and Point Cartwright. Volunteers identify and record species, nesting locations and frequency, protect nests from fox predation and monitor the hatching and emergence success of nests.

The main species nesting on Sunshine Coast beaches are the Loggerhead turtle and, less frequently, the Green turtle.

Given that Australia's eastern population of nesting Loggerheads comprises only around 500 nesting females, the Sunshine Coast population continues to be a small but important sub-population.

5. Coolum and North Shore Coast Care: This group has a number of regular ongoing projects including weekly weeding and bush regeneration at several sites, as well as seed collection and plant propagation at the Coolum Community Native Nursery.

They monitor turtles, marine debris and engage with the community in educational activities. Some of their many contributions to habitat maintenance and restoration include:

- Planting over 45,500 plants in the dunal system over a six year timeframe with the involvement of hundreds of community groups and students;
- Installing and monitoring 42 nesting boxes and drawing attention to wildlife habitats, wildlife rescue, feral animals and pest management;
- Marine research that identified the unique shells, animals and geology of the rocky foreshores;
- Creation and publication of education materials that feature conservation messages; and
- Establishing a turtle protection program that identified over 100 turtle nesting sites.

6. BushCare Sunshine Coast: This program supports the community to conserve and restore our natural bushland in Council's environment reserves. More than 1,200 BushCare volunteers annually achieve:

- Planting over 20,000 native trees, shrubs and ground covers;
- Composting about 550 wheelie bins of weeds;

- Restoring 140 hectares of bushland;
- Creating habitat corridors;
- Restoring our local waterways; and
- Building resilience of our dunes.

14.1.4 Which indicators or data are used to assess the efficiency of the actions / strategy used?

Biodiversity

The primary target for biodiversity under the *Environment and Liveability Strategy 2017* is to “maintain the 2016 extent of native vegetation (no net loss) by 2041”, namely, the total 124,000 hectares of native vegetation (section 14.1.2).

The extent of native vegetation includes two individually-derived and mutually-exclusive components:

- “Remnant” (regional ecosystem) vegetation, mapped and periodically revised by the Queensland Government, and
- “Non-remnant” (fine-scale) vegetation, derived and periodically updated from Lidar data by Council.

In 2016 Sunshine Coast Regional Council completed a Biodiversity Report to assess how well ecosystems are conserved. A supporting conservation indicator to assess “adequacy” of representation of each regional ecosystem type, is the fraction of its pre-clearing extent that is protected within the conservation estate.

Specifically, ecosystems with <10% of their pre-clearing extent in reserves are considered to be “poorly conserved”, and therefore a priority for expansion of the conservation estate. Twenty-six poorly conserved regional ecosystems were identified including two heath/wallum, three melaleuca, eighteen eucalypt and three rainforest ecosystems.

The *Sunshine Coast Biodiversity Report 2016* will be used as a baseline for subsequent vegetation assessments in the future to show for example:

- Whether the total native vegetation extent has decreased, remained the same, or increased; and
- Gains or losses in specific regional ecosystems, and across different land uses.

This information will be used to measure progress against the *Environment and Liveability Strategy 2017* biodiversity target of no net loss, to determine if it is being met and what future actions might need to be taken.

Waterways

The target for waterways and wetlands under the *Environment and Liveability Strategy 2017* is to “maintain and improve the ecological health of waterways and wetlands across each of the river catchments to a good or excellent grade by 2041”.

This target links directly to the regional *Healthy Land and Water Report Card* (section 14.1.2). Specifically, the target is to consistently achieve an ecological grade of “A” (excellent) or “B” (good), based on monitoring and assessment of numerous indicators across the following categories:

- Freshwater communities and processes – physical-chemical status, ecosystem processes and fish and macroinvertebrate populations of freshwater streams;
- Estuarine water quality – turbidity, chlorophyll-a, total nitrogen and phosphorus and dissolved oxygen;
- Habitats – estuarine wetland extents and freshwater riparian and wetland extents; and
- Pollutant loads – sediment, nitrogen and phosphorus load from catchment runoff.

Four of the main Sunshine Coast river catchments are assessed under the program. The *Environment and Liveability Strategy 2017* contains a task to design and implement a waterway health monitoring program for the Mary River, which seeks to assist with tracking progress toward the regional target.

Coastal

The target for coastal environments under the *Environment and Liveability Strategy 2017* is to “maintain and improve the health of our coast to good or excellent grade by 2041”.

A monitoring and reporting framework has been developed, and baseline data is currently being collected to assess the health of our coastal habitats, and track progress towards the regional target (section 16).

The framework tailors coastal monitoring and reporting to different coastline systems including:

- Whole-of-coastline – the entire coastline (to capture mobile or broadly distributed values);
- Beaches – dune, beach and nearshore environments;
- Lower estuaries – lower reaches and tributaries that are well mixed with seawater;
- Lagoons – lower reaches of smaller creeks that are periodically flushed with seawater; and
- Headlands – including rocky shores.

Environmental conditions will be assessed across these systems according to the collective health of:

- Landforms – the physical extent, profile, shape, stability and variability of the key systems;
- Habitats – a combination of the living and landform attributes that support plants and animals;
- Plants and animals – the living organisms that inhabit coastal systems; and
- Water quality – the physical and chemical condition of waters (Table 14.5).

Table 14.5: Coastal indicators to be assessed for each coastline system.

		Coastal systems				
		Whole-of-coastline	Beaches	Lower estuaries	Lagoons	Headlands
Indicator groups	Landform	-	✓	✓	✓	-
	Habitat	✓	✓	✓	✓	✓
	Plants & animals	✓	✓	✓	✓	✓
	Water quality	-	-	✓	✓	-

14.2. At the level of species and ecosystem diversity:

14.2.1 Identify main groups of species or species of particular interest for the conservation objectives, especially those that are endemic to this biosphere reserve, and provide a brief description of the communities in which they occur.

The Sunshine Coast has 2,600 recorded plant species, of which 75 are listed as endangered, vulnerable or near-threatened (EVNT) species under Commonwealth or Queensland Government legislation. There are 850 recorded animal species, of which 66 are EVNT. These listed EVNT species are the highest priority for conservation and are spread across a range of animal and plant classes (Table 14.6).

Table 14.6: Overview of Sunshine Coast rare and threatened (EVNT) species.

Class	No of EVNT species	Supporting habitats
Animals		
Amphibians	10 e.g. tusked frog, multiple wallum and barred frogs	Riparian, rainforest, wetland and heath/wallum habitats.
Birds	33 e.g. glossy black cockatoo, powerful owl, ground parrot, knots, sand plovers	All mainland vegetation communities (coastal dunes, mangroves and saltmarsh, melaleuca and sheoak, heath and wallum, eucalypt and rainforest); Wetland and intertidal habitats (waders and shorebirds).
Bony fish	4 e.g. Mary River cod, Australian lungfish, honey blue eyes	Streams, estuaries and wetlands.
Insects, Crustaceans	3 e.g. Richmond birdwing butterfly, swamp yabby	Various terrestrial vegetation communities, wallum wetlands.
Mammals – mainland	8 e.g. long-nosed potoroo, koala, water mouse	Various terrestrial vegetation communities – especially eucalypt; Estuarine wetlands (water mouse).
Mammals – marine	4 e.g. dugong, humpback dolphins	Marine and estuarine waters; Seagrass meadows for feeding.
Reptiles – mainland	6 e.g. common death adder, three-toed snake tooth skink, Mary River turtle	Various terrestrial vegetation communities; Freshwater streams (turtles).
Reptiles – marine	4 loggerhead, green, hawksbill and flatback turtles	Marine and estuarine waters; Beaches for nesting (for loggerhead and green turtles).
Plants		
Ferns	3 e.g. slender tree fern	All mainland vegetation communities (coastal dunes, mangroves and saltmarsh, melaleuca and sheoak, heath and wallum, eucalypt and rainforest).
Higher dicots	44 e.g. multiple sheoak, eucalyptus, myrtle, macadamia and ziera species	

Class	No of EVNT species	Supporting habitats
Lower dicots	2 e.g. birdwing butterfly vine, stinking cryptocarya	
Monocots	17 e.g. Queensland lace, Christmas bells, various orchids	

Twelve EVNT plant species (Table 14.6) are locally endemic (recorded only in the Sunshine Coast) including:

- *Allocasuarina filidens* (Mt Beerwah sheoak);
- *Dodonaea rupicola*;
- *Eucalyptus kabiana* (Mt Beerwah mallee);
- *Gonocarpus effusus*;
- *Graptophyllum reticulatum* (Buderim holly);
- *Grevillea hodgei* (Coochin Hills grevillea);
- *Lenwebbia* sp. (Blackall Range P.R. Sharpe 5387);
- *Leptospermum leuhmanii* (Glass House mountain tea tree);
- *Plectranthus torrenticola*;
- *Westringia grandifolia*;
- *Zieria bifida* (Nambour zieria); and
- *Romnaldia strobilacea*.

Numerous other species are also highly restricted to the Sunshine Coast and adjacent areas, including:

- *Triunia robusta* (glossy spice bush);
- *Eucalyptus conglomerata*, (swamp stringybark) considered to be one of Australia's most endangered eucalypts;
- three *Macadamia* species, whose locally wild populations are crucial for the long term viability of the macadamia nut industry; and
- *Acacia attenuata* (attenuate wattle), found in wallum environments.

14.2.2 What are the pressures on key species?

(In other words: what are the threats (example unsustainable management of forest), their immediate causes (drivers of change like forest change or habitat change), their underlying causes (example overgrazing, fire, pollution), and the main driving forces (example: economic, political, social, external, etc.) and the area(s) concerned?)

The two greatest drivers of change expected to impact on the Sunshine Coast's biodiversity over coming decades are population growth and climate change.

Population growth on the Sunshine Coast has been steady and is forecast to increase over the next 25 years and thereafter. The region's current population of 328,030 (June 2019) is

predicted to exceed 500,000 by 2041, representing an average increase of approximately 8,000 new residents annually (Figure 14.8).

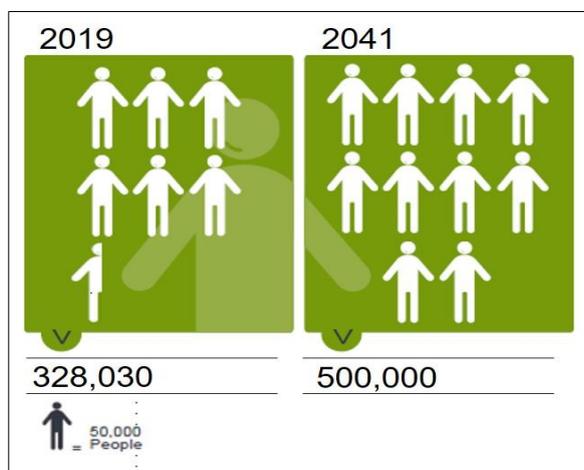


Figure 14.8: Overall population change between 2016 and 2041.

Approximately 3,600 new dwellings will be needed each year to house new residents. An expanding tourism industry will also require more accommodation and associated infrastructure such as an integrated multi-modal transport network, responsive services, along with efficient and secure utilities. New local employment opportunities will also be required.

Sea levels around Australia are already rising at an average rate of 3.1 millimetres per year (Clarke, Wilson and Heady, 2016). The mean surface air temperature of the Sunshine Coast has increased by almost 1°C between 1910 and 2013. Over time, the Sunshine Coast will be exposed to increases in average temperatures, a great number of days per year over 35°C, more extreme rainfall events, changes in the frequency and magnitude of weather events such as cyclones, storms, droughts, heat waves and flooding, a rising sea level and a decrease in total annual rainfall and soil moisture (Figure 14.9).

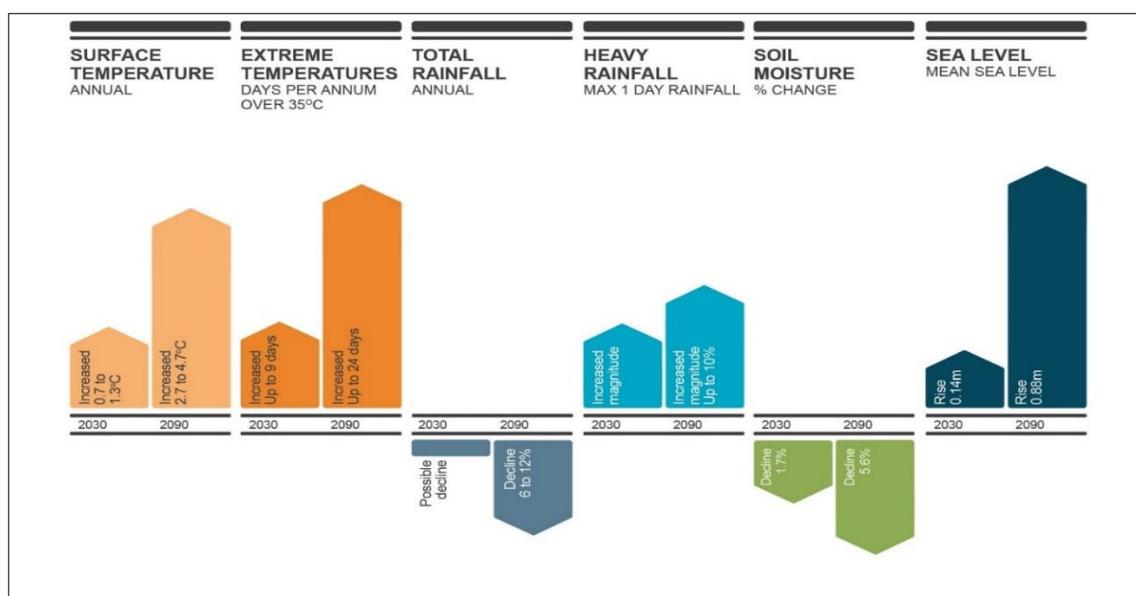


Figure 14.9: Future climate projections for the Sunshine Coast.

Changes from population growth and climate change that might be expected across the region include:

- Habitat loss and fragmentation;
- Decreased ecological resilience;
- Altered species behaviour;
- More invasive species such as cane toads, foxes, wild dogs and feral cats;
- Decline in water quality, and
- Increase in the demand for community access and use of natural resources.

Locally, species may disappear, become extinct, move to more habitable locations both within and outside the region, and new species may migrate into the region. Biodiversity monitoring indicates that some local rainforests are already being replaced by eucalypt-dominated vegetation communities. There is significant opportunity to monitor the health of species and our natural environment across the region in response to these potential changes.

14.2.3 What kind of measures and indicators are currently used, or planned to be used to assess both species groups and the pressures on them? Who undertakes this work, or will do so in the future?

In Australia, nationally threatened species, plants or animals at risk of extinction, are classified according to trends in population size, health and distribution (Table 14.7). Assessment is the responsibility of the Threatened Species Scientific Committee, for listing under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*.

Table 14.7: Criteria for listing nationally threatened species.

Criteria	Critically endangered	Endangered	Vulnerable
1. It has undergone, is suspected to have undergone or is likely to undergo in the immediate future:	a very severe reduction in numbers	a severe reduction in numbers	a substantial reduction in numbers
2. Its geographic distribution is precarious for the survival of the species and is:	very restricted	restricted	limited
3. The estimated total number of mature individuals is: and either of (a) or (b) is true:	very low	low	limited
(a) evidence suggests that the number will continue to decline at:	a very high rate	a high rate	a substantial rate
(b) the number is likely to continue to decline and its geographic distribution is:	precarious for its survival	precarious for its survival	precarious for its survival
4. The estimated total number of mature individuals is:	extremely low	very low	low

Criteria	Critically endangered	Endangered	Vulnerable
5. The probability of its extinction in the wild is at least:	50% in the immediate future	20% in the near future	10% in the medium-term future

A parallel process is undertaken by the Queensland Government, under the *Nature Conservation Act 1992*, to assess species at risk of extinction at the state level. Threatened species are classified as:

- Extinct in the wild;
 - There have been thorough searches for the species; and
 - It has not been seen in the wild over a period appropriate to its life cycle or form.
- Endangered;
 - The species has not been seen in the wild over a period appropriate to its life cycle or form but there have not been thorough searches for it; or
 - The habitat or distribution of the species has been reduced to an extent that it may be in danger of extinction; or
 - The population size of the species has declined, or is likely to decline, to an extent that it may be in danger of extinction; or
 - The survival of the species in the wild is unlikely if a threatening process continues.
- Vulnerable;
 - The population of a species is decreasing because of threatening processes; or
 - Its population has been seriously depleted and its protection is not secured; or
 - Its population, while abundant, is at risk because of threatening processes; or
 - Its population is low or localised or depends on limited habitat that is at risk because of threatening processes.

In 2015, Commonwealth, State and Territory Governments committed to progress a common assessment method for assessing and listing threatened species, based on international criteria (IUCN, 2001). This approach will ensure alignment between all species listing.

14.2.4 What actions are currently undertaken to reduce these pressures?

The policy, regulatory and operational conservation programs discussed in 14.1.3 serve to mitigate pressures on the full range of species with priority in planning and resourcing given to protecting threatened species. For example, the:

- Primary driver for some Sunshine Coast Regional Council Environment Levy acquisitions has been to protect areas containing species with highly restricted distributions, including: *Triunia robusta* (Triunia Environment Reserve), long-nosed potoroo (Crohamhurst Ecological Reserve), Buderim holly (Buderim Holly Conservation Area); and
- Highest protection afforded under Commonwealth, Queensland and Local Government planning policy and legislation for listed threatened ecological communities and species.

In addition to the conservation programs (section 14.1.3), a range of local to national programs provide targeted responses to pressures on threatened and iconic Sunshine Coast species. For example:

- The Commonwealth Government has listed “National Recovery Plans” relevant to numerous Sunshine Coast threatened communities and species (e.g. attenuate wattle, Mt Emu sheoak, sweet myrtle, water mouse, regent honeyeater, northern quoll, Mary River cod, marine turtles, wallum frogs). These establish research and management actions to stop their decline and support their recovery. This plan can be viewed at <https://www.environment.gov.au/biodiversity/threatened/recovery-plans>;
- The Queensland Government has established the “Back on Track” framework to prioritise species and allocation of resources and improve decision making for optimal conservation outcomes. This framework can be viewed at <https://environment.des.qld.gov.au/wildlife/prioritisation-framework/>;
- Koala Conservation Plan – local research, community engagement, and preserving, enhancing and linking suitable habitat areas to mitigate impacts on koalas from habitat fragmentation, disease, car strikes and feral animals (Sunshine Coast Regional Council, 2015);
- Regional Flying Fox Management Plan – for grey-headed, little red and black flying foxes – research, community engagement and on-ground actions to balance conservation outcomes with conflicting urban amenity issues. This plan can be viewed at <https://www.sunshinecoast.qld.gov.au/Environment/Native-Animals/Flying-Foxes/Flying-Fox-Management>;
- South East Queensland Eastern Grey Kangaroo conservation research project – research, community engagement and local traffic management trials to mitigate impacts from habitat loss and road collisions on local kangaroos. This project can be viewed at <https://www.usc.edu.au/research-and-innovation/animal-and-marine-ecology/seq-eastern-grey-kangaroo-conservation-project>;
- Living with Threatened Species Program – rehabilitation and protection of habitats for a range of threatened aquatic and terrestrial fauna species in the Mary River catchment, including the Mary River turtle, Mary River cod and Australian lungfish. This program can be viewed at <http://mrccc.org.au/living-with-threatened-species/>; and
- Marine turtle volunteer programs – monitoring loggerhead and green turtle activity, stranding and nesting and hatching, and mitigating impacts on nests from fox predation and physical disturbance. These programs can be viewed at <https://www.sunshinecoast.qld.gov.au/Environment/Native-Animals/TurtleCare> and <http://columcoastcare.org.au/what-we-do/practical-projects/turtle-monitoring/>.

The programs discussed in sections 14.1.3 and 14.2.4 are ongoing, and through adaptive management, should evolve as required to remain relevant and effective over time.

14.2.5 What actions do you intend to take to reduce these pressures?

Ongoing programs (section 14.1.3 and 14.2.4) will be supplemented over the next five years by a series of high priority actions set out in the Five Year Implementation Plan (Part B) of the *Environment and Liveability Strategy 2017*. The actions, each of which make up several component tasks, are planned under Strategic Pathways.

Examples of actions under the “Strategic Pathway 2 – Protection and enhancement of our natural assets and distinctive landscapes” are presented in Table 14.8. A full list of

Environment and Liveability Strategy 2017 Part B Strategic Pathways and actions can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Regional-Strategies/Environment-and-Liveability-Strategy-2017>. Actions and tasks in the *Environment and Liveability Strategy 2017* Part B are reviewed and updated annually.

Table 14.8: Examples of actions and tasks in the Environment and Liveability Strategy 2017 to reduce pressures on the natural environment (note these are updated annually).

Action	Task
Connecting nature and people Connecting our valued habitat areas to support our native flora and fauna and providing the community with opportunities to participate in conservation and to experience the natural environment.	Develop and implement a Conservation Management Plan.
	Deliver Community Conservation Partnerships Program.
	Continue to implement a strategic land acquisition program.
	Manage Council's environment reserves.
	Implement the Koala Conservation Plan.
	Implement the Recreation Trails Development Plan.
	Develop and promote an interpretive trails program which tells the story of the Sunshine Coast through the historical pathways.
	Investigate and plan for improved fauna movement that seeks to address barriers in the landscape.
Develop a species management plan for kangaroos.	
Protecting the green frame Securing and protecting the Regional Inter-Urban Break and Sub-regional Inter-Urban Breaks in perpetuity to frame our neighbourhoods and strengthen the identity of our community of communities.	Advocate for the containment of urban development to the defined urban footprint.
	Identify the key corridors and green frame of the Sub-Regional Inter-Urban Breaks and investigate appropriate protection mechanisms and land uses.
Maintaining the blue by protecting the green Delivering healthy waterways and beaches that continue to support our lifestyle and livelihoods through integrated catchment management.	Prepare and implement integrated catchment management plans for the five major Sunshine Coast catchments.
	Prepare and implement a Riparian Management Plan to restore waterway health and improve public access and safety.
	Design and implement a waterway health monitoring program for the Mary River.
	Implement and support riparian, in stream and floodplain habitat rehabilitation activities.
	Determine the preferred direction in regard to offsite stormwater treatment solutions.
Stopping the brown from coming down	Develop and implement a comprehensive Urban and Rural Erosion and Sediment Control Program.

Action	Task
Partnering with rural, urban and development industries to reduce the impacts of sediment, nutrients and pollutants on waterway health.	Develop and implement collaborative catchment nutrient reduction projects.
<p>Celebrating our landscape and character</p> <p>Identifying and understanding the defining landscapes, character and history of the Sunshine Coast to enable growth and development to be respectful and complementary for the future.</p>	Prepare a comprehensive Sunshine Coast Landscape and Character Study incorporating a broad community engagement program.
	Complete the Historical Thematic Study to provide the cultural heritage context.
	Work collaboratively with the Traditional Owners of the region to inform the Landscape and Character Study.
	Develop and promote a scenic amenity trail – identifying lookouts, vistas and significant view lines with industry partners and community organisations.
	Develop a Sunshine Coast Design Strategy that celebrates our unique identity with relevant guidelines inclusive of public realm, landscape corridors and streetscapes in compact and self-contained neighbourhoods.
<p>A step ahead</p> <p>Providing for the reinstatement of vegetation and habitats that locally offset the unavoidable vegetation clearing required for our critical public infrastructure.</p>	Develop an Offsets Management and Delivery Program.
<p>Expanding the green space</p> <p>Securing and activating space for future generations through an accelerated strategic land program to improve conservation, flood mitigation, and sport and recreation opportunities.</p>	Implement the Network Blueprints and Desired Standards of Service to secure additional environmental, recreation and sporting land.
<p>Managing out invasive plants and animals</p> <p>Providing a collaborative, effective and efficient response to the management of invasive plants and animals to reduce their social, economic and environmental impacts.</p>	Implement the Sunshine Coast Local Government Area Biosecurity Plan.
<p>Changing our ways</p> <p>Transitioning the Sunshine Coast to a more sustainable, resilient and low carbon way of living.</p>	Develop a low-carbon community plan in consultation with community, government, industry and research bodies.
<p>The living lab</p> <p>Demonstrating design options and the way we live in self-contained neighbourhoods that deliver affordable and sustainable lifestyles.</p>	Investigate opportunities to establish a pilot eco-neighbourhood utilising a living lab approach, including the use of Smart City technologies to advance a range of neighbourhood sustainability and affordable living initiatives.

Given the robust political and social framework of the Sunshine Coast, emerging issues and information should regularly generate new and revised priorities for conservation.

14.3. At the level of genetic diversity:

14.3.1 Indicate species or varieties that are of importance (e.g. for conservation, medicine, food production, agrobiodiversity, cultural practices etc.).

Conservation

Endangered, vulnerable or near-threatened species and species restricted to the Sunshine Coast and adjacent areas that are of importance for conservation were discussed in section 14.2.1. Protected areas, such as National Parks and Council Environment Reserves, as well as environmental restoration projects are central to maintaining and enhancing genetic diversity.

Food production

The University of the Sunshine Coast prepared a profile of Sunshine Coast food and agribusiness in 2018, based on data from the Australian Bureau of Statistics and industry organisations (University of the Sunshine Coast, 2018).

The 2015/16 report identifies that the following native species are important for agriculture on the Sunshine Coast:

- Macadamias;
- Ginger; and
- Wild caught seafood (a variety of crab, prawn, reef fish and pelagic fish species).

Food production and agriculture on the Sunshine Coast are discussed further in section 15.3.

Cultural practices

The Traditional Owners of the Sunshine Coast have been caring for country and maintaining biodiversity through a range of sustainable practices for tens of thousands of years as well as partnering with Council to manage biosecurity. Species across the region are significant to Traditional Owners for food, medicine, family totems and other cultural practices. Some examples include:

- Dolphins, eagles and Red Stringy Bark trees are used as indicators for sustainable hunting of mullet fish;
- Bat Wing Coral trees are used as indicators for sustainable collection of mud crabs;
- Bunya Pine trees produce nuts which are used in bunya festivals held in Jinibara traditional country; and
- The Black Swan is significant in creation stories (section 10.6).

14.3.2 What ecological, economic or social pressures or changes may threaten these species or varieties?

The greatest pressures to species important for conservation and cultural practices are population growth and climate change. These pressures and their impacts are discussed in sections 14.1.2 and 14.2.2.

There are no unique and substantial threats to the native food production species on the Sunshine Coast. Instead, it is production and their economic viability that is subject to a range of pressures, including for example:

- Agricultural diseases and animal and plant pest species;
- Year to year weather extremes, which have a notable impact on annual production of some commodities (University of the Sunshine Coast, 2018), and longer-term impacts on production from climate change; and
- High demand of land for urban growth, making it difficult to maintain sufficient production areas of commodities for ongoing industry viability.

With regards to seafood species, the Queensland Government recognises significant and ongoing cumulative impacts on state and national fisheries from:

- Coastal development;
- Climate change;
- Land-based run-off; and
- Fishing and tourism (Department of Agriculture and Fisheries, 2016).

14.3.3 What indicators, at the level of the species, are used, or will be used, to assess the evolution of population status and associated use?

Food production species indicators

The population status and associated use of marine species are monitored by the Queensland Government Department of Agriculture and Fisheries. This department recognises the importance of reporting on fisheries as a component of sustainable management and use an extensive range of indicators to assess the state of fisheries stocks including:

- Stock status assessments where a panel of experts determine the status of important fish species using a nationally agreed and recognised classification framework (Status of Australian Fish Stocks); and
- Fish stock assessment reports which involve statistical analyses to determine the status of fish populations and predictions about how the populations are likely to respond to alternative management choices.

These assessments can be viewed at

<https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-compliance/data>.

Conservation and cultural practice species indicators

Indicators used to assess the population status of species important for conservation and cultural practices are discussed in section 14.2.3.

14.3.4 What measures will be used to conserve genetic diversity and practices associated with their conservation?

Food production species measures

The Department of Agriculture and Fisheries is responsible for implementing the *Queensland Sustainable Fisheries Strategy 2017–2027* and administering the *Fisheries Act 1994*. They conduct and publicly report Ecological Risk Assessments to identify and measure the ecological risks of fishing and issues requiring further management under harvest strategies. This Department also has a strategy for managing compliance with fisheries legislation (*Managing Fisheries Compliance in Queensland 2015*) to strengthen the sustainability of the industry.

Conservation and cultural practice species measures

Measures taken to conserve habitat, and therefore genetic diversity of species important for conservation and cultural practices, are discussed in sections 14.2.3, 14.2.4 and 14.2.5.

15. DEVELOPMENT FUNCTION

Development on the Sunshine Coast is built on strong policies to deliver transformational projects that drive economic growth, create strong, connected and resilient communities and at the same time protect natural assets. An established process of monitoring, evaluation and reporting facilitates continual learning and improvement.

15.1. Potential for fostering economic and human development which is socio-culturally and ecologically sustainable:

15.1.1 Describe how and why the area has potential to serve as a site of excellence/model region for promoting sustainable development.

As a local government, it is Sunshine Coast Regional Council's role to foster sustainable development. Council has embraced the long term aspirational vision to be *Australia's most sustainable region – Healthy. Smart. Creative*. This vision is anchored in the economic prosperity of our community, and at the same time focused on the liveability of the region, ensuring our environmental assets remain a valuable community resource for generations to come. Clever planning is required so that our region can be adaptable, diverse and agile.

Council's three long term strategies (*Community Strategy 2019-2041*, *Environment and Liveability Strategy 2017* and *Regional Economic Development Strategy 2013-2033*), as well as the *Sunshine Coast Corporate Plan 2019–2023* and the *Sunshine Coast Planning Scheme 2014* all guide the growth of the region (section 13.1). The *Sunshine Coast Corporate Plan 2019–2023* provides an essential connection between long term strategies. Major projects are required to identify and justify their alignment to the strategic goals within the Corporate Plan. This alignment between council's vision, strategies and delivery of projects provides a balanced approach to sustainability.

Council is committed to protecting and enhancing the region's liveability, economy, built environment and natural assets for both current and future generations. Demonstration of this commitment and outcomes achieved is discussed in section 15.1.2 through to section 15.6.4.

15.1.2 How do you assess changes and successes (which objectives and by which indicator)?

Progress reporting occurs regularly for all three long term regional strategies, the *Community Strategy 2019–2041*, the *Environment and Liveability Strategy 2017*, and the *Regional Economic Development Strategy 2013–2033* (Figure 13.2).

Council has developed a strategic planning and reporting framework: to enable meaningful reporting on how these strategies are progressing; whole of organisation reporting across all of the strategies to continue to guide decision making and investment towards delivery of Council's vision. Actions are aligned to outcomes, and where necessary interim output measures.

Performance monitoring includes quarterly, annual and four to five year check points that align to strategic outcomes. This structure uses indicators which determine if actions are delivering the desired results and if corrective actions are required to deliver outcomes.

Measurement against indicators is presented to the community via reports (Figure 15.1) which also inform Council's annual reporting and the Mayor's annual State of the Region address.

The 2018 Mayor's State of the Region address can be viewed at:

https://www.youtube.com/watch?v=X_Ryv6g_HEI and annual reports can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Budget-Financial-and-Annual-Reports/Annual-Report>. Reporting is publicly available to foster transparency and accountability.

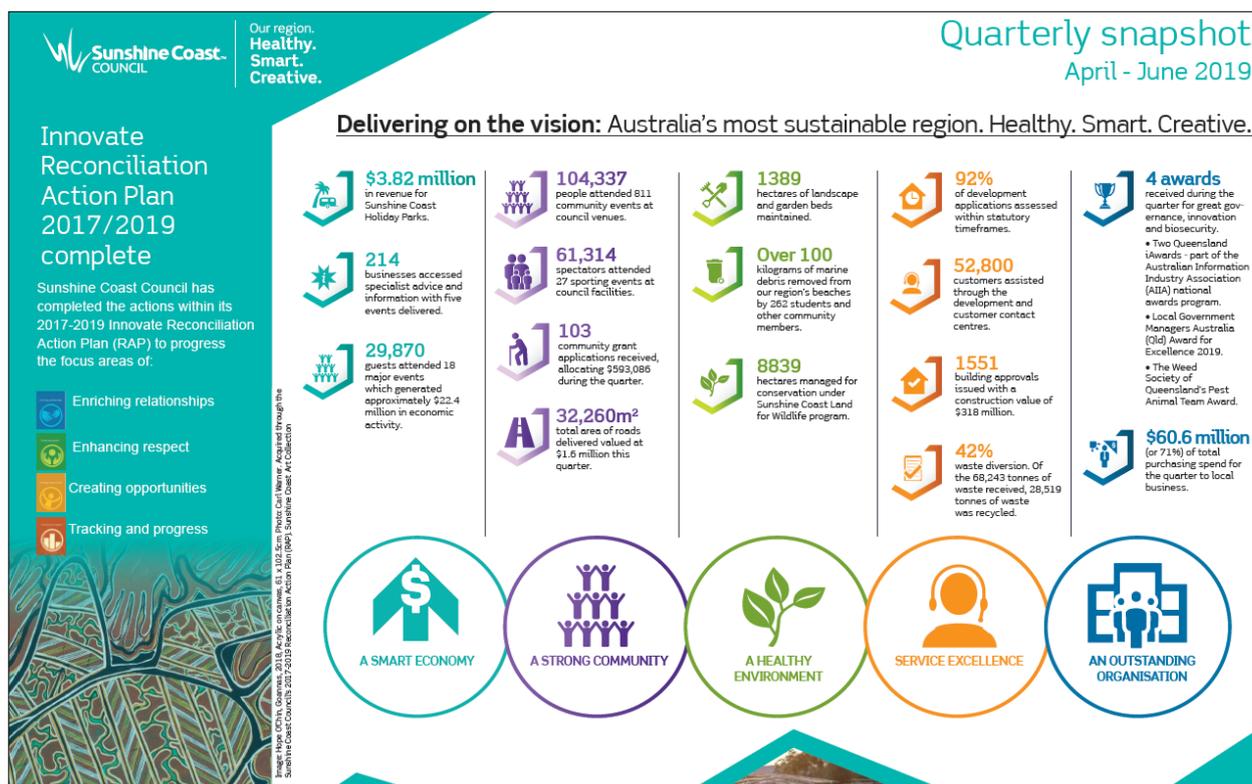


Figure 15.1: An example of quarterly reporting presented to the community.

The *Community Strategy 2019–2041* has recently been developed and a community consultation process served to form indicators for assessing the effectiveness of the strategy. While reporting for this strategy has not yet commenced, methods to track progress are discussed in section 15.4.1.

The *Environment and Liveability Strategy 2017* annual report tracks progress against five performance measures which are benchmarked against the baseline year of 2017 when the strategy was first implemented (Figure 15.2). The annual report presents a range of case studies which highlight the key actions and projects within the natural environment, the built environment, along with the way we live in a resilient region shaped by clever planning and good design.

Target	Baseline	2017-2018	Outcome	
A resilient region shaped by clever planning and good design				
1	No loss of the Regional Inter-urban Break in its current extent – 32,034 ha	32,034 ha	32,034 ha	No change to the current extent
Protection and enhancement of our natural assets and distinctive landscapes				
2	Hectares of land per 1000 residents acquired through Environment Levy for conservation and preservation purposes (maintained at 9.6 ha per 1000 residents)	9.6 ha per 1000 residents	10.69 ha per 1000 residents	A total of 405 ha acquired
Responsive accessible and well managed assets and infrastructure				
3	Hectares of land per 1000 residents for sport and recreation purposes (maintained at 5 ha per 1000 residents)	4.74 ha per 1000 residents	4.43 ha per 1000 residents	A total of 44 ha secured
Transitioning to a sustainable and affordable way of living				
4	Renewable energy capacity increased	124 MW	162 MW	Increase of 38 MW
A reputation for innovation and sustainability				
5	Council's greenhouse gas emissions reduced	0.46 tCO ₂ e per resident	0.45 tCO ₂ e per resident	Decrease of 0.01 tCO ₂ e per resident

ha – Hectares
 MW – Megawatts
 tCO₂e – Tonnes of carbon dioxide equivalent

Figure 15.2: Example of Environment and Liveability Strategy 2017 performance measures and results.

The *Regional Economic Development Strategy 2013–2033* requires Council to report against goals and targets. The baseline reporting year is 2013 (Figure 15.3). Case studies are also provided in this report to demonstrate progress.



Figure 15.3: Example of Regional Economic Development Strategy Implementation Report Card 2013–2018.

These examples of annual reporting demonstrate a community that aims to be transparent and accountable, as well as highlighting areas to improve. Policies are regularly reviewed and updated based on learnings from annual reporting.

15.2. If tourism is a major activity:

15.2.1 Describe the type(s) of tourism and the touristic facilities available. Summarize the main touristic attractions in the proposed biosphere reserve and their location(s).

Sunshine Coast tourism region, recognised as one of Queensland's 'best loved holiday destinations', offers a wide variety of natural experiences. It has 60 kilometres of open shoreline, eight National Parks and two neighbouring UNESCO biospheres. Its warm temperate climate, tapestry of coastal and hinterland villages, world class resorts and quality restaurants provide for a range of major and regional events.

The region is rapidly becoming known for its fresh produce and relaxing pace, making tourism both a major economic activity and lifestyle driver for the Sunshine Coast.

The main tourism attractions of the Sunshine Coast include:

- Attractions - Australia Zoo at Beerwah, Sea Life at Mooloolaba, Ginger Factory at Yandina, Big Kart Track, Aussie World, Tree Top Challenge and Swim with the Whales (Australia's first swim with Humpback Whales experience);
- Hinterland villages - Maleny and Montville;
- Beaches - especially Mooloolaba and Coolum;
- Protected areas – Glass House Mountains, Kondalilla Falls in the hinterland, Mount Coolum National Park and Mary Cairncross Scenic Reserve near Maleny;
- Holiday parks - Camping and caravanning;
- Network of historical museums and heritage places – discussed in section 10.6;
- Markets - Eumundi markets; and
- Events - Caloundra Music Festival, Sunshine Coast Marathon at Mooloolaba, Horizons Festival (culture and art displayed across the region), Sunshine Coast Lightning (netball team) with home games at the University of the Sunshine Coast stadium.

