



Sunshine Coast Regional Council acknowledges the traditional Country of the Kabi Kabi Peoples and the Jinibara Peoples of the coastal plains and hinterlands of the Sunshine Coast and recognise that these have always been places of cultural, spiritual, social and economic significance. We wish to pay respect to their Elders – past, present and emerging – and acknowledge the important role Aboriginal and Torres Strait Islander people continue to play within the Sunshine Coast community.

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Preface

The Sunshine Coast is widely acknowledged as a highly desirable place to live and work with abundant natural resources and a unique lifestyle. The region is currently home to 290,000 residents and nearly 30,000 registered businesses. It is a major tourism destination and generates \$16 billion worth of economic activity annually.

As the Sunshine Coast continues to grow and emerges into a regional city, it will be exposed to changes that will present both opportunities and challenges for our future.

Without a strategic and considered response, population growth, climate change, and economic growth have the very real potential to impact on the health of our environment, the lifestyles that we lead, and the resilience of our community.

As a result, Sunshine Coast Council (council) has prepared a new long-term draft strategy – one that is comprehensive, contemporary and fit for purpose for the Sunshine Coast.

This Draft Environment and Liveability Strategy (draft strategy) has evolved from and builds on a suite of council strategies adopted in 2010/11 following comprehensive community engagement. Those strategies sought to provide policy positions on a range of key growth and environmental issues.

The new strategy provides an integrated framework and sets strategic directions to guide the actions of council and its partners to deliver the transformational change required to maintain a healthy environment and liveable Sunshine Coast in 2041.

The strategic directions are supported by a Five-Year Implementation Plan that guides resource allocation to key services and transformational actions, and a Network Plan that sets the technical standards and specifications that provide planning directions to support decision making.

We welcome your views on the strategic directions outlined within this draft strategy, including the proposed vision, guiding principles, policy positions and proposed transformational actions.

The feedback will inform the development of the final Sunshine Coast Environment and Liveability Strategy.

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Introduction

Purpose of the draft strategy

The draft strategy has been developed to provide long-term strategic direction to guide growth and shape the region for future generations.

The draft strategy focuses on the preservation and enhancement of the natural **environment** and the **liveability** of the region, enabling a good quality of life for all residents in an accessible and well-connected built environment.

In this rapidly changing world there will be many challenges and opportunities associated with the increasing population, changing climate, economic growth, and emerging technologies for this region to embrace.

The purpose of this draft strategy is to put in place a strategic platform to enable the region to approach the next 25 years with a positive and confident manner looking for opportunities to strengthen the community's **resilience** for the future.

The draft strategy will complement the other longterm strategies of council and provide an integrated approach to respond to the challenges facing the region.

The draft strategy seeks to guide transformational decision making and actions that will continue to protect and respect the importance of the natural environment as the foundation for the Sunshine Coast way of life. It focuses on the management of the natural environment; creation of a sustainable built environment; and how we live in these environments to enhance our lifestyle and liveability.

The draft strategy proposes an integrated approach to planning for the future, based on three interdependent sections:

- · The natural environment
- The environment we create the built environment
- . The way we live in the environment.

Environment is the physical and biological surroundings in which plants, animals and people live and interact. It encompasses the natural environment, the built environment we create and how we live in such environments.

Liveability is the sum of the factors that add up to a community's quality of life now and in the future, including the built and natural environments, economic prosperity, social stability and wellbeing, equity and access, education, cultural and recreation opportunities.

Resilience can be described as the capacity of individuals, communities and systems to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience. It is about being able to 'bounce forward' to turn vulnerabilities into opportunities.

The integration of these three sections within the one strategy ensures we do not plan for the protection of the natural environment in isolation, and highlights the importance of the relationship our built environment and our lifestyle have with these natural assets. This draft strategy equips council and its partners to effectively manage the numerous challenges that confront the region's environment and liveability.

The draft strategy recognises that by planning ahead and making sustainable choices at the right time, the Sunshine Coast can look forward to a sustainable future where a balance between the natural and the built environment can be achieved and the liveability of the region can be maintained.