A full list of tourist attractions can be viewed at <https://www.visitsunshinecoast.com/>.

15.2.2 How many visitors come to the proposed biosphere reserve each year?

(Distinguish between single-day visitors and overnight guests, visitors only visiting the proposed biosphere reserve or only passing on the way to another place). Is there an upward or downward trend, or a particular target?

The number of visitors to the region has been increasing with an average of just over six million people visiting annually since 2010 (Table 15.1). Most visitors are from within Australia and visit for one day (about four million). Some visitors are from overseas and, since 2010, their average length of stay is 13 days (Sunshine Coast Council, 2019).

Table 15.1: Growth in tourism numbers and length of stay from 2010/2011 financial year to 2017/2018 financial year for the Sunshine Coast (Sunshine Coast Council, 2019). Note that these tourism statistics are for the Sunshine Coast local government area and do not include tourists from nearby areas such as Noosa and Gympie.

Sunshine Coast 2010/11-2017/18	International visitors			Domestic overnight visitors			Domestic daytrip visitors	TOTAL VISITORS
	Year	Visitors	Visitor nights	Average length of stay (days)	Visitors	Visitor nights	Average length of stay (days)	
5 year average	101,231	1,300,527	13.0	2,017,046	6,836,747	3.4	3,993,065	6,111,342
2017/18	128,896	1,490,889	11.6	1,946,583	6,533,763	3.4	4,463,342	6,538,821
2016/17	100,767	1,317,053	13.1	2,057,420	6,802,471	3.3	3,995,059	6,153,246
2015/16	97,726	1,251,297	12.8	1,987,285	6,583,083	3.3	4,003,291	6,088,302
2014/15	89,921	1,103,784	12.3	2,100,698	7,246,322	3.4	3,839,197	6,029,816
2013/14	88,843	1,339,612	15.1	1,993,243	7,018,098	3.5	3,664,435	5,746,521
2012/13	93,571	1,475,340	15.8	1,721,623	6,694,018	3.9	4,066,332	5,881,526
2011/12	116,498	1,405,115	12.1	1,712,956	6,202,326	3.6	3,667,788	5,497,242
2010/11	121,926	1,414,992	11.6	1,810,835	6,805,545	3.8	3,048,546	4,981,307

15.2.3 How are tourism activities currently managed?

Visit Sunshine Coast, a not for profit, membership based, destination marketing organisation, is responsible for the management, development and promotion of tourism on the Sunshine Coast.

Visit Sunshine Coast is supported by the Queensland Government Department of Innovation, Tourism, Industry Development and Commonwealth Games and their associated strategies and plan.

Sunshine Coast Regional Council's *Regional Economic Development Strategy 2013–2033* supports tourism through actions and projects since tourism has been identified as a high value industry for the region.

Visit Sunshine Coast has a *Visit Sunshine Coast Strategic Plan* and a *Sunshine Coast Destination Tourism Plan*, focusing on:

- Destination promotion (strong partnerships and engaged and active members);
- Unforgettable experiences (catalysts for new products and visitor access);
- Sustainable tourism industry (demand and 'best in class' digital); and
- Organisational effectiveness (financial sustainability).

Tourism management documents can be viewed at <http://www.visitsunshinecoast.com/Corporate/About-us/Strategy-and-plans>.

15.2.4 Indicate possible positive and/or negative impacts of tourism at present or foreseen and how they will be assessed (linked to section 14)

It is recognised that tourists who base themselves in nearby areas, such as Noosa and Gympie, also enjoy the Sunshine Coast during their holiday experience. The Sunshine Coast is aware that this significantly increases tourism numbers (Table 15.1) and the associated opportunities and challenges.

As tourism grows within the region, so does the local economy in terms of jobs and financial stability for local people and families. Tourism is also a platform for protecting and preserving culture and heritage values as well as passing on traditional knowledge to future generations.

With many natural assets, such as beautiful national parks and stunning beaches, tourists to the Sunshine Coast can experience a connection with nature, and participate in educational activities that facilitate their understanding and appreciation for flora, fauna, natural systems and geology. These tourism experiences can positively impact the natural environment as well as visitor health and wellbeing.

If tourism is not managed properly, there could be impacts such as environmental degradation, decreased water quality and safety issues for both wildlife and people. The impacts of climate change (section 13.1) could also present challenges for the tourism industry. Tourism operators on the Sunshine Coast generally recognise that the natural environment supports their livelihoods and strive to operate safely and effectively while minimising environmental impacts as much as possible. Ongoing management and monitoring of these activities will help to ensure the maintenance of a healthy and sustainable nature based tourism industry. A number of protection mechanisms are in place to mitigate the potential water quality, wildlife and vegetation impacts (section 14.1.3) of high visitation rates as well as the potential impacts of climate change (sections 15.4.1, 16.1.1 and 16.1.2).

15.2.5 How will these impacts be managed, and by whom?

The Queensland Government owns and manages protected areas such as national parks and marine parks. It's Department of Environment and Science is required by legislation (Nature Conservation Act 1992) to develop and implement management plans for areas that have important natural and cultural values. These plans then align with management principles for the area and establish outcomes to manage visitor impact.

For example, management plans exist for Kondalilla National Park, Maroochy River Regional Park, Mooloolah River National Park and Mount Coolool National Park, and can be viewed at <https://parks.des.qld.gov.au/managing/plans-strategies/>.

Moreton Bay Marine Park is also managed by the Department of Environment and Science and has a zone plan which specifies the activities that can occur in the four different zones across the protected marine area. This plan serves to manage visitor impact and can be viewed at <https://parks.des.qld.gov.au/parks/moreton-bay/>.

The Sunshine Coast Regional Council's *Environment and Liveability Strategy 2017* and the *Environment Reserves Network Management Plan 2017–2027* together manage environmental impacts and opportunities on Council owned and managed areas.

The *Environment Reserves Network Management Plan 2017–2027* aims to provide an overarching management framework that guides the operational management of all Council environmental reserves. The plan was developed from international standards in reserve management and recognises the importance of developing a reserve network that is not only protecting the plants and animals within the reserves, but is also resilient to change, is cost effective and contributes to community wellbeing and livelihood.

A cornerstone of the plan is the zoning of reserves into five categories that guide how public access is managed according to site attributes. This zoning ensures an equitable distribution of access to reserves while also protecting sensitive areas and maintaining the Sunshine Coast's natural assets.

A detailed action plan ensures the *Environment Reserves Network Management Plan 2017–2027* is implemented and that outcomes can be monitored and reported under the following five themes:

- Protecting ecosystem service, resilience and livelihood benefits;
- Protecting biodiversity;
- Sustainable public access;
- Building knowledge; and
- Biodiversity partnership and community involvement.

Council implements the action plan as part of its annual operational plan.

15.3. Agricultural (including grazing) and other activities (including traditional and customary)

15.3.1 Describe the type of agricultural (including grazing) and other activities, area concerned and people involved (including men and women).

The Sunshine Coast's food and agribusiness industry is characterised by a diverse range of sectors including poultry, seafood, horticulture, cattle, dairy and specialty dairy production (Figure 15.4).

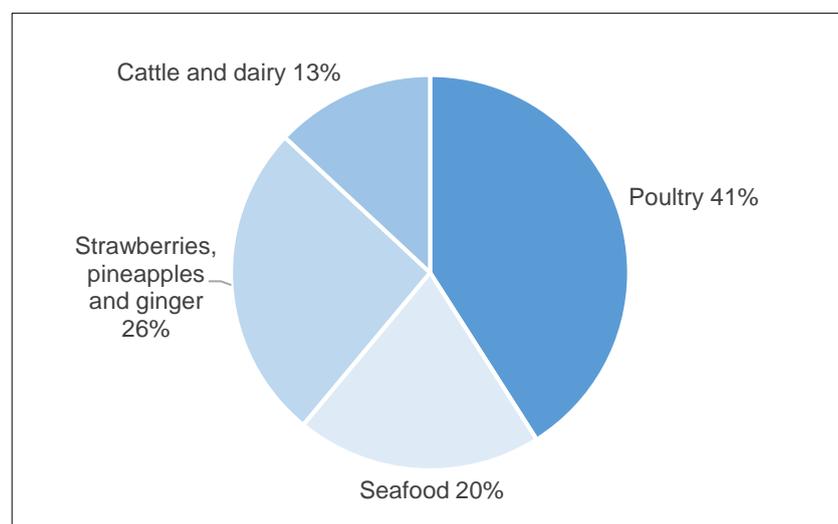


Figure 15.4: The value (%) of primary production types on the Sunshine Coast (Sunshine Coast Council, 2017).

Mooloolaba is a key fishing port in the region for tuna, billfish, snapper, mackerel, cobia and pearl perch commercial fishing. Prawns (Mooloolaba Prawn), bugs, squid, scallops are also fished in the area (Australian Government, 2019). Wild caught seafood is a significant growth

area. It is estimated that it contributes \$185 million to the local economy (ABS, 2018). Walkers Seafood, for example, is the largest wild caught tuna and swordfish business nationally. This company is also Australia's only Marine Stewardship Council (sustainable fishing) certified tuna company.

The Sunshine Coast agribusiness industry is valued at \$700 million, with more than 900 businesses (University of the Sunshine Coast Food Research Group, 2018) employing more than 5,000 people. There is a growing focus on manufacturing processes that increase the value of products. This 'value add' currently represents \$390 million of the total economic value of agribusiness (Figure 15.5).

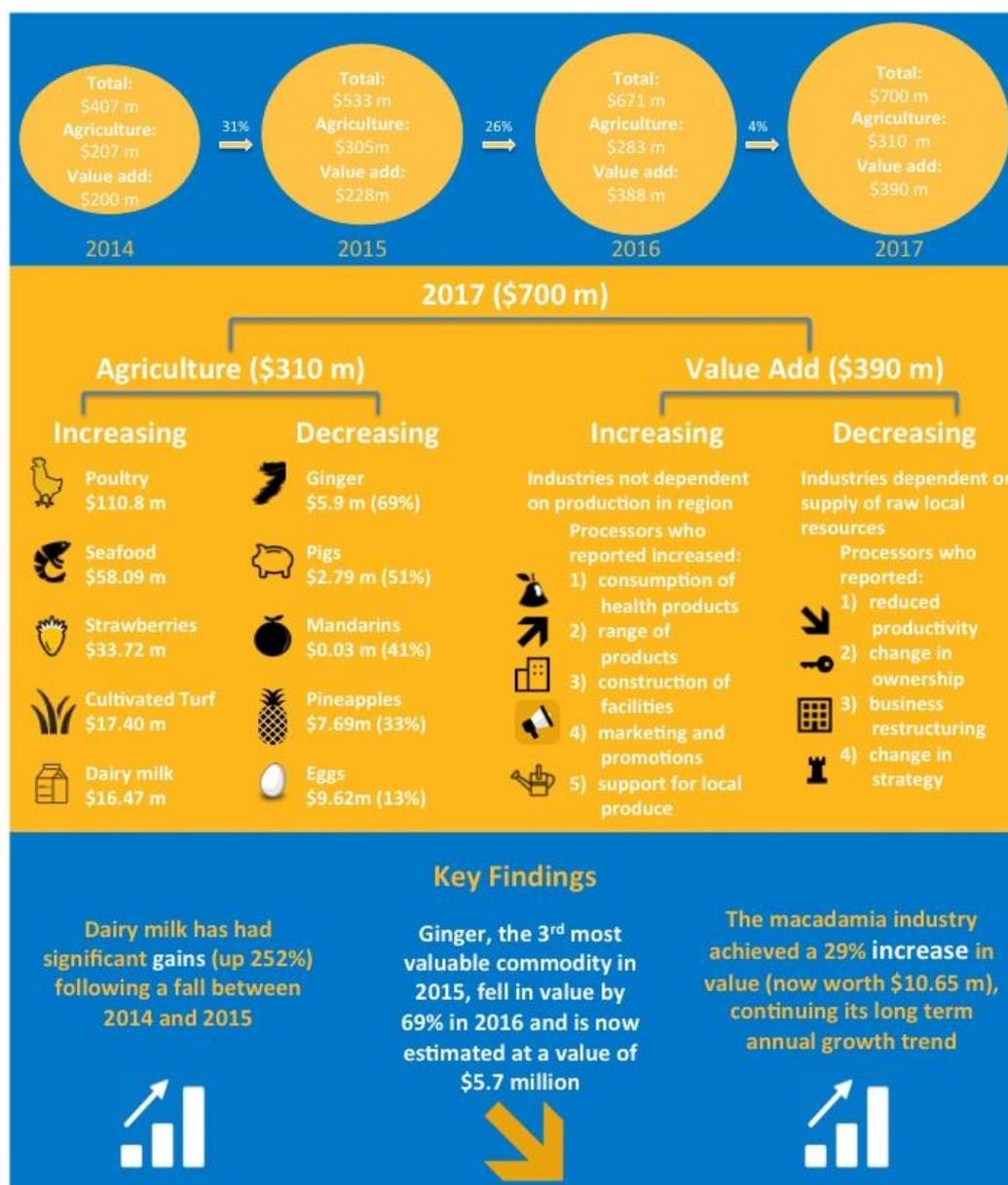


Figure 15.5: Profile of food and agribusiness on the Sunshine Coast (Birch-Chapman, Hastings and Lawley, 2018).

A 23% increase in the economic value of agriculture over the last decade is representative of a demand that is expected to grow significantly through the Asian markets, particularly with Free

Trade Agreements with Japan, China and Korea. The region is rapidly being recognised as one of the most dynamic locations for new agribusiness investment in Australia.

Leading Australian food manufacturers and exporters such as Gourmet Garden, Networks and Buderim Ginger are located in the region, showcasing the Sunshine Coast as an ideal investment location for similar high calibre companies. Expansion of the Sunshine Coast airport will be used to leverage opportunities for local agribusinesses to increase export and attract more agribusiness investment.

The Sunshine Coast is also home to the fastest growing food industry cluster (not for profit) in Australia. The Food and Agribusiness Network (FAN) has become renowned nationally and internationally for its unique collaboration and facilitation through industry engagement. FAN now has over 300 members and delivers a range of programs and initiatives.

Overall the Sunshine Coast is being increasingly known for healthy, smart, creative produce and for production of functional and nutritious foods with various direct health benefits.

15.3.2 Indicate the possible positive and/or negative impacts of these activities on biosphere reserve objectives (section 14).

The Sunshine Coast already has strong foundations in niche food and beverage production and value adding, as well as a reputation for producing high-quality fresh foods in a clean environment. Food production, agribusiness and fisheries contribute to the Sunshine Coast identity and provide economic and social opportunities for the region, such as jobs and increased incomes.

It is recognised that agriculture and commercial fishing activities can have environmental impacts, such as land degradation, reduction of water quality in wetlands and water ways, or depletion of fish stocks, if not managed sustainably. It is also recognised, and land / sea use managers are aware, that there is a need to practice sustainable farming and fishing in the region so as to retain the long term viability of these industries. The measures implemented to strengthen positive impacts while mitigating negative impacts are discussed in section 15.3.4.

15.3.3 Which indicators are, or will be used to assess the state and its trends?

Indicators to measure and track environmental, social and economic impacts and benefits within the region were discussed in section 15.1.2 (monitoring occurs through the *Environment and Liveability Strategy 2017*, *Community Strategy 2019–2041* and *Regional Economic Development Strategy 2013–2033*).

Indicators used by the Queensland Government, Department of Agriculture and Fisheries were discussed in section 14.3.3 and highlights a large number of indicators used for stock assessments and the status of fish populations.

The Department of Agriculture and Fisheries also uses social and economic indicators to inform their fisheries management objectives and management decisions, as well as provide information about the economic contribution of commercial fishing. These indicators can be viewed at <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-compliance/monitoring-reporting/commercial-fisheries/fisheries-queensland-economic-and-social-data-collection>.

15.3.4 What actions are currently undertaken, and which measures will be applied to strengthen positive impacts or reduce negative impacts on the biosphere reserve objectives?

The Queensland Government's Department of Agriculture and Fisheries, has an *Agriculture and Food: 10 Year Road Map and Action Plan* to strengthen and grow Queensland rural industries through extension (education), research and development. It recognises that these three activities underpin responsible land use and sustainable farming practices, which in turn produce better quality products and higher profits.

The Sunshine Coast's *Regional Economic Development Strategy 2013–2033* complements Queensland Government strategies with pathways for maximising benefits and opportunities for agribusinesses. For example, key Asian export markets value imported 'clean and green' products. These products have the potential to attract a premium price in some overseas markets. Becoming a biosphere could assist with raising the profile of 'clean and green' produce from the Sunshine Coast to attract associated benefits.

There are a number of not for profit landcare, water watch and catchment care community groups across the Sunshine Coast who implement projects such as vegetation planting (rehabilitation of sites), weed control, erosion control and water monitoring projects. These groups also conduct community involvement and education programs to support sustainable farming practices.

Measures taken for impacts associated with fishers were discussed in section 14.3.4 and includes the *Queensland Sustainable Fisheries Strategy 2017–2027* and management of compliance to the strategy.

15.4 Other types of activities positively or negatively contributing to local sustainable development, including impact/influence of the biosphere reserve outside its boundaries.

Local sustainable development

Sunshine Coast Regional Council has a five staged approach to sustainable development in the region:

1. A vision to be *Australia's most sustainable region – Healthy. Smart. Creative.* (section 13.1);
2. Long term strategies in place (*Community Strategy 2019–2041, Environment and Liveability Strategy 2017* and the *Regional Economic Development Strategy 2013–2033*) to shape the region by guiding growth while maintaining liveability and natural assets into the future (section 13.1);
3. The *Sunshine Coast Planning Scheme 2014* (section 9.3) which regulates land use and development across the council area in a sustainable manner (section 13.1);
4. A *Corporate Plan 2019-2023* with goals that provide the community and the organisation with a line of sight, from our vision to the programs, projects and services that are provided by Council to residents, businesses and visitors. The goals of a strong community, a healthy environment, a smart economy, service excellence and an outstanding organisation are also positioning the Sunshine Coast at the forefront of economic prosperity, liveability and sustainability (section 13.1); and

5. Major projects and programs delivered by Sunshine Coast Regional Council, key stakeholders and the community for the community, the environment and the economy.

The Sunshine Coast's three long term strategies, the *Community Strategy 2019–2014*, *Environment and Liveability Strategy 2017* and *Regional Economic Development Strategy 2013–2033*, outline policy areas where resources and efforts are currently focused.

Policy focus areas in the *Community Strategy 2019–2041* (supporting document 12) include:

- Healthy active communities;
- Vibrant communities;
- Inclusive communities;
- Connected resilient communities; and
- Creative, innovative communities.

Policy focus areas in the *Environment and Liveability Strategy 2017* (supporting document 13) include:

- The natural environment;
- The environment we create (the built environment); and
- Living in the environment (section 16.2).

The *Regional Economic Development Strategy 2013–2033* (supporting document 14) has a number of pathways and priorities for delivery by 2023. Some of the policy focus areas in the *Regional Economic Development Strategy 2013–2033* include:

- Health and wellbeing;
- Education and research;
- Knowledge industries and professional services;
- Tourism (section 15.2), sport and leisure;
- Food and agribusiness (section 15.3);
- Clean technologies; and
- Aviation and aerospace.

Council has additional policy focus areas, currently in progress, which will contribute to sustainable, local development including:

- *Draft Sunshine Coast Design Strategy*; and
- The Regional Inter-Urban Break (IUB).

Other examples of major projects and programs, driven by policy actions and contribute to local sustainable development include:

- The City Deal initiative;
- Maroochydore City Centre and Smart Cities program;
- Sunshine Coast mass transit project;
- International broadband submarine cable;
- Sunshine Coast Solar Farm;

- Cities Power Partnership;
- Our resilient coast, our future;
- The Blue Heart;
- Environment Levy program;
- Land for Wildlife program;
- Disaster Hub;
- University of the Sunshine Coast thermal energy storage tank for clean energy;
- Stockland's Aura community programs;
- Sunshine Plaza sustainability actions; and
- Compass Institute – disability service Sunshine Coast.

The policy focus areas and examples of major projects and programs and their contribution to sustainable development is discussed below in section 15.4.1. A full list of major projects can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects>.

These policy directions and major projects have delivered a number of positive outcomes to date, such as increased jobs, investment, improved facilities and services and increasing the Sunshine Coast Regional Council's conservation estate.

Influence outside the region

The Sunshine Coast is demonstrating leadership through developing policy, major projects and sustainability solutions to regional, national and international challenges. These efforts have received recognition through for example:

- The *Environment and Liveability Strategy 2017* winning the Parks and Leisure Australia Strategic Planning Award 2018;
- Projects from the *Regional Economic Development Strategy 2013–2033* winning the 2017 Economic Development Awards for Excellence in the Economic Development – Single Event or Activity category and the Economic Development Initiatives – over 15,000 residents category; and
- Other projects from the above strategy were finalists in the Economic Development through Partnerships category, Community in Economic Development category and Digital Entrepreneurs category.

The Sunshine Coast Solar Farm attracts interest from local governments across Australia who are looking to learn how they might transition towards renewable energy. In its first year of operation, the solar farm received five prestigious awards:

- Local Government Managers Australia: Queensland 2018 Awards for Excellence - Sustainability category winner;
- Local Government Professionals Federation Awards - Environment and Sustainability Award;
- National Awards for Local Government - Boosting productivity through infrastructure Award;
- Planning Institute Australia 2017 Awards for Planning Excellence (Queensland) - Wendy Chadwick Encouragement Award; and

- Australian Regional Development Awards 2018 - Environment and Sustainability Award.

The benefits combined from the three strategies and major projects flow into neighbouring local government areas, Noosa and Great Sandy Biospheres. For example, tourists who travel to the region using the internationally accredited carbon neutral Sunshine Coast Airport may also visit Noosa and Fraser Island, thereby contributing to the economy in neighbouring biospheres and local government areas.

15.4.1 Describe the type of activities, area concerned and people involved (including men and women).

Policy focus areas

Community Strategy 2019-2014

Community consultation about the recently adopted *Community Strategy 2019–2041* has been used to develop outcomes, priorities and methods to track progress toward achieving outcomes. The identified priorities have become policy focus areas. Actions implemented under this strategy align with the priorities to achieve outcomes, and progress will be tracked using indicators (Table 15.2).

Table 15.2: Community Strategy 2019–2041 outcomes, priorities and methods to track progress.

Outcome area	Priorities	How it might be measured
Healthy active communities	<p>Our community is one of the healthiest regional communities in Queensland.</p> <p>People have adequate access to health and wellbeing programs to get physically active and improve their wellbeing.</p> <p>Access to information supports better physical and mental health in our community.</p> <p>Research and partnerships support opportunities to improve health and wellbeing outcomes for the community.</p> <p>The health and wellbeing of our community is strengthened through active participation.</p> <p>The benefits of volunteering and active participation are promoted.</p> <p>Attractive opportunities for people to volunteer are available.</p> <p>Volunteers have access to learning opportunities that build their skills and capacity.</p> <p>The contribution of volunteers is acknowledged and celebrated.</p>	<p>As one of the healthiest regions in Queensland, data on risk and protective factors published by the Queensland Government's Chief Health Officer will be used to track progress towards the outcome area. This includes physical activity, nutrition, body mass index, rates of sunburn, smoking and alcohol consumption. This data will be complemented by other factors, such as participation rates in Council's Healthy Sunshine Coast program.</p>
Vibrant communities	<p>Our community has community infrastructure to meet their needs.</p> <p>Council's community infrastructure is welcoming, inclusive, adaptable and activated.</p>	<p>Progress toward outcomes for vibrant communities will be measured using data on the percentage of people who feel safe in public spaces and</p>

Outcome area	Priorities	How it might be measured
	<p>Evidenced community need drives planning, design and provision of community land and community asset provision.</p> <p>Council owned community facilities are well utilised.</p> <p>Our community has great places and spaces for all.</p> <p>The public realm supports activated, vibrant places that are green, accessible, inclusive, safe and reflect local character.</p> <p>Efficient and effective transport solutions connect people to great places and spaces.</p>	<p>facilities after dark. This data will be complemented by other factors such as utilisation rates of Council's community facilities.</p>
<p>Inclusive communities</p>	<p>Our community is equitable and inclusive.</p> <p>The value that all people bring to our community is recognised, respected and embraced.</p> <p>Opportunities are available for everyone in our community to participate socially and economically.</p> <p>Our community has housing opportunities that match community need.</p> <p>Relevant organisations are brought together to develop collaborative regional responses to local housing needs as we grow.</p> <p>Advocate for appropriate responses to the housing needs of the community.</p>	<p>Progress towards inclusive communities will be measured through improving our social and economic opportunities relative to other Queensland regional communities over time. This includes increased participation in economic and employment opportunities, access to suitable housing and income levels. These factors are measured through a number of indices from the Australian Bureau of Statistics Socio-Economic Indexes for Areas (SEIFA), including but not limited to economic advantage and disadvantage, education and occupation and economic resources. This will be complemented with selected indicators from the Scanlon-Monash Social Cohesion Index and housing stress will also be included.</p>
<p>Connected resilient communities</p>	<p>Our community is strengthened through connection.</p> <p>Place based approaches strengthen connections between people and their community.</p> <p>High perceptions of community safety are achieved through collaborative partnerships.</p> <p>Community resilience to disaster events is strong.</p> <p>Our community develops innovative solutions to complex community challenges.</p> <p>Community organisations and social enterprise have the capacity to respond to complex community challenges.</p> <p>Social research supports decision making and monitoring.</p>	<p>Progress towards a connected, resilient community will be measured through improving the percentage of people who say they have someone they know in the community they can turn to in times of need. This will be complemented by data on levels of trust and reciprocity towards others.</p>

Outcome area	Priorities	How it might be measured
	<p>Effective action on complex community challenges is undertaken in collaboration with key partners.</p> <p>Our community has efficient options.</p> <p>A connected and integrated, smart and sustainable, and safe and efficient transport network is delivered with other levels of government.</p>	
<p>Creative innovative communities</p>	<p>Our community nurtures innovative opportunities that provide social and economic benefits.</p> <p>Growth in employment and income in the community is supported through the social benefit and creative sectors.</p> <p>Growth in local employment and the local economy is strengthened through buying from local business.</p> <p>Funding opportunities are aligned to support the community to respond to local challenges.</p> <p>Our community enjoys rich and diverse arts and cultural experiences.</p> <p>Arts and culture continue to build connection and broaden regional arts and cultural experiences.</p> <p>The shared cultural histories of the region are preserved, protected and celebrated.</p> <p>Our community has a unique identity that sets us apart.</p> <p>Free or low cost community events and celebrations are available for our community.</p> <p>The key elements of the unique identity of the region are enhanced and protected.</p> <p>The development of cultural and leisure experiences is supported and expanded.</p>	<p>Progress toward creative, innovative communities will be measured through increasing the percentage of people who report they are engaged with the creative and performing arts sector as workers, participants or audience. This will be complemented by data on increases in entrepreneurial activity through growth in the social enterprise ecosystem and the proportion of business owners.</p>

Environment and Liveability Strategy 2017

This strategy focuses on three different areas: the natural environment, the environment we create, and living in the environment. The three areas have policy positions, targets and transformational actions that are integrated and leverage off each other to deliver environmental sustainability outcomes.

The natural environment

Council's strategic directions for the natural environment are to preserve and enhance the natural assets and associated ecological values, while benefiting from the products and services it provides. These strategic directions are progressed under four themes and targets (Table 15.3).

Table 15.3: Natural environment policy themes, targets and outcomes.

Policy theme	Target	Snap shot of results (2019)
Landscape and Character Preserving and promoting natural and built environments, the vistas and scenic corridors which are important to the region's character and identity.	No loss of the Regional and Sub-regional Inter-Urban Breaks in their current extent by 2041.	There were 32,034 hectares in the Regional Inter-Urban Break in 2016. The extent has not changed.
Biodiversity Preserving and enhancing native plants and animals and their habitats to remain healthy, resilient and valued by all the community.	Maintain the 2016 extent of native vegetation (no net loss) by 2041.	Sunshine Coast Regional Council's Bushcare program supports more than 40 groups to conserve and restore our natural bushland. Results from the Environment Levy program are discussed under the Major Projects and Programs subheading in section 15.4.
Waterways and Wetlands Preserving and enhancing aquatic habitats and wildlife across river catchments and facilitating sustainable recreational use.	Maintain and improve the ecological health of waterways and wetlands across each of the river catchments to a grade of good or excellent by 2041.	Over 13 hectares of riparian habitat along our waterways under restoration, through the Environment Levy Program.
Coastal Preserving a healthy coastal environment, responding to coastal hazards, facilitating recreational uses and maintaining our coastal lifestyle.	Maintain and improve the health of our coast to a grade of good or excellent by 2041.	The Coastal Health Report framework is discussed in section 16.

The environment we create (built environment)

Building approvals in the local government area were valued at about \$1.64 billion (2018). The built environment is growing and clever planning is needed to ensure the landscape and character of the region is protected and enhanced for the future. Therefore, this policy area focuses on the built environment and in particular growth management, liveability and the sustainable design of our neighbourhoods, dwellings and open spaces. These strategic directions are progressed under five themes (Table 15.4).

Table 15.4: Built environment themes, targets and outcomes.

Policy theme	Target	Snap shot of results (2019)
Open Space Creating a diverse network of reserves, parks, sports grounds and trails that provide green spaces to conserve, create and reflect, contributing to landscape	Maintain the rate of five hectares per 1,000 residents and ensure an equitable distribution of publicly accessible, open space by 2041.	A total of 49.1 hectares of core open space was secured or transferred to Council to increase the open space network.

Policy theme	Target	Snap shot of results (2019)
character and our healthy lifestyle.		Adventure Sunshine Coast website launched to showcase more than 150 free, self-guided walking, cycling, mountain biking, horse riding and canoeing activities to connect nature and people. A Sunshine Coast Street Tree Master Plan has been developed, adopted and is being implemented.
Flooding and Stormwater Managing flood risk and protecting people and the natural and built environments through proactive planning and a quality urban stormwater network.	All urban areas to have local area drainage models by 2041.	Local area drainage models for urban areas are in progress.
Neighbourhoods and Housing Developing neighbourhoods and housing that promote and provide a diversity of affordable and sustainable living options for all our community, supported by appropriate infrastructure and services.	Increase the diversity of affordable living options by 2041.	Council is working with not for profit housing providers to achieve this target.
Social Infrastructure Creating a network of facilities and services that encourage community participation, nurture physical and mental health, and build community resilience.	The principal and each major activity centre to host a suite of social infrastructure including a community venue, library, aquatic centre and indoor sport and recreation facility to meet community need by 2041.	1,406,851 visitors to our local libraries. Events at community centre in Kawana, Venue 114, had more than 82,000 attendees. The Baringa Community Centre was opened to provide a vibrant place for community, creative and event activities. Social infrastructure improvements delivered energy savings at Caloundra Indoor Sports Stadium and Kawana Sports Precinct. 250,000 visitors to six holiday parks located across the Sunshine Coast. The Healthy Sunshine Coast program saw over 20,000 residents and visitors enjoying over 20 program offerings including, outdoor yoga, tai chi, group fitness, guided bushwalking and cultural dancing.
Sustainable Design Facilitating urban and architectural design that is	Increase the number of developments which are verified as achieving a	The Draft <i>Sunshine Coast Design Strategy</i> is discussed under the Policy focus areas in

Policy theme	Target	Snap shot of results (2019)
responsive to the changing environment and minimises the impacts of our living footprint.	minimum Green Star Rating of 5 and/or NABERS rating of 5, or equivalent nationally recognised sustainability rating, by 2041.	progress subheading, section 15.4. Unveiled the Sunshine Coast City Hall design which incorporates sustainable building design outcomes.

Living in the environment

Growth of the Sunshine Coast creates opportunities to embed sustainable living into the way residents live, work and play. The *Environment and Liveability Strategy 2017* establishes the strategic directions that equip us to live within the natural and built environments, to build resilience and liveability through sustainable, adaptable and affordable living practices. These strategic directions are grouped into three themes so as to achieve outcomes (Table 15.5).

Table 15.5: Living in the environment policy themes, targets and outcomes.

Policy theme	Target	Snap shot of results (2019)
Energy and Resources Transitioning to a low carbon community through clean and secure energy sources, effective and efficient use of resources (including waste) and emerging technologies.	Sunshine Coast Council is a zero-net emissions organisation and the community is low carbon by 2041.	In preparation for the zero-net emissions organisation target, additional emission sources have been included in Council's greenhouse gas emissions inventory for 2018/19, in compliance with the National Greenhouse Gas Protocol. The total organisational greenhouse gas emissions for the Sunshine Coast Regional Council, including additional emission sources for 2018/19, is 0.63tCO ₂ e per resident.
Sustainable Living Changing our behaviour to increase sustainable living practices and improve the way we live (section 16.2).	Increase community understanding and adoption of sustainable living practices by 2041.	94 beach clean-up activities removed 148,040 pieces of litter. 39% or over 13,200 garbage trucks of waste diverted from landfill. 16.5 tonnes of waterway litter removed. Continued to deliver Council's Living Smart Program and held a number of sustainability events and activities for our community including the World Environment Day Festival. Section 16.2 discusses education programs.

Policy theme	Target	Snap shot of results (2019)
<p>Adaptation and Resilience Anticipating and proactively responding to changing climate and natural hazards to build community resilience.</p>	<p>Maintain or increase community resilience by 2041.</p>	<p>2,905 metres of natural and constructed shoreline protection work. <i>Our Resilient Coast, Our Future</i> project currently underway to deliver a Coastal Hazards Adaptation Strategy (section 15.4). Delivered a Queensland first Disaster Resilience Plan to ensure the safety of our community.</p>

Regional Economic Development Strategy 2013-2033

Health and wellbeing

The *Sunshine Coast Social Strategy 2015* (replaced by the *Community Strategy 2019–2041*) has contributed to our region being classed as one of the healthiest in Queensland. The *Corporate Plan 2019–2023* also focuses on health and wellbeing through its strategic pathway for a strong community.

The *Regional Economic Development Strategy 2013–2033* includes health and wellbeing as a high value industry. As the largest employer, around 2,000 healthcare related businesses employ more than 24,990 people (AEC Group, 2018).

A newly developed Sunshine Coast Health Precinct provides the foundation for a dynamic fast-growing sector and includes the:

- \$1.8 billion Sunshine Coast University Hospital (SCUH) - the first new tertiary teaching hospital development in Australia in more than 25 years that is not replacing an existing facility;
- Sunshine Coast Health Institute (SCHI) - a specialist skills, academic and research centre;
- Sunshine Coast University Private Hospital; and
- Health Hub and Birtinya town centre.

The Sunshine Coast Health Precinct continues to be the centre of growth and investment, and represents one of the largest concentrations of healthcare related capital expenditure in Australia.

Education and research

The education and research industry substantially supports the broader economy and will continue to evolve to higher value, more knowledge intensive and more sophisticated economic activities. Currently the education and research industry consists of:

- 150 registered training organisations;
- More than 80 public and private schools;
- More than 5,000 apprenticeships and traineeships; and
- More than 13,000 students graduating from vocational degrees each year.

The education and training industry provided over 12,580 jobs, contributed \$1 billion to the Sunshine Coast economy (AEC Group, 2018), and is predicted to become the region's second largest employer by 2033.

Industry and government stakeholders engaged in the education and research industry have launched the Study Sunshine Coast campaign and promoted the region's education offerings to both domestic and international students, as well as the lifestyle, work and career opportunities that are available in a safe, natural and inclusive environment.

Industry stakeholders are developing further research capabilities and linkages with business, including specific assistance programs through the University of the Sunshine Coast.

Knowledge industries and professional services

The Sunshine Coast is home to many innovative, knowledge based businesses and is regarded as a national hub for entrepreneurs. Youi, for example is one of the fastest growing general insurance companies in Australia, with its global headquarters on the Sunshine Coast. The region also hosts one of Stellar Asia Pacific's fastest growing service centres and employs more than 480 staff. This industry currently provides 21,479 jobs on the Sunshine Coast, with employment growth in managerial and professional services expected to exceed 135% over the next 20 years.

The region has a significant reputation for digital innovation that is well supported by a strong entrepreneurial, collaborative and increasingly digitally orientated ecosystem. The substantial investment in coworking centres, maker spaces and business accelerators all drive the growth in new businesses and the professional services and knowledge industry across the region.

Sport and leisure

The region hosts major sporting events such as the Mooloolaba Triathlon; the Ironman 70.3 Sunshine Coast; and, has welcomed national and international elite sporting teams for training camps, including nine countries leading up to the 2018 Commonwealth Games.

The Sunshine Coast Lightning netball team, the region's first national league sporting franchise, won the Suncorp Netball series Grand Final in its inaugural season, 2017 and again in 2018.

Major 2019 sport and leisure investments include:

- Novotel Twin Waters Resort has opened its new \$8 million Convention Centre which caters for up to 1500 delegates and will invest a further \$2 million in resort upgrades over the next two years;
- Queensland Government has funded a \$9 million redevelopment of the University of the Sunshine Coast Stadium, expanding its capacity from 2000 to 3000 seats, and providing new athlete change rooms, a multi-purpose function room and a new sound system; and
- Australia Zoo will begin development of an \$8 million expansion to deliver wildlife camping experiences on the Sunshine Coast.

Clean technologies industries

The clean technologies industry on the Sunshine Coast employs almost 1,500 people and contributes an estimated \$228.2 million to the regional economy annually. The industry includes renewable energy, water, waste and recycling, construction materials, energy efficiency, carbon trading and environmental services.

With one of the highest concentrations of clean technology businesses in Queensland, the Sunshine Coast has developed credentials in sustainability and clean technology innovation and is home to award winning applications and research capabilities.

The Sunshine Coast Regional Council has developed a 15 megawatt utility scale solar farm as part of its vision to be Australia's most sustainable region.

Aviation and aerospace

The expansion of the Sunshine Coast Airport and development of a new Aerospace Precinct creates prime airside and landside development opportunities for smart and innovative aviation related businesses in the Australasian aviation industry.

With almost 1.2 million passenger movements in 2018, the highest rate of passenger growth in Australia for that year, the Sunshine Coast airport is already home to a wide range of aviation related businesses including:

- Licensed maintenance, engineering and overhaul facilities;
- Pilot training and education institutes;
- Charter flights;
- Ground handling services;
- Freight operators;
- Aircraft sales; and
- Emergency services.

Expansion of the Sunshine Coast Airport is expected to create greater export opportunities for the local agribusiness industry.

The nearby Caloundra Aerodrome is a key complementary aviation asset to the Sunshine Coast and supports general aviation activity with around 40,000 aircraft and helicopter movements each year. Catering primarily for the needs of light aircraft operations on the Sunshine Coast the aerodrome is an important part of South East Queensland's general aviation network and offers the potential to play an important role in the industry's development in the region.

Policy focus areas in progress

Draft Sunshine Coast Design Strategy

Council is developing a strategy to inspire and encourage the good design of new communities, buildings, streets and spaces. Since the Sunshine Coast includes many natural features and buildings that reflect the outstanding natural attributes of this region it is critical for Council and community alike to ensure these attributes are embraced within the *Draft Sunshine Coast Design Strategy*.

The *Draft Sunshine Coast Design Strategy* is a region making project in Council's *Corporate Plan 2019-2023*. This draft design strategy aims to raise awareness of the value of good design and why good design is important for enhancing the prosperity and liveability of the Sunshine Coast.

The strategy will be a tangible tool for developers, homeowners, architects, designers, planners, builders, and Council to navigate the design process with climate, character and culture being top of mind.

Over the past year, Traditional Owners, design professionals, planners, professional bodies, community groups, Council staff, and Sunshine Coast residents have contributed to a discussion on what they value about the region with the following four characteristics being at the heart of what makes the Sunshine Coast special.

- We love our climate;
- We live within and cherish our landscape;
- We are a community of communities; and
- We treasure our ocean and waterways.

These four values have informed nine design principles to guide good Sunshine Coast Design and protect the valued characteristics. These nine principles clarify both good Sunshine Coast Design as well as what is at stake if they are ignored. They are a refresh for professional designers who use these principles already, and a great education tool for others to understand what good design on the Sunshine Coast should consider.

1. Work with the local climate;
2. Create places that respect and incorporate landscape;
3. Bring our cultures, arts and heritage to life;
4. Capture and frame natural views and create vistas;
5. Strengthen and extend a network of green corridors;
6. Be inspired by the natural and built environment;
7. Create shady streets that put people first;
8. Create welcoming places that can be enjoyed by everyone; and
9. Design places to be resilient and ready for change.

The project will capture these values and principles into a non-regulatory and highly visual Sunshine Coast Design book and associated implementation strategy. This book and strategy will encourage design that is relevant to this place - also referred to as a place based approach which simply means – ‘design to suit the Sunshine Coast.’

Community and key stakeholder consultation is currently in progress for this strategy.

The Regional Inter-Urban Break (IUB)

The IUB is an area of over 63,000 hectares that spans the southern part of the Sunshine Coast Region and the northern part of the Moreton Bay Region (Figure 15.6). Approximately 50% of the IUB is within the Sunshine Coast Regional Council local government boundary and the other half is within Moreton Bay Regional Council’s local government boundary. The IUB includes a diverse range of land uses and tenures, with nearly 60% of the area designated as National Park, Conservation Park, State Forest or Forest Reserve, and includes State forest licensed from the Queensland Government for timber production. Much of the remaining privately owned land is agricultural land.

The IUB contains significant landscape, environmental, cultural, productive, economic and recreational values. As a non-urban landscape, or green space, the IUB provides relief from built form and includes a diverse range of landscapes including the heritage listed Glass House Mountains, scenic Ramsar protected wetlands of the Pumicestone Passage, sandy beaches of Bribie Island as well as a range of forested and agricultural landscapes.

The IUB is the only major break in an urban corridor stretching from Tweed Heads to Noosa, therefore providing a unique and unparalleled area of readily accessible land close to key

population centres – effectively creating a ‘natural playground’ for the people of South East Queensland and opportunity for residents of all ages to access and enjoy ‘the great outdoors’.

The majority of the IUB is identified on the nominated biosphere area map (section 6 and 7) as Protect and Enhance or Manage and Care Areas.

The *Environment and Liveability Strategy 2017* has Transformational Actions to “protect the Regional Inter-Urban Break in perpetuity, to secure the environmental, production and recreation values”, and “undertake an outdoor recreation plan/study”. This outdoor recreation study and plan are currently being finalised. Council is therefore working in partnership with the Moreton Bay Regional Council, Department of Environment and Science, Queensland Sport and Recreation Services and HQPlantations to prepare and implement an Outdoor Recreation Plan for the IUB.

The environmental, productive and cultural values of the area are under increasing pressure from development as the Sunshine Coast and broader South East Queensland grows. Council is working with the Queensland Government to identify opportunities to protect the IUB from urban land use pressures.

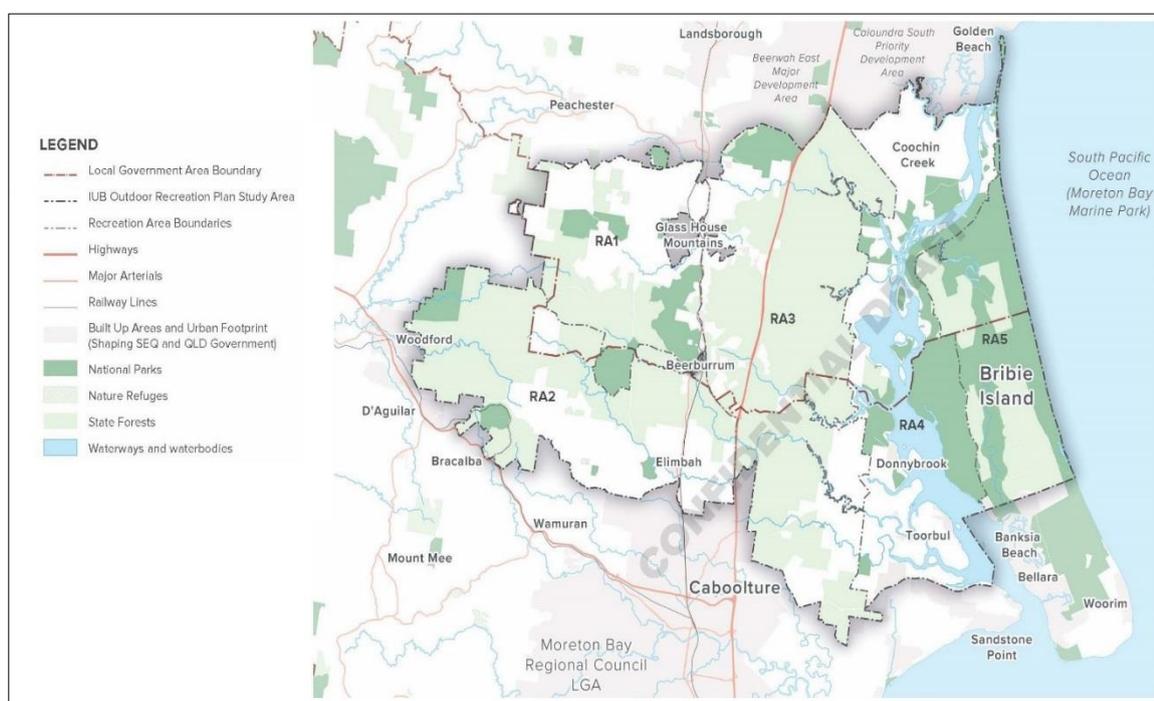


Figure 15.6: The Regional Inter-Urban Break in the southern part of the Sunshine Coast.

Major projects and programs

City Deal initiative

A City Deal allows all levels of government to work collaboratively to plan and deliver transformational outcomes for cities. A Statement of Intent has been developed and agreed by the Commonwealth, the Queensland Government and the Council of Mayors South East Queensland (COMSEQ) to design and implement the parameters and commitments for a City Deal for South East Queensland (which includes Sunshine Coast Regional Council area). The South East City Deal is focused on delivering liveability and shared productivity benefits across:

- Connecting infrastructure;
- Jobs and skills;
- Liveability and sustainability;
- Housing and Planning;
- Digital; and
- Governance and leadership.

Council will benefit from both the City Deal and its membership of the COMSEQ to:

- Strengthen the protection of the Regional Inter-Urban Break and the liveability of the Sunshine Coast;
- Achieve a faster and more efficient rail solution linking Brisbane to the Sunshine Coast; and
- Create opportunities to enhance the growth of many high value industries, particularly the agribusiness sector and professional services, through capitalising on the international broadband submarine cable to deliver a leading Digital Trade Hub.

The South East Queensland City Deal is planned to be finalised by quarter three in 2020. It is anticipated the completion of the City Deal may instill a high degree of confidence in our communities, encourage further employment and generate investment from the private sector.

Maroochydore City Centre and the Smart City program

Creating a smart and digitally connected Maroochydore City Centre led to the development of the Smart City Framework in 2015. This, combined with the Smart City Implementation Program, is now implemented into Council's Corporate Plan. Working 'smarter' is becoming the new 'business as usual' for Council and region, especially now that the Smart City Implementation Program, is integrated into Council's *Operational Plan 2019-2020*.

A smart city uses technology to manage assets and resources effectively and efficiently. Smart City technologies provide real opportunities to build a stronger Sunshine Coast economy, develop a stronger and safer community, and improve service delivery to residents, businesses and visitors. Council adopted the Smart City Framework and Smart City Implementation Program in December 2016, rolling out a three-year program of smart city solutions to be installed at key locations across the region.

Creating a smart city has many benefits for the community and the environment including:

- Improved service delivery and quality of lifestyle for residents;
- Reduced carbon emissions, traffic congestion and energy use;
- Increased safety;
- Increased investment, business, and employment opportunities, and local business competitiveness; and
- Improved town planning and design.

The Sunshine Coast has demonstrated leadership by creating Australia's first, high-tech, underground, automated waste collection system for a central business district. Rather than using wheelie bins, waste in the new Maroochydore City Centre will be transported from apartments and commercial buildings at speeds up to 70 kilometres an hour through a 6.5 kilometre system of underground vacuum pipes, in a process that also removes the need for garbage trucks. This technology also increases recycling rates, benefits the natural

environment while at the same time reduces odours and vermin, along with the costs of daily street cleaning. More about the Automated Waste Collection System can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Infrastructure-Projects/Automated-Waste-Collection-System>.

More about the Smart City Program can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Infrastructure-Projects/Automated-Waste-Collection-System>.

The Smart Centre opened in Caloundra, 2016 demonstrating new technologies being trialled, such as waste bin sensors, parking space availability sensors, digital flow metres and dimmable LED lights. A full list of Smart City achievements and opportunities can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Smart-Cities/Smart-City-Milestones>.

Sunshine Coast Mass Transit project

The focus of the Sunshine Coast Mass Transit Project is the provision of reliable, frequent and affordable public transport services, and brings with it a range of other benefits that will enhance our community connections, business activity, lifestyle and the environment. This mass transit system will be critical to ensure low-carbon transport options exist for the future.

The Sunshine Coast is expected to experience high population growth over the next 20 years and thereafter. The areas between Maroochy and Caloundra will be the focus of economic growth as the Maroochy City Centre and the Sunshine Coast Public University Hospital at Kawana are developed.

Council endorsed a preferred alignment between Maroochy to Caloundra and is now investigating the costs and developing a planning strategy for the coastal corridor. This data will inform the feasibility and business case for the Sunshine Coast Mass Transit Project to provide an efficient, high quality transport system that generates social, economic, transport and environmental benefits across the Sunshine Coast including:

- Supporting the direct and indirect creation of almost 9,000 jobs during construction and operation;
- Putting an estimated \$3.6 billion of benefits into the economy;
- Protecting lifestyle and natural assets and hinterland;
- Connecting people and places to major hubs and areas of employment, education, health and tourism;
- Improving mobility, especially for the aged and people with disabilities;
- Encouraging new forms of urban development and reinvigorating urban precincts; and
- Reducing reliance on car travel.

Planning for our growth is critical to protecting our coastal lifestyle, our outstanding natural assets, character and identity, and ensuring we have employment and economic opportunities for our residents in the future.

International Broadband Submarine Cable

Council is facilitating a new international submarine cable landing to South East Queensland by 2020. This Sunshine Coast International Broadband Submarine Cable Project is aligned to the region positioning itself as Australia's leading smart city region and will stimulate local

business, generate new investment, and improve telecommunication diversity to Australia's east coast.

The cable will also place the Sunshine Coast on the international business map as a leading investment destination for commerce and industry; attract the attention of the world's biggest data users; and, those looking for a location with superior telecommunication and data infrastructure. The project over time, will lead to faster broadband access and stimulate investment that will generate up to 864 new jobs and up to \$927 million in new investment for Queensland.

More information about this project can be viewed at

<https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Undersea-Cable>.

Sunshine Coast Solar Farm

Sunshine Coast Regional Council is Australia's first local government to offset its entire electricity consumption, across all facilities and operations, from renewable energy generated at the 15 megawatt Sunshine Coast Solar Farm.

The Sunshine Coast Solar Farm became operational in 2017. To date the solar farm has:

- Seen Council proactively take control of its electricity supply to combat rising electricity costs, which were on average 14% higher in Queensland, in comparison to other Australian states, last financial year;
- Provided Council facilities and operations with renewable electricity and lead the Sunshine Coast region transition to a clean energy economy;
- Complemented the Sunshine Coast's 40,000 solar photovoltaic panel rooftops and contributed to the reduction of Australia's carbon emissions; and
- Will deliver \$22 million in savings (after costs) for ratepayers (the community) from Council's lower electricity costs over the next 30 years.

The solar farm has generated over 57,000 megawatt hours of electricity and saved more than 45,000 tonnes of greenhouse gas emissions since installed. More information about the Sunshine Coast Solar Farm can be viewed at

<https://www.sunshinecoast.qld.gov.au/Environment/Sunshine-Coast-Solar-Farm>.

In addition to the Sunshine Coast Solar Farm, Council has installed a further 115 kilowatts of solar photovoltaic panels on buildings and facilities, taking our total installed capacity to 15,324 kilowatts.

Cities Power Partnership

Sunshine Coast Regional Council is one of more than 100 local governments who are partners in the national Cities Power Partnership program which brings together local government, cities, towns and communities to transition to renewable energy while achieving environmental, social and economic benefits.

Partners make action pledges to achieve and then partner and share knowledge with other local governments to achieve pledges. The Sunshine Coast has five pledges and has made progress on achieving those, reporting this success to the Cities Power Partnership every six months (Table 15.6). Being a Cities Power Partner has built community capacity as well as enabled Council to share leading practice with other local governments.

Table 15.6: Cities Power Partnership pledges made and progress toward achieving pledges.

Cities Power Partnership pledge	Progress made toward achieving pledge
Support community facilities accessing renewable energy through incentives, support or grants.	Support and information for community facilities and businesses to access renewable energy is provided through Council's online Living Smart program (about 3,900 members). More information can be viewed at https://www.livingsmartqld.com.au/categories/energy .
Adopt best practice energy efficiency measures across all Council buildings subject to business cases, and support community facilities to adopt these measures.	Council is in the process of supporting the Sunshine Coast Stadium, a major community facility, to become carbon neutral. The stadium recently retrofitted the majority of their field lighting to LED to reduce electricity consumption about 11% (71,004 kWh) between the last two financial years.
Implement an education and behaviour change program to influence behaviour of Council Officers, local residents and businesses within the municipality to drive the shift to renewable energy, energy efficiency and energy efficient transport.	<p>Council completed a community Earth Hour campaign where 1,600 <i>CSIRO Home Energy Saving Handbooks</i> were distributed to encourage and support residents to become energy efficient.</p> <p>Council held a Sunshine Coast Open House event to encourage community and businesses to take up renewable energy and energy efficiency practices, with 1,148 people attending. As a part of that event, Council hosted a tour of the Sunshine Coast Solar Farm.</p> <p>In May 2019 Council hosted the first National Cleantech conference to encourage and support businesses who provide renewable energy and energy efficient products and services. More information can be viewed at https://www.livingsmartqld.com.au/posts/international-and-leading-cleantech-experts-to-present-at-national-clean-technologies-conference-exh.</p> <p>The 1,636 Council employees who participated in 11 staff sustainability programs learned about renewable energy and energy efficiency at work and home, in the 2019/20 financial year.</p>
Encourage sustainable transport use (public transport, walking and cycling) through Council transport planning and design.	<p>Council's Travel Smart Team recently held Ride to Work and Ride to School Bike Week events to encourage use of sustainable transport. Participation figures are currently being compiled. More information can be viewed at https://www.sunshinecoast.qld.gov.au/Experience-Sunshine-Coast/Sports-and-Leisure/Cycling/Cycling-Events.</p> <p>Council operates a Green Travel program for employees (about 43 staff) to encourage sustainable transport use. Staff saved 236,023 kilometres using alternative transport options (carpooling, cycling, walking, or public transport) last financial year.</p> <p>There are ongoing investigations into electric vehicles for Council's fleet as well as the feasibility of establishing a network of electric vehicle charging stations across the region.</p>
Set city-level (local government wide) renewable energy or emission reduction targets and sustainable energy policies to provide a common goal and shared expectations for local residents and businesses.	A target has been set to become a low-carbon community by 2041. Council is developing a brief to have community baseline emissions measured. This data will inform the action plan, along with community and business input, for achieving the target.

Our Resilient Coast, Our Future

Our Resilient Coast, Our Future is a project to develop a long term strategy that plans for the future management of coastal areas, to increase resilience and build Council's existing knowledge. Council is working with the community to better understand how climate change and coastal hazards, such as beach erosion and saltwater inundation due to sea level rise, may affect coastal communities, the local economy and natural environment. Investigating vulnerabilities and risks to community, cultural and natural assets will better quantify the economic benefits of adaptation action versus the cost of not taking action. This work is also a part of the long term strategy (to 2100) to be used by Council, other agencies and asset owners to manage the coast over time. A Community Advisory Group, representing diverse interests and skill sets, has been established to work with Council on the project. Once finalised, the strategy will:

- Ensure a shared understanding of coastal hazards, risks, and the preferred approaches to adaptation along the coast;
- Enable proactive planning for both the short term (e.g. next 5-10 years) and long term (e.g. 50-80 years) protection of coastal values, including natural and built assets; and
- Help reduce risk exposure and avoid financial (and other) costs to Council and the community.

Our Resilient Coast, Our Future project is currently under development and further information can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Infrastructure-Projects/Coastal-Hazard-Adaption-Strategy>.

The Blue Heart

The Blue Heart is an area of more than 5,000 hectares in the Maroochy River Catchment. It contains important environmental features and acts as a critical flood storage area to protect the catchment from flood impacts. At times, tidal inundation impacts the area, and it is likely that much of the area will become increasingly susceptible to tidal inundations.

This impact is expected to be a regular occurrence as the climate changes, so Council hopes to work with landholders and local communities to explore land use options for private properties. These options aim to build future economic and environmental resilience, while retaining a focus on flood hazard management. Council will work with landholders, facilitating discussions on funding from new industries, such as blue carbon so they may access new land management options.

About 1,200 hectares of the Blue Heart is already under the care and control of Blue Heart partners – the Sunshine Coast Regional Council, Queensland Government Departments of Environment and Science, and Unitywater. The land within the Blue Heart area will be held for:

- Conservation;
- Generation of renewable energy;
- Water quality nutrient offsetting;
- Vegetation offsetting and carbon sequestration; and
- Open space purposes.

Careful management of this land and water can lead to positive outcomes for the environment, community and economy. At a regional level the Blue Heart enables the Sunshine Coast to:

- Take a proactive approach to understand and manage the impacts of coastal hazards;

- Establish a significant and complex wetland and floodplain for the region; and
- Enhance water quality of the Maroochy River system.

The Blue Heart will strengthen the Maroochy-Noosa Wallum Corridor, an area of high biodiversity values as recognised at a state and national level. Council also aims to:

- Provide parkland, sports fields and open space areas for the community;
- Attract more visitors to the region; and
- Provide high value ecotourism and cultural tourism opportunities.

Council will continue to seek the support of partners, external agencies and major corporations to effectively manage the Blue Heart.

Information about the Blue Heart can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/The-Blue-Heart>.

There are strong synergies between the Blue Heart and *Our Resilient Coast, Our Future* and other Council projects in responding to climate change.

Environment Levy

The Environment Levy is a separate charge per rateable property in the Sunshine Coast Regional Council local government area.

Revenue generated from the Environment Levy funds a range of projects, programs and initiatives that preserve and enhance our natural environment including:

- Buying, protecting and enhancing environmentally significant land;
- Building our knowledge through monitoring and research;
- Delivering on ground environmental projects;
- Engaging and supporting the community; and
- Other environmental activities.

The levy is a key funding source that supports the implementation of the *Environment and Liveability Strategy 2017* and the delivery of its transformational actions. These actions contribute to the preservation and enhancement of our natural areas, that is biodiversity, waterways and wetlands and coastal areas.

The Environment Levy's Land Acquisition Program assists Council to:

- Protect, preserve and enhance our natural environment;
- Consolidate and expand Council's conservation reserve network; Preserve native plants and animals; Protect and enhance wildlife corridors; and
- Create and protect new habitat areas to offset unavoidable vegetation loss.

Each financial year, Council reports the annual program achievements to the community.

The 2018/19 financial year highlights were discussed in section 14.1.3.

More information about the Environment Levy program can be viewed at <https://www.sunshinecoast.qld.gov.au/Environment/Environment-Levy>.

Land for Wildlife

Land for Wildlife is a voluntary program in which landholders are supported to manage wildlife habitats on their properties. The Sunshine Coast has the largest Land for Wildlife network in Australia with approximately 1,000 registered properties across the biosphere that contribute to the conservation of approximately 5,000 hectares of remnant and 2,500 hectares of non-remnant vegetation. While the program is not a stringent protection measure, as it is dependent on the voluntary participation of the landowner, it does contribute toward conservation outcomes across the region.

Disaster Hub

Sunshine Coast Council's Disaster Hub platform is recognised as one of Australia's most agile and transformative internet based platforms, designed and developed for disaster management activities. It has gained national recognition through winning the 2016 Resilient Australia Awards.

The Disaster Hub brings together disaster and hazard related information from Council and external sources, building community disaster resilience, raising community awareness to natural hazards and risks, and protecting communities during disaster events.

The Disaster Hub provides comprehensive, centralised and real time data for collection and analysis by accessing Council's geospatial layers and external open source data feeds. The platform is intuitive, easy to use and can identify multiple types of hazard risks to improve disaster resilience and mitigate risks associated with disaster events.

A key strength of the technology that drives Disaster Hub is its scalability, speed and resilience. It provides up to the minute information and intelligence, essential for the community, emergency service agencies and Council to make the best decisions before, during and after disaster or emergency events. The Disaster Hub can be viewed at <https://disaster.sunshinecoast.qld.gov.au/#Dashboard>.

University of the Sunshine Coast thermal energy storage tank for clean energy

To embrace Australia's steady supply of sunshine, the University of the Sunshine Coast have installed more than 6,000 solar panels to power a "water battery" that will cut their energy use by 40%. This is a first for an Australian university.

The 2.1 megawatt solar photovoltaic system spreads across campus rooftops and carpark structures and produces enough energy to cool 4.5 megalitres of water, effectively acting as a seven megawatt battery to run the University's district cooling (air conditioning) system.

The thermal energy storage tank will save about \$100 million and over 100,000 tonnes CO₂ over a period of 25 years. This is significant step towards the University's goal to become carbon neutral by 2025.

More information about the University of the Sunshine Coast's thermal energy storage tank for clean energy can be viewed at <https://www.usc.edu.au/explore/sustainable-usc/clean-energy>.

Sunshine Plaza sustainability actions

The major shopping precinct on the Sunshine Coast, Sunshine Plaza, and its managers Lend Lease Retail, are committed to delivering a sustainable future, working continually to reduce its impact on the local environment and contribute to the local economy and community.

Some of the initiatives and commitments to sustainability are listed below:

- Sunshine Plaza has introduced energy-efficient lighting throughout the centre, saving \$36,000 over 15 years;
- All air conditioning units have variable speed drives to achieve the most energy efficient method of cooling the centre;
- Sunshine Plaza is situated across Cornmeal Creek which feeds into the Maroochy River. It has installed 67 gully traps throughout the centre to prevent pollutants entering the surrounding waterways, with nearly five tonnes of waste captured since their installation; and
- Drip feed irrigation has been introduced for garden beds, and the first rainwater tank was installed in 2007.

The Sunshine Plaza is a major employer in the region, and in its recent redevelopment, which commenced in 2016, close to 2,900 jobs were generated during the construction phase, with a further 2,300 retail jobs expected with its launch in March 2019.

Further information can be viewed at: <https://www.sunshineplaza.com/redevelopment/> and <https://www.sunshineplaza.com/community/sustainability/>.

Stockland's Aura community programs

Aura Community is the name of the master planned community developed by Stockland Limited, south of Caloundra, with homes first constructed in 2017. Covering 24 square kilometres, Aura is the largest master planned community undertaken in Australia under single ownership, as well as the nation's largest wetland rehabilitation and stormwater treatment project, as it adjoins the sensitive Pumicestone Passage. It is also the Green Building Council of Australia's highest ranked 6 Star Green Star - Communities Greenfield project.

Stockland Aura won the Environmental Excellence category in the 2017 UDIA Queensland Awards for Excellence, as well as the 2017 Property Council of Australia Innovation & Excellence Awards, for worldleading sustainability initiatives and a unique approach to community consultation.

One of Stockland's key initiatives was to form the Pumicestone Passage Network, a ground breaking approach to collaboration, co-ordinated by independent organisation, Healthy Land and Water. The Network brought together more than 18 community stakeholder groups to collaborate with Stockland. The Pumicestone Passage Network won an award for community engagement and collaboration in 2016.

As part of its ongoing commitment to supporting the emerging community, the Aura Community Grants program is outlined in Stockland's Infrastructure Agreement, a collaboration with Sunshine Coast Regional Council, and State Government. Stockland confirms it will invest more than \$1.3 billion in local infrastructure over the life of the Aura project.

The 2019 Aura Community Grants announced that over \$300,000 worth of funding would be given to ten community groups, supporting activities such as beach clean ups, conservation work, festivals, and support for new local sports clubs. The new Baringa Community Centre received significant funding for programs such as parenting courses, playgroups, community arts workshops and community events.

Further information can be viewed at: <https://www.stockland.com.au/residential/qld/aura/news-and-events/award-hat-trick> and <https://www.stockland.com.au/residential/qld/aura/news-and-events/community-grants-2019>.

Compass Institute – disability service Sunshine Coast

The Compass Institute Inc. is an award winning Sunshine Coast based charity dedicated to providing support for people with intellectual and/or physical disabilities. While Compass commenced in 1992 providing Alternative Education programs to seven thousand at-risk youth, in 2003 they established a leading edge day program for young people with disabilities. The intent of the service model was to dramatically change the philosophy behind this type of service from one of passive recreation, to a pathway of lifelong learning, skills based training and vocational opportunities. In many ways, Compass has rewritten the rule book around what a day program can achieve.

Young people with intellectual and/or physical disabilities in the Compass program staff a number of social enterprises including cafes, a kitchen, farm, nurse, lawn mowing and glass cleaning service and crafting a range of woodwork and pottery. More information can be viewed at <https://www.compassinc.org.au/>.

15.4.2 Indicate the possible positive and/or negative impacts of these activities on biosphere reserve objectives (section 14). Have some results already been achieved?

Council leads the responsible and sustainable development of the Sunshine Coast with its policy focus areas and activities which to date have achieved significant sustainable development outcomes. For example, the Sunshine Coast has:

- Been named one of the Top 7 Intelligent Communities of 2019 at the International Intelligent Communities Forum;
- Received the 2018 Smart Cities Leadership City Award in recognition of our liveability, workability and sustainability outcomes from technology and data solutions;
- Become the first local government in Australia to offset the Council's entire electricity use from renewable energy generated by the multi award winning Sunshine Coast Solar Farm;
- 40% of resident dwellings equipped with solar power compared to 21% average across Australia;
- Retained 81,900 hectares of open space and more than 460 recreation parks; and
- 54% native vegetation with 63% of our coast in a natural or near natural state.

Further results already achieved were discussed in section 15.4.1.

15.4.3 What indicators are, or will be used to assess the state and its trends?

Activities are measured and their progress is tracked, documented and reported annually for the *Community Strategy 2019–2041*, *Environment and Liveability Strategy 2017* and the *Regional Economic Development Strategy 2013–2033*.

Each project has specific key performance indicators (section 15.1.2) which inform strategy reporting, then in turn, Sunshine Coast Regional Council's annual reporting and then the Mayor's annual State of the Region address.

15.4.4 What actions are currently undertaken, and which measures will be applied to strengthen positive impacts or reducing negative ones on the biosphere reserve objectives?

An adaptive management approach means learning from the tracking the progress of development activities. This data is then used to inform regular reviews so that action plans and any necessary changes can be made to strengthen positive impacts or mitigate negative impacts. Action plans associated with the strategies are reviewed and updated annually using the adaptive management approach. Each of the three strategies that drive activities, such as those discussed in section 15.4.2, are reviewed and updated about every five to ten years.

15.5 Benefits of economic activities to local people:

15.5.1 For the activities described above, what income or benefits do local communities (including men and women) derive directly from the site proposed as a biosphere reserve and how?

The policies, frameworks, programs, projects and activities (section 15.4) have delivered multiple benefits for the local community, as well as the wider South East Queensland area including:

- An \$18.5 billion economy;
- 4.2% average annual growth since 2004;
- Growth that has exceeded the national economy by 1.3%; and
- Almost 25,000 extra jobs since 2013.

The Sunshine Coast economy has outpaced most regional economies in the country in terms of growth over the last 15 years (NIEIR, 2019). The economy is anticipated to grow in a strong and sustainable manner over the next 20 years to reach \$33 billion in 2033, accompanied by an increase in knowledge-based jobs, exports and household income.

The Sunshine Coast economy continues to evolve into a modern, 'smart' economy based on sound growth across numerous high valued and knowledge based sectors including professional business services, innovative manufacturing and numerous high tech start-ups.

The latest Sunshine Coast Business Confidence Survey reflects the continuing, sustained positive outlook of the 31,695 businesses registered on the Coast (ABS, 2019); demonstrates increasing confidence trends over time since 2009; and, demonstrates a high degree of confidence in current and future economic growth in the region (Boardroom Business, 2018).

15.5.2 What indicators are used to measure such income or other benefits?

Further to the indicators discussed in section 15.1.2, the Australian Government also collects data through measuring indicators. For example, the Australian Bureau of Statistics conducts census surveys at regular intervals, measuring economic (e.g. productivity and industry value), social (e.g. housing) and environmental (e.g. water and energy use) indicators that are used to inform decisions, planning and projects in all states and regions. Data collected through the Australian Bureau of Statistics is used for activities when appropriate or when more recent, detailed or local data is unavailable.

The Sunshine Coast Regional Council, in partnership with the University of the Sunshine Coast, assessed the following sustainability indicators in 2012, to inform policy direction and allocation of resources:

- Air quality;
- Biodiversity;
- Water use;
- Renewable energy;
- Health;
- Population density;
- Wellbeing;
- Transport;
- Employment;
- Climate change;
- Volunteerism;
- Education;
- Costs of living;
- Food production;
- Waste disposal;
- Safety;
- Engagement;
- Economic diversity; and
- Fish stocks.

The last assessment and *Sustainability Indicators Report 2012*, can be viewed at <https://www.sunshinecoast.qld.gov.au/Environment/Inspiring-Sustainable-Lifestyles/Sustainability-Indicators>. Council and the University of the Sunshine Coast are currently investigating the benefits and feasibility of producing an updated sustainability indicator report.

15.6 Spiritual and cultural values and customary practices:

(Provide an overview of values and practices, including cultural diversity).

15.6.1 Describe any cultural and spiritual values and customary practices including languages, rituals, and traditional livelihoods. Are any of these endangered or declining?

Cultural values and customary practices are discussed in section 10.6 with the video links in particular, demonstrating the cultural and spiritual values of both Traditional Owner and multicultural cultural values and practices on the Sunshine Coast.

Prior to the 1970s the Australian Government banned or discouraged First Nations Peoples to use their languages which means most are endangered, critically endangered or extinct.

15.6.2 Indicate activities aimed at identifying, safeguarding, promoting and/or revitalising such values and practices.

The *Sunshine Coast Heritage Plan 2015-2020* provides Council with a framework to guide the identification, protection, conservation and management of the region's heritage. This Plan covers all aspects of the Sunshine Coast's cultural and natural heritage for which the Council has direct responsibility or influence over, and ensures that the Council effectively manages and conserves the region's heritage assets. This plan was developed in consultation with representatives from the heritage sector and the Sunshine Coast Heritage Reference Group.

The Plan declares that 'our heritage is our gift for the future' and is structured around the five outcome areas and goals (Table 15.7) which guide Council actions. The Heritage Plan is currently being reviewed and it is intended that a revised version will be available in about 2020. A copy of the current plan can be viewed at <https://heritage.sunshinecoast.qld.gov.au/>.

Table 15.7: Sunshine Coast Heritage Plan 2015-2020 outcomes, areas and goals that drive actions.

Outcome area	Goal
Knowledge	Heritage, its value and significance to the Sunshine Coast community is comprehensively researched, understood, identified, recorded and shared.
Conservation	Best practice conservation management and innovative solutions protect and conserve the Sunshine Coast's natural and cultural heritage for current and future generations.
Support	Ongoing support for heritage places, through programs, events, training, financial assistance, incentives and specialist advice, fosters a sense of pride in the community and provides an opportunity to stimulate and support the growth of heritage.
Communication	Increased visibility of heritage through cultural activities, creative expression, exhibitions, events, education partnerships and community development, all strengthen community identity, robustness and increases the demand for heritage.
Advocacy	Key stakeholders in heritage have an increased awareness and appreciation of the region's diverse heritage.

Sunshine Coast Regional Council's *Art and Heritage Collections Policy* outlines the framework and principles that guide the development, management, accessibility and appreciation of the Council's art and heritage collections while ensuring the long term safety, relevance and sustainability of art and cultural collections in Council's care.

The Heritage Policy outlines cultural heritage and administrative principles that provide direction for allocation of Heritage Levy revenue toward endorsed projects and programs in an effective, open and accountable way. Sunshine Coast residents pay a Cultural Heritage Levy, charged per household, and included in the property rates payment.

The levy aims to:

- Protect cultural places such as buildings and other significant sites;
- Raise people's awareness of the value of local heritage, and
- Celebrate the cultural heritage of the Sunshine Coast.

The Sunshine Coast Cultural Heritage Reference Group comprises heritage specialists and community members who advise on preserving and accessing cultural heritage on the Sunshine Coast, aiming to:

- Raise the profile of cultural heritage in the region;
- Contribute to a shared vision for cultural heritage that is inclusive, relevant and innovative;
- Support the development of a regional network of individuals, organisations and museums in the heritage sector;
- Identify partners and opportunities to preserve, access and enhance cultural heritage across the region; and
- Assist in forming strategic priorities for expenditure of the Heritage Levy.

15.6.3 How should cultural values be integrated in the development process: elements of identity, traditional knowledge, social organizations, etc.?

Cultural values are integrated into Council development processes through consultation with Traditional Owners and Custodians of culture and heritage.

One example of integration is the Sunshine Coast Innovate *Reconciliation Action Plan March 2017 to June 2019*. The purpose of this plan is to support social and economic opportunities for the Traditional Owners, the Jinibara and Kabi Kabi people and the broader First Nations (Aboriginal and Torres Strait Islander) community on the Sunshine Coast.

Actions delivered through this plan are categorised under the key areas of enriching relationships, enhancing respect and creating opportunities (Table 15.8).

Table 15.8: Key areas and focus of actions in the Sunshine Coast Innovate Reconciliation Action Plan March 2017 to June 2019.

Key area	Focus
Enriching relationships	Acknowledging and working with local Traditional Owners, the Jinibara and Kabi Kabi peoples, and the broader Aboriginal and Torres Strait Islander community to strengthen and enhance relationships, increase community involvement in Council activities, and partner with community groups and organisations to celebrate important cultural anniversaries.
Enhancing respect	Acknowledging the Traditional Owners of the land, flying the Aboriginal and Torres Strait Islander flags, increasing community awareness and participation, and promoting reconciliation.
Creating opportunities	Employment and retention of Aboriginal and Torres Strait Islander staff, identifying opportunities for supplier diversity at Council, providing financial and other support to community groups and organisations, and working with Traditional Owners and the broader Aboriginal and Torres Strait Islander community to increase active and healthy lifestyles, and expand cultural tourism opportunities in the region.

The current *Sunshine Coast Innovate Reconciliation Action Plan March 2017 - June 2019* can be viewed at

<https://www.sunshinecoast.qld.gov.au/Living-and-Community/Community-Support/First-Nations-Sunshine-Coast>.

Council is currently developing the *Reconciliation Action Plan* to replace the *Sunshine Coast Innovate Reconciliation Action Plan March 2017- June 2019*.

15.6.4 Specify whether any indicators are used to evaluate these activities. If yes, which ones and give details.

(Examples of indicators: presence and number of formal and non-formal education programs that transmit these values and practices, number of revitalisation programs in place, number of speakers of an endangered or minority language).

The *Sunshine Coast Heritage Plan 2015-2020* contains key performance indicators to evaluate the success of the plan and its actions (Table 15.9).

Table 15.9: Key performance indicators used to evaluate heritage activities.

Outcome area	Key performance indicator
Knowledge	Increase the research conducted on the region's heritage.
Conservation	Increase the number of people who access the Sunshine Coast Cultural Heritage Reference Group and the Heritage Advisory Service for advice and support.
Support	Increase the programs and events funded via the Heritage Levy that strive to achieve good heritage outcomes.
Communication	Increase the number of people accessing heritage information via Council's website and Arts and Heritage Database, accessed through Council's library catalogue.
Advocacy	Increase the level of engagement between Council and external stakeholders (community organisations, other levels of government etc.).