Why we need to act now

- To limit the loss of our natural environment ensuring the green and blue infrastructure
 that is the foundation of our community, our lifestyles and our economy is secured and
 protected.
- To tackle the challenge of population growth in different and better ways putting the building blocks in place to reshape the future by adopting a more efficient and effective urban form.
- To actively prepare for growth and meet the needs and expectations of future communities – securing and retaining land for environmental purposes, open space, and social infrastructure.
- To build resilience to the forecast adverse impacts of climate change taking steps to adapt to and mitigate the expected effects, enabling new and emerging technologies to be implemented and benefits realised.

These challenges require long-term strategic thinking and a focused approach by all. In 2015 the children of the Sunshine Coast at the 'Kids in Action' Conference confirmed that it is time for action (Box 1).



KIDS IN ACTION STATEMENT

This statement outlines the concern and passion we, the children and youth of the Sunshine Coast, have for the environment in which we live. Our statement communicates the heartfelt thoughts and ideas of 240 kids from 24 schools on the Sunshine Coast about what we value and appreciate most about living here. We create this statement and pass it to you, our elected representatives. We charge you with the duty to care, protect and hold in trust for us, our precious environment. We entreat you to listen to and hear our voices, for we are the future and if we can learn to respect and be responsible as future custodians — so can you. We therefore trust you to preserve and protect this Earth, a precious resource, because:

- it is our home-it sustains us;
- · we will need it now and later in life; and
- we want to pass it safely on to our children when we are older.

We may be kids, but we already know a lot about the environment:

- we understand the biology of life and its systems and we understand that we as humans have the power to significantly change these systems;
- we understand that we are but one species in a much bigger interconnected system;
- we understand that our environment is home to everyone, not just ourselves, but other species as well:
- we know that the environment is important because it provides the air we breathe and the
 food we eat and we should respect the environment as much as we respect each and
 every individual, no matter what race, age or culture; and
- we know too that the environment is connected to our soul and without a healthy environment, we won't be healthy either.

Because we are kids, we have special places that have special meaning and significance for us.

We love the Rainforest because of:

- the changing seasons;
- · the beautiful colours and textures of the canopy;
- the darkness and filtering of light through the diversity of plants;
- · the sounds of birds chirping and rain dripping on trees; and
- · its seeming endlessness with something always surprising round the corner.

Box 1: Kids in action statement

KIDS IN ACTION STATEMENT - continued

We love the beach because of:

- · its natural beauty and sound of rolling waves;
- the smell of salt air, clean beaches and healthy dunes;
- the diversity of marine life it sustains (turtles, whales, birds, dolphins); and
- because it brings peace, tranquillity and relaxation.

We love the mountains because:

- · of the cultural connections associated to them;
- · they are beautiful, amazing and incredible;
- · they are an iconic symbol of the Sunshine Coast; and
- they provide freedom to explore and learn.

We love our creeks and rivers because:

- of their cool clear water; and
- · because they energise, cleanse and refresh us.

We also love our open spaces, our parks and our sportsgrounds:

- we love that we can see native animals, visiting birds and our grey kangaroos;
- on the green grass you can find shady trees to sit under; and
- our parks are a place of peace and calm but they also provide opportunities for us to play our favourite sports such as netball, bike-riding and football.

This is why we love the Sunshine Coast environment. Empower us. Give us a voice. Let us be heard. We speak on behalf of our future.



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Sunshine Coast context

About the Sunshine Coast

The Sunshine Coast Council local government area is located in South East Queensland (SEQ), 53 kilometres (km) north of Brisbane. It covers an area of approximately 2,200

square kilometres and is considered a major urban and economic centre and an emerging city. It has a strong reputation as a lifestyle region defined by its picturesque coastline and beaches, extensive waterways and wetlands, and the hinterland mountain ranges. The natural environment and unique landscapes are the foundations of the Sunshine Coast way of life.

44% of vegetation conserved and 78,000ha of open spaces

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.

60km of coastline

The Sunshine Coast offers a desirable lifestyle and over the past decade around 5,000 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.

127,000 dwellings

The majority of residents live within established urban centres along the coast. While all age groups are well represented within the coast's population, the most common age group is those 45 to 49 years and their children. The median age on the Sunshine Coast is approximately 41

290,000 residents

Around 30,000 registered businesses contribute to the strong and growing Sunshine Coast economy. Health care and social assistance, construction and retail are the region's major

years, 5 years older than the State median of 36 years.

industries providing over 40% of all jobs (close to 50,000 jobs).

Tourism continues 8 million to be an important visitor nights industry attracting per year visitors from around the world as well as day visitors from south-east Queensland, enjoying the natural assets

of the region.

These environmental, social and economic characteristics set the context in 2017 for the preparation of the Draft Environment and Liveability Strategy.

> Second strongest economy in Queensland \$16 billion

Figure 1: Map of the Sunshine Coast

Planning for change

Change, whether rapid or progressive, is a fact of life on the Sunshine Coast as it is across the globe. It is a complex and constant challenge that demands considered and responsive research, policy development, planning and decision making.

Therefore, to ensure this draft strategy is robust, relevant and responsive, it has been developed through the lens of four major **drivers of change**:

- · rapid and continual population growth
- · climate change impacts and increased vulnerability
- · an evolving and growing economy
- technological innovation.

The drivers of change

Population growth

Population growth on the Sunshine Coast has been steady and is forecast to increase over the next 25 years. The region's current population of 290,000 (2016) is predicted to exceed 500,000 by 2041 (Figure 2), representing an average increase of approximately 8,500 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 and this trend 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.

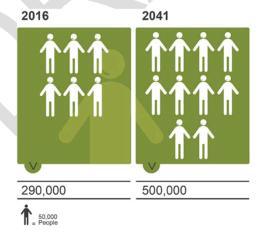


Figure 2: Overall population change between 2016 and 2041

Over 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 higher density neighbourhoods, changing 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 also require accommodation to be provided. To support this population growth (both residents and visitors) additional infrastructure, services, utilities and local employment opportunities will be required.

The challenge

Without careful planning and delivery around this population growth, these additional demands have the very real potential to adversely impact our natural environment and liveability.

Climate change

The global climate is changing ¹, with analysis by the 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 1°C between 1910 and 2013. Refer Figure 3.

Modelling² 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
- · becoming drier with total annual rainfall and soil moisture likely to decrease.

¹ The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report produced in 2014
² Clarke J., Wilson L., & Heady, C. (2016). Future Climate of the Sunshine Coast, Queensland. CSIRO, Australia

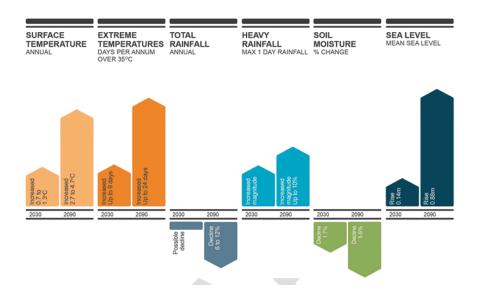


Figure 3: Future climate projections for the Sunshine Coast

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 2070³. 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 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. Refer Figure 4.

³ Williams et. al.(2012) Queensland's biodiversity under climate change: impacts and adaptation – synthesis report

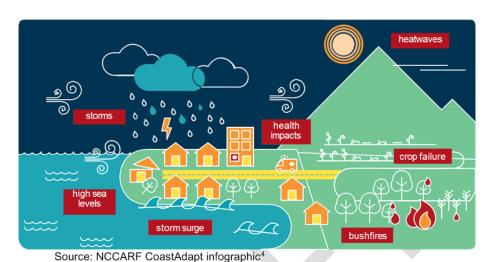


Figure 4: Extreme events and likely impacts of climate change

These impacts will compound as more people, more 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, and indirectly 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 80% of these emissions are generated by landfilling of community waste.

The challenge

To address the predicted impacts of climate change in a progressive and responsive way that encourages the involvement of the whole community, at the same time balancing the needs of a growing economy and emerging industry and business sector.

⁴ Source: NCCARF https://coastadapt.com.au/sites/default/files/infographics/15-117-NCCARFINFOGRAPHICS-2-UPLOADED-WEB%2827Feb%29.pdf

Economic growth

The Sunshine Coast economy was valued at approximately \$16 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 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 to \$33 billion and will be 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
- · tourism, sport and leisure.

As a result, 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.

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 place significant pressure on residential housing needs, driving the demand for housing diversity and affordability.

Additional infrastructure for transport, facilities, tourism and utilities (eg water and electricity) will also be required, along with improved services (eg 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 to accommodate the growth of residential, commercial and industrial buildings, along with a growing demand for access to our natural assets, including the beaches and waterways, will also put additional pressure on our open space network, natural environment and access to services and facilities that underpin our lifestyle.

The challenge

Careful planning and delivery around economic growth are required to ensure that the healthy environment that underpins our way of life is protected and enhanced into the future.