Implementation of the *Sunshine Coast Innovate Reconciliation Action Plan March 2017-June 2019* occurred in close partnership with the Traditional Owners and the broader First Nations community, Council's First Peoples Advisory Committee and Cross Working Team Working Group: First Nations Partnerships. Findings are reported annually to the peak body, Reconciliation Australia, and to the public through a variety of media.

16. LOGISTICAL SUPPORT

Research and education are highly valued on the Sunshine Coast. A number of research facilities, including the world class University of the Sunshine Coast, have delivered and will continue to deliver research that will inform the operation and management of the biosphere. The community too has been engaged, involved and empowered in hundreds of sustainability education events and programs delivered across the region every year.

There is an opportunity for our nominated biosphere to support, contribute and leverage those events and programs. As the Sunshine Coast has two neighbouring biospheres, Noosa and Great Sandy, there is substantial opportunity for three biospheres as well as the World Network of Biosphere to connect, collaborate where appropriate, share and learn from such a unique situation.

16.1 Research and monitoring:

16.1.1 Describe existing and planned research program and projects as well as monitoring activities and the area(s) in which they are (will be) undertaken in order to address specific questions related to biosphere reserve management and for the implementation of the management plan (please refer to variables in Annex I).

As a result of both its sustainability values and proximity to major research bodies, including several universities in the state capital Brisbane to the south, the Sunshine Coast is well positioned to support and encourage significant social, environmental and economic research. The Sunshine Coast has a strong focus on being a learning community, with education and research positioned as a high value industry in the *Regional Economic Development Strategy 2013–2033* (section 15.1).

The University of the Sunshine Coast is a lead organisation for research in the region and has partnered with other bodies in addition to Sunshine Coast Regional Council, to undertake a broad range of research topics. The current Regional Partnership Agreement, between Council and the University of the Sunshine Coast, includes funding with the intent to 'develop and foster collaborative research that promotes regional and economic development', such as 'Valuing the Sunshine Coast's Natural Assets' project (section 12).

Existing research and monitoring

The wide range of existing research and monitoring projects conducted across the Sunshine Coast by various research bodies includes government departments, research institutes, universities and citizen science groups. These encompass all aspects of sustainability, and in terms of economic, social and environmental topics (Table 16.1).

Table 16.1: Examples of existing research and monitoring projects on the Sunshine Coast.

Leading bodies	Project topics	Biosphere area	Overview
Social research and monitoring examples			
Sunshine Coast Mind and Neuroscience – Thompson Institute (University of the Sunshine Coast)	Four themes on mental health: clinical services, advocacy for patients and carers, community attitudes to mental health, and education	Live and Work, Manage and Care	These projects are at the forefront of research for some of regional Australia's most pressing mental health issues, including dementia, suicide prevention, post-traumatic stress disorder, and youth mental health.
Sunshine Coast Hospital and Health Service	Multi-disciplinary projects across all health care areas	Live and Work, Manage and Care	Encourages collaboration and external research partners.
University of the Sunshine Coast Road Safety Research Collaboration-partnership includes Motor Accident Insurance Commission and University of the Sunshine Coast Adolescent Risk Research Unit	Safer driving for adolescents	Live and Work, Manage and Care	Research explores learning to drive, situation awareness, driver emotions and vulnerable road user behaviour.
University of the Sunshine Coast	Indigenous and transcultural	Live and Work, Manage and Care	University of the Sunshine Coast proudly partners with Indigenous, migrant, refugee and culturally diverse communities to deliver impactful research that improves the lives and wellbeing of underrepresented groups in our communities.
University of the Sunshine Coast	Creative humanities	Live and Work, Manage and Care	A range of projects that develop digital technologies for social good and explore creative works.
Environmental research and monitoring examples			
Queensland Department of Environment and Science	Volunteer opportunities for citizen science and environmental monitoring	Manage and Care, Special Manage and Care, Protect and Enhance	Examples <ul style="list-style-type: none"> • Queensland Water Study Group • Grey Nurse Shark Watch • Mangrove Watch • Seagrass Watch.
Various community organisations	Flora, fauna and water quality monitoring	Manage and Care, Special Manage and Care, Protect and Enhance	Examples <ul style="list-style-type: none"> • Maroochy Waterwatch • Sunshine Coast Fauna Watch • Bunya Country Aboriginal Corporation • Currimundi Catchment Care • Night eyes.

Leading bodies	Project topics	Biosphere area	Overview
University of Queensland – School of Earth and Environmental Sciences	Flora, fauna and other biophysical topics	Ongoing	<p>Projects may cover whole of South East Queensland, including Sunshine Coast region. Examples on Sunshine Coast</p> <ul style="list-style-type: none"> • Canopy Reflectance Modelling for Mapping Coastal Wetland Vegetation of South East Queensland • Water mouse habitat.
Healthy Land and Water	Agriculture and the natural environment	Live and Work, Manage and Care, Special Manage and Care, Protect and Enhance	<p>The Healthy Land and Water Report Card is produced regularly to monitor the condition and health of Sunshine Coast waterways.</p> <p>Examples</p> <ul style="list-style-type: none"> • Agriculture e.g. run off, fertilisers, soil, grazing pressures • Natural environment e.g. catchments, weeds, rehabilitation of endangered vegetation communities • Waterways e.g. pollution, soil erosion, stormwater management, river bank restoration • Coastal e.g. freshwater, estuarine and marine monitoring programs, seagrass stabilisation • Vegetation e.g. habitat mapping, protection of vulnerable species, fire ecology research • Parks e.g. urban catchment amenity, recreation • Backyards e.g. Land for Wildlife program, weed knowledge.
Unitywater	Waste water, Wildlife at rehabilitated wetlands	Live and Work, Manage and Care	<p>A new sensor-driven wastewater monitoring system is being trialled by Unitywater in collaboration with Israeli wastewater management solution provider Kando.</p> <p>The smart sensors are placed in sewer manholes to detect changes in sewage quality, and give early warning of events in the sewer, such as odour. As soon as they sense a change in conditions, the units send a signal to network controllers who can then respond accordingly.</p> <p>A four-year study of wildlife in the rehabilitated wetlands at the Maleny sewage treatment plant.</p> <p>Follows a \$17 million upgrade to the plant last year.</p> <p>The \$150,000 study will be funded by Unitywater and researchers will focus on</p>

Leading bodies	Project topics	Biosphere area	Overview
			small mammals and endangered bird and frog species.
University of the Sunshine Coast	Koalas	Protect and Enhance, Special Manage and Care, Manage and Care	Research to develop a vaccine for a disease that affects koalas.
Economic research and monitoring examples			
Regional Development Australia – Sunshine Coast Inc.	Regional projects with an economic focus	Live and Work	Research example <ul style="list-style-type: none"> Sunshine Coast Labour Force Commentary 2017.
University of the Sunshine Coast	Tropical aquaculture	Live and Work, Manage and Care	University of the Sunshine Coast's Tropical Aquaculture research team combines science, economics and social science to develop industries and programs that are profitable, sustainable and culturally appropriate.
Department of Innovation, Tourism Industry Development and the Commonwealth Games	Tourism	Live and Work	This Department, through Tourism and Events Queensland, researches and analyses tourism in Queensland which includes the Sunshine Coast.
Sustainability research and monitoring examples			
University of the Sunshine Coast – Sustainability Research Centre	Sustainability	Protect and Enhance, Special Manage and Care, Manage and Care, Live and Work	Research examples <ul style="list-style-type: none"> Sustainability science Resilience Adaptive capacity Social learning Social capital Adaptive management Natural resource governance Indigenous knowledge Community livelihoods.
Department of Environment and Science – Maroochy research facility	Agriscience	Manage and Care	Research and extension in subtropical and tropical horticulture across a range of species and commodities. The facility provides tailored research solutions to assist clients achieve targets - commercial, environmental or social.
Sunshine Coast Regional Council	Environmental sustainability	Live and Work	The <i>Organisational Environmental Sustainability Benchmarking Report</i> provides an annual snapshot of Council's environmental sustainability performance over time and is one of the ways Council demonstrates its commitment to achieving its vision for the region. The annual report can be viewed at https://www.sunshinecoast.qld.gov.au/Council/Budget-Financial-and-Annual-Reports/Organisational-Environmental-Sustainability-Reporting .

The Commonwealth and Queensland Governments conduct a number of ongoing monitoring activities across the Sunshine Coast to inform a range of projects. Activities monitored include:

- Air quality;
- Rainfall;
- Temperature;
- Wind speeds;
- Weather events;
- Invasive species;
- Economic value and productivity of industry sectors;
- Demographics of communities; and
- Employment.

Research and monitoring are recognised as a foundation for the prosperity of the Sunshine Coast and are expected to continue in the same way as present, as many programs are ongoing (Table 16.1).

Planned research and monitoring

Council has a number of planned research projects to be conducted in collaboration with research partners. These projects aim to contribute to sustainable and responsible development of the region that is culturally appropriate. Other examples of projects which align with the biosphere objectives include:

Significance of the Regional Inter-Urban Break to Traditional Owners

Council is working with the Queensland Government to use the IUB (Outdoor Recreation Plan) as a pilot area to test a unique Traditional Owner engagement methodology.

Sustainability Indicators

Council has the vision to be *Australia's most sustainable region – Healthy. Smart. Creative.* This vision is supported by the *Sunshine Coast Council's Corporate Plan* and its operational activities.

In 2012 the University of the Sunshine Coast conducted a Sustainability Indicators Report to measure the region's sustainability. This report needs to be updated, to guide decision making and enable the Council to measure and track sustainability across the Sunshine Coast over time. Together, Council and the University of the Sunshine Coast have commenced this project to evaluate indicators in the 2012 Sustainability Indicators Report and recommend an improved framework based on research, including an analysis of current literature conducted by undergraduate university students. It is intended that this project will provide an updated Sustainability Indicators Report that will better inform the development of a biosphere management framework.

This Sustainability Indicators Report could act as a performance measure and driver for maintaining and improving the regions environment and liveability, as well provide a mechanism to:

- Allow Council and community to determine their position in relation to the vision for the region, over time;
- Identify areas for improvement and provide direction for developing and implementing actions in Council strategies, as well as setting or adjusting performance targets;
- Identify and share best practice within the region (between businesses and industry groups) and with other local governments; and
- Provide evidence based and transparent insights into the regions performance, and feed into corporate reporting and be used in communication (i.e. regional marketing and promotion).

Coastal Health Report and Framework

The purpose of the Coastal Health Report is to establish a monitoring and reporting framework to track the environmental condition and beneficial use of our coastal areas over time and inform management responses. The process to develop the framework included workshops with experts from the Sunshine Coast Regional Council, University of the Sunshine Coast, Griffith University, Healthy Land and Water, and BMT Global Pty Ltd.

An implementation plan has been prepared to guide a two year baseline monitoring, benchmarking and reporting project phase, which will deliver the first Coastal Health Report in 2021. The framework will then be reviewed to inform a medium to long term operational project phase. The framework covers four themes:

- Theme 1: Coastal zone context: involves collating and reporting information from existing sources – focusing on the broad scale activities and conditions that can drive changes in coastline condition and community benefits and uses;
- Theme 2: Coastline condition: involves existing monitoring undertaken by Council and Healthy Land and Water, as well as new monitoring and reporting of the environmental condition of key coastline systems, that is: beaches, headlands, lower estuaries and lagoons - focusing on water quality, vegetation surveys, fish, scavengers (e.g. birds of prey and foxes) and other intertidal animals;
- Theme 3: Community benefits and impacts: involves significant new monitoring and reporting of liveability and stewardship factors, that is: how the community access, use and value the coastal areas. A community benefits and impacts survey will be developed and it is proposed that Council will work closely with their existing partners, Healthy Land and Water and their social science expert panel; and
- Theme 4: Council and community actions: involves collating and reporting information from existing sources, focusing on activities and management actions that support coastline condition or community benefits.

There are a range of areas that may be investigated in the future. For example, there could be a need to understand how natural hazards (e.g. increasing temperatures, rainfall changes, bush fire, flooding, storm events and coastal erosion and inundation) may alter under a changing climate. Informed by the best available science, geospatial mapping, risk assessment, innovative thinking and local knowledge, this type of research could provide a robust platform to support a resilient community into the future. Council has already started to improve its understanding in this area through the *Our Resilient Coast Our Future* project (section 15.4.1). There may also be opportunity for research institutions to further investigate the impacts of climate change on health and other social issues.

Becoming a biosphere creates a significant opportunity to increase the level of research conducted across the region, and to be innovative in how that research is reported. There is also an increased opportunity to connect with other research institutions across the world to

share knowledge and collaborate on projects, as well as increase research interest in our region.

16.1.2 Summarise past research and monitoring activities related to biosphere reserve management (please refer to variables in Annex I).

The University of the Sunshine Coast has been delivering research over the past 13 years. Key research themes include:

- Animal and marine ecology;
- Aquaculture and agriculture;
- Forests for the future;
- Indigenous and transcultural;
- Sustainability and environment;
- Medical and health science;
- Creative humanities; and
- Accident research.

Of particular relevance to the biosphere is the University of the Sunshine Coast's Sustainability Research Centre which undertakes interdisciplinary research and has identified its niche as 'societal adaptation', which means understanding the social dimensions of regional environmental change. The Sustainability Research Centre describes itself in this way:

"Our core focus is aligned with social, behavioural and economic sciences. Our focus areas can be applied to a range of sustainability issues such as coastal management, climate change, sustainable livelihoods and water management (recognised as significant at local through to international scales)—in this way we can address real on-the-ground concerns of society and the environment." (Sustainability Research Centre, 2019).

The University of the Sunshine Coast and the Sustainability Research Centre have conducted extensive research relevant to the operation and management of a biosphere, including for example:

- Boyd, S. 2018. *Real estate market stability in a biosphere reserve*. 24th Pacific Rim Real Estate Society Conference: Property research for our changing world, Auckland, New Zealand 21-24 January 2018
- Boyd, S. 2018. *Enabling projects of regional significance: Designing a framework to categorise, measure and deliver projects of significance to the Sunshine Coast region*, University of the Sunshine Coast
- Wilson, R. Pearce, T, Jones, K. Fleischfresser, S. Davis, B. Jones, G. Lieske, S. 2018. *Indigenous Land Management in Peri-Urban Landscapes: An Australian Example*. Society and Natural Resources / Vol. 31, No. 3, pp.335-350
- Marks, M. Chandler, L. Baldwin, C. 2017. *Environmental art as an innovative medium for environmental education in Biosphere Reserves*. Environmental Education Research / Vol. 23, No. 9, pp.1307-1321
- Scanlan, L. McDonald, William J F. Shapcott, A, 2018, *Phylogenetic diversity and conservation of rainforests in the Sunshine Coast region, Queensland, Australia*, Australian Journal of Botany / Vol. 66, No. 7, pp.518-530, CSIRO Publishing

- Sharma, B. Dyer, P K, 2019, *An Investigation of Differences in Residents' Perceptions on the Sunshine Coast: Tourism Impacts and Demographic Variables*, Tourism Geographies / Vol. 11, No. 2, pp.187-213
- Hastings, K. Lawley, M A, 2015, *Sunshine Coast Food and Agribusiness – Building the Links* Research Report: August 2015, University of the Sunshine Coast
- Siddique, M. Baldwin, C. Carter, R W. 2013. *Are adaptive management and co-learning evident in Moreton Bay Marine Park Zoning Plans?* International Symposium on the Connectivity of Hills, Humans and Oceans (CoHHO), Kyoto, Japan 26-28 November 2013

A full list of research published from the University of the Sunshine Coast Research Bank can be viewed at

<http://research.usc.edu.au/vital/access/manager/Index?query=carter+&queryType=vitalDismax>

Council has conducted climate change research projects that can be used to inform the operation and management of the biosphere. These include:

1. **Urban Heat Island project:** Under increasing temperature scenarios and a growing population, a preliminary investigation into the potential impact of urban heat islands (UHI) within the Sunshine Coast local government area was undertaken to determine whether:
 - There are existing UHI 'hotspot' areas on the Sunshine Coast where Council should focus remedial efforts to address both a) the current UHI and b) the potential impacts and consequences of this UHI; and
 - The development patterns on the Sunshine Coast are creating UHI effects, and what measures should be considered for this development to ensure that further development of UHIs in the region is prevented.

Based on the findings of this investigation, and drawing on a substantial body of international research and evidence in UHIs, a number of recommendations have been made for future implementation.

2. **Future climate of the Sunshine Coast, projections of temperature, rainfall, extremes and soil moisture:** This work provided a brief description of recent global and regional climate trends, followed by an outline of expected changes in the climate of the Sunshine Coast. The changes were described in terms of regional average changes in temperature, rainfall and soil moisture as well as location specific changes in temperature extremes, and seasonal rainfall and sea level. Increases of future greenhouse gases were taken into consideration. The future climate described in this work are the near (2030) and distant (2090) future, relative to the baseline period 1986-2005. This research is useful to inform action that addresses climate change implications for the Sunshine Coast.

16.1.3 Indicate what research infrastructure is available in the proposed biosphere reserve, and what role the biosphere reserve will play in supporting such infrastructure.

A range of education, monitoring, and research bodies exist on the Sunshine Coast including:

- University of the Sunshine Coast;
- Sustainability Research Centre;
- Sunshine Coast Regional Council (research and development activities occur within the organisation);

- Unitywater;
- Forest Industries Research Institute;
- Maroochy Research Institute (agriculture);
- Healthy Land and Water (monitoring waterways);
- Sunshine Coast Health Institute;
- Technical and further education institutes; and
- More than 25 schools (high schools with children aged 12 and over) who have links with universities and technical and further education facilities.

There are also a number of research bodies, such as the University of Queensland, Griffith University and the Queensland University of Technology, that are located in Brisbane and involved in projects on the Sunshine Coast.

The University of the Sunshine Coast opened in 1996 with approximately 500 students. Its flagship campus is located at Sippy Downs with other campuses situated outside the nominated biosphere area in the surrounding areas of Hervey Bay, Gympie, Caboolture and Brisbane. Undergraduate and postgraduate courses are offered in arts, business, law, science, health, education and engineering.

Study areas are divided into seven disciplines: business, IT and tourism; creative industries, design and communication; education; engineering and science; health, nursing and sport sciences; humanities, psychology and social sciences; and law and criminology. There are now around 1,000 staff at the university and 17,000 students.

As the leading university in the region, the University of the Sunshine Coast has established over 11 research partnerships with local, national and international groups and has funding partnerships with over 20 organisations (Table 16.2). It is a member of the Australian Government's Collaborative Research Networks program, designed to build research capacity at regional universities. It is also listed on the Commonwealth Register of Institutions and Courses for Overseas Students.

Table 16.2: University of the Sunshine Coast research partners and funding partners.

Research partners	
Sunshine Coast Regional Council	Swimming Australia
Sunshine Coast Hospital and Health Service	CSIRO
Cancer Council	Wishlist
The Australian Forest Operations Alliance	German Sports University
EcoBiotics	University of Tasmania
Funding partners	
Australian Research Council (ARC)	Queensland Health
National Health and Medical Research Council (NHMRC)	Department of Transport and Main Roads (DTMR)
Australian Centre for International Agricultural Research (ACIAR)	NSW Office of Environment and Heritage
Grains Research and Development Corporation (GRDC)	NSW Department of Primary Industries

Defence Science and Technology Organisation (DSTO)	Forestry Corporation NSW
Department of Social Services (DSS)	VicForests
Department of the Environment	Sunshine Coast Regional Council
Fisheries Research and Development Corporation (FRDC)	Moreton Bay Regional Council
Department of Agriculture and Fisheries (DAF)	Gympie Regional Council
Department of State Development (DSD)	Fraser Coast Regional Council
Department of Natural Resources and Mines (DNRM)	Gold Coast City Council

University of the Sunshine Coast staff, including the vice-chancellor, lead academics, research students and the Director of the Sustainability Research Centre have all contributed to the biosphere consultation process. These conversations are ongoing so as to explore the many ways in which the university might be involved and how the biosphere, once designated, might support the university, associated research programs, postgraduate and undergraduate student projects.

16.2 Education for sustainable development and public awareness:

16.2.1 Describe existing and planned activities, indicating the target group(s) and numbers of people involved (as “teachers” and “students”) and the area concerned.

Education for sustainability has been a key focus for the Sunshine Coast region with the Council formally providing sustainability education to the community since 2009. Informal education and activities provided by community groups have contributed to an activated, involved and engaged community. There are now more than 100 sustainability programs and events hosted annually by community groups, educational institutions, the Queensland Government and Sunshine Coast Regional Council. This section showcases examples of sustainability education activities.

Many smaller events, such as workshops, community tree plantings and forums, are offered in different locations, with larger sustainability or environmental events occurring annually in one location. Key sustainability events and programs that occur annually or on an ongoing basis include:

- National Reconciliation Week (viewed at <https://www.sunshinecoast.qld.gov.au/Living-and-Community/Community-Support/First-Nations-Sunshine-Coast>);
- National Aborigines and Islanders Day Observance Committee (NAIDOC) Week (viewed at <https://www.sunshinecoast.qld.gov.au/Living-and-Community/Community-Support/First-Nations-Sunshine-Coast>);
- World Environment Day Festival held at Cotton Tree, Maroochydore (viewed at <http://www.wed.org.au/>);
- National Clean Technologies Conference and Exhibition at Caloundra (viewed at <https://nctce.com.au/about/>);

- Kids in Action (a program where ‘kids’ teach ‘kids’ about sustainability (viewed at <https://www.sunshinecoast.qld.gov.au/Environment/Education-Resources-and-Events/Kids-in-Action-Program/Kids-in-Action-2019>); and
- Living Smart (online sustainability program (viewed at <https://www.livingsmartqld.com.au/>).

Examples of sustainability programs and events include Plastic Free July, #BYO Sunshine Coast (choose to reuse), Earth Hour, the Mayor’s Telstra Technology Awards and the Generation Innovation and Start Up Weekend. Further examples of sustainability education programs and events delivered in the first half of 2019 are outlined in Table 16.3.

Table 16.3: Examples of sustainability education events and programs delivered across the Sunshine Coast, January - July 2019.

Activities between January and July 2019	Delivered by	Target group and participation numbers	Location
Events			
Living Smart – online sustainability program	Sunshine Coast Regional Council	Local community and businesses 3,900 members	Various locations across the Sunshine Coast
World Environment Day Festival	Sunshine Coast Environment Council	Local community, community groups, local businesses 5,000+ people	Cotton Tree, Maroochydore
Maleny Sustainable Futures Expo	Maleny Commerce	Local community, community groups, local businesses 400+ people	Maleny
Doonan Open Data Day	Sunshine Coast Regional Council	Local community, community groups, local businesses, government agencies 146 people attended 16 community groups and government agencies had exhibits and there were 6 presenters	Doonan Environmental Reserve near Coolum
Water Wise Connect Expo and Forum	Food and Agribusiness Network	Local community, community groups, local businesses, government agencies About 100 people attended About 10 experts presented About 15 exhibitors	Kawana
Australian Bat Night	Sunshine Coast Regional Council	Local community, community groups About 150 people attended About 5 experts (including Jinibara First Nations People) presented	Maleny

Activities between January and July 2019	Delivered by	Target group and participation numbers	Location
		About 12 community groups and government agencies as exhibitors	
Maleny Wood Expo	Barung Landcare	Local community, community groups, local businesses About 1000 people	Maleny
Kids in Action program	Sunshine Coast Regional Council Traditional Owners Local environmental groups Local schools	School children and teachers About 330 children About 150 teachers from 24 schools	Various locations across the Sunshine Coast
National Clean Technologies Conference	Cleantech Industries Sunshine Coast	Local community, national businesses and organisations, community groups, local businesses 189 people attended 55 experts presented 19 exhibitors 30% attendees were from interstate or overseas	Caloundra

There are a number of sustainability education programs and events to be delivered in the second half of 2019 (Table 16. 4).

Table 16.4: Examples of planned sustainability activities to be delivered across the Sunshine Coast, July to December 2019.

Examples of planned activities between July 2019 and December 2019	Delivered by
Mary Cairncross Scenic Reserve BioBlitz - includes workshops, presentations, Questagame, Junior Ranger Challenge and other activities, to support a citizen science based model to better understand the vertical stratification of species from the ground floor of the forest to the emergent canopy.	Sunshine Coast Regional Council Jinibara People Aboriginal Corporation 13 scientists across 6 taxonomic groups Local artists.
Fabric 2019 Slow Fashion Artful Living 2019 - includes workshops and presentations to encourage sustainable fashion choices.	Sunshine Coast Regional Council Local and visiting industry professionals
Permaculture Gardening - presentations at various libraries across the region.	Sunshine Coast Regional Council Libraries
Secrets of Mary Cairncross Scenic Reserve - special guided tours.	Sunshine Coast Regional Council Mary Cairncross Volunteers

Examples of planned activities between July 2019 and December 2019	Delivered by
Women Leaders in Agribusiness - presentations and forum.	Sunshine Coast Regional Council Food and Agriculture Network and women who are Sunshine Coast agribusiness leaders
Wildflower Festival 2019 - series of special guided walks across the region.	Sunshine Coast Regional Council Local flora experts
Green Living – Smart Tips for Reducing Waste - presentations at various libraries across the region.	Sunshine Coast Regional Council Libraries
Style yourself sustainable – workshop.	Sunshine Coast Regional Council
Learn to shop in sustainable style workshop.	Sunshine Coast Regional Council
Spring into sustainability – a change makers lunch - workshop (through 1 Million Women – Women for Climate Action).	Sunshine Coast Regional Council Local change makers in sustainability
Native Plant Food Foraging workshop.	Sunshine Coast Regional Council Local experts
Culturally significant plant walk.	Sunshine Coast Regional Council Traditional Owners
Making useful items with native plants workshop.	Sunshine Coast Regional Council Traditional Owners

Sustainability is part of Australia’s National Curriculum which means that all school children across the Sunshine Coast learn about sustainability. Sustainability is also offered as a course at the University of the Sunshine Coast and through other vocational training and education institutions.

There are many other education programs, driven by community groups across the region, that aim to engage and involve adults and children in learning activities. One example is the Marcoola Street Library. Marcoola Community Group, who have been contributing to the sustainable development of the area for more than 50 years, created free adult and children’s libraries. These street libraries are public places for books to be taken, swapped or left for others to share. The tangible outcome of this collective community planning and effort is a pair of remarkably durable and attractive libraries that have become magnets to inspire, amuse and teach our residents of all ages. People who use the libraries are connecting with each other in a manner that is strengthening the community.

16.2.2 What facilities and financial resources are (or will be) available for these activities?

Large tourism attractions, such as Sealife in Mooloolaba and Australia Zoo at Beerwah, contribute significantly to sustainability education. Sealife is an aquarium where visitors can view and learn about marine conservation via extensive interpretation displays that accompany marine exhibits. Australia Zoo also has extensive interpretive displays as well as a wildlife hospital which offers visitors educational opportunities about wildlife conservation and rehabilitation.

There are other organisations that also provide environmental education services. For example, ECOllaboration, who are based in Nambour, offer services such as:

- Senior Geography and Biology fieldwork and excursions on the Sunshine Coast;
- Early Learning, Primary School and school camp environmental education programs; and
- Traineeships for young people looking to work in conservation.

Council programs such as Living Smart, library workshops, environment centres and associated activities and public awareness campaigns are already included in the Sunshine Coast Regional Council's annual operating budget. Council owned and operated, environmental education centres have ongoing budget and resource allocations, including:

- Mary Cairncross Scenic Reserve Rainforest Discovery Centre - 180,000 visitors annually;
- Maroochy Regional Bushland Botanic Garden and Arts and Ecology Centre - 85,000 visitors annually;
- Maroochy Wetlands Sanctuary - 12,000 visitors annually; and
- Coastal Discovery Van (no annual visitor numbers available as it is a new initiative).

Figure 16.1: Sunshine Coast Council's education centres.

Mary Cairncross Scenic Reserve Rainforest Discovery Centre

The Mary Cairncross Scenic Reserve is a unique remnant of subtropical rainforest, with an adjacent picnic area and cafe.

The Reserve is an ecological and recreational retreat where the focus is on conservation, environmental learning and interpretation.

The main attraction is the rainforest, with over two kilometres of tranquil walking tracks, boardwalks and viewing platforms within the 55 hectare reserve. There is also a Rainforest Discovery Centre with new and innovative rainforest interpretative displays.



Maroochy Regional Bushland Botanic Garden and Arts and Ecology Centre

The Maroochy Regional Bushland Botanic Garden showcases plants native to the Sunshine Coast region.

The magnificent 82 hectare garden includes a mix of eucalypt open forest and creek side rainforest, featuring lagoons, rocky and palm filled gullies, and the headwaters of Mountain Creek.

The Maroochy Arts and Ecology Centre, located at the Maroochy Regional Bushland Botanic Garden, is a specialised arts and ecology interpretative centre. It utilises sustainable building design principles.



Maroochy Wetlands Sanctuary

The Maroochy Wetlands Sanctuary is part of the regions indigenous cultural heritage stretching back 60,000 years. On the banks of the Maroochy River the sanctuary is on the outer fringe of the urban footprint of Bli Bli.

There is a one kilometre walk with a dynamic and diverse array of wildlife including more than 200 species of birds, crabs, butterflies, reptiles, fish and other wildlife species.

The Visitor Information Centre houses interpretive displays and is staffed by volunteers.

The Sunshine Coast Environmental Education Centre, which is managed by Education Queensland, is located adjacent the Visitor Information Centre.

The Maroochy Wetlands Sanctuary is visited by many schools across the region.



Coastal Discovery Van

Council retrofitted a caravan with interpretive displays about the local coastal zone. The intent is to move the centre between coastal locations and events (e.g. Caloundra Music Festival or World Environment Day). The interpretive displays will change according to visitor needs and priority or relevant key messages at each location. This van is new and will commence operation in late 2019.



All education centres offer programs and experiences for schools, local residents and tourists. More about these centres can be viewed at <https://www.sunshinecoast.qld.gov.au/Environment/Get-Involved-in-Conservation/Environmental-Education-Centres>.

The community groups who provide environmental education also have ongoing operational budgets and are often supported by the Sunshine Coast Regional Council or Queensland Government. Schools and programs conducted regularly by community groups (e.g. Take 3 to pick up plastic off the beach), and World Environment Day can also receive funding from a variety of sources.

When identified as a biosphere, Council will be able to partner and leverage facilities and resources to plan and deliver further sustainability education programs including those in partnership with Traditional Owners and dedicated to education about cultural values and practices.

16.3 Contribution to the World Network of Biosphere Reserves:

16.3.1 How will the proposed biosphere reserve contribute to the World Network of Biosphere Reserves, its Regional and Thematic Networks?

The Sunshine Coast Regional Council area is located immediately to the south of two existing UNESCO Biosphere Reserves, Noosa Biosphere Reserve and Great Sandy Biosphere Reserve. The Sunshine Coast is being nominated as a standalone biosphere within a defined geographic area and governance model to reflect the priorities and interests of the Sunshine Coast local government area.

Significant opportunity exists to collaborate and partner where appropriate. For example, the three biospheres together lie within an area that the tourism industry refers to as Australia's Nature Coast (Figure 16.2) which stretches from K'gari Fraser Island in the north to the Sunshine Coast in the South.

The tourism industry features it as having, "numerous unbeatable natural encounters including two UNESCO Biosphere Reserves side by side - the Great Sandy Biosphere and Noosa Biospheres; World Heritage listed K'gari Fraser Island; Lady Elliot Island - the most southern island on the World Heritage listed Great Barrier Reef; 47 National Parks, Reserves and Forests; over 200 kilometres of pristine beaches, calm rivers and waterways with an abundance of flora and fauna. Such world-class nature credentials are equally matched by the plethora of attractions and touring options available, with personal and immersive experiences being paramount to Australia's Nature Coast's tourism offering" (Australia's Nature Coast, 2019).

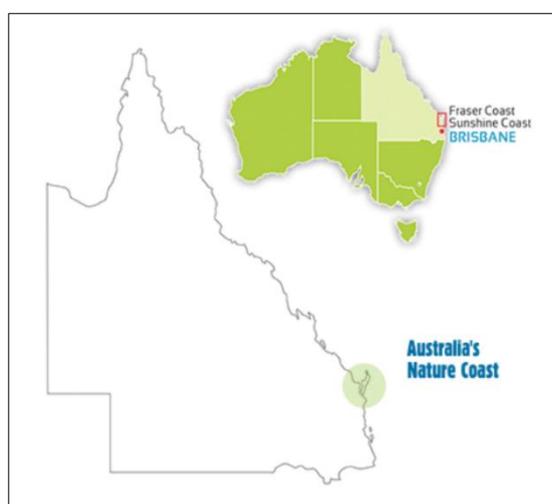


Figure 16.2: Australia's Nature Coast includes the Noosa and Great Sandy Biosphere Reserves and potentially the Sunshine Coast UNESCO Biosphere (Australia's Nature Coast, 2019).

Having three biospheres span the whole of Australia's Nature Coast opens many opportunities to leverage culturally appropriate socio-economic benefits for tourism that will stretch from K'gari Fraser Island to the Glass House Mountains. It also creates an unprecedented opportunity to protect and enhance the natural assets situated in the three biospheres with opportunity for our biosphere to learn from, share knowledge and work with both Noosa and

Great Sandy Biospheres, where appropriate, to collaboratively deliver outcomes such as a 'living lab', case study or demonstration site for the World Network of Biospheres.

When identified as a biosphere, Council will investigate joining the UNESCO Man and the Biosphere Smart initiative which will enable the Sunshine Coast to share knowledge, ideas and case studies about best practice around social, environmental, economic and cultural sustainability. This opportunity could provide a platform to strengthen partnerships with the World Network of Biospheres to both access and share expertise and further the Sunshine Coast's national and international reputation.

16.3.2 What are the expected benefits of international cooperation for the biosphere reserve?

Becoming a biosphere and connecting with the World Network of Biospheres may create niche markets for products, services, facilities and practices, as well as a significant opportunity for the agricultural, forestry, fisheries and tourism sectors. Building knowledge, capacity and leveraging the opportunities that international recognition offers will enable businesses to grow while attracting more investment to our region. That means more jobs for local people and supported development in terms of achieving a balance between a growing economy and community while protecting natural assets.

Council has a clear vision for the region and the community has clear aspirations that align with the vision to be *Australia's most sustainable region – Healthy. Smart. Creative.*

A UNESCO Biosphere credential will support the Council and community to maintain and enhance our economy, lifestyle and environment for future generations.

Consultation about the biosphere nomination with key stakeholders and community indicated the expected benefits and opportunities would include:

Lifestyle

- International recognition through being a UNESCO biosphere will raise local, national and international awareness of our world class social, cultural, environmental and economic assets;
- Reinforcing a sense of place, belonging, ownership and pride - we are all linked through living, playing and working in our biosphere;
- Fostering a greater understanding of the different ways in which our region is perceived as valuable - socially, culturally, environmentally and economically, and the integration of these;
- Integrating social, cultural, environmental and economic considerations into future planning for our region;
- Providing an opportunity for residents and community groups to be more directly engaged with management and planning for our region;
- Supporting an appreciation for how individual involvement in sustainability programs, food production, innovation, education, research and entrepreneurial skills contribute to building stronger, more resilient communities;
- Providing opportunities to promote local products and services and enhance people's livelihoods;
- Supporting sustainable employment opportunities and helping to strengthen high value industries such as clean technology, tourism and agribusiness;

- Providing an opportunity for involvement in an international network for cooperation and information sharing through UNESCO's global and Australian biosphere network;
- Supporting businesses and community groups with networking, collaboration, building partnerships and knowledge sharing; and
- Enhancing and maintaining our lifestyle for future generations.

Environment

- International (UNESCO) recognition reinforces the importance of protection for areas with high conservation values (e.g. national parks, marine parks and Council conservation reserves);
- Fostering a greater community understanding and appreciation of natural assets and the need to protect them so they continue to contribute to the lifestyle and economy;
- Encouraging research to improve how natural assets are managed; and
- Facilitating a greater connection between natural assets in the populated coastal zone and natural assets in rural areas so as to increase resilience of the region's environment.

Economy and business

- Opportunities to develop a recognisable and credible brand for products and services which align with the region's environment and liveability aspirations;
- Opportunities to create a brand to access new, and enhance existing Australian and international markets, customers and investment;
- Fostering economic and human resource development in the region;
- Opportunities to attract and retain a skilled workforce to support industries where there is competition domestically and internationally for a workforce;
- Opportunities to access an international network of specialists for technical input on development of projects, products and services;
- Opportunity does not add another layer of bureaucracy or restrictions on business activities; and
- Opportunities to unite and connect businesses to create partnerships for business growth and development.

Agriculture, forestry and commercial fishing

- International (UNESCO) recognition offers a level of recognition for these industries as an important part of the economy, plus regional culture and environment;
- Fostering economic and human resource development in the region;
- Opportunity to access an international network of specialists for technical input on development of projects, products and services;
- Opportunity does not add another layer of bureaucracy or restrictions on business activities; and
- Opportunity and capacity to be involved in advancing agribusiness, forestry and commercial fishing on the Sunshine Coast, and integrates with regional aspirations.

Development and construction

- Opportunity to use UNESCO biosphere branding to enhance market desirability of the region;
- Opportunity to access greater support and tools for sustainable design;
- Achieving planning principles of urban consolidation and sustainable design to deliver vibrant, inclusive communities; and
- Encouraging planning principles which support sustainable development to deliver inclusive and vibrant communities which align with regional aspirations.

Partnerships (including education and research)

- Providing opportunities for social, cultural, environmental and economic research, education and knowledge dissemination;
- Positioning Sunshine Coast as a place for international research, learning and knowledge sharing;
- Providing a public image, brand, credibility and respectability for research and education initiatives;
- Linking values of the UNESCO biosphere program with school curriculum, university and technical and further education course outcomes as related to the integration of people and nature;
- Providing opportunities to access international information, expertise and support through the global network of UNESCO biospheres;
- Providing an opportunity to be a learning site to explore and demonstrate approaches which can be applied elsewhere;
- Providing an opportunity for education and research institutions to be more involved in the future direction of our region;
- Opportunity to attract international education; and
- Developing sustainability reporting and benchmarking to understand how the region is tracking.