Technological innovation

A new and potentially more dynamic driver of change is emerging in the form of 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.

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
- · localised regeneration of plants and species.

The challenge

Technological innovation has the capacity to generate change at a far greater rate than more traditional drivers and the task is to acknowledge, respond to and where appropriate adopt emerging trends.

In conclusion, managing these drivers of change while retaining the values and attributes highly valued by the community and ensuring a sustainable and liveable future for the Sunshine Coast, is one of the region's biggest challenges and greatest opportunities.

By planning now for these changes it will be possible to ensure the highly valued attributes of the region are retained and enhanced, creating a future for our natural, built and social systems that is defined by adaptability and recognised for its resilience.

Policy context

The strategic directions outlined in this draft strategy have been informed and guided by a comprehensive review of applicable international, Australian and Queensland legislation and policies.

At a local level council's Corporate Plan and policy framework of short and long-term strategies have informed the drafting of this strategy and form the framework in which it will operate.

The Sunshine Coast Council Corporate Plan 2017-2021 sets the strategic direction and priorities for council for the next five years and is informed by long-term strategies for the region.

The Corporate Plan outlines five goals the organisation will pursue to help achieve council's vision:

Goal 1: A smart economy
Goal 2: A strong community
Goal 3: A healthy environment
Goal 4: Service excellence

Goal 5: An outstanding organisation.



Figure 5: Sunshine Coast Council Corporate Plan goals

This draft strategy is one of three long-term strategies that work together under the umbrella of the Corporate Plan to achieve a sustainable Sunshine Coast. The strategy comprehensively addresses Goal 3, 'A Healthy Environment', incorporating the following five strategic pathways which aim to maintain and enhance the region's natural assets, liveability and environmental credentials:

- A resilient region shaped by clever planning and design.
- Protection and enhancement of our natural assets and distinctive landscapes.
- Responsive, accessible and well managed assets and infrastructure.
- Transitioning to a sustainable and affordable way of living.
- · A reputation for innovation and sustainability.

Building on long-term strategies

Council adopted a suite of key long-term strategies in 2010/11, which sought to shape growth on the Sunshine Coast by providing an integrated policy position on a range of key growth and environmental issues. The strategies included:

- · Biodiversity Strategy 2010-2020
- Waterways and Coastal Management Strategy 2011-2021
- Open Space Strategy 2011
- Social Infrastructure Strategy 2011
- Affordable Living Strategy 2010-2020
- Climate Change and Peak Oil Strategy 2010-2020.

Among the numerous achievements delivered under these strategies were:

- the acquisition of 1015 hectares of environmentally significant lands including the expansion of Mary Cairncross Scenic Reserve
- · acquisition of 260 hectares of land to establish future sport and recreation facilities
- 15 megawatt utility-scale Sunshine Coast Solar Farm
- development and implementation of the Pumicestone Passage and Catchment Action Plan
- · acquisition and establishment of the 3.4 hectares Buderim Village Park
- delivery of three community meeting spaces
- · attraction of approximately \$44 million investment for social and affordable housing.

The strategies have served their purpose well, set strategic directions for the region, provided a head of power for organisational decision making and delivery, and established a strong foundation for the development of the draft strategy. The final strategy is intended to replace the six strategies listed above.

To ensure the draft strategy is relevant and responsive to emerging issues, a suite of comprehensive background documents have been prepared and trend analysis and data assessment have been undertaken.

The structure of the draft strategy

This draft strategy builds on the previous strategies, while responding to the drivers of change that will present both opportunities and challenges for our future.

The draft strategy also addresses identified gaps in our existing business, enhances integration and positions the existing organisational business in a fresh context.

The draft strategy is presented in three parts which are summarised below and as shown in Figure 6.

PART A - Strategic Directions

Part A sets clear and integrated strategic directions necessary for a healthy environment and liveable Sunshine Coast in 2041. It contains background information, a vision, guiding principles and three sections which include a suite of themes to shape and support growth over the next 25 years.



The Natural Environment – focuses on the need to preserve and enhance our natural environment, while supporting opportunities for the community to benefit sustainably from the associated products and ecosystem services.

Themes:

Landscape and Character I Biodiversity I Waterways and Wetlands I Coastal



The Environment we Create – focuses on the built environment and in particular growth management, liveability and the sustainable design of our neighbourhoods, dwellings and public realm.