Tourism (including accommodation, food services and retail)

- Incentive for cultural tourism experiences;
- Incentive for regional operators to develop nature based tourism experiences;
- Opportunity to attract national and international events;
- Positioning the Sunshine Coast as an internationally renowned destination which gives the region a competitive advantage;
- Opportunity to develop a recognisable and credible brand for products and services, leveraging the credibility of the UNESCO Biosphere global brand, and which aligns with the region's environment and liveability aspirations. The brand could be used to access new Australian and international markets and customers; and

- Providing the Sunshine Coast as a point of difference compared with other Australian destinations, and which is potentially strengthened by neighbouring biospheres, Noosa and Great Sandy.

These opportunities would unite and connect businesses to create partnerships for business growth and development.

16.4 Internal and external communication channels and media used by the biosphere reserve:

16.4.1 Is (will) there (be) a biosphere reserve website? If yes, what is its URL?

The nomination is currently in the development phase and the biosphere has two webpages on the Sunshine Coast Regional Council website. These web pages are currently aimed at informing the community of the Council's intention to lead the development of a biosphere nomination on their behalf, and asking for their feedback and involvement. Once the nomination is submitted, these webpages will be reviewed and redeveloped to:

1. Inform the community and key stakeholders of the progress of the nomination as it moves through the Queensland Government, Commonwealth Government and UNESCO Man and the Biosphere processes;
2. Facilitate the operation and management of the biosphere; and
3. Raise awareness of achieving a UNESCO Biosphere credential, and about UNESCO's Man and the Biosphere program.

The current website can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Nomination-for-Biosphere>.

16.4.2 Is (will) there (be) an electronic newsletter? If yes, how often will it be published?

Communication strategies will be developed more fully between submission of the nomination and when the biosphere is accredited and becomes operational. There will be a focus on communicating broadly and effectively with the wider community through a variety of communication tools aimed at different target audiences and key stakeholders. It is possible that a newsletter, or regular spaces in existing newsletters, will be a part of the communication strategy.

16.4.3 Does (will) the biosphere reserve belong to a social network (Facebook, Twitter, etc.)?

Social network communication channels, such as Facebook and Instagram, will be considered for communicating with the wider community, particularly with the intent to attract and inform younger generations. These channels were used during consultation in the development of this nomination (supporting document 9).

17. GOVERNANCE, BIOSPHERE RESERVE MANAGEMENT AND COORDINATION

[Describe the following characteristics in the prospective that the site is being designated.]

Being a biosphere provides a platform for an integrated and balanced approach to managing growth in our region that encourages people living, working and playing sustainably. Existing legislation and policy will complement governance arrangements for the operation and management of the biosphere which will be balanced, transparent, inclusive and responsive. There is opportunity for Council to provide leadership and form partnerships to deliver an integrated management framework that drives a successful biosphere where our biosphere will be a collective story; our story.

17.1 Management and coordination structure:

17.1.1 What is the legal status of the biosphere reserve?

The biosphere is non statutory and does not replace existing legislation or planning policy. The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* includes a non-mandatory provision that a management plan should be prepared and compliant with the Australian Biosphere Reserve Management Principles (section 17.4.1).

There are no other substantial legal implications associated with a biosphere designation. Commonwealth, Queensland and Local Government planning policy and legislation which relate to the management of the land and the environment will continue to operate.

17.1.2 What is the legal status of the core area(s) and the buffer zone(s)?

The Protect and Enhance and Special Manage and Care Areas are publicly owned and legally protected through legislation for the purpose of long term conservation. Manage and Care Areas are a mix of publicly owned land and sea as well as privately owned land. Some publicly owned land and sea that is legally protected for the purpose of long term conservation has not been designated as Protect and Enhance Area due to its small size.

There are multiple layers of legal protection in effect over the Protect and Enhance, Special Manage and Care, and Manage and Care areas. These layers operate on a range of scales, provide varying levels of protection, and integrate different agencies, including both government and non-government agencies. These are discussed in section 14.1.3 and 17.1.4.

17.1.3 Which administrative authorities have competence for each zone of the biosphere reserve (core area(s), buffer zone(s), transition area(s))?

Multiple Commonwealth and State government departments, in collaboration with the Sunshine Coast Regional Council, will have responsibilities for the management of the different Sunshine Coast Biosphere Areas through the provision of advice, and application of legislation and policies. These include but are not limited to those summarised in Table 17.1, with further information provided in section 17.1.4 and supporting document 3 and 4.

Table 17.1: Main administrative authorities in each Biosphere Area.

Administrative authority	Sunshine Coast Biosphere Areas			
	Protect and Enhance	Special Manage and Care	Manage and Care	Live and Work
Commonwealth Government	✓	✓	✓	✓
State Government	✓	✓	✓	✓
Sunshine Coast Regional Council	✓	✓	✓	✓
Unitywater – water treatment and distribution and sewerage management			✓	✓
Seqwater – water supply			✓	
HQPlantations – forestry			✓	

17.1.4 Clarify the respective competence of each of these authorities. Make a distinction between each zone if necessary and mention any decentralized authority.

The responsibilities of each administrative authority (section 17.1.3) in managing the biosphere are discussed in Table 17.2.

Table 17.2: Responsibilities of key managing authorities within the biosphere.

Managing authority	Responsibilities
Commonwealth Government Department of Environment and Energy	This Department designs and implements Australian Government policy and programs to protect and conserve the environment, water and heritage, promote climate action, and provide adequate, reliable and affordable energy. Their responsibilities are relevant to the Protect and Enhance, and Special Manage and Care Areas.
Queensland Government	Department of Environment and Science is responsible for environmental planning and protection policy, pollution and waste management, marine and national parks management, science strategy, and arts policy and programs. Their responsibilities are relevant to the Protect and Enhance, and Special Manage and Care Areas.
	Department of Agriculture, Forestry and Fisheries is responsible for the agriculture, fisheries and forestry industries, including the provision of agricultural research, development and extension of the management of biological, animal welfare and product integrity risks. Their responsibilities lie in the Manage and Care Areas.
Sunshine Coast Regional Council	Council is a local government responsible for providing a forum for local decision making and assisting the delivery of Queensland

Managing authority	Responsibilities
	<p>Government priorities at a local and regional level. Council provides services to residents including:</p> <ul style="list-style-type: none"> • Beach, foreshore and coastal infrastructure and canals; • Bushland conservation and habitat; • Cemeteries; • Community and cultural development and partnerships; • Community venues; • Customer and community relations; • Development services; • Disaster management; • Economic development; • Elected Council (leadership); • Financial and procurement services; • Holiday parks; • Libraries; • Lifeguards; • Local amenity and local laws; • Public health (through pest control); • Public lighting; • Recreation parks, trails and facilities; • Rivers, streams, estuaries and water bodies (policy, programs and some monitoring); • Road network management for some roads; • Roads (for some roads), cycle ways and pathways; • Sporting facilities; • Stormwater drainage; • Sustainable growth and network planning; and • Waste and resource management. <p>Council responsibilities are relevant to all biosphere areas.</p>
Seqwater	<p>Seqwater is a statutory authority of the Queensland Government providing bulk water storage, transport and treatment, water grid management and planning, catchment management and flood mitigation services. They conduct most of these activities in the Manage and Care biosphere areas.</p>
Unitywater	<p>Unitywater is a statutory authority formed under the <i>South East Queensland Water Act 2009</i>. It provides residents of Moreton Bay Regional Council, Sunshine Coast Regional Council and Noosa Shire Council with a high quality, safe and reliable sewerage and water service that is economically and environmentally sustainable. Unitywater carries out its role within the Live and Work Area of the biosphere. They also manage land for the purpose of environmental offsets in the Manage and Care Areas.</p>
HQPlantations	<p>HQPlantations Pty Ltd are a company who lease land from the Queensland Government for forestry purposes. They sustainably manage plantations that produce timber for both domestic and export industries. HQPlantations protect native forests which provide a range of conservation, recreation and community values. They conduct their responsibilities in the Manage and Care Areas.</p>

17.1.5 Indicate the main land tenure (ownership) for each zone.

Land across the different Sunshine Coast Biosphere Areas is either publicly (Queensland Government and Sunshine Coast Regional Council) or privately owned, and is summarised in Table 17.3.

Table 17.3: Percent of land tenure in each biosphere area.

Type of ownership	% of Live and Work	% of Terrestrial Manage and Care	% of Terrestrial Special Manage and Care	% of Terrestrial Protect and Enhance and Special Manage and Care
Queensland Government	35%	21%	86%	95%
Sunshine Coast Regional Council	8%	1%	14%	5%
Privately owned	57%	78%	0%	0%
TOTAL	100%	100%	100%	100%

17.1.6 Is there a single manager/coordinator of the biosphere reserve or are several people in charge of managing it? If one manager/coordinator, who designates and employs him/her (national authorities, environmental administrative agency, local authorities)?

Council proposes to play a primary role in the implementation of the biosphere by providing leadership, support and available resources (subject to annual budgets) to the biosphere's governance, operation and management. Knowledge from various groups within Council, mainly Economic and Community Development and Liveability and Natural Assets, will contribute to the implementation of the biosphere on an ongoing basis.

An important and ongoing component of the biosphere is the development of a framework for management and performance monitoring, which Council, in collaboration with key stakeholders, will play a key role.

To support implementation, the required biosphere governance structure will be developed and in place for the Sunshine Coast Biosphere by June 2021. The development of this structure will be guided by the governance principles discussed in section 17.1.9.

17.1.7 Are there consultative advisory or decision making bodies (e.g. scientific council, general assembly of inhabitants of the reserve) for each zone or for the whole biosphere reserve? If yes, describe their composition, role and competence, and the frequency of their meetings.

The established biosphere governance structure will identify the composition, role and function of required biosphere group/s to support the provision of independent and high level advice to Council and the coordination of biosphere activities across all biosphere areas.

The role of the biosphere group/s could be to:

- Ensure that community views and needs are represented and that the community is kept informed;
- Provide a conduit for community feedback which informs the management of the biosphere;
- Provide a forum for discussions with community groups and individuals regarding relevant biosphere opportunities, benefits and risks;
- Foster ownership of the biosphere by key stakeholders and the community;
- Build community advocacy, understanding, trust and acceptance of the biosphere;
- Ensure there is a high level of transparency;
- Support the co-design of communication messages and strategies to provide for effective communication and engagement with the broader public; and
- Assist in managing community perception and community expectations of the biosphere.

17.1.8 Has a coordination structure been established specifically for the biosphere reserve?

(If yes, describe in detail its functioning, composition and the relative proportion of each group in this structure, its role and competence. Is this coordination structure autonomous or is it under the authority of local or central government, or of the manager/coordinator of the biosphere reserve?)

The established biosphere governance structure incorporates a balanced, transparent, inclusive and responsive approach to coordination.

Required biosphere groups will not be autonomous from Council (Figure 17.1). The role of the biosphere group/s is discussed in section 17.1.7 along with that of Council (section 17.1.6).

It is possible that, as the biosphere evolves, the biosphere group may require the formation of sub groups or working groups to deliver projects on an ongoing or intermittent basis.

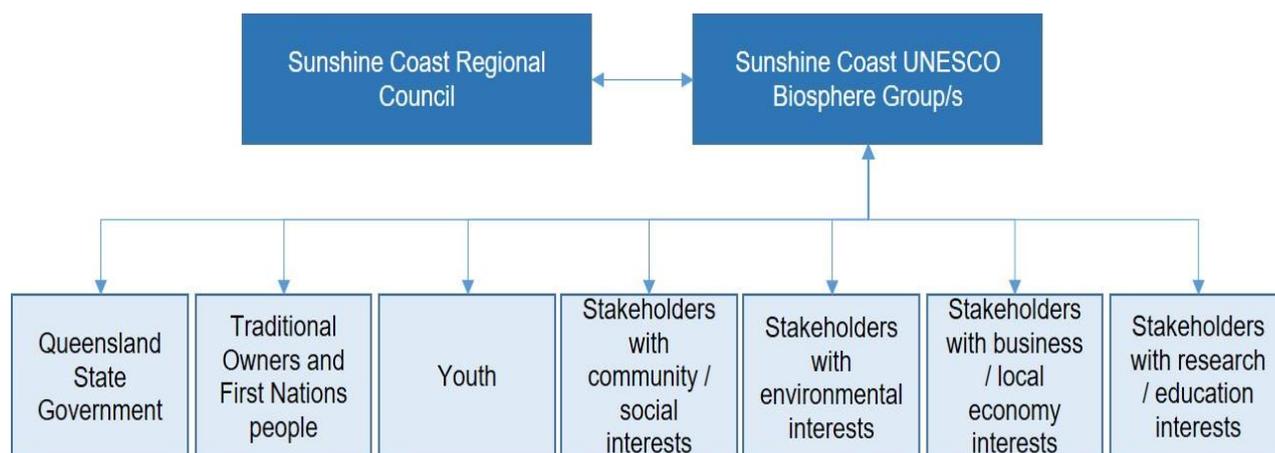


Figure 17.1: Proposed governance structure for the operation and management of the biosphere.

Existing environmental, social, economic and youth groups as well as Traditional Owner and First Nations people, Queensland Government, research and education bodies could be involved in sub groups or working groups. These bodies have established governance structures and will operate autonomously, though could form partnerships with the biosphere group and Council to deliver projects where appropriate.

Community and stakeholder consultation confirmed that planning a governance model is critical if the biosphere is to be effective. Community and key stakeholders also indicated that the governance structure needs to be fit for purpose for the Sunshine Coast. Developing a governance model will require careful planning and further testing over time. For this reason, this governance model is currently being developed and expected to be finalised by June 2021, which aligns with UNESCO Man and the Biosphere's announcement about the outcome of this nomination.

17.1.9 How is the management/coordination adapted to the local situation?

The management/coordination of Sunshine Coast Biosphere and supporting structures has been informed by both broad community engagement and the advice and direction provided by the Biosphere Nomination Community Reference Group.

Through this local consultation, a set of principles were developed to inform the governance arrangements for the Sunshine Coast Biosphere. These are:

Overarching principle: *Biosphere brings people and nature together.*

It is important that governance arrangements support all parts of the community in understanding the challenges and opportunities present in the biosphere, empowering involvement in positive action, tracking and communicating performance and adapting action.

Principle 1 - Balanced

- Balances and integrates current and future community, environmental, economic and cultural needs;
- Ensures equal and balanced representation of stakeholder groups; and
- Fosters open and collaborative partnerships between varying levels of government, stakeholder and community groups.

Principle 2 - Transparent

- Promotes a common understanding by providing public access to information that is clear and easy to understand;
- Provides access to a global experience of living and managing a successful economy within a biosphere;
- Openness, clarity and trust of UNESCO Man and the Biosphere, government and biosphere group processes for decision making; and
- Regularly reports on monitored performance to encourage understanding and knowledge sharing.

Principle 3 - Inclusive

- Recognises different ages, genders, cultures and values;
- Respects, engages and collaborates with the Traditional Owners and broader First Nations community;
- Supports and promotes celebrations and events which build knowledge, capacity and networks;
- Engages with youth to provide opportunities for active engagement in contributing to responses to the challenges of the biosphere;
- Provides diverse opportunities for all to contribute to decision making processes, actions and initiatives that advance the biosphere; and
- Respects and embraces the diverse knowledge within stakeholders and encourages information and experience sharing.

Principle 4 - Responsive

- Utilises and integrates existing effective structures in preference to creating or duplicating additional management or engagement arrangements (cascading structure linking community (including industry) and stakeholder groups with overarching arrangements);
- Is adaptive to changing circumstances and able to adjust as required;
- Collaborates with and maintains a positive relationship with adjoining biosphere reserves;
- Engages with the Queensland Government as an important partner and landholder;
- Responds to obligations and expectations of UNESCO and the Commonwealth Government;
- Efficiently and consistently delivers actions within appropriate timeframes;
- Decision making is responsive and evidence-based;
- Meets community and stakeholder (including industry) expectations as credible management of the biosphere;
- Demonstrates strong leadership, collaboration and identity; and
- Is financially sustainable and manages funding openly and effectively.

Caveat for all principles: *In accordance with Australian law.*

17.1.10 Is there a procedure for evaluating and monitoring the effectiveness of the management?

A process for evaluating and monitoring the effectiveness of biosphere management is yet to be developed. There is an opportunity for this process and its indicators to align with existing Council governance, policy and project evaluation frameworks (section 15.1.2) as well as Sunshine Coast Sustainability reporting. Several performance measurement frameworks have been considered and, at this time, there is recognition that alignment between performance measures for the biosphere and the United Nations Sustainable Development Goals could be beneficial. Developing a performance measure framework might be investigated before June 2021.

17.2 Conflicts within the biosphere reserve:

17.2.1 Describe any important conflicts regarding the access or the use of natural resources in the area considered (and precise period if accurate). If the biosphere reserve has contributed to preventing or resolving some of these conflicts, explain what has been resolved or prevented, and how this was achieved for each zone.

The greatest challenges that occur in the biosphere are the result of pressures from population growth, economic growth, climate change and technological innovation. These drivers of change have been discussed in sections 13.1, 14.1.2, 14.2.2, 14.3.2, 15.2.4 and 15.3.2.

Managing growth while protecting and enhancing natural assets, liveability and adapting to, or mitigating, climate change requires considerable planning. Conflicts involving land use planning do occur in the Live and Work and Manage and Care Areas. The process for resolving these conflicts is discussed in section 17.2.3.

17.2.2 If there are any conflicts in competence among the different administrative authorities in the management of the biosphere reserve, describe these.

Management authorities, largely the Sunshine Coast Regional Council, Queensland Government and the Commonwealth Government, have clear roles, functions and responsibilities that are strategically aligned (section 17.1). This alignment also serves to prevent and resolve conflicts.

Relationships established across the management authorities through the development of the Sunshine Coast Biosphere nomination will continue to be fostered and strengthened. Clear, open and regular communication between the management authorities will continue for the ongoing management of the Sunshine Coast Biosphere.

17.2.3 Explain the means used to resolve these conflicts, and their effectiveness.

Existing Commonwealth, State and Sunshine Coast local government legislation and policies are used to guide decision making and will continue to apply to activities across the designated Sunshine Coast Biosphere area. Decisions made are not always supported and differences of opinion and conflicts are generally addressed through advocacy and negotiations. In instances where the issue cannot be resolved the matter may be brought before the court for consideration and determination.

17.3 Representation, participation and consultation of local communities:

17.3.1 At what stages in the existence of a biosphere reserve have local people been involved: design of the biosphere reserve, drawing up of the management/cooperation plan, implementation of the plan, day to day management of the biosphere reserve? Give some specific examples.

Local people have been involved in the design of the biosphere through providing advice and feedback.

In addition to the extensive engagement process conducted with community and key stakeholders (supporting document 9), a Community Reference Group was established to advise the Sunshine Coast Regional Council about developing the nomination (supporting document 10).

It is intended that some form of Community Reference Group will continue after submission of the nomination so to provide advice about developing the governance model and management framework for the operation of the biosphere (Figure 17.2).

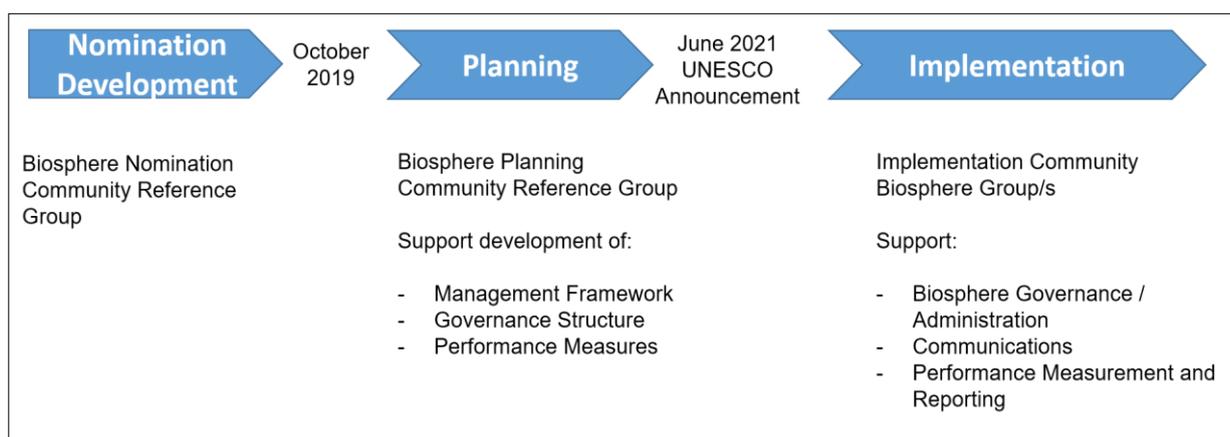


Figure 17.2: Community involvement and their role in the biosphere.

17.3.2 Describe how the local people (including women and indigenous communities) have been, and/or are represented in the planning and management of the biosphere reserve (e.g. assembly of representatives, consultative groups).

The three month formal community consultation process included community and key stakeholders completing a survey with results informing the biosphere design and nomination (section 13.4).

Survey participants included about 63% women and 36% men. Approximately 10% were youth under the age of 25 years and 2% of participants identified as Aboriginal and / or Torres Strait Islander. This number is consistent with 2% of the total Sunshine Coast population identifying as Aboriginal and/or Torres Strait Islander. Participants geographically represented the whole biosphere area (supporting document 9).

Following the formal consultation period, Council formed a Community Reference Group with Terms of Reference to advise on the nomination development.

The Community Reference Group served to:

- Provide advice and critical insight to Council (as sponsor of the nomination) from the perspective of the community about the development of a nomination;
- Ensure that community views and needs are represented;
- Ensure that the community is kept well informed throughout the development of the biosphere nomination, and
- Be involved in developing a 'community statement' (letter of support) to accompany the nomination through its endorsement process.

The Community Reference Group consisted of standing members including:

- Independent Chairperson (appointed by Council);
- Project Control Group representative (Councillor);
- Voluntary members from the community to provide equal and balanced representation of:
 - Cultural interests;
 - Environmental interests;
 - Business/local economy interests;
 - Community/social interests;
 - Young people; and
 - Education and research sector.

Both Traditional Owner groups wished to be involved through a separate and tailored process. Therefore, Traditional Owners were engaged through meetings via Council's existing Traditional Owner engagement processes. The Kabi Kabi people indicated they saw the biosphere as an opportunity to support a Ranger Program about Traditional Owners on the Sunshine Coast. The Jinibara people indicated a level of interest and willingness and saw the biosphere as an opportunity to develop eco cultural tourism in the Blackall Range. Traditional Owners will continue to be engaged as the biosphere progresses.

17.3.3 Describe the specific situation of young people in the proposed biosphere reserve (e.g. potential impacts of the biosphere reserve on youth, consideration of their interests and needs, incentives to encourage them to participate actively in the governance system of the biosphere reserve).

During the consultation period, Council:

- Engaged with the Speak Up and Engage Youth Advisory Committee through a briefing and then regular contact with interested members;
- Received feedback from young people in the rural sector through a workshop;
- Consulted 333 children from 24 different schools through activities at a Kids in Action program event; and
- Provided activities that were both appealing to young people and appropriate in terms of gathering feedback from youth (such as table drawings and a photobooth) at events.

Young people clearly indicated their understanding of the value of becoming a biosphere and how this process will help protect the region into the future, and remain a place with high natural beauty and amenities, as well as a place to live, work and play (supporting document 9). Young people will continue to be engaged as the biosphere progresses.

17.3.4 What form does this representation take (e.g. companies, associations, environmental associations, trade unions)?

Those engaged in the biosphere design included a mix of representatives including:

- Traditional Owner Native Title groups;
- Not for profit community groups and peak bodies with social, environmental and economic interests;
- Business and industry groups and peak bodies (including those with agricultural and tourism interests);
- Local businesses;
- The University of the Sunshine Coast;
- Kids in Action and the Speak Up and Engage Youth Advisory Group;
- Queensland Government agencies;
- Commonwealth Government agencies; and
- Residents of the Sunshine Coast (supporting document 9).

17.3.5 Are there procedures for integrating the representative body of local communities (e.g. financial, election of representatives, traditional authorities)?

Council is the representative body for local communities and has developed this nomination on their behalf, based on community consultation and with advice from a Community Reference Group.

Council invited the community to submit expressions of interest to join the Community Reference Group. A selection process took place and successful applicants volunteered their time and expertise at a series of meetings to inform the development of the nomination (supporting document 10).

A similar process is expected to occur for the formation of Community Reference group/s to inform the planning and implementation phases of the biosphere.

17.3.6 How long lived are consultation mechanisms (permanent assembly, consultation on specific projects)? Make a complete description of this consultation. What are the roles of involved stakeholders compared to the role of the biosphere reserve?

All involved stakeholders have a role in either the conservation, development, logistical support or cultural functions of the biosphere. These sector and interest groups included:

- Residents (conservation, development, logistical support and cultural functions);

- Environment (conservation function);
- Economy and business (development function);
- Agriculture and forestry (development function);
- Development and construction (development function);
- Research and education (logistical support);
- Tourism (development function); and
- Traditional Owners (cultural function).

Consultation with key stakeholders from these sectors will be ongoing and they, along with the community, will be kept updated and engaged through events, a website, the continuation of the Community Reference Group and other communication tools.

17.3.7 What consultation mechanisms have been used, and who has been involved? Are they for specific purposes or long term? What impacts have they had on decision making processes (decisional, consultative or merely to inform the population)?

Consultation mechanisms are discussed in section 13, sections 17.3.1 through to sections 17.3.6 and in the attached consultation activities report, and Community Reference Group Terms of Reference (supporting document 9 and 10).

Consultation will be ongoing for the life of the biosphere. Community will be kept up to date with the progress of the nomination as it goes through the necessary process and then afterwards, in the operation and management phase (Figure 17.2).

17.3.8 Do women participate in community organisations and decision making processes? Are their interests and needs given equal consideration? What incentives or programs are in place to encourage their representation and participation (e.g. was (were) a “gender impact assessment(s)” carried out)?

Australian women are considered to have equal opportunity to participate in community organisations and decision making processes. Women have been, and will continue to be, involved and represented throughout the life of the biosphere. For example, the Community Reference Group formed to provide advice about the development of the nomination included both women and men. No gender impact assessment or incentive programs were warranted.

17.4. The management/cooperation plan/policy:

17.4.1 Is there a management/cooperation plan/policy for the biosphere reserve as a whole?

There are a number of Commonwealth, Queensland Government, Council and other key stakeholder management plans and strategies already established and in place throughout the nominated biosphere. These are listed in supporting document 4. There is opportunity to consider all plans and strategies, and in consultation with key stakeholder representatives, develop a biosphere management framework for the whole biosphere. There is also opportunity to engage planning experts to advise how the biosphere and *Sunshine Coast Planning Scheme 2014* might interact.

This framework will also consider the Australian Biosphere Reserve Management Principles within the *Environment Protection and Biodiversity Conservation Regulations 2000 – Schedule 7*. The Australian Biosphere Reserve Management Principles can be viewed at http://classic.austlii.edu.au/au/legis/cth/consol_reg/epabcr2000697/sch7.html.

17.4.2 Which actors are involved in preparing the management/cooperation plan? How are they involved?

Key stakeholders, relevant Queensland and Commonwealth Government agencies will be involved in providing advice to Council to develop a management framework. These key stakeholder groups and government agencies are likely to be those already involved in consultation to date (Figure 17.1, Table 17.1, and supporting document 9).

17.4.3 Do local authorities formally adopt the management/cooperation plan? Are local authorities making reference to it in other policies and/or plans? If so, please provide details.

Approval of the biosphere management framework might be delegated to the Sunshine Coast Regional Council for formal adoption. Using this process would also provide a greater opportunity for integration of the biosphere management framework into existing and future Council strategies and plans.

The biosphere nomination project is already a Transformational Action within the *Environment and Liveability Strategy 2017* (and can be viewed at <https://www.sunshinecoast.qld.gov.au/Experience-Sunshine-Coast/Healthy-Smart-Creative/Corporate-Plan>).

The biosphere nomination has been integrated into the *Regional Economic Development Strategy 2013-2033* through an action to ‘investigate the economic benefits and marketing opportunities arising from a potential UNESCO biosphere designation for the Sunshine Coast, with a view to encouraging investment and expansion in the seven high value industries, with a specific focus on agribusiness, tourism and cleantech industries.’

There is also potential for the *Community Strategy 2019–2041* to align with the purpose, aims and objectives of the biosphere. The biosphere will be used with other Council strategies to inform the upcoming review of the *Sunshine Coast Planning Scheme 2014*.

17.4.4 What is the duration of the management/cooperation plan? How often is it revised or renegotiated?

The Sunshine Coast Biosphere management framework is proposed to incorporate a ten year time to align with the UNESCO Man and the Biosphere review periods. The management framework is likely to be supported by a five year implementation plan that will be reviewed and updated annually to maintain relevance and a current five year implementation horizon.

17.4.5 Describe the contents of the management/cooperation plan. Does it consist of detailed measures or detailed guidelines? Give some examples of measures or guidelines advocated by the plan? (Enclose a copy).

The contents of the management framework will align with the Sunshine Coast Regional Council's *Community Strategy 2019–2041*, *Environment and Liveability Strategy 2017* and *Regional Economic Development Strategy 2013–2033* (section 15) as well as relevant Commonwealth, Queensland Government and key stakeholder plans, strategies and legislation (section 17.4.1).

17.4.6 Indicate how this management/cooperation addresses the objectives of the proposed biosphere reserve (as described in section 13.1).

The aims and objectives of the biosphere may be further refined when the management framework is developed so as to ensure they are measurable for the purpose of evaluation, monitoring and continual improvement. Once refined, the aims and objectives will align with the content of the management framework.

17.4.7 Is the plan binding? Is it based on a consensus?

The *Environment Protection and Biodiversity Conservation Act 1999* includes a non-mandatory provision that a management plan be prepared and in compliance with the Australian Biosphere Reserve Management Principles (section 17.4.1). This Act states that where a management plan is prepared, there would be an expectation that the managing authorities (Sunshine Coast Regional Council, Queensland Government and Commonwealth Government) would take reasonable steps to ensure actions are consistent with the management plan. The management framework will therefore be developed in consultation with these key stakeholders.

17.4.8 Which authorities are in charge of the implementation of the plan, especially in the buffer zone(s) and the transition area(s)? Please provide evidence of the role of these authorities.

Sunshine Coast Regional Council, along with the biosphere group/s, will provide a leadership and coordination role in implementing the management framework. The role of Council in all biosphere areas is discussed in Table 17.1 and section 17.1.6.

17.4.9 Which factors impede or help its implementation (e.g. reluctance of local people, conflicts between different levels of decision making).

Support and resources from Council will ensure continuation, sustainability and stability of the governance arrangement and implementation of the management framework. Grants, funding or in kind contributions from key stakeholders could further strengthen the implementation and success of the biosphere. Collaboration and partnerships between key stakeholders and with Council will also strengthen the biosphere implementation and achieve outcomes.

The level of community and key stakeholder awareness about the biosphere, its purpose, functions, benefits and the opportunities it creates will be paramount to success and effectiveness. This awareness will drive involvement, engagement and ownership. A lack of awareness, understanding or ownership could impede the biosphere if communication is not effective and ongoing. Continual education and awareness campaigns about the biosphere

and what it means for local residents, and associated benefits, has been a priority throughout the nomination process and should continue for the life of the biosphere.

17.4.10 Is the biosphere reserve integrated in regional/national strategies? Vice versa, how are the local/municipal plans integrated in the planning of the biosphere reserve?

The *Sunshine Coast Planning Scheme 2014* and three long term strategies have enabled the Sunshine Coast to achieve significant outcomes that align with the purpose and functions of a biosphere. Alignment and integration with regional strategies was discussed in section 17.4.3. It is intended that becoming a biosphere will support further sustainable development outcomes for the region.

The aims and objectives of the Sunshine Coast Biosphere will be used to inform the development of future planning schemes for the Sunshine Coast local government area.

17.4.11 Indicate the main source of the funding and the estimated yearly budget.

The main source of funding could occur through the Sunshine Coast Regional Council who will investigate providing ongoing annual funds to support the administration of the biosphere governance group/s (Table 17.4).

Table 17.4: Estimated annual budget for the operation and management of the biosphere.

Budget item	Annual expense	Budget source
Human resources (could be existing or new position/s), communication and administration tasks.	\$130,000	Sunshine Coast Regional Council.
Biosphere projects (existing projects in long term strategies that require delivery through the biosphere).	TBA	Sunshine Coast Regional Council (general revenue).
New biosphere projects.	TBA	Possible variety of sources including: <ul style="list-style-type: none"> • Consideration from Sunshine Coast Regional Council to fund projects; • Other levels of Government; • Other types of grants; • Sponsorship; and • In kind contributions from key stakeholders.

Sunshine Coast Regional Council's existing strategies include actions that will require partnerships with key stakeholders involved in the governance and implementation of the biosphere. These projects could be delivered as a part of the Council's annual budget allocations for community, environment and economic initiatives. Sunshine Coast Regional Council's annual budget is more than \$860 million, and this year (2018/2019) for example, allocated:

- \$33 million for the environment, including beaches, foreshores, bushland conservation and clean energy;
- \$32 million for economic initiatives, including local business support, major events and holiday parks;
- \$7 million for community events and grants, as one of the largest community funding commitments of any Council in Queensland;
- \$44 million for libraries, galleries and community facilities and services;
- \$77 million for recreation, including maintaining and upgrading Council parks and gardens, sporting facilities and lifeguard services; and
- \$123 million to maintain, renew and replace roads, pathways and stormwater assets.

The budget can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Budget-Financial-and-Annual-Reports/Budget/2019-20-Budget>.

A large part of the \$33 million budget allocation for environment initiatives will be used to implement actions from the *Environment and Liveability Strategy 2017*. The \$32 million for economic initiatives will deliver actions in the *Regional Economic Development Strategy 2013-2033* and about \$44 million will be used to deliver actions in the *Community Strategy 2019-2041*. There is an opportunity to deliver some of these projects in collaboration with key stakeholders under the biosphere program.

New projects (section 13.6) delivered through the biosphere, could be funded and resourced through Council's general revenue or other means, such as contributions (both monetary or in kind) from other levels of government or key stakeholders. This approach could facilitate further partnerships, knowledge sharing and connections between key stakeholders and Council. The source of funds for new projects may also be considered on a case by case basis in the Council budget allocation process.

17.5 Conclusions

17.5.1 In your opinion, what will ensure that both the functioning of the biosphere reserve and the structures in place will be satisfactory? Explain why and how, especially regarding the fulfilment of the three functions of biosphere reserves (conservation, development, logistic) and the participation of local communities.

Council and the Sunshine Coast community, business and industries have a proven history of delivering innovative sustainability outcomes and good governance. This track record, combined with the aspirations of our community and key stakeholders, demonstrates a strong existing commitment to sustainability that aligns with the functions of a biosphere (sections 14, 15 and 16).

The proposed governance structure is inclusive of all key stakeholders and fit for purpose for the Sunshine Coast. It draws upon existing Council and stakeholder governance structures and provides clear roles and responsibilities to ensure stability and longevity of the biosphere. Council involvement will provide the support that key stakeholders and community will require to effectively deliver outcomes for the biosphere.

18. SPECIAL DESIGNATIONS

[Special designations recognize the importance of particular sites in carrying out the functions important in a biosphere reserve, such as conservation, monitoring, experimental research, and environmental education. These designations can help strengthen these functions where they exist or provide opportunities for developing them. Special designations may apply to an entire proposed biosphere reserve or to a site included within. They are therefore complementary and reinforcing of the designation as a biosphere reserve. Check each designation that applies to the proposed biosphere reserve and indicate its name.]

Name:

- UNESCO World Heritage Site
- RAMSAR Wetland Convention Site
- Other international/regional conservation conventions/directives (specify)
 - Moreton Bay East Asian Australasian Flyway Partnership Site (boundary aligns with Ramsar site in Pumicestone Passage) (can be viewed at <https://www.environment.gov.au/system/files/resources/da31ad38-f874-4746-a971-5510527694a4/files/revision-east-asian-australasian-flyway-population-sept-2016.pdf>)
- Long term monitoring site (specify)
- Long Term Ecological Research (LTER site)
- Other (specify)

19. SUPPORTING DOCUMENTS

(to be submitted with nomination form)

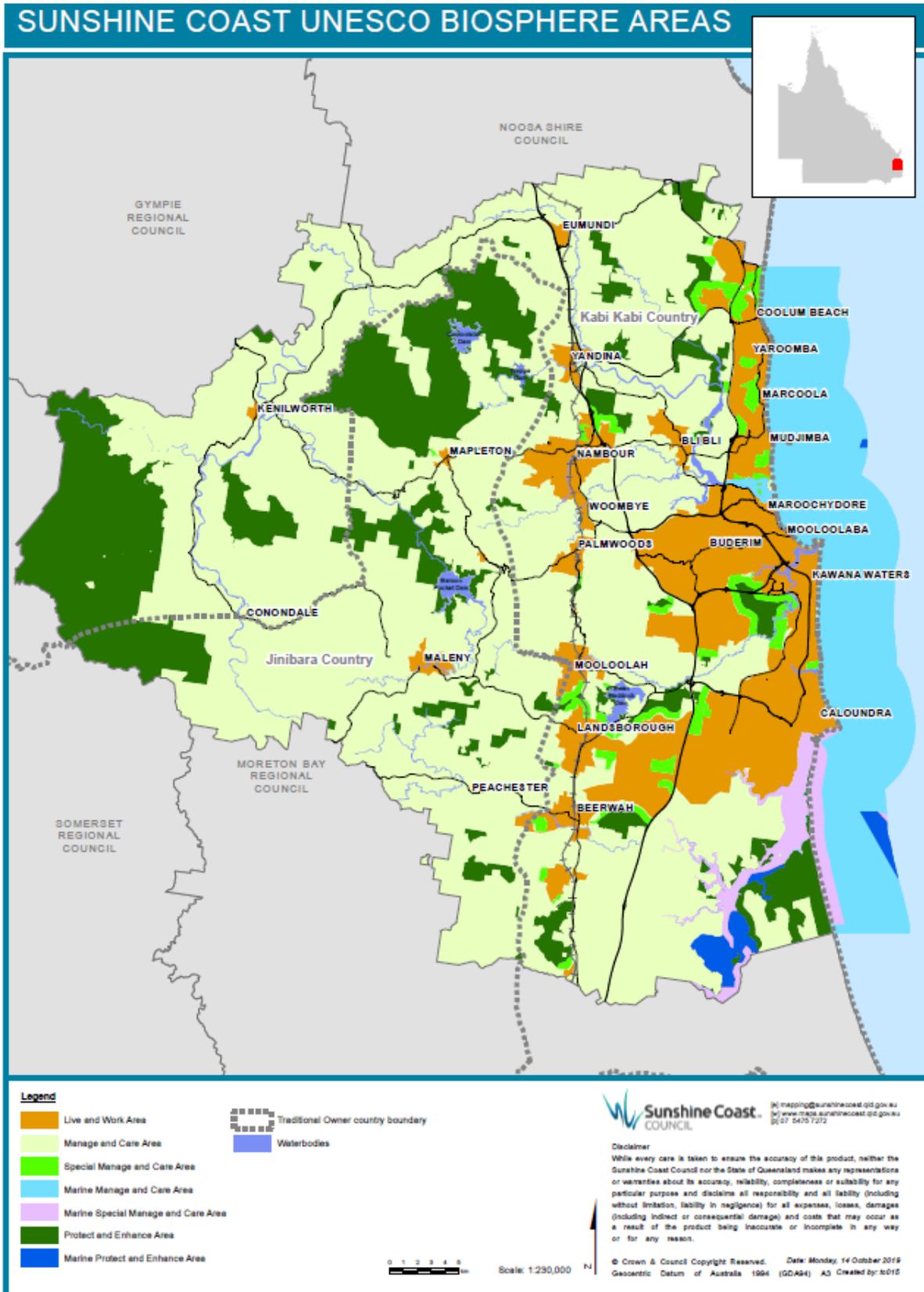
(1) Location and zonation map with coordinates

[Provide the biosphere reserve's standard geographical coordinates (all projected under WGS 84). Provide a map on a topographic layer of the precise location and delimitation of the three zones of the biosphere reserve (Map(s) shall be provided in both paper and electronic copies). Shapefiles (also in WGS 84 projection system) used to produce the map must also be attached to the electronic copy of the form. If applicable, also provide a link to access this map on the internet (e.g. Google map, website).]

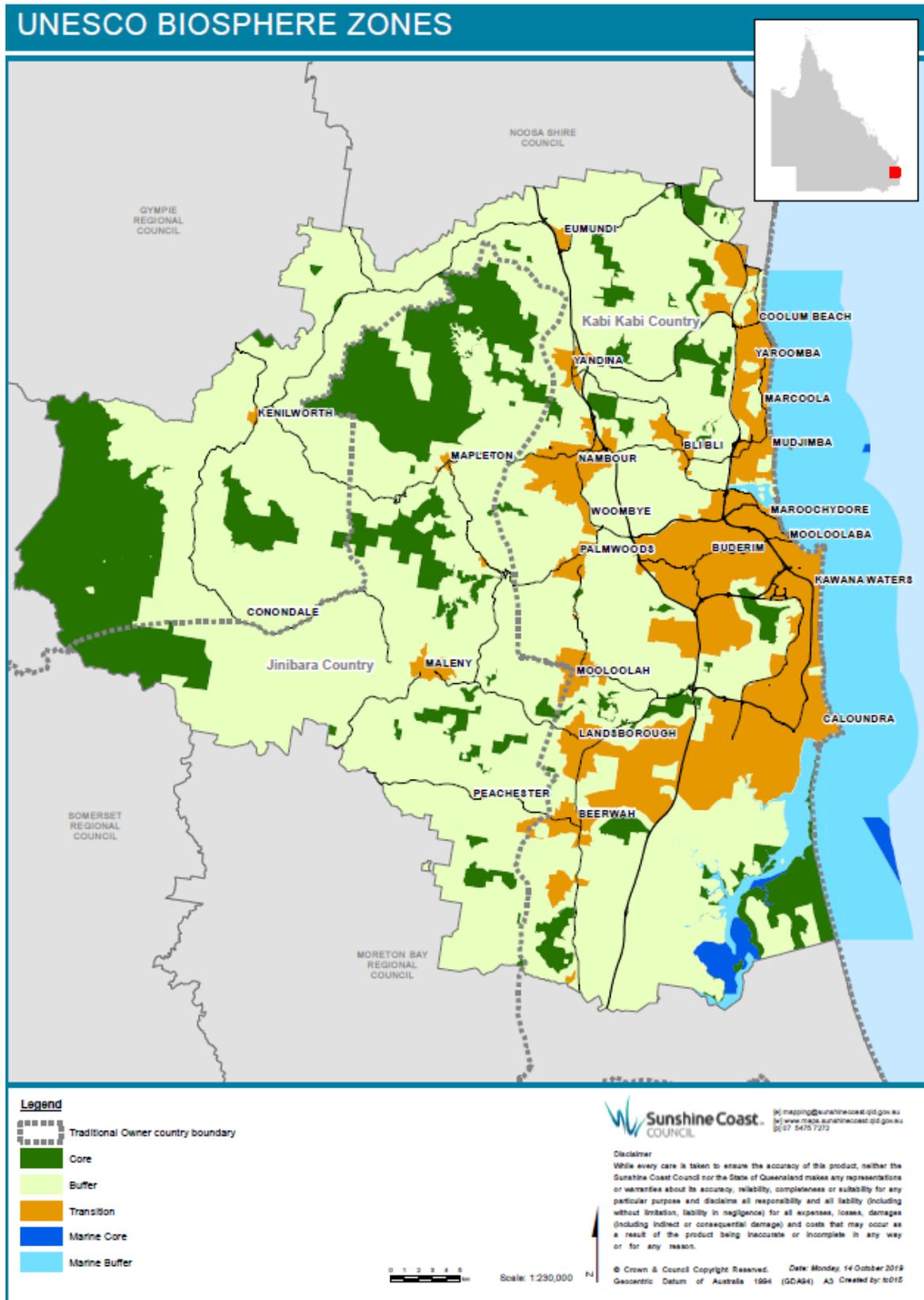
Sunshine Coast Biosphere webpage can be viewed at
<https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Nomination-for-Biosphere>

Table: The Sunshine Coast Biosphere coordinates.

Cardinal points	Longitude (Decimal degrees)	Latitude (Decimal degrees)	Longitude (Degrees minutes seconds)	Latitude (Degrees minutes seconds)
CENTRE	152.900973	-26.699153	152 54 03.50 E	26 41 56.95 S
NORTH	153.050131	-26.431058	153 03 00.47 E	26 25 51.81 S
SOUTH	153.003075	-26.984679	153 00 11.07 E	26 59 04.85 S
WEST	152.551107	-26.703105	152 33 03.99 E	26 42 11.18 S
EAST	153.150855	-26.802215	153 09 03.08 E	26 48 07.97 S
With Marine Zone CENTRE	152.930157	-26.701013	152 55 48.57 E	26 42 03.65 S
With Marine zone EAST	153.206726	-26.802157	153 12 24.21 E	26 48 07.76 S



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

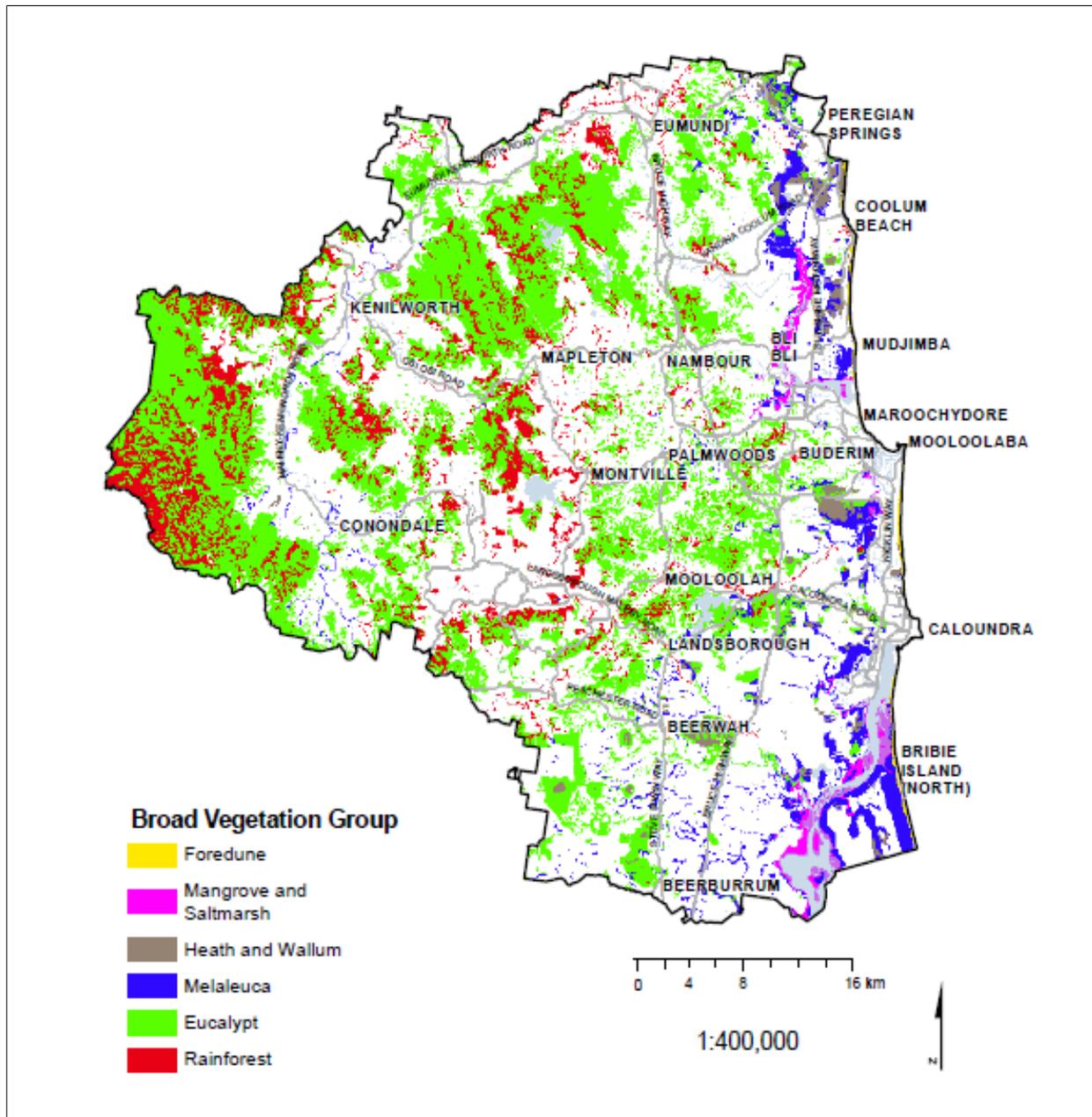


Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

Map: Sunshine Coast Biosphere boundaries and areas using UNESCO Man and the Biosphere terminology.

(2) Vegetation map or land cover map

[A vegetation map or land cover map showing the principal habitats and land cover types of the proposed biosphere reserve should be provided, if available].



Map: Sunshine Coast vegetation communities (Sunshine Coast Council, 2016).

(3) List of legal documents (if possible with English, French or Spanish synthesis of its contents and a translation of its most relevant provisions)

[List the principal legal documents authorizing the establishment and governing use and management of the proposed biosphere reserve and any administrative area(s) they contain. Provide a copy of these documents.]

Commonwealth legal documents

Native Title Act 1993 can be viewed at
<https://www.legislation.gov.au/Details/C2017C00178>

Environment Protection and Biodiversity Conservation Act 1999 can be viewed at
<https://www.environment.gov.au/epbc>

Queensland legal documents

Planning Act 2016 can be viewed at
<https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2016-025>

South East Queensland Regional Plan 2017 (ShapingSEQ) can be viewed at
<https://planning.dsdmip.qld.gov.au/planning/better-planning/state-planning/regional-plans/seqrp>

Nature Conservation Act 1992 can be viewed at
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1992-020>

Vegetation Management Act 1999 can be viewed at
<https://www.legislation.qld.gov.au/view/pdf/2017-07-03/act-1999-090>

Biosecurity Act 2014 can be viewed at
<https://www.daf.qld.gov.au/business-priorities/biosecurity/policy-legislation-regulation/biosecurity-act-2014>

Fisheries Act 1994 can be viewed at
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1994-037>

Environment Protection Act 1994 can be viewed at
<https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1994-062>

Water Act 2000 can be viewed at
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-2000-034>

Marine Parks Act 2004 can be viewed at
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-2004-031>

Aboriginal Cultural Heritage Act 2003 can be viewed at
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-2003-079>

Local legal documents

Sunshine Coast Planning Scheme 2014 can be viewed at
<https://www.sunshinecoast.qld.gov.au/Development/Planning-Documents/Sunshine-Coast-Planning-Scheme-2014>

(4) List of land use and management/cooperation plans

[List existing land use and management/cooperation plans (with dates and reference numbers) for the administrative area(s) included within the proposed biosphere reserve. Provide a copy of these documents. It is recommended to produce English, French or Spanish synthesis of its contents and a translation of its most relevant provisions.]

Protected Area Management Plans:

- Kondalilla National Park Management Plan 1998
- Maroochy River Conservation Park Management Plan 1999
- Mooloolah River National Park Management Plan 1999
- Mt Coolum National Park Management Plan 1998
- Noosa National Park Management Plan 1999
- Triunia National Park Management Plan 2011

Protected Area Management Statements:

Conservation Parks:

- Caloundra Regional Park Management Statement 2015
- Coolum Creek Regional Park Management Statement 2015
- Crohamhurst Regional Park Management Statement 2015
- Currimundi Lake (Kathleen McArthur) Regional Park Management Statement 2015
- Eudlo Creek National Park Management Statement 2013
- Eumundi Regional Park Management Statement 2015
- Ex-HMAS Brisbane Regional Park Management Statement 2015
- Mapleton Regional Park Management Statement 2015
- Maroochy Wetlands Regional Park Management Statement 2015
- Meridan Plains Regional Park Management Statement 2015
- Mooloolah (Marie Higgs) Regional Park Management Statement 2015
- Mount Eerwah Regional Park Management Statement 2015
- Noosa Regional Park Management Statement 2015
- Palmview Regional Park Management Statement 2015
- Parklands Regional Park Management Statement 2015

National Parks:

- Bellthorpe National Park Management Statement 2013
- Bribie Island National Park and Bribie Island Recreation Area Management Statement 2013
- Conondale National Park Management Statement 2013

- Dularcha National Park Management Statement 2013
- Eudlo Creek National Park Management Statement 2013
- Ferntree Creek National Park Management Statement 2013
- Glass House Mountains National Park Management Statement 2013
- Maleny National Park Management Statement 2013
- Mapleton Falls National Park Management Statement 2013
- Mapleton National Park Management Statement 2013
- Pumicestone National Park Management Statement 2013

Council Environment Reserve Management Plans:

- Sunshine Coast Council Environment Reserves Network Management Plan 2017-2027
- Racemosa Environmental Reserve 2016-2026
- Kirbys Road Environmental Reserve 2014
- Doonan Creek Environmental Reserve 2017-2027
- Triunia Environmental Reserve 2016-2026
- Upper Mooloolah Nature Refuge 2019-2029

Other Plans:

- Pumicestone Passage Catchment Action Plan 2017-2020
- Koala Conservation and Management Plan 2009
- Regional Flying-Fox Management Plan 2016
- Shoreline Erosion Management Plan
- Sunshine Coast Council Local Government Area Biosecurity Plan 2017
- Sunshine Coast Recreation Trail Plan 2012

(5) Species list (to be annexed) (Annex III)

[Provide a list of important species occurring within the proposed biosphere reserve, including common names, wherever possible.]

See Annex III

(6) List of main bibliographic references (to be annexed) (Annex IV)

[Provide a list of the main publications and articles of relevance to the proposed biosphere reserve over the past 5-10 years.]

See Annex IV

(7) Original Endorsement letters according to paragraph 5

Mayor Mark Jamieson
Sunshine Coast Regional Council
Locked Bag 72, Sunshine Coast Mail Centre
QLD, 4560

RE: SUNSHINE COAST BIOSPHERE NOMINATION

Mayor Jamieson,

Our home, the Sunshine Coast, is a highly desirable place to live, learn, work and play. Our community is committed to protecting and enhancing our communities, our culture, our economy, our built environment and our diversity of ecosystems.

To date, the Sunshine Coast community has established a strong sustainability foundation through the development of key partnerships and implementation of a range of sustainability initiatives. Our values and aspirations are aligned with UNESCO Man and the Biosphere Programme ideals, and our credentials are evidence of our ability to deliver.

We recognise that aspiring to be Australia's most sustainable region is a journey of continuous improvement. The nomination to become a UNESCO Biosphere represents an important step in the Sunshine Coast's commitment to ensuring it remains future-facing. It has an emphasis on balanced sustainability, ensuring the environmental, social, cultural and economic needs of today are met, without compromising the ability to meet the needs of future generations.

Our community recognises the future will present both opportunities and challenges for the Sunshine Coast community to embrace. Being recognised as a UNESCO Biosphere will help to bind and unify the Sunshine Coast community, and represents a positive step towards strengthening the connectedness between our 'community-of-communities', and between people and nature.

Becoming a Biosphere also presents the opportunity to further embed a balanced sustainability framework, and strengthens the community's resilience by harnessing the significant will that exists within the community to support and encourage active participation and involvement in the Biosphere.

In continuing on this path, the Sunshine Coast Biosphere aims to become internationally renowned as a demonstration of excellence in balanced sustainability.

The Sunshine Coast Biosphere Nomination Community Reference Group process has facilitated the building of relationships and interaction between diverse sector interests and demographics representing the richness of the Sunshine Coast community.

The process has generated awareness, knowledge and collective responsibility on a range of region-wide issues, and has fostered ongoing interactions between Community Reference Group members.

By becoming a Biosphere, we aspire to having a positive impact on and actively contribute to strengthening the world network of Biospheres. Using technology as a platform to develop local solutions to current and emerging sustainability opportunities and challenges, we look forward to sharing our sustainability learnings with the networked global community.

We, the Sunshine Coast Biosphere Nomination Community Reference Group affirm our support for the Sunshine Coast Biosphere Nomination. We have participated in the development of the nomination and have contributed to the content to ensure that it is inclusive and representative of the interests of the diverse community that is the Sunshine Coast Region.

The Community Reference Group process reflects the Sunshine Coast Regional Council's active engagement and involvement of the community in the development of the Sunshine Coast Biosphere nomination.

We look forward to the continuation of this involvement through the next phase of detailed planning in readiness for Biosphere implementation, including finalising governance structures based on the governance principles supported by the Community Reference Group.

Our aspirations for the Sunshine Coast region align with the shared vision of our community and the Sunshine Coast Regional Council: *To be Australia's most sustainable region: Healthy, Smart, Creative*. It is our desire to see our region continue to maintain its liveability and natural values, whilst managing growth.

It is our intention that this letter of support accompanies the Sunshine Coast Biosphere nomination through all phases of Queensland and Australian Government consideration, as well as UNESCO Man and the Biosphere Programme assessment.

On behalf of the Sunshine Coast community, we strongly commend the Sunshine Coast Biosphere Nomination to be considered for the UNESCO Man and the Biosphere Programme.

Yours Sincerely

Will Shrapnel
Independent Chair
Sunshine Coast Biosphere Nomination Community Reference Group

Date:

Attachment 1: Sunshine Coast Biosphere Nomination Community Reference Group Membership

Attachment 1: Sunshine Coast Biosphere Nomination Community Reference Group Membership

Name	Interest Representation
Mr Will Shrapnel	Independent Chair
Ms Sandra Arico	Executive Support to the Independent Chair
Ms Lauren Brisbane	Agricultural Industry (Food and Agribusiness Network)
Professor Bill Carter	Research and Education (University of the Sunshine Coast -
Ms Samantha Dalla	Sustainability Research Centre) Tourism (Visit Sunshine Coast)
Ms Melva Hobson	Community / Social (OSCAR - Organisation Sunshine Coast
Ms Narelle McCarthy	Association of Residents) Environment (Sunshine Coast Environment Council)
Ms Kim McCosker	Business (Author)
Ms Rebecca McDonald	Youth 20 to 30 years (Sunshine Coast Regional Council Speak Up
Mr Ken Mewburn	and Engage Youth Committee) Aquatic environment / Community (Take Action for Pumicestone
Mr Carl Nancarrow	Passage) Development Industry (Urban Development Institute Australia –
Miss Ella Woodborne	Sunshine Coast Branch) Youth under 20 years (Sunshine Coast Regional Council Speak Up
Mayor Mark Jamieson (Ex Officio)	and Engage Youth Committee)
Deputy Mayor, Cr Tim Dwyer	Mayor
Cr Christian Dickson	Division 2, and Corporate Strategy & Finance Portfolio
Cr Steve Robinson	Division 6, and Planning & Development Portfolio
Mr Ashley Robinson*	Division 9, and Economic Development & Innovation
Mr Ashley Robinson*	*External contributor to Community Reference Group business on
	Open Space Sport and Recreation

Great Sandy Biosphere

Ref Out: 201909017

30 September 2019

Mayor Mark Jamieson
Sunshine Coast Regional Council
Locked Bag 72
Sunshine Coast Mail Centre, Qld 4560

Dear Mark

On behalf of the Great Sandy Biosphere Management Group, it is my pleasure to offer our support for Sunshine Coast Regional Council's biosphere reserve nomination.

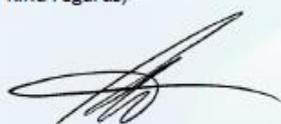
The Great Sandy and Noosa Biosphere Reserves are currently the only two adjacent biosphere reserves in the world. The addition of a third adjacent reserve will further raise our region's profile and promote our unique natural attributes on the international stage.

Your nomination also presents an enormous opportunity for the three biosphere groups to collaborate on relevant and appropriate regional projects.

We wish you every success with your nomination and look forward to continuing to work with you on this exciting initiative.

Please contact me any time if you require further assistance with your nomination.

Kind regards,



Sheila Charlesworth
Chair
E: sheila.charlesworth@bmrq.org.au
M: [0428 087 472](tel:0428087472)



T: 07 4181 2999 F: 07 4154 1427
E: admin@greatsandybiosphere.org.au
PO BOX 501, BUNDABERG QLD 4670
www.greatsandybiosphere.org.au



Burnett Mary
REGIONAL GROUP
Practical Solutions for Natural Resource Management

Ref Out: 201909016

30 September 2019

Mayor Mark Jamieson
Sunshine Coast Regional Council
Locked Bag 72
Sunshine Coast Mail Centre, Qld 4560

Dear Mark

On behalf the Burnett Mary Regional Group (BMRG), it is my pleasure to offer our support for Sunshine Coast Regional Council's biosphere reserve nomination.

As the peak body for natural resource management (NRM) throughout the Burnett Mary region, BMRG delivers a range of projects that protect and enhance our region's natural assets. The region already incorporates the world's only two adjacent biosphere reserves – Great Sandy and Noosa Biospheres. The addition of a third reserve will greatly enhance the region's profile and promote our unique natural attributes on the international stage.

The Sunshine Coast and its hinterland take in some our most beautiful land and sea environments and support a range of innovative, ecologically aware enterprises. The area is also home to the Kabi Kabi and Jinibara Peoples who maintain strong cultural, spiritual and social connections to their traditional lands.

The University of the Sunshine Coast is one of Australia's fastest growing and works collaboratively with BMRG and our partners on several significant NRM projects.

We believe that these attributes and Council's ongoing commitment to sustainable development reflect the key themes of UNESCO's Man and the Biosphere Program which aims to improve the overall relationship between communities and their environment.

We wish Council every success with their nomination and look forward to continuing to work with you on this exciting initiative.

Please contact me any time if you require further assistance with your nomination.

Kind Regards

Sheila Charlesworth
CHIEF EXECUTIVE OFFICER
E: sheila.charlesworth@bmrq.org.au
M: [0428 087 472](tel:0428087472)

T: 07 4181 2999 F: 07 4154 1427
E: admin@bmrq.org.au W: www.bmrq.org.au
PO Box 501 Bundaberg Queensland 4670
193 Bourbong Street Bundaberg Queensland 4670
ABN: 15 144 005 229

GOLDEN BEACH PROGRESS ASSOCIATION INC.

Community engagement since 1947

PO Box 38, Golden Beach, QLD 4551

gbpa4551@gmail.com



<http://goldenbeachprogress.com.au>

June 13, 2019

mail@sunshinecoast.qld.gov.au

Support for the Biosphere Nomination for the Sunshine Coast

On behalf of the Golden Beach Progress Association Inc. (GBPA) I wish to provide our communities' strong support for the proposed nomination of the Sunshine Coast Region to be accepted a UNESCO Biosphere.

The importance of the Golden Beach and Pelican Waters community should be recognised in the overall liveability of our region. With burgeoning growth and pressure on the delicate environment within our local community the biosphere parameters will assist the orderly and sustainable development in this area for future generations. For example the continued protection and consideration for the Bribie Passage, Bribie Island National Park and Bells Creek national park is paramount to ensuring a balance of conservation and future urban development.

The GBPA would welcome future involvement in any future actions to both gain and work within a Biosphere declaration. Members of the GBPA executive team have significant commercial and community related experiences that could assist working toward a declaration. The GBPA President Craig Humphrey was also directly involved in the application and introduction of the very successful Noosa Regional Council Biosphere project.

By way of background the GBPA is a not for profit organization representing the residents within the Pelican Waters and Golden Beach areas continuously for over 70 years. The GBPA is non-political and seeks to ensure that the residents have the opportunity to be aware and participate in government or private sector initiatives that affect the liveability of our area. I have attached a copy of the GBPA's *2019 Strategic Directions Paper* for your information.

GOLDEN BEACH PROGRESS ASSOCIATION INC.

Community engagement since 1947

PO Box 38, Golden Beach, QLD 4551

gbpa4551@gmail.com



<http://goldenbeachprogress.com.au>

I look forward to updates on the move towards a declaration and then the subsequent implementation. The GBPA will seek to actively and constructively support the Sunshine Coast Regional Council in this action.

Yours sincerely,

SECRETARY

(8) Examples of land use that supports the Biosphere Area Map.

Table: Main types of land use on the Sunshine Coast.

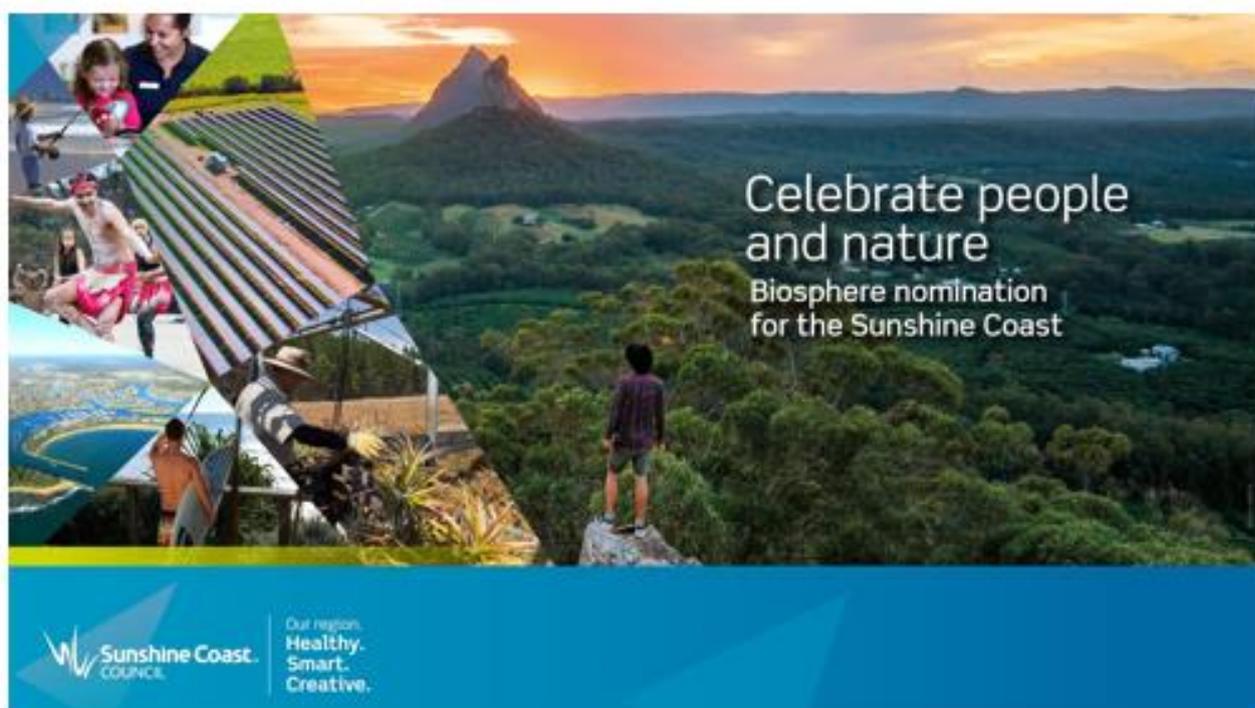
Land use	Area (hectares)	% of the Sunshine Coast
International protection		
Ramsar	5,179	2
Commonwealth Government		
Glass House Mountains National Landscape*	1,876	0.7
Queensland Government protection		
National Parks and Conservation Parks	40,806	15.8
Nature Refuges	1,577	0.6
Conservation Covenants	2,159	0.8
Fish Habitat	4,655	1.8
Koala Rehabilitation area	245	0.1
Local Government (environment reserve) protection		
Coastal Reserves	290	0.1
Conservation Reserves	552	0.2
Nature Reserves	407	0.2
Bushland Reserves	5,333	2.1
Natural Amenity Reserve	343	0.1
Other types of land use		
Land for wildlife (private land under agreement with Land for Wildlife program)	7,500	2.9
Open space for sport and recreation	1,798	0.7

*The Glass House Mountains National Landscape overlays the Glass House Mountains section of the Queensland Government State Protected Area Network of National Parks and Conservation Parks.

(9) Consultation Activities Report



Biosphere Consultation Activities Report 31 July 2019



1. Introduction and purpose

The proposal for Sunshine Coast Council to lead a UNESCO Biosphere nomination for the whole local government area on behalf of the community was considered by council at the Ordinary Meeting on 28 March 2019. Council resolved to proceed with the proposed nomination by taking it to community consultation (OM19/40).

A media launch of the proposed nomination and preliminary discussions with key stakeholders began on the 22 March. The formal community consultation program commenced on Friday 29 March and closed on Friday 28 June 2019 at 5pm. Engagement with key stakeholder groups continued through July 2019.

The proposed nomination was generally well received by the community, business and government, with feedback largely indicating support or in-principle support for a biosphere nomination that is genuine, and contributes to the protection and enhancement of: liveability, natural assets, the local economy and the community.

This report provides an overview of each activity conducted during the public consultation period and contains a summary of the key issues identified as important, which will directly inform the next steps in the process to nominate the region as a UNESCO Biosphere.

2. Summary of consultation

During the consultation period the Sunshine Coast community and key stakeholders were asked:

1. Do you support Sunshine Coast Council leading a UNESCO Biosphere nomination on behalf of community?
2. Is the UNESCO Biosphere program a good fit for the Sunshine Coast Local Government Area?
3. Does the draft Biosphere Map need adjusting and if so, why and how?
4. Do the draft governance principles need adjusting and if so, why and how?
5. What are the benefits, opportunities, challenges or risks (perceived or real) associated with achieving a UNESCO Biosphere credential?

Table 1 demonstrates the extent of community engagement activities delivered to seek answers to these questions and to understand the community's thoughts on the proposed biosphere nomination.

In summary, there were:

- 89 external engagement activities
- 3,045 people connected face-to-face in conversations with staff and councillors
- 609 surveys submitted
- 83% of survey responses supportive of the proposed nomination.

Table 1: Overview of engagement activities

Consultation Tool/Activity	Total
Surveys completed	609
Face-to-face engagement (detailed below)	3045
Community and Business Focus Group	1 20 attendees from 15 organisations
State Government Focus Group	1 11 attendees from 8 departments
Presentation to Council Advisory Groups (Youth – Speak Up and Engage group)	1 presentation 11 people engaged
Presentations at conferences/events	3 presentations 165 people
Briefings to external organisations e.g. State Agencies, Community Groups, Environment Groups, Sunshine Coast University	26 briefings 231 people engaged
Briefings to businesses and peak business groups e.g. Development industry, Food and Agriculture industry, Tourism industry	22 briefings 93 people engaged
Attendance at events, displays and expos e.g. Sunshine Coast Agriculture Show, Cleantech conference, World Environment Day	17 occasions 2514 people
Photobooth and table drawings at community events	256 groups of people (at 2 events) 19 sheets table drawings (at 6 events)
Citizen science at Doonan Open Day	35 pieces of information contributed 52 people engaged
Media activity detailed below	
Media releases	4
Media stories	12
Media paid advertising	7 print adverts Multiple TV adverts repeated Multiple radio adverts repeated Cinema adverts at 3 cinemas repeated
Social media stories (Facebook, Twitter, LinkedIn, YouTube)	7 in total 3 Facebook posts
Social media - Facebook comments	71 Top audience: women 35-44
Other engagement channels	

Consultation Tool/Activity	Total
Biosphere 'Have Your Say website hits	1,800+
Phone enquiries	3
Email enquiries	3
Councillor conversations	1
Submissions received	12
Internal staff engagement Attendance at branch meetings and informal staff walk around office buildings	6 branch sessions - 85 staff Walk around office - 40 staff

3. Summary of responses

People are passionate about the Sunshine Coast, both its natural values and its liveability and are keen to see these values protected and enhanced.

The community agreed that a UNESCO Biosphere is an appropriate tool to achieve protection of key liveability values, as well as a credential to recognise the outstanding qualities of the region.

In summary, the responses to the questions asked are:

1. *Do you support Sunshine Coast Council leading a UNESCO Biosphere nomination on behalf of community?*
 - Over 83% of survey respondents supported a UNESCO Biosphere nomination led by the council.
 - The majority of people engaged in face-to-face in briefings and workshops supported a UNESCO Biosphere nomination led by the council.
2. *Is the UNESCO Biosphere program a good fit for the Sunshine Coast Local Government Area?*
 - The majority of feedback via surveys and face-to-face discussions indicated that the Sunshine Coast is already recognised for its high natural environmental values, coupled with liveability and a strong economy. These three areas of sustainability make it a good fit with becoming a UNESCO Biosphere.
3. *Does the draft Biosphere map need adjusting and if so, why and how?*
 - Overall support for the map with some refinement suggested – see more detail below in section 3.1, Theme 3.
4. *Do the draft governance principles need adjusting and if so, why and how?*
 - Overall support for the governance principles with some refinement suggested – see more detail below in section 3.1, Theme 4.
5. *What are the benefits, opportunities, challenges or risks (perceived or real) associated with achieving a UNESCO Biosphere credential?*
 - Overall support for the identified benefits, with additional opportunities identified in focus groups – see more detail below.

- Risks and challenges mostly related to implementation, governance and perception of green tape.

3.1 Key messages from all engagement

The top five themes from the wide range of engagement activities are summarised below. These themes are based on all the feedback provided via the survey and from different stakeholders during the engagement period. The majority of the feedback received regarding a Biosphere nomination for the region aligned very closely with community feedback received on the Environment and Liveability Strategy in 2017.

Theme 1: Yes – becoming a UNESCO Biosphere is a great idea

- Can capture and support aspirational intentions for our region - must be a contemporary biosphere with aspirations woven in to the nomination
- Is a great opportunity to protect and enhance our beautiful region
- Can be a tool to protect our region, both now and in the future
- Tells people (both local and visitors) who we are
- Promotes collaborative sustainability projects across sectors.
- Could be used to inform the Planning Scheme to support sustainable development
- Will encourage more awareness of sustainable lifestyles, including sustainable building design

Theme 2: Yes – but there are concerns

- Habitat is visibly disappearing (especially trees and mature habitat) and this is impacting on biodiversity and waterways – want to see increased protection of all natural areas
- Some current developments are inappropriate e.g. want to see more sustainable and intelligent development
- Overdevelopment/population remains a pressure – can a biosphere help manage this?
- Present development levels have resulted in congestion, lack of public transport, litter and lack of visual amenity.

Theme 3: Draft Biosphere map needs some refinement

Overall the Biosphere Map was understood and accepted, especially when the rationale behind biosphere areas was explained. Discussions to refine the map included:

- Resolving the effect of the 500 metre buffer on some areas, e.g. Mooloolah National Park
- Resolving marine park areas
- Increasing the importance of some areas, such as the dunes protected along the Coolum-Mudjimba coastline, i.e. want to see increased protection and visibility of 'lime green' areas

- Including privately owned property in the Protect and Enhance Area if possible, e.g. Land for Wildlife properties
- Developing a map that does not just reflect current land use, but reflects aspirational goals, especially increased protection of some areas
- Ensuring that the map does not give the perception that land is 'locked up'.

Theme 4: Governance is key

Workshops and briefings discussed the draft principles to be used to develop a governance model to support the implementation of a Sunshine Coast Biosphere should Council's nomination be successful. Stakeholders agreed that governance is a key area to get right, otherwise the biosphere may be ineffective or not able to realise benefits and opportunities.

It was also seen as a topic that groups wanted to know more about upfront, as an aid to understanding 'how the biosphere will work'.

- Some refinement of language for the proposed key principles was discussed, e.g. *adaptive* rather than *responsive*, or *accountable* rather than, or as well as, *transparent*
- Simplify the principles – ensure they speak to the heart and not just the head
- Principles need to ensure shared values and common understanding amongst all.