Themes:

Open Space I Flooding and Stormwater I Neighbourhoods and Housing I Social Infrastructure I Sustainable Design



Living in the Environment – focuses on the tools that will equip us to live within the natural and built environments to build resilience and liveability through sustainable, adaptable and affordable living practices.

Themes:

Energy and Resources I Sustainable Living I Adaptation and Resilience

Each theme contains:

- Outcome 2041: the desired future state we seek to maintain and/or realise within the next 25 years.
- Description: information about each theme and why the theme is important.
- . Snapshot: 'fast facts' about the current state or condition of the theme.
- Impacts of drivers of change: the key impacts likely to occur in the absence of intervention or proactive management.
- Council's role: the various roles and responsibilities council has in relation to each theme
- Policy positions: council's position to influence the activity of the organisation and its partners and provide the foundation for delivering critical advice internally and advocacy externally.
- Target: a measurable target to track progress in achieving Outcome 2041.

Part A also introduces and summarises the proposed **transformational actions** to be delivered through the five strategic pathways of the Healthy Environment goal and how progress of the final strategy will be tracked.

PART B - Five-Year Implementation Plan

Part B is the implementation plan that outlines how the final strategy will be progressed and a focus on council's contribution to the strategic directions in the first five years. It is intended that the plan will be updated annually to retain its relevance and maintain a current five-year implementation horizon.

Part B identifies a governance framework for delivery, a range of key council services central to the delivery of the final strategy, and 26 Transformational Actions delivered through five strategic pathways to actively respond to the drivers of change. Each action identifies specific tasks, timing, and indicative costing to inform implementation.

Importantly, Part B expands on how it is intended to track progress and report on the final strategy's implementation and performance.

PART C - Network Plan

Part C provides planning direction and technical detail to assist with the implementation and delivery of on-ground outcomes for applicable themes articulated in Part A. It will ensure that investments are undertaken in an effective and sustainable manner. This part consists of:

- Desired Standards of Service the technical standards and specifications to inform the planning, development and management of council owned and controlled assets/infrastructure and networks for which there is a management obligation
- Network Blueprints the maps and descriptions to guide the geographical planning for the land and facilities we currently have and what is required to service the future needs.



Figure 6: Structure of the Draft Environment and Liveability Strategy

How the strategy will be used

The final strategy will influence the business activity of council and its partners. It highlights the importance of environmental quality, clever planning and design, and sustainable living to regional prosperity, affordability and liveability. It will be used to:

Inform planning:

- · provision of strategic internal and external advice
- · drafting, review and amendments of planning schemes and local laws
- · preparation of organisational policies, standards and guidelines
- prioritisation of future land requirements for activities such as the delivery of infrastructure.

Guide decision making:

- a point of reference and strategic directions for issues that fall within the strategy's scope
- · inform investment and land use planning decisions
- inform infrastructure negotiations to determine land and asset contributions and delivery.

Drive implementation:

- provision of a range of strategic actions and operational activities that provide required infrastructure and services
- · direct council resources to achieve strategic direction
- · attract external investment, skills and technologies
- · development of complementary integrated and detailed plans.

Engage stakeholders:

- advocate policy positions with key government, business and community stakeholders
- establish and maintain the necessary government, industry and community partnerships
- build community awareness and custodianship through education and involvement
- promote council's commitment to environment and liveability outcomes.

The draft strategy

Vision 2041

A healthy environment and liveable Sunshine Coast.

The natural landscape and character of the Sunshine Coast has been preserved and travelling north from Brisbane the green inter urban break and lush food bowl welcomes you.

The rich biodiversity, pristine waterways and beaches 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 adapt to the changing conditions we are experiencing, retaining a natural and healthy state.

Corridors of green connect our biodiversity to our neighbourhoods and green fingers connect our neighbourhoods and our 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.

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 vehicles, supporting local enterprises and businesses and creating vibrant spaces and places.

Affordable living options give everyone a home and generations live together supporting each other, where everyone is welcome. It is a 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. Street markets and community events demonstrate the commitment of residents to create and buy locally, strengthening the region's liveability and future.

The warmer climate and more frequent extreme weather events are 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.

With local energy sources integral to the landscape and landfill stations 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 experience the relaxed local culture. Major sporting events showcase the region's attributes and host competitors, spectators, families and friends regularly. Local food production, creative industries, and beach and river based activities are key features.