Theme 5: No thanks – it's not a great idea

Despite overall clear support for a council-led UNESCO Biosphere nomination, there were some voices against the proposal, both in face-to-face meetings and via the survey.

Some comments not in support of the proposed Biosphere nomination demonstrated some misunderstandings that can be addressed if the nomination proceeds.

Around 10% of survey comments were specifically unsupportive, as highlighted below:

- It's a greenwash and just a marketing exercise
- The council certainly does not have the credentials to apply to be a Biosphere
- Cynicism was related to some developments
- Do not want any involvement with external bodies like the United Nations
- Cost better applied to other areas
- When the State government can override the local government, there is no point in protecting natural areas, e.g. Pumicestone Passage.

3.2 Key sector feedback

Various stakeholder groups were specifically invited to provide feedback on how the proposed biosphere might affect them. This feedback was gathered in a variety of ways, such as focus groups, industry briefings and one-to-one discussions.

3.2.1 Traditional Owners

The Kabi Kabi indicated they saw the biosphere as an opportunity to support a Ranger Program about Traditional Owners on the Sunshine Coast. The Jinibara indicated a level of

interest and willingness and saw the biosphere as an opportunity to develop eco-cultural tourism in the Blackall Range.

3.2.2 Tourism sector

Overall the tourism sector saw benefits for promoting the region as a UNESCO Biosphere, by focussing on ecotourism and the natural values of the region.

The tourism sector also indicated that a lot of work, which would require funding and resources, will need to be undertaken to properly market and achieve potential benefits and opportunities associated with becoming a UNESCO Biosphere.

Some small tourism providers were supportive but expressed concern that another layer of bureaucracy or further permits and fees might be imposed as a result. They were also concerned that environmental groups may use the biosphere credential to advocate for restricting tourism activities in areas such as Pumicestone Passage.

3.2.3 Food and Agriculture sector

The food and agriculture sector could see benefits and potential opportunities with respect to branding, adding value to products, services and facilities as well as accessing niche markets (especially given the international airport will also increase export opportunities).

There was discussion around whether the biosphere credential would need to be developed as a brand or logo and whether food producers would need to apply to use the credential. This was seen as a both an opportunity and a potential risk, requiring resources to be managed effectively.

3.2.4 Environment sector

The local environment sector is composed of a range of active community groups, with the Sunshine Coast Environment Council (SCEC) acting as a peak body. Both SCEC and a range of environmental groups were consulted.

While some groups were supportive, others expressed concern that council's proposal to lead a UNESCO Biosphere nomination was misaligned with their perception of council's previous actions concerning development and this could mean that council's intentions with respect to leading a UNESCO Biosphere nomination were not genuine.

The environment sector expressed concern that the pressures of an increasing population and the required development would compromise the natural values of the region.

Some groups did articulate that becoming a biosphere is an excellent way to promote sustainable living, encourage sustainable development and the protection of our natural assets.

3.2.5 Development sector

Engagement with the development sector included one-on-one briefings with particular businesses as well as their participation in the Community/Business focus workshop.

The development industry saw potential benefits and opportunities for their industry, in terms of branding the region as a desirable place to live.

However, they identified a potential risk that a biosphere credential may be used as a tool to restrict growth, which could impede the delivery of affordable housing and restrict Council's ability to support the delivery of outcomes for the South East Queensland Regional Plan, *ShapingSEQ*.

Suggestions were made to ensure that a biosphere credential does not influence any Sunshine Coast Planning Scheme 2014 review. The development industry would like it to be made very clear that a biosphere is non-statutory and the Queensland State Government planning tool, *ShapingSEQ*, is the predominant planning tool for the region.

Other issues such as an increased layer of cost or regulation were mentioned, with the concern that these might increase the cost of housing.

3.2.6 Young People

Young people had a strong voice through the survey, through face-to-face conversations and engagement at events and workshops.

Young people recognised clearly that becoming a biosphere will help protect the region into the future, so that it remains a place with high natural beauty and amenity as well as being a place to live, work and play.

3.2.7 Small business

Overall, the small businesses engaged to date are supportive, recognising that becoming a biosphere can increase opportunities for businesses focussing on sustainability and the liveability of the region.

3.2.8 University and research

Various conversations with the University of the Sunshine Coast and its associated Sustainability Research Centre indicated overall support and a very strong interest in partnerships for research and education.

3.2.9 Government

A range of government departments and statutory bodies were consulted. Overall, the feedback was supportive, with staff in some departments seeing clear benefits e.g. improved wellbeing may well reduce health service costs.

Staff in the Department of the Environment and Science were generally supportive but expressed interest in having a deeper understanding of the mapping process.

4. Engagement activity

4.1 Media and council channels

4.1.1 Collateral

The following collateral was prepared:

- Biosphere brochure – 6 page A4 fold out, including map (available online)
- Biosphere FAQ sheet (available online)
- Hard copy surveys (same as survey online)
- Bookmarks - 1000 were distributed at key locations including libraries, targeted stakeholder events, customer service centres, focus groups, community groups etc.
- 2 x pull up banners for drop in sessions, focus groups, events etc.

- 2 x A3 posters of the biosphere project and the map were displayed at the entrances of council customer service centres, the Smart City Centre as well as in libraries and at public events.
- 1000 reusable bags branded with SCC and 'Celebrate people in nature' wording
- Reusable drink bottles and coffee cups (200 in total)

4.1.2 Council spokesperson

To ensure consistent key messaging during the consultation period, key council spokespersons were:

- Mayor Mark Jamieson
- Portfolio Councillor for Planning and Development - Cr Christian Dickson
- Portfolio Councillor for Community and Environment - Cr Jenny McKay
- Organisational Acting Chief Strategy Officer, Bill Haddrill.

4.1.3 Media call

An official media launch for the nomination consultation period occurred on Thursday 21 March 2019 in the forecourt of the council's Caloundra offices.

Mayor Cr Mark Jamieson presented the proposal for the nomination and launched a fourteen week consultation period.

A media statement was issued and provided on Council's website in Council News.

Media in attendance included Sunshine Coast Daily, View News, Channel 10 and Channel 7. As a result of the launch, media articles appeared in the Sunshine Coast Daily and View News.

4.1.4 Mainstream media

Council's Communications Branch implemented a range of media initiatives to promote the consultation program including:

- Four media releases were prepared and distributed:
 - 21 March 2019
 - 2 April 2019
 - 10 June 2019
 - 27 June 2019
- Seven print advertisements were published in My Weekly Preview and other local newspapers from 5 June – 13 June 2019
- Mayor and Councillor columns promoted the consultation period in local print media, e.g. through Spotlight media feature and councillor columns
- TV and video advertising was featured on local TV stations and at local cinemas e.g. 3,220 x 30 second cinema advertisements across 23 different screens at 3 different cinemas over 4 weeks between 30 March and 26 June 2019.
- Radio advertising occurred through 4 local stations
- Radio interviews and talkback radio segments occurred e.g. ABC Sunshine Coast

These initiatives generated approximately nine print articles relating to the proposed UNESCO Biosphere nomination, published in local media channels.

4.1.5 Social media

In total there were seven social media posts made during the engagement period.

Three Facebook posts (including posts that showed the 30 second video clip) were featured on Facebook. Similar posts were made on other social media platforms of Twitter, LinkedIn and YouTube. Social media attracted both supportive and unsupportive comments consistent with the views expressed through other engagement techniques.

4.1.6 Website

A Biosphere Nomination community engagement page was created for the consultation program and provided links through to the 'Have Your Say' page on the Bang the Table platform. The link to this page was featured on the main council website during the engagement period.

The 'Have Your Say' page was a one stop shop for activities and information relating to the proposed UNESCO Biosphere nomination, with supporting documents, including the map, the FAQs and other material loaded on this page.

The Have Your Say landing page received over 1,800 hits during the consultation period.

4.1.7 Other council channels

Other council tools used to promote the consultation period included:

- Messages on hold, council website spotlight, council monthly TV – May and June 2019
- 3 council newsletters in June 2019 - Business eNews, Bush Hands bushcare newsletter and the Kids in Action newsletter to school teachers.
- Living Smart website promoted the biosphere nomination and directed people to council's Have Your Say site.

4.1.8 Phone and email enquiries

Three phone and three email enquiries were received during the consultation period. Customer service referred several enquiries that were mostly administrative, relating to access to documents and the timeframe to make a submission.

4.1.9 Correspondence with key stakeholders

Correspondence was sent to approximately 150 stakeholders, advising of the consultation period. Stakeholders included elected representatives, government departments, peak industry bodies, environment groups, community and residents' associations.

All schools in the region received an email encouraging them to participate in projects that related to sustainability and biospheres, which is a core part of the Queensland Curriculum. Schools were encouraged to contact council staff for more information about our local region being nominated as a UNESCO biosphere.

4.2 Have Your Say Survey

A survey was made available to ascertain the level of community support for a council-led UNESCO Biosphere nomination.

During the consultation period, 609 surveys were completed. 93% of the surveys were submitted from respondents living within the Sunshine Coast Council area. Respondents completed eleven survey questions and were also able to make a comment.

Based on responses to the eleven questions, the majority of respondents strongly supported the opportunity to nominate the region as a UNESCO Biosphere. Many respondents saw becoming a UNESCO Biosphere as an aspirational opportunity and a tool to preserve the natural values of the Sunshine Coast.

The comments section included many positive comments highlighting that the community appreciates the value of becoming a biosphere both now and for future generations. The majority of comments made as part of the survey were very supportive and reflected the same themes as identified during the consultation for the Environment and Liveability Strategy in 2017.

The opportunity to make a comment within the survey tool also resulted in some concerns and negative feedback being expressed by respondents, regarding issues such as:

- protecting habitat, biodiversity and waterways
- managing population growth and development
- retaining the positive aspects of the Sunshine Coast lifestyle
- ensuring infrastructure keeps pace with growth and change
- the challenge of implementing a biosphere.

A summary of survey responses for each of the eleven question in the survey is tabled below.

Table 2: Survey questions listed in order of highest agreement

Question No.	Wording of question	% Agree or Strongly Agree
3	Maintaining and enhancing the liveability of the Sunshine Coast for future generations is essential.	94%
6	It is important to maintain and further enhance our landscape and character, and our natural environmental values including our biodiversity, waterways, wetlands and coastal areas.	93%
9	Increasing collaboration between schools, academia, business and government, with a focus on sustainability projects is important.	89%
5	International recognition of the Sunshine Coast as a premium brand region producing clean, green and sustainable produce will benefit agribusiness as an important part of our economy	84%
8	Achieving planning principles of urban consolidation and sustainable design to deliver inclusive and vibrant communities is necessary	84%

Question No.	Wording of question	% Agree or Strongly Agree
11	I would be proud to live in a region with UNESCO Biosphere status.	83%
2	International recognition can help support the Sunshine Coast community hold onto those values long into the future.	81%
4	Raising the profile, values and reputation of the Sunshine Coast internationally will benefit tourism as an important part of our economy.	80%
7	International recognition will help local business grow through investment attraction and the creation of niche markets for our region's products, services, facilities and practices.	77%
1	The Sunshine Coast deserves to be internationally recognised for its outstanding values and credentials.	74%
10	I am aware of the UNESCO Biosphere Reserve Program.	72%

Reviewing the responses from the survey the following key points were observed and are noted in the table below.

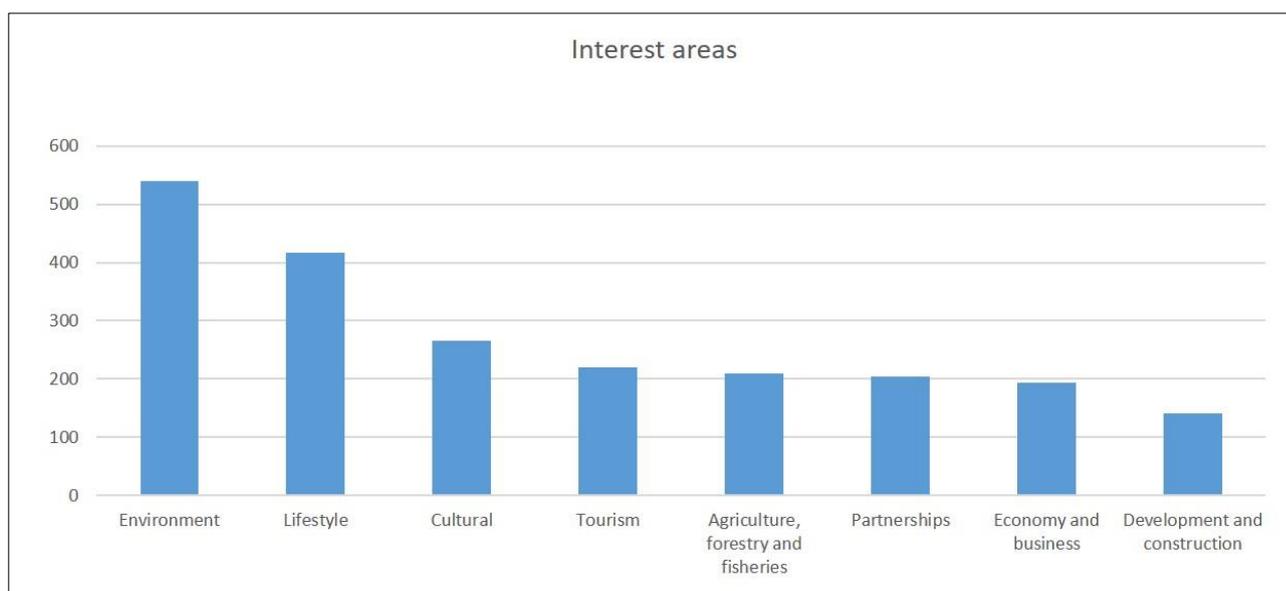
Table 3: Generalised results from the survey

83% of respondents in principle supported the overarching concept of becoming a UNESCO Biosphere.
Over 93% of respondents agreed that: <ul style="list-style-type: none"> - 'Maintaining and enhancing the liveability of the Sunshine Coast for future generations is essential' (Question3).
74% of respondents agreed that: <ul style="list-style-type: none"> - The Sunshine Coast deserves to be internationally recognised for its outstanding values and credentials.
In the comments, approximately 25% of respondents articulated concerns about council's ability to protect and enhance the region by managing development pressures.

Survey respondents also indicated their main areas of interest when completing the survey. This question allowed multiple answers and provides a snapshot of which aspects of a biosphere people might be particularly interested in.

The majority of people indicated that the environment and the Sunshine Coast lifestyle were their main areas of interest.

Chart 1: Interest areas of survey respondents



4.3 Council advisory groups

A staff officer gave a presentation, followed by discussion, to the following Council Advisory Group:

- Youth 'Speak Up and Engage' Committee Meeting – 14 May 2019

Discussion focused on the ability of a biosphere credential to encourage sustainable living. The Group determined an action to respond to the Have Your Say survey and elected a representative to liaise with council about further involvement in the nomination process.

4.4 Focus groups

Engagement with key external stakeholders was undertaken in two facilitated workshops:

- Community and business representatives - 4 June 2019
- State Government stakeholders - 18 June 2019

Organisations were invited to send representatives to attend a four hour workshop during which they considered the proposed nomination. Each workshop examined the following topics with regard to the Sunshine Coast becoming a UNESCO Biosphere:

- Benefits, opportunities and risks
- Draft principles that may be used to develop a governance model
- The draft UNESCO Biosphere Area map.

4.4.1 Community groups and businesses focus group

Local businesses and community groups were invited to attend a workshop on 4 June 2019 to provide feedback on the proposed UNESCO Biosphere nomination. Twenty people from fifteen organisations attended.

Overall the group were supportive of the proposed nomination, especially once particular aspects had been clarified, for example the rationale behind the mapping of areas.

The group identified that a biosphere credential could be used as an aspirational tool for the community, to achieve overarching triple bottom line sustainability in the region.

Specific feedback included:

- The proposed biosphere must be genuine, not just a label or marketing exercise.
- It must be a contemporary biosphere with aspirations woven in to the nomination.
- Regarding the governance principle of *transparency* - community inclusiveness in decision making and transparency of the process is critically important.
- Regarding the governance principle of *responsive* - being adaptive and proactive is important, not just responsive.
- Clarify the purpose of the map – two maps may be needed, one to communicate to UNESCO, and one to communicate to the community and to capture aspirational targets.
- Reconsider the names of the mapping areas with respect to encouraging sustainability and consider including privately held land.
- Establish a baseline before becoming a UNESCO Biosphere. Use the baseline in future years to determine progress and realisation of any benefits and opportunities.

4.4.2 State Government focus group

A focus group session was held on 18 June 2019 with state agencies, to seek feedback on the proposed UNESCO Biosphere nomination.

Eleven representatives from the following state agencies were in attendance:

Table 5: State government departments attending focus workshop

Department of Agriculture and Fisheries	Department of Education	Department of Employment, Small Business and Training
Department of Environment and Science	Department of Local Government, Racing and Multicultural Affairs	Department of Transport and Main Roads
Queensland Police Service	Sunshine Coast Hospital and Health Service	

Key comments made by state agency staff during the focus workshop included:

- General support for the nomination and agreement with the anticipated benefits and opportunities
- General support for the draft governance principles, recognising that it is critical that any Board or Management Committee genuinely hold 'shared values and understanding'.
- Mapping: resolve issues relating to private land, e.g. Land for Wildlife, and land held by NGOs, suggestion to re-examine the Regional Inter-Urban Break and marine park areas to ensure clarity over activities and future use.
- Health Service identified significant benefits from the wellbeing and active lifestyle elements of becoming a biosphere, with identifiable cost reductions in the provision of health services to the Sunshine Coast. Similarly, the Police Service identified opportunities for reduction in crime with a stronger socioeconomic region and less people in distress.
- Education and tourism representatives identified opportunities for positive uptake of their services.
- Concern was expressed about the perception of adding another layer of policy, even though a UNESCO Biosphere was recognised as being non-statutory. A monitoring and reporting framework would need to be clearly articulated to the community and other stakeholders.
- A suggestion was made to clarify how a UNESCO Biosphere might relate to the Planning Scheme.

One on one conversations or briefings were also held with staff in the following state departments and statutory authorities, who provided similar initial feedback as was made in the focus workshop:

- Department of Innovation, Tourism Industry Development and Commonwealth Games
- Department of Environment and Science
- Department of State Development, Manufacturing, Infrastructure and Planning

4.5 Education organisations

4.5.1 University of the Sunshine Coast

The University of the Sunshine Coast was consulted several times during the formal engagement period. Meetings involved a range of university academics, PhD students and the Vice-Chancellor, as well as representatives from the university's Centre for Sustainability Research.

Conversations focused on the role of partnerships, research and education in a UNESCO Biosphere. Overall the university indicated that it was keen to partner with the community and council in a UNESCO Biosphere.

In particular, research projects with a focus on sustainability would be welcomed. The university staff engaged indicated support for the project, but also raised issues about the pressures of development in the region and how to deliver sustainable development along with genuine community engagement.

4.5.2 Kids in Action

The concept of a UNESCO Biosphere was presented to students and teachers at the annual Kids in Action event, hosted by Sunshine Coast Council to foster sustainability leadership amongst local school students. Students were invited to express their hopes for a sustainable future and to demonstrate what this might look like with drawings.

4.6 Events and displays

4.6.1 Public events and display activities

Displays were held at a wide range of public events, with consultation materials distributed and face-to-face conversations held with passing crowds. People were encouraged to complete the survey.

Public events attended included:

- World Environment Day Festival
- Maleny Agricultural Show
- Doonan Open Data Day
- Sunshine Coast Agricultural Show, Nambour
- Sunshine Coast Lightning home game
- National Rugby League game
- Maleny Sustainable Futures Expo

Council staff also attended a selection of focused business events to talk to people in industry sectors such as tourism and cleantech.

- Cleantech conference
- Water Wise Connect event
- SCouT tourism event

Comments and issues raised by the community and local businesses at these events were captured in a variety of ways, such as using sticky notes to capture ideas, significant comments noted by staff, and other informal techniques such as using the photobooth (see below) and inviting children to share their thoughts by drawing on butchers paper.



4.6.2 Photobooth and table drawing activities

Some innovative activities were used to engage the passing public and invite them to share what they love about the Sunshine Coast.

Photobooth

At selected festivals and shows, the community was invited to use a photobooth to capture their response to the questions:

'What do you love about the Sunshine Coast?'

'What does celebrating people in nature mean to you?'

People chose from local scenic backgrounds that appealed to them, with both coastal and hinterland scenes available.

People were able to choose props and speech bubbles to share their thoughts about the Sunshine Coast.

A review of people's subjective choices, based on the resulting photos, showed the following:

Choice	Popularity
Scene - Beach	60%
Scene - Hinterland	40%
We love – Our beaches + natural landscapes	62%
We love – Our future	13%
We love – Our farmers, businesses, homes and other options	25%



These qualitative findings closely align with survey results, with the majority of people showing that they love the natural landscapes of the Sunshine Coast, and in particular the beaches.

Table drawings

At large events children were encouraged to stop and draw something to represent either:

'What do you love about the Sunshine Coast?'

'What does celebrating people in nature mean to you?'

While children drew their representation of what is important to them on about living on the Sunshine Coast, there was an opportunity for council staff to engage parents and other adults in a conversation about the biosphere nomination.

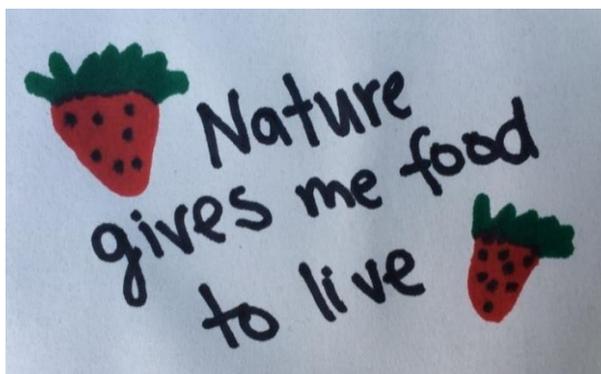
Children loved this activity and often their adults joined in too. The majority of the table drawings represented natural places, activities and animals that the children saw as being part of what they love about the Sunshine Coast.

This activity was run at six events, on ten different days. The drawings were grouped into broad categories and tallied for all the 20-plus sheets of butchers paper across all events.

Since the events included sporting matches, environment festivals and the general agricultural show days, the drawings represent a good cross section from the community, especially from families and young people.

A review of children's drawings showed the following:

Type of drawing of comment	Frequency
Natural landscapes Beaches, waves, waterfalls, rainbows, trees, grass, forests	41%
Recreational activities majority were outdoor activities e.g. surfing, skating, camping	16%
Animals turtles, butterflies, dogs, horses	20%
Community values Homes, recycling, our future, respect indigenous culture	23%



These qualitative findings closely align with survey results, with the majority of people showing that they love the natural landscapes of the Sunshine Coast, and in particular the beaches.

The recreational activities were nearly all outdoor activities such as surfing, bushwalking and horse-riding, highlighting that the young people valued being outside and active in the natural environment.

Similarly, the community values reflected comments and slogans about protecting nature and valuing our community, such as 'Save the turtles', 'War on Waste' and 'Save the honey bees'.

Agriculture student workshop

An engaging workshop with agricultural students was held as part of the Sunshine Coast Agricultural Show at Nambour. Students were presented with the concept of a biosphere and asked for their input on how a biosphere credential might support the food and agriculture industry.

Students were asked to position themselves as 'Instagram Influencers' and consider what they might communicate to peers. Their comments, expressed as hashtags, indicated support for a biosphere nomination.

Students also demonstrated an understanding that there would be branding and economic opportunities for agriculture products arising from a biosphere credential, especially with the

development of the Sunshine Coast Airport to provide international access for high quality produce.

A review of hashtags from the activity showed the following:

Type of hashtag	Frequency
Lifestyle values #Itisourfuture #Healthyliving #Liveworkplay	64%
Farming activities #Farmlife #Localproduce #Ilovevegetables #biofarm	15%
Farming values #Localproduce #Freshproduce #Biofarm	13%
Farm animals #dairy cows #cattlefarming #chickens #horses	9%



4.7 Presentations and briefings

Over sixty briefings and presentations were provided to key external stakeholders during the engagement period. Most of these provided the opportunity for in depth discussion of the proposed nomination and enabled stakeholders to provide feedback.

Some key stakeholders provided additional feedback as a submission following discussion at briefings.

Below is a sample of stakeholder briefings:

- *Development industry*
- *Tourism groups*
- *Small business networks*
- *Food and agriculture producers*
- *Community and residents associations*
- *Environmental groups*

Overall, groups were positive about the biosphere nomination and could see benefits for their particular interest area. A more in-depth presentation of topics such as the proposed Biosphere Map Areas and perceived risks and opportunities meant groups had the opportunity to understand the rationale behind the nomination.

Feedback was noted and comments were summarised as part of the overall engagement process. Issues raised have been summarised and included as part of the overall feedback in Section 2, particularly where relevant to specific stakeholder groups.

4.8 Submissions

Twelve submissions were received during the formal consultation period, ranging from individual submissions from residents through to submissions by peak bodies.

Submissions varied from supportive to non-supportive and raised a variety of concerns.

Submissions were received by mail (hard copy and email) and often followed a briefing with a particular group, after the group had considered its feedback and followed up the briefing with a submission.

Submissions were received from key stakeholders including the development industry, several environmental community groups and a couple of community/residents groups.

Some submissions were received from individual members of the community using the generic biosphere email: biosphere@sunshinecoast.qld.gov.au.

Comments made via submissions are included in the relevant stakeholder feedback summaries.

Below is a summary of submissions.

Table 5: Summary of submissions received

Type of submission	Key comments
Personal submission	Cannot support, believe it will do little to protect fragile ecosystems.
Personal submission	Supportive of a sustainable future but has concern that, "It is unclear how the coastline is going to be protected from development and construction as the whole coastline is orange 'Live and work area'."
Personal submission	Supportive on the proviso that monies from the Environment Levy, and thereby the purchase of environmental land assets, are not used to fund to achieve the credential. Benefits are vague, intangible and difficult to measure; cost is imprecise.
Personal submission	Neither supportive or non-supportive Coastal dunes are important as a seed bank and are being affected by expanding urban footprint.
Personal submission	Supportive from a tourism perspective but is concerned about loss of habitat, especially the loss of mature trees Vegetation clearing and replacement (offset) policies need to be changed to protect wildlife.

Type of submission	Key comments
Personal submission	<p>Supportive with concerns; the coastal strip appears to be sacrificial despite its high environmental values, many of which attract tourists and residents.</p> <p>Suggests renaming the coast as a Transition zone to avoid business as usual in the coastal urban footprint.</p>
Community group	<p>Very supportive, commenting that:</p> <p>“With burgeoning growth and pressure on the delicate environment within our local community, the biosphere parameters will assist the orderly and sustainable development in this area for future generations.”</p>
Environment group	<p>Supportive but sceptical, commenting that:</p> <p>“We find it difficult to support the nomination, as it seems the reality is that becoming a Biosphere Reserve would do little to protect our special and fragile ecosystems.”</p>
Environment group	<p>Supportive but with concerns:</p> <p>“Justification for a Biosphere should be predicated on the environment, and not on branding for the tourist industry and agribusiness.”</p> <p>Concerns relate to council’s “history of development approvals in, or adjacent to, environmentally sensitive areas.”</p> <p>Consider increasing the Special Manage and Care Areas</p> <p>Biosphere needs to be authentic, with measurable results and regular reporting</p>
Development industry group	<p>Supportive in principle and recognises council’s vision and aspirations for the region.</p> <p>Concerned that the biosphere is clearly recognised as being non statutory and does not constrain the growth targets for the region.</p> <p>Biosphere must align with the SEQ Regional Plan, <i>ShapingSEQ</i>, in particular with regard to Potential Future Growth Areas.</p>
Development industry group	<p>Neither supportive or non-supportive</p> <p>Very clear that the primary tool for land use planning is <i>ShapingSEQ</i> and the biosphere must not override this.</p> <p>Areas currently identified as Potential future Growth Areas and Major Development Areas must be preserved in any mapping to ensure long term affordable housing.</p>
Development company	<p>Supportive, noting that it is non statutory.</p> <p>Very clear that the primary tool for land use planning is <i>ShapingSEQ</i> and the biosphere must not override this.</p> <p>Concerned that any future amendments to the Sunshine Coast Planning Scheme 2014 may be based on the biosphere zones.</p> <p>Want clarity over the 500m buffer, in particular that it is not applied to the boundary of new developments.</p>

4.9 Internal engagement activities

Council branches and key staff received presentations informing them of the proposed nomination and the community consultation period. Key staff branches were engaged to increase awareness across the organisation, with a particular focus on integrated teams.

Internal briefings were provided for the following branches/teams:

- Integrated Environment Team
- Economic Development Branch
- Integrated Open Space Team
- Communications Branch
- Environment Operations Branch
- Environment and Sustainability Branch
- Strategic Planning Branch

Staff were also encouraged to complete the survey as individual residents.

4.10 What the engagement tools told us

Below is a summary of the tools used for engagement and the key messages provided by the community.

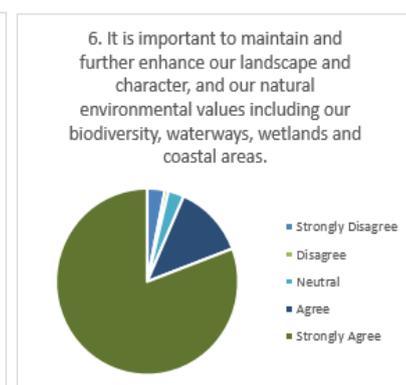
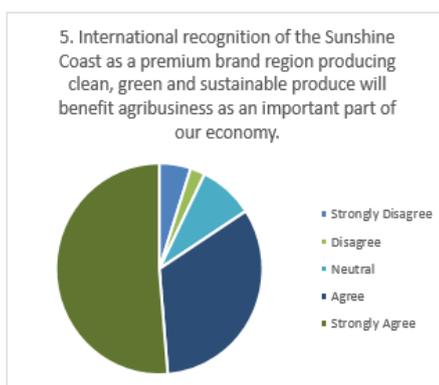
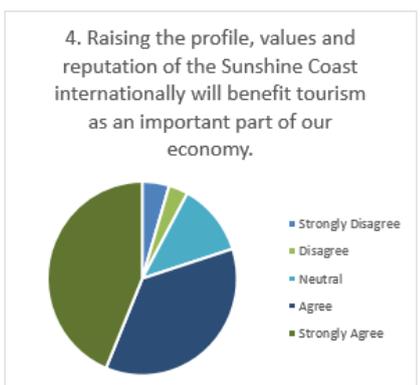
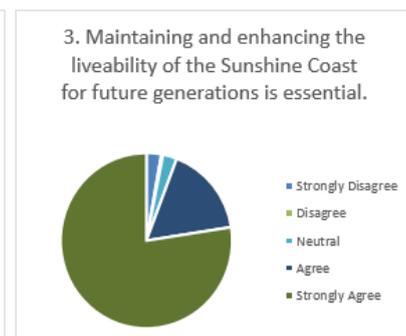
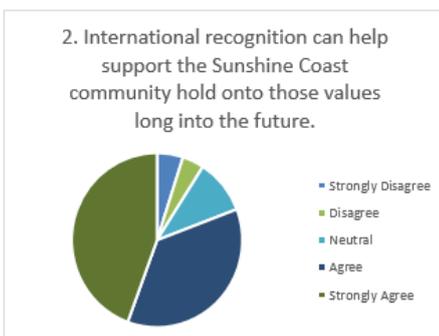
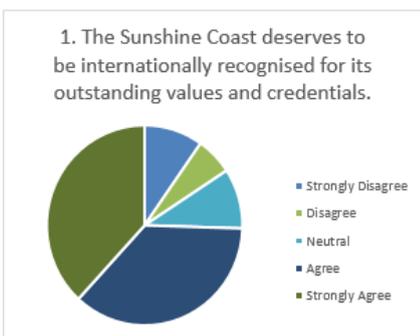
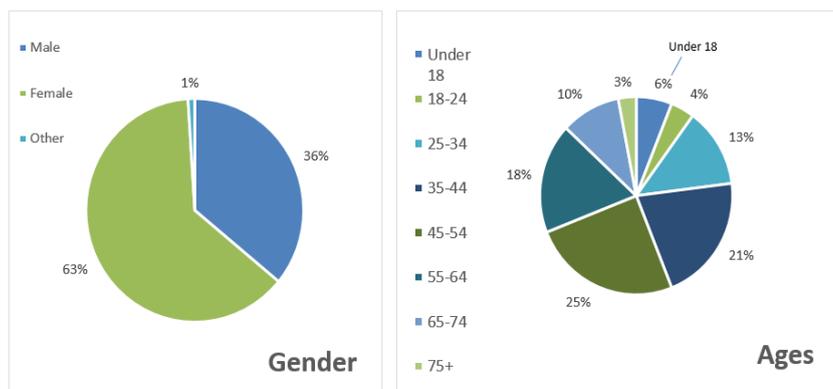
Engagement tool	Sectors engaged	Depth of engagement	Responses
Photobooth	Broad community, especially family groups, young people, people who might not usually attend council engagement sessions	Aware & Informed	Supportive of biosphere credential Value the natural environment and would like to see it protected
Table drawings	Broad community + school students	Aware & Informed	Understand a biosphere protects the region for the future Value the natural environment and would like to see it protected
Attendance at major events e.g. Agricultural shows (2), World Environment Day	Broad community, especially family groups, young people, people who might not usually attend council engagement sessions	Aware & Informed	Supportive of biosphere credential Value the natural environment and would like to see it protected Have concerns regarding the pressures of development
Attendance at specialised events e.g. Cleantech conference	Specialised audiences e.g. Cleantech businesses, sustainability community,	Aware & Informed	Supportive of biosphere credential Value the natural environment and would like to see it protected See opportunities to grow business and tourism
Submissions	All sectors	Fully Engaged	Supportive of biosphere credential Value the natural environment and would like to see it protected Have concerns regarding the pressures of development Be very clear that it is a non-statutory mechanism
Briefings	All sectors	Fully Engaged	Supportive of biosphere credential

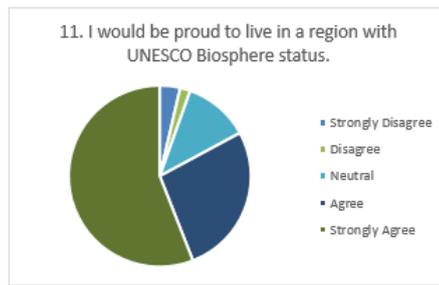
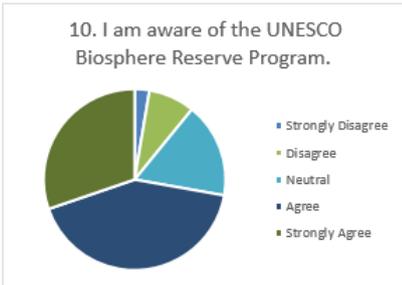
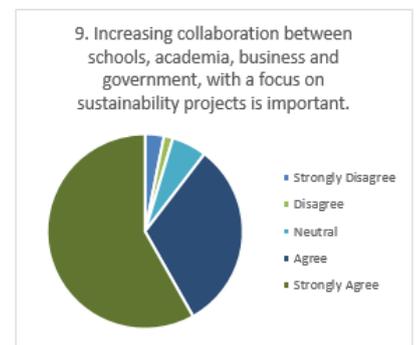
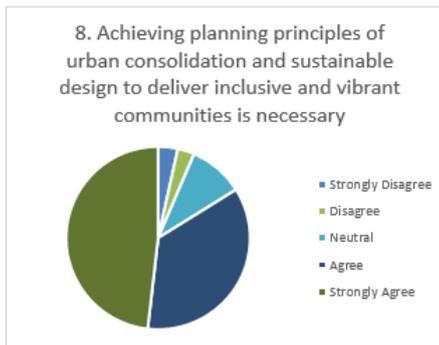
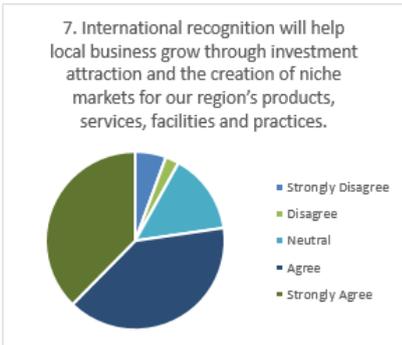
Engagement tool	Sectors engaged	Depth of engagement	Responses
			<p>Value the natural environment and would like to see it protected</p> <p>Have concerns regarding the pressures of development</p> <p>Be very clear that it is a non-statutory mechanism</p>
Workshops	All sectors	Fully Engaged	<p>Supportive of biosphere credential</p> <p>Value the natural environment and would like to see it protected</p> <p>Have concerns regarding the pressures of development</p> <p>Be very clear that it is a non-statutory mechanism</p> <p>Refine the map with regard to special protect areas along the coast</p> <p>Ensure the governance principles are truly shared values, so that the biosphere achieves real results</p>

Attachment 1: Biosphere Survey results (609 surveys)

Origin of respondents	% of total responses
Nambour, Mapleton, Montville	16%
Caloundra, Aura, Little Mountain, Currimundi	12%
Buderim, Forest Glen	10%
Coolum, Peregrin	10%
Buddina to Wurtulla (Kawana)	7%
Maleny, Conondale, Curramore	5%
Mountain Creek, Mooloolaba	5%
Maroochydore	5%
Marcoola	4%
Palmwoods	3%
Yandina	3%
Eumundi	3%
Mooloolah	2%
Woombye, Diddilbah	2%
Alex Headland	1%
Beerburrum	<1%
Glasshouse Mountains	<1%
Beerwah, Peachester	<1%
Landsborough	<1%
Eudlo, Ilkley	<1%
Kenilworth	<1%

- 7% of survey responses were from outside the region
- 2% of respondents identified as Aboriginal or Torres Strait Islanders







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(10) Biosphere Nomination Community Reference Group Terms of Reference



Sunshine Coast UNESCO Biosphere Nomination Community Reference Group

Terms of Reference – May 2019



1. Background

1.1 Decision to develop a Biosphere nomination

The Sunshine Coast is widely acknowledged as a highly desirable place to live, work and play with abundant natural resources and a unique lifestyle. Sunshine Coast Council's vision is to be *Australia's most sustainable region – Healthy. Smart. Creative.* Council recognises that natural assets underpin and enhance liveability, and that residents living sustainably within the environment is a key to achieving the vision for the region.