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

Guiding principles

As we aspire to deliver a healthy environment and sustainable way of living, it is important to have a strong set of guiding principles to keep us on course to meet our vision and support outcomes over the next 25 years.

The following guiding principles set an intent for how council and its partners will deliver the final strategy outcomes. These principles are to be referenced and applied through all phases of planning and delivery of the final strategy. They will inform our behaviours, the decisions we will make and the way those decisions will be implemented.

1. Lead

Leading by example, we listen, we make the difficult decisions and inspire, empower and equip our community.

2. Connect

Connecting, partnering and integrating, we draw on the collective skills, knowledge and strength of our region.

3. Adapt

Adapting to change, we make proactive, evidence-based and responsive decisions, informed by changing environmental conditions and community needs.

4. Balance

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

Embrace

Embracing change, we boldly respond to the challenges ahead, actively seeking new ideas and opportunities.

6. Create

Creating productive partnerships and alliances, we explore and trial innovative approaches and new technologies.



The Natural Environment

The natural environment is made up of physical and biological elements including soil, water, air, plants and animals and the interactions between them. It is self-sustaining and has intrinsic value and unique local characteristics that require protection.

On the Sunshine Coast the natural environment 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 Glasshouse Mountains.

The network is built on a canvas of landforms such as mountains, valleys, plains and the coastline. These divide the landscape into catchments, which direct rainfall from high areas to the sea. Landforms and catchments have strongly influenced the pattern of ecosystems and human settlements across the Sunshine Coast.

Waterways and wetlands are physical features within catchments that convey or hold water, typically in lower areas of the landscape such as valleys and plains. They function as water reservoirs and are often ecological hotspots, encompassing diverse habitats and wildlife. They include fringing riparian areas that are dependent on the water they provide and support their ecological health.

Terrestrial ecosystems are vegetated or partly vegetated habitats outside of waterways and wetlands, including their resident plant and animal populations. They are sustained by rainfall and the water and nutrients retained in their soils. They include large, vegetated core habitat areas, as well as smaller connecting habitat areas.

The coastline is the interface between the Sunshine Coast and the ocean. It buffers the land and sea environments from one another and supports its own unique habitats: coastal foreshores and their intertidal areas, beaches, dunes and rocky headlands; and near-shore marine waters and ecosystems.



The natural environment and its processes provide essential services for our community. Wetlands filter pollutants from our water. Trees and plants absorb carbon and provide us with clean air. Bacteria and fungi break down organic material and fertilise the soils we need to grow food.

Our natural environment and landscapes are central to our lifestyle, providing appealing vistas and abundant opportunities for recreation on land or in the water. They also support our tourism, retail and agricultural livelihoods, contributing significantly to the local economy.

A healthy environment is vital to our everyday lives and contributes to our quality of life. Our natural environment is our bountiful heritage, our inspiring home and our responsibility to preserve for the future.

Maintaining a healthy natural environment – the Sunshine Coast's "natural advantage" – is critical to support our economy and community.

Council's strategic directions for the natural environment are to preserve and enhance the green and blue infrastructure and ecological values, while benefiting sustainably from the products and services it provides. These strategic directions are progressed under four themes:

- Landscape and Character preserving and promoting the vistas, scenic corridors, and natural and built environments which are important to the region's character.
- Biodiversity preserving and enhancing our native plants and animals and their habitats to remain healthy, resilient and valued by all the community.
- Waterways and Wetlands preserving and enhancing aquatic habitats and wildlife across river catchments and facilitating sustainable recreational use.
- Coastal preserving a healthy coastal environment, responding to coastal hazards, facilitating recreational uses and maintaining our coastal lifestyle.

Each theme is further explained in this section.





Landscape and Character

Outcome 2041: The landscape and character is preserved to retain its natural, visual, scenic and cultural values.

Description

The natural landscape and character of the Sunshine Coast can be described as how we value both the natural and built landscapes and their associated geological and cultural histories.

The natural landscape is defined by landforms, waterways, wetlands, native plants and animals, and coastal and near-shore marine ecosystems, while the built environment refers to the built form and infrastructure of the landscape.

Our natural history and our stories, both Aboriginal and non-Aboriginal, strengthen our connection to the land and environment. Every person and community has a different experience with the natural and built environments, and it is these connections that create a sense of place and local identity.

The landscape and character of the Sunshine