A Transformational Action in Council's Environment and Liveability Strategy (adopted in September 2017) is to increase our understanding of how people interact with the natural environment. The associated task is *21.1: Investigate mechanisms to provide long-term protection of core environmental areas and green spaces and promote approaches to minimise the impacts of human use and activities across the region.*

To achieve the Transformational Action and task from the strategy, and environment and liveability aspirations, Council is seeking a mechanism or mechanisms that:

- attain international recognition of natural assets in the region;
- strengthen Council's policy framework to support Council's position on key land use planning matters;
- support Council's environment and liveability policies and programs;
- raise the profile of the Sunshine Coast to enhance tourism and other economic opportunities;
- attract more investment to the region and help local businesses grow;
- enhance market opportunities for agriculture, products and services;
- increase collaboration between academia, indigenous groups, community, business and government, with a focus on sustainability and environmental projects; and
- demonstrate leadership and commitment to achieve Council's vision to be *Australia's most sustainable region – Healthy, smart, Creative.*

A review of national and international protection mechanisms found that the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Man and the Biosphere (MAB) program was the most appropriate mechanism because it:

- provides credible and independent local, national and international recognition of the Sunshine Coast's environmental credentials;
- aligns with and supports the implementation, monitoring and review of Council's strategies, plans and corporate governance tools as well as environmental, social and economic aspirations for the region; and
- provides a platform for collaboration, building partnerships with key stakeholders and sharing knowledge and experience.

Investigation into the UNESCO MAB program determined that:

- a Biosphere is a non-statutory international recognition of an area, facilitates sustainable development and acknowledges interactions between people and the environments they live in;
- there are social, environmental and economic benefits for the region (such as raising

- the profile of the region, attracting investment and increasing collaboration between businesses and community groups) associated with Biosphere designation;
- successful existing Australian and international Biospheres have conservation areas which protect ecosystems, landscapes, species and genetic variations, buffer zones that support conservation areas, and transition zones where sustainable development occurs;
- Biospheres encourage strong community and government support, funding and resources and a focus on social, economic and environmental projects and programs;
- the UNESCO MAB program would accept a nomination from the Sunshine Coast if that were to occur; and
- the Queensland Government, Australian Government and UNESCO MAB program have annual deadlines for assessing, endorsing and accepting Biosphere nominations.

Council has provided direction to proceed with investigating the development of a Biosphere nomination for the Sunshine Coast.

The nomination will need to be endorsed by Council in October 2019 to achieve submission to UNESCO MAB by September 2020.

1.2 Purpose of the project

The purpose of this project is to develop a nomination for the designation of the Sunshine Coast as a UNESCO Man and the Biosphere, to be referred to as the Sunshine Coast UNESCO Biosphere.

1.3 Biosphere nomination objectives

The objectives for developing and submitting a Biosphere nomination for the Sunshine Coast are:

Geographic, biophysical, social and cultural design

- Identify and map the geographic boundaries of the proposed Sunshine Coast UNESCO Biosphere;
- Identify and map the geographic boundaries of zones within the proposed Sunshine Coast UNESCO Biosphere, outline land use descriptions and define management intent within each zone, with consideration to Council's and stakeholders' existing land management investments;
- Identify and describe the proposed Sunshine Coast UNESCO Biosphere's environmental, economic, social and cultural credentials, values and characteristics within the nomination.

Governance design

- Develop a governance model to support the nomination process;
- Longer term, once it is operational, develop a governance model to support ongoing management of the Sunshine Coast UNESCO Biosphere, which involves the community and meets UNESCO MAB requirements.

Implementation design

- Investigate and identify alignment of existing funding sources and resources as well as any potential shortfalls for the management of the Sunshine Coast UNESCO Biosphere once it is operational.

Community and key stakeholder engagement

- Achieve community and key stakeholder involvement, support and ownership in the development and submission of the nomination (achieve objectives of the Sunshine Coast UNESCO Biosphere nomination communications plan);
- Create a Sunshine Coast unique, non-technical language and terminology (nomenclature) for the biosphere that is easily understood by, and accessible to, the community to assist with creating a point of difference for the region and encouraging community ownership of the project.

Nomination development

- Develop a nomination that meets the UNESCO MAB criteria for designation; and
- Develop and submit a successful nomination within the timeframes (Council endorsement by October 2019 and submission to UNESCO MAB by September 2020).

1.4 Approval

This Terms of Reference was endorsed by the Council Biosphere Nomination Project Control Group in May 2019.

1.5 Responsible Council Manager

Bill Haddrill, Manager Environment and Sustainability Policy (Acting Chief Strategy Officer).

2. UNESCO Sunshine Coast Biosphere Nomination Community Reference Group

2.1 Community Reference Group purpose

The purpose of the Community Reference Group (CRG) is to:

- Provide advice to Council (as sponsor of the nomination) from the perspective of the community about the development of a nomination;
- Be involved in developing a 'community statement' (letter of support) to accompany the advancement of the nomination through its endorsement process;
- Ensure that community views and needs are represented and that the community is kept informed throughout the development of a Sunshine Coast UNESCO Biosphere nomination;
- Assist Council to connect to the local community and stakeholders to disseminate project information;
- Provide a conduit for community feedback which informs the development of the Sunshine Coast UNESCO Biosphere nomination;
- Provide a forum for discussions with community groups and individuals regarding

relevant biosphere nomination opportunities, benefits and risks;

- Inform Council decision making regarding long-term planning for management of the Sunshine Coast UNESCO Biosphere;
- Foster ownership of the nomination by key stakeholders and the community;
- Build community advocacy, understanding, trust and acceptance of the biosphere nomination;
- Ensure there is a high level of transparency across the nomination process;
- Support the co-design of communication messages and strategies to provide for effective communication and engagement with the broader public;
- Assist in managing community perception and community expectations of the project; and
- Support the stakeholder engagement goals for the nomination process.

2.2 CRG scope

The focus of the CRG will align to that of the Sunshine Coast UNESCO Biosphere nomination project scope including, but not limited to zoning, governance and management models and development of the nomination.

The CRG will not formally make decisions on behalf of Council. The CRG provides feedback and advice to be considered by Council.

The CRG will focus on the development of a Sunshine Coast UNESCO Biosphere nomination.

The CRG is one part of a comprehensive engagement and communication approach for the development of the nomination.

The CRG will be complemented with a range of other communication processes such as media releases, fact sheets and regular project updates, and broader engagement activities such as community meetings.

Other key stakeholders such as adjacent local councils, and Traditional Owners may be engaged separately from time to time and as identified in the project's Communication and Engagement Plan.

2.3 CRG membership

The standing members of the CRG include:

- Independent Chairperson
- Project Control Group representative (Councillor), and
- 12 voluntary members drawn from the following community areas:
 - Cultural
 - Traditional Owners
 - Environmental interests
 - Business/Local economy interests
 - Community/social interests
 - Young people
 - Education sector

The Mayor has Ex Officio standing of the CRG.

Officers in attendance:

- Manager Environment and Sustainability Policy/Acting Chief Strategy Officer
- Strategic Project Officer Sustainability Policy
- Other officers as relevant from time to time.

2.4 Roles and Responsibilities

2.4.1 Independent Chairperson

A Chairperson will be appointed by Council to conduct and manage meeting proceedings with the objective of ensuring the meetings are run fairly and without bias. The role of the Chairperson includes:

- Assisting Council to recruit and select CRG members;
- Ensuring individual CRG members are heard and can contribute to the process. At times the Chairperson may have to mediate the process to ensure all parties in the discussion are heard, actions are summarised and conducive working relationships are maintained;
- Conducting and managing meetings consistent with this Terms of Reference, including facilitating the flow of information and discussion;
- Ensuring meetings are focused on the Group's purpose and scope, and on delivering clear outputs and/or outcomes;
- Supporting members and resolving any conflicts that may occur within the CRG;
- Contributing to the preparation of meeting agendas and minutes and communicating with individual members on a regular basis;
- Attending community information sessions as part of the wider public consultation for the project;
- Collating issues raised by the CRG and forwarding to the Council Project Team and Project Control Group (PCG) for a response;
- Spokesperson for media enquiries; and
- Attending Project Control Group meetings on behalf of the CRG when required.

2.4.2 Members (includes community, professional and expert members)

The CRG members should be representative of a range of key interests, positions and concerns and collectively represent a diverse cross-section of the community, including leaders from the education and community services sector, the environment sector and business and industry leaders.

Group members should work effectively and efficiently with the Chair, Council Officers and relevant consultants to achieve the best outcome for the CRG. Responsibilities include:

- Taking reasonable steps to ensure that they are knowledgeable about the purpose and outcomes of the group and the Sunshine Coast Biosphere nomination process;
- Attending and actively and constructively participating in all meetings;
- Providing informed and considered comment and advice;
- Bringing to the group's attention any identified problems or issues within the purpose of the CRG;
- Making, supporting and adhering to any final recommendations (note that members may express a dissenting view on particular matters which should be appropriately minuted); and
- Ensuring that meeting minutes are accurate and reflect a true and correct record of proceedings.

2.4.3 Proxies

Proxies will not be permitted to attend a meeting.

2.4.4 Observers

Observers may be invited to attend a meeting, or part of a meeting, but are not able to participate in the meeting without the Chairperson's agreement.

2.4.5 Guest Presenters

The Chairperson may, from time to time, invite people to make presentations to the meeting and/or provide information, advice and opinion about a topic. These presenters do not have any other role in the meeting.

2.4.6 Council Officers

Council officers, State or Australian Government officers may attend the meeting from time to time.

2.4.7 Administrative Support

Administrative support will be provided by Council. This will extend to:

- Arranging meetings;
- Preparing and sending out agendas, minutes and other documentation;
- Maintaining up to date contact details for members;
- Carrying out or monitoring follow-up actions which arise from the business of meetings;
- Preparing deliverables from CRG actions.

2.4.8 Recruitment

The selection advisory panel needs to ensure that, collectively, the members of the Group represent a diverse cross section of our community.

The selection advisory panel will strive to ensure a gender balance of members.

2.4.9 Voluntary Representation

Representation on the CRG may occur by the council directly approaching community members and inviting them to become a member of the CRG or via an open Expression of Interest process.

If an EOI process is used for the appointment of voluntary representatives it will be consistent with the following process:

- The process will be coordinated by the Council Manager responsible for the Group;
- The Manager will establish a selection advisory panel with two members who have an understanding of the Group's purpose and role of the member;
- The selection advisory panel members will include the Chairperson, Council Manager

and a Councillor representative from the PCG;

- The selection process will be merit based, as inclusive as possible, and be based on the statement of claims provided by the EOI process;
- Council will maintain a database of candidates and anyone can nominate themselves by completing the EOI form and submitting it to council;
- Successful nominees will be confirmed by PCG and advised in writing of the intention to appoint them and will be asked to complete a declaration of interest.

The following criteria shall be considered when selecting voluntary members:

- Interest: Members should be able to demonstrate interest in one or more issues or elements relevant to the proposed project.
- Capacity to communicate: Ability to communicate information from the CRG to other interested stakeholders.
- Constructive participation: Ability to commit to working constructively and cooperatively as part of the CRG. They should agree to fulfil their role as defined in this Terms of Reference.
- Capacity and skills to contribute: Members should be able and willing to commit to the role and responsibilities of the CRG, and actively participate in the business of the CRG. It is desirable that members have had previous experience in a similar role.
- Availability and flexibility: Members should be available and willing to meet on the agreed dates from July 2019 to October 2019, at a mutually agreed time and venue.

2.5 Tenure

Unless otherwise determined, appointments to the CRG are only for the duration of the Sunshine Coast UNESCO Biosphere nomination project (from July 2019 to October 2019).

2.6 Removal of Existing Members

Council may remove existing members on request from the relevant member or the Chairperson.

2.7 Vacancies

Where a vacancy arises in the membership of the Group, the position may be left vacant or may be filled in accordance with a decision made by the responsible Council Manager, having regard to the length of time remaining in the project and advice of the Chairperson.

As vacancies arise in the Group, nominees who have already registered an interest will be considered first by the selection panel.

If no suitable nominee is available, the panel may call for additional nominations through Council's communication channels, requiring interested parties to complete and submit the EOI form.

2.8 No Payment

Participation in the CRG is voluntary and no payment shall be made by Council to any standing or voluntary member for attendance or disbursements.

3. Member Conduct

3.1 Code of Conduct

Members of the CRG have a duty to discharge responsibilities entrusted by Council and the laws made under the Australian Constitution according to the highest standards of conduct.

The following Code of Conduct outlines principles that should be observed by all members of the Group, and should be read in conjunction with the *Public Sector Ethics Act (Qld) 1994*.

- A CRG member should perform the duties of the office impartially, uninfluenced by fear or favour.
- A CRG member should be frank and honest in official dealings with colleagues and with Council.
- A CRG member should ensure their personal conduct does not reflect adversely on the reputation of Council or the nomination.
- A CRG member should demonstrate respect for fellow members, Councillors, Council employees and other members of the public.
- A CRG member should avoid situations in which any private interest, whether pecuniary or otherwise, conflicts or might reasonably be thought to conflict with their public duty.
- CRG members should not:
 - engage with the media or participate in public forums in relation to the activities of the CRG without prior agreement of the relevant Council manager and the Chairperson;
 - use information obtained in the course of their CRG duties to directly or indirectly gain an advantage for themselves or for any other person;
 - discuss or publicly disclose information gained in the course of their CRG duties without prior approval of the Council Manager;
 - solicit or accept from any person any remuneration or benefit for the discharge of their duties;
 - solicit or accept any benefit, advantage or promise of future advantage for themselves, their immediate family or any business concern or trust with which they are associated, from persons who are in, or seek to be in, any contractual or special relationship with Council;
 - accept any gift, hospitality or concessional travel offered in connection with the discharge of their duties.
- A CRG member should avoid actual or potential conflicts between their duties to the CRG and their personal interests. Members should also be aware of possible perceived conflicts of interest.
- A CRG member should comply with all laws and other Council policy, procedures and requirements.

3.2 Declarations of Conflict of Interests

As part of the appointment process, members will be required to complete a conflict of interest declaration. Additionally, members should update their declarations of interest as they become aware of any real, perceived or potential conflicts.

Members of the CRG who have or acquire directly or indirectly a personal or pecuniary interest in a matter decided or under consideration by the CRG must as soon as reasonably practicable disclose to the Group full and accurate details of the interest.

3.3 Termination of Member's Appointment

A member's appointment may be terminated in writing by the relevant Council Manager for any of the following reasons:

- the term of appointment has expired;
- the member has submitted a written resignation;
- the member breaches the code of conduct;
- a performance issue or behaviour documented by the Manager (in consultation with the member), has not been rectified within a reasonable or agreed timeframe.

4. CRG Operations

4.1 Meeting Frequencies and Procedures

It is expected that the Sunshine Coast UNESCO Biosphere Nomination CRG will meet every two weeks at specific milestone points of project phase. Meetings may be more frequent when required (Table 1). Meetings are expected to occur in the evenings (i.e. 6.00pm to 8.00 pm) for a period of two hours each.

Table 1: CRG meeting frequency at project milestones

CRG meeting (proposed dates)	Anticipated CRG meeting scope
15 July 2019	<ul style="list-style-type: none"> • Commencement of the CRG • Process and milestones
29 July 2019	<ul style="list-style-type: none"> • Advice on development of the nomination
12 August 2019	<ul style="list-style-type: none"> • Advice on development of the nomination
26 August 2019	<ul style="list-style-type: none"> • Advice on development of the nomination
9 September 2019	<ul style="list-style-type: none"> • Advice on development of the nomination
23 September 2019	<ul style="list-style-type: none"> • Nomination finalisation
14 October 2019	<ul style="list-style-type: none"> • Nomination finalisation

Administrative support will be responsible for coordinating and distributing agenda and minutes, including when and how they are distributed and finalised as well as preparing CRG deliverables. The outcomes from each meeting will be confirmed prior to the close of the meeting by the Chairperson with the CRG and recorded in the meeting minutes. Minutes will be prepared for each meeting and circulated with the following meeting's agenda for confirmation at that meeting.

The group will seek to provide feedback and advice based on a consensus building approach. Where consensus cannot be achieved a 'show of hands' by the members will be required by the Chair and the outcomes documented as part of the minutes, including dissenting views.

A quorum for this group is deemed to be a majority of the members and a meeting may be cancelled if a majority of members cannot attend.

4.2 Reporting

The Chairperson of the CRG will report the advice of the CRG to the Project Control Group.

4.3 Media Statements

All media communication with the CRG will only occur via the Chairperson through media statements jointly prepared and endorsed by the Chairperson and Council's Communications Branch.

Acronyms

CRG	Community Reference Group
EOI	Expression of Interest
PCG	Project Control Group
MAB	Man and the Biosphere program
UNESCO	United Nations Educational, Scientific and Cultural Organisation



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T 07 5475 7272 F 07 5475 7277
Locked Bag 72 Sunshine Coast Mail Centre Qld 4560

(11) Sunshine Coast Ecosystems - Spatial extents, descriptions, species, processes and threats (Annexe V) (source: Queensland Government Regional Ecosystems, 2019)

See Annex V

(12) *Community Strategy 2019–2041* (Annex VI)

See Annex VI

(13) *Environment and Liveability Strategy 2017* (Annex VII)

See Annex VII

(14) *Regional Economic Development Strategy 2013–2033* (Annex VIII)

See Annex VIII

20. ADDRESSES

20.1 Contact address of the proposed biosphere reserve:

[Government agency, organization, or other entity (entities) to serve as the main contact and to whom all correspondence within the World Network of Biosphere Reserves should be addressed.]

Sunshine Coast Regional Council

Locked Bag 72,

Sunshine Coast Mail Centre, QLD, Australia, 4560

Telephone: 61 – 07 54757277 Email: mail@sunshinecoast.qld.gov.au

20.2. Administering entity of the core area(s):

Sunshine Coast Regional Council

Locked Bag 72,

Sunshine Coast Mail Centre, QLD, Australia, 4560

Telephone: 61 – 07 54757277 Email: mail@sunshinecoast.qld.gov.au

20.3. Administering entity of the buffer zone(s):

Sunshine Coast Regional Council

Locked Bag 72,

Sunshine Coast Mail Centre, QLD, Australia, 4560

Telephone: 61 – 07 54757277 Email: mail@sunshinecoast.qld.gov.au

20.4. Administering entity of the transition area(s):

Sunshine Coast Regional Council

Locked Bag 72,

Sunshine Coast Mail Centre, QLD, Australia 4560

Telephone: 61 – 07 54757277 Email: mail@sunshinecoast.qld.gov.au

Annex I to the Biosphere Reserve Nomination Form, January 2013

MABnet Directory of Biosphere Reserves

Biosphere Reserve Description¹

Administrative details

Country: Australia

Name of BR: Sunshine Coast Biosphere

Year designated: (to be completed by MAB Secretariat)

Administrative authorities:

- Commonwealth Government Department of Environment and Energy
- Queensland Government Department of Environment and Science
- Sunshine Coast Council

Name and Contact address:

Sunshine Coast Regional Council

Locked Bag 72

Sunshine Coast Mail Centre QLD 4560

Australia

Telephone: 61 – 07 54757277

E-mail: mail@sunshinecoast.qld.gov.au

Web site: <https://www.sunshinecoast.qld.gov.au/>

Related links:

At present, information on the Biosphere Nomination can be viewed at <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Nomination-for-Biosphere>

¹ To be posted on the MABNet once the nomination has been approved. The numbers refer to the relevant sections of the nomination form.

Description

General description:

The Sunshine Coast is widely acknowledged as a highly desirable place to live, work and play with abundant natural resources and a unique lifestyle.

Located in South East Queensland, 53 kilometres north of Brisbane, the Sunshine Coast Biosphere covers an area of approximately 2585 square kilometres and is considered a major urban and economic centre and an emerging city-region. The Country of two distinct First Nations groups, Kabi Kabi and the Jinibara people, extends across the area.

It has a strong reputation as a lifestyle region defined by its subtropical climate, picturesque coastline, dunes and beaches, extensive waterways and wetlands, and the hinterland mountain ranges. The natural environment and distinct landscapes are the foundations of the Sunshine Coast way of life.

Across the contrasting landscapes, from hinterland to coastal foreshores, there is a vast diversity of native plants and animals that create the region's highly regarded natural environment and rich biodiversity.

The Sunshine Coast offers a desirable lifestyle and over the past decade around 8000 people each year have chosen to make the region home. This annual growth in population, which is expected to continue in the foreseeable future, has led to significant urban development and supporting infrastructure.

The majority of residents live within established urban centres along the coast. While all age groups are well represented within the Sunshine Coast's population, the most common age group is those 45 to 49 years and their children.

Traditionally, the main economic activities of the Sunshine Coast include construction, tourism and retail services. The region's economy is rapidly evolving across diverse high value and knowledge based sectors including professional business services, technological innovation, agribusiness, healthcare, education and finance.

The Sunshine Coast Community, together with Sunshine Coast Regional Council, have a shared vision: *To be Australia's most sustainable region: Healthy. Smart. Creative.* It is our desire to see our region continue to maintain its liveability and natural values, whilst managing growth.

Major ecosystem type:

- Subtropical eucalypt forests

Major habitats & land cover types:

- Eucalypts;
- Heath and wallum;
- Rainforest;

- Melaleuca and casuarina;
- Mangroves and saltmarsh; and
- Coastal dunes (two REs).

Bioclimatic zone:

- A subtropical zone
- The eastern (coastal) Sunshine Coast is in the “per-humid” bioclimatic zone, while the western (hinterland) area is in the “moist sub-humid” zone.

Location: (latitude & longitude, decimal degrees):

Most Northerly: 153.050131; -26.431058

Most Southerly: 153.003075; -26.984679

Most Westerly: 152.551107; -26.703105

Most Easterly: 153.206726; -26.802157 (includes marine zone)

Centre Point: 152.930157; -26.701013 (includes marine zone)

Total Area: 258,535 hectares

Core area(s): 43,649 hectares

Buffer zone(s): 182,164 hectares

Transition area(s): 32,722 hectares

Different existing zonation:

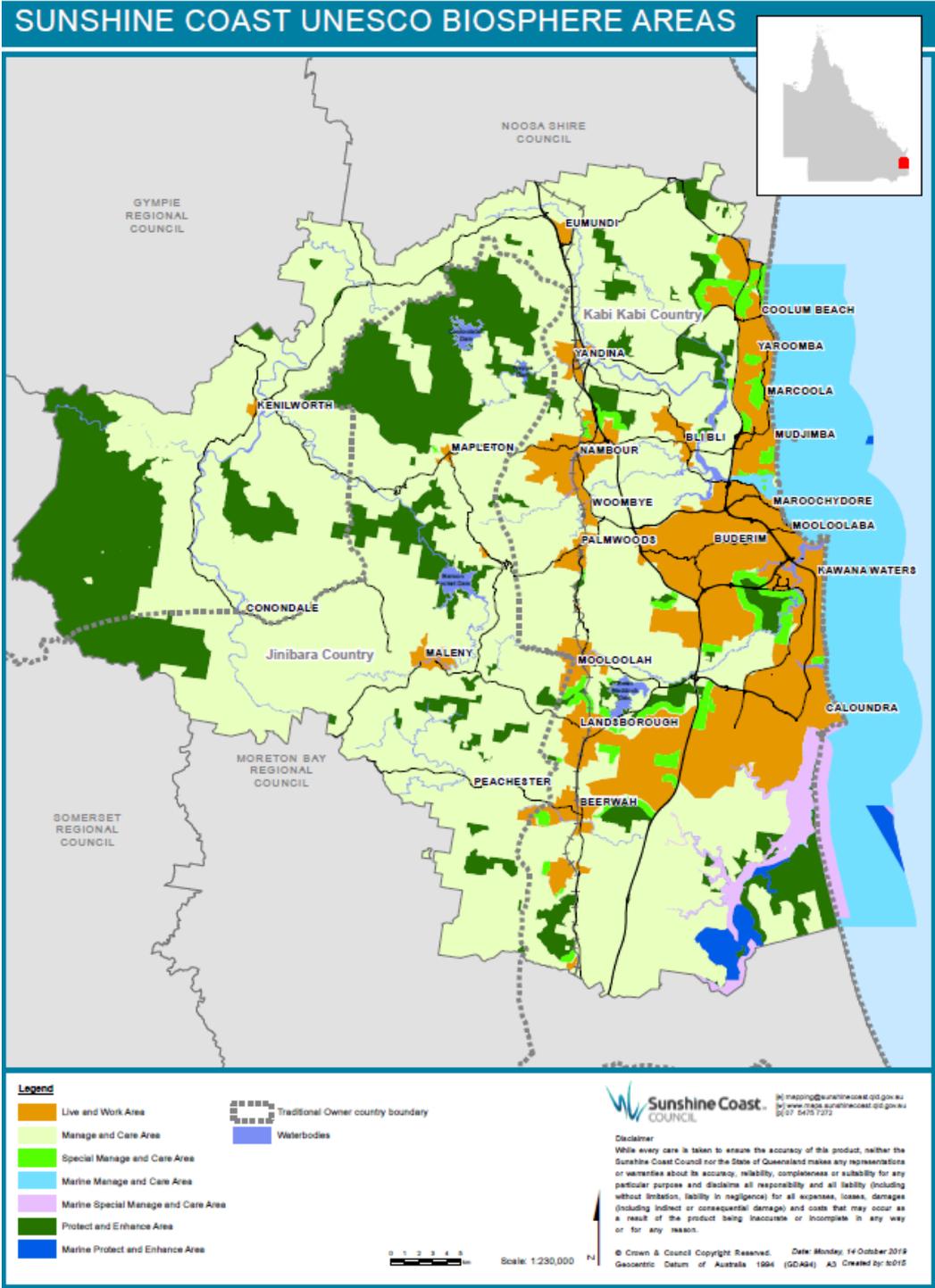
The following local names are used to represent the UNESCO biosphere zone system.

UNESCO Man and the Biosphere names	Local names
Core	Protect and Enhance Area
Buffer	Special Manage and Care Area
	Manage and Care Area
Transition	Live and Work Area

Altitudinal range (metres above sea level):

The altitudinal range is from **0 metres** to **868 metres** above mean sea level.
Range = **868 metres**

Zonation map(s):



Note: Any future changes to boundaries administered under Commonwealth, Queensland and local government legislation and planning policy will be reflected in an updated version of the Biosphere Area Map in the UNESCO Man and the Biosphere ten year review.

Main objectives of the biosphere reserve

Brief description

Aim and objectives of the biosphere

Governing Principle: Balancing the environmental, social, cultural and economic needs of today, without compromising the ability to meet the needs of future generations.

Aim: The Sunshine Coast Biosphere will be internationally renowned as a place where people live, learn, work and play sustainably.

Objective 1: People – A Sunshine Coast community that actively fosters and promotes sustainable practices, use and stewardship.

Objective 2: Conservation – Conserving, maintaining and enhancing our natural environment from the hinterland to the coast, and connecting people and nature.

Objective 3: Development - Demonstrating leadership in delivering a diverse and resilient economy.

Objective 4: Logistical support – Inspiring and celebrating creativity, innovation, research and a learning community.

Research

Brief description

Research and education are highly valued on the Sunshine Coast. A number of research facilities, including the world class University of the Sunshine Coast, have delivered and will continue to deliver research that will inform the operation and management of the biosphere. The community too has been engaged in hundreds of sustainability education events and programs delivered across the region every year.

Monitoring

Brief description

A wide range of ongoing monitoring projects are conducted across the Sunshine Coast by various research bodies, including government departments, research institutes, universities and citizen science groups. These encompass all aspects of sustainability, including of economic, social and environmental topics.

Specific Research Variables

Table Annex 1: Specific Research Variables.

Abiotic		Biodiversity	
Abiotic factors	✓	Afforestation/Reforestation	✓
Acidic deposition/Atmospheric factors	✓	Algae	✓
Air quality	✓	Alien and/or invasive species	✓
Air temperature	✓	Amphibians	✓
Climate, climatology	✓	Arid and semi-arid systems	
Contaminants	✓	Autecology	✓
Drought	✓	Beach/soft bottom systems	✓
Erosion	✓	Benthos	✓
Geology	✓	Biodiversity aspects	✓
Geomorphology	✓	Biogeography	✓
Geophysics		Biology	✓
Glaciology		Biotechnology	✓
Global change	✓	Birds	✓
Groundwater	✓	Boreal forest systems	
Habitat issues	✓	Breeding	✓
Heavy metals	✓	Coastal/marine systems	✓
Hydrology	✓	Community studies	✓
Indicators	✓	Conservation	✓
Meteorology	✓	Coral reefs	✓
Modelling	✓	Degraded areas	✓
Monitoring/methodologies	✓	Desertification	
Nutrients	✓	Dune systems	✓
Physical oceanography	✓	Ecology	✓
Pollution, pollutants	✓	Ecosystem assessment	✓
Siltation/sedimentation	✓	Ecosystem functioning/structure	✓
Soil	✓	Ecosystem services	✓
Speleology		Ecotones	✓
Topography	✓	Endemic species	✓
Toxicology	✓	Ethology	✓
UV radiation	✓	Evapotranspiration	✓
		Evolutionary studies/Palaeoecology	
		Fauna	✓
		Fires/fire ecology	✓
		Fishes	✓
		Flora	✓
		Forest systems	✓
		Freshwater systems	✓
		Fungi	✓
		Genetic resources	✓
		Genetically modified organisms	
		Home gardens	✓
		Indicators	✓
		Invertebrates	✓
		Island systems/studies	✓
		Lagoon systems	✓
		Lichens	✓
		Mammals	✓

		Mangrove systems	✓
		Mediterranean type systems	
		Microorganisms	✓
		Migrating populations	✓
		Modelling	✓
		Monitoring/methodologies	✓
		Mountain and highland systems	
		Natural and other resources	✓
		Natural medicinal products	
		Perturbations and resilience	✓
		Pests/Diseases	✓
		Phenology	✓
		Phytosociology/Succession	✓
		Plankton	✓
		Plants	✓
		Polar systems	
		Pollination	✓
		Population genetics/dynamics	✓
		Productivity	✓
		Rare/Endangered species	✓
		Reptiles	✓
		Restoration/Rehabilitation	✓
		Species (re) introduction	✓
		Species inventorying	✓
		Sub-tropical and temperate rainforest	✓
		Taxonomy	✓
		Temperate forest systems	
		Temperate grassland systems	
		Tropical dry forest systems	
		Tropical grassland and savannah	
		Tropical humid forest systems	
		Tundra systems	
		Vegetation studies	✓
		Volcanic/Geothermal systems	
		Wetland systems	✓
		Wildlife	✓

Socio-economic		Integrated monitoring	
Agriculture/Other production systems	✓	Biogeochemical studies	✓
Agroforestry	✓	Carrying capacity	✓
Anthropological studies	✓	Climate change	✓
Aquaculture	✓	Conflict analysis/resolution	✓
Archaeology	✓	Ecosystem approach	✓
Bioprospecting	✓	Education and public awareness	✓
Capacity building	✓	Environmental changes	✓
Cottage (home-based) industry	✓	Geographic Information System (GIS)	✓
Cultural aspects	✓	Impact and risk studies	✓
Demography	✓	Indicators	✓
Economic studies	✓	Indicators of environmental quality	✓
Economically important species	✓	Infrastructure development	✓
Energy production systems	✓	Institutional and legal aspects	✓

Ethnology/traditional practices/knowledge	✓	Integrated studies	✓
Firewood cutting		Interdisciplinary studies	✓
Fishery	✓	Land tenure	✓
Forestry	✓	Land use/Land cover	✓
Human health	✓	Landscape inventorying/monitoring	✓
Human migration	✓	Management issues	✓
Hunting		Mapping	✓
Indicators	✓	Modelling	✓
Indicators of sustainability	✓	Monitoring/methodologies	✓
Indigenous people's issues	✓	Planning and zoning measures	✓
Industry	✓	Policy issues	✓
Livelihood measures	✓	Remote sensing	✓
Livestock and related impacts	✓	Rural systems	✓
Local participation	✓	Sustainable development/use	✓
Micro-credits		Transboundary issues/measures	
Mining		Urban systems	✓
Modelling	✓	Watershed studies/monitoring	✓
Monitoring/methodologies	✓		
Natural hazards	✓		
Non-timber forest products	✓		
Pastoralism	✓		
People-Nature relations	✓		
Poverty			
Quality economies/marketing	✓		
Recreation	✓		
Resource use	✓		
Role of women	✓		
Sacred sites	✓		
Small business initiatives	✓		
Social/Socio-economic aspects	✓		
Stakeholders' interests	✓		
Tourism	✓		
Transports	✓		

Annex II to the Biosphere Reserve Nomination Form, January 2013

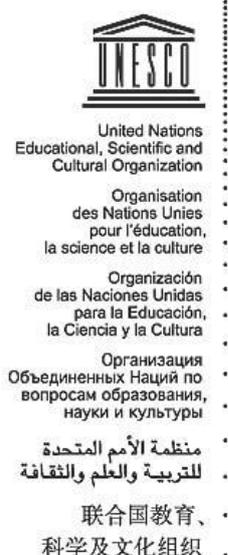
Promotion and Communication Materials For the Proposed Biosphere Reserve

Provide some promotional material regarding the proposed site, notably high quality photos, and/or short videos on the site so as to allow the Secretariat to prepare appropriate files for press events. To this end, a selection of photographs in high resolution (300 dpi), with photo credits and captions and video footage (rushes), without any comments or sub-titles, of professional quality – DV CAM or BETA only, will be needed.

In addition, return a signed copy of the following Agreement on Non-Exclusive Rights. A maximum of ten (10) minutes on each biosphere reserve will then be assembled in the audiovisual section of UNESCO and the final product, called a B-roll, will be sent to the press.

See image provided on USB accompanying nomination





UNESCO Photo Library
Bureau of Public Information

Photothèque de l'UNESCO
Bureau de l'Information du Public

AGREEMENT GRANTING NON-EXCLUSIVE RIGHTS

Reference:

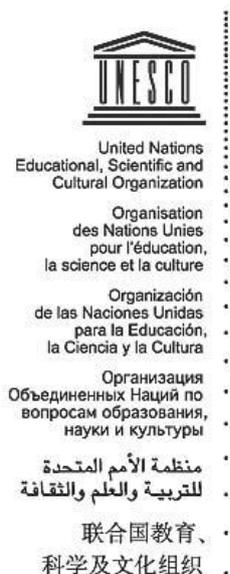
1.
 - a) I the undersigned, copyright-holder of the above mentioned photo(s) hereby grant to UNESCO free of charge the non-exclusive right to exploit, publish, reproduce, diffuse, communicate to the public in any form and on any support, including digital, all or part of the photograph(s) and to licence these rights to third parties on the basis of the rights herein vested in UNESCO.
 - b) These rights are granted to UNESCO for the legal term of copyright throughout the world.
 - c) The name of the photographer will be cited alongside UNESCO's whenever his/her work is used in any form.
2. I certify that:
 - a) I am the sole copyright holder of the photo(s) and am the owner of the rights granted by virtue of this agreement and other rights conferred to me by national legislation and pertinent international conventions on copyright and that I have full rights to enter into this agreement.
 - b) The photo(s) is/are in no way whatever a violation or an infringement of any existing copyright or licence, and contain(s) nothing obscene, libellous or defamatory.

Name and Address :

Date :

Signature :

(sign, return to UNESCO two copies of the Agreement and retain the original for yourself)
 Mailing address: 7 Place Fontenoy, 75352 Paris 07 SP, Direct Telephone: 00331 – 45681687
 Direct Fax: 00331 – 45685655; email: photobank@unesco.org; m.ravassard@unesco.org



UNESCO Photo Library
Bureau of Public Information

Photothèque de l'UNESCO
Bureau de l'Information du Public

AGREEMENT GRANTING NON-EXCLUSIVE RIGHTS

Reference:

1. a) I the undersigned, copyright-holder of the above mentioned video(s) hereby grant to UNESCO free of charge the non-exclusive right to exploit, publish, reproduce, diffuse, communicate to the public in any form and on any support, including digital, all or part of the video(s) and to licence these rights to third parties on the basis of the rights herein vested in UNESCO.

b) These rights are granted to UNESCO for the legal term of copyright throughout the world.

c) The name of the author/copyright holder will be cited alongside UNESCO's whenever his/her work is used in any form.

2. I certify that:

a) I am the sole copyright holder of the video(s) and am the owner of the rights granted by virtue of this agreement and other rights conferred to me by national legislation and pertinent international conventions on copyright and that I have full rights to enter into this agreement.

b) The video(s) is/are in no way whatever a violation or an infringement of any existing copyright or licence, and contain(s) nothing obscene, libellous or defamatory.

Name and Address:

Date :

Signature:

(sign, return to UNESCO two copies of the Agreement and retain the original for yourself)

Direct Fax: 00331 – 45685655; email: photobank@unesco.org; m.ravassard@unesco.org

Annexes III-VIII

Note: Annexes III-VIII are provided in a separate file

- ANNEX III Sunshine Coast Regional Council Area listed Endangered, Vulnerable and Near Threatened flora and fauna species (May 2017) (source: Sunshine Coast Biodiversity Report, 2016)
- ANNEX IV List of main bibliographic references
- ANNEX V Sunshine Coast ecosystems - spatial extents, descriptions, species, processes and threats (source: Queensland Government Regional Ecosystems, 2019)
- ANNEX VI *Community Strategy 2019–2041*
- ANNEX VII *Environment and Liveability Strategy 2017*
- ANNEX VIII *Regional Economic Development Strategy 2013–2033*



 **Sunshine Coast**
COUNCIL

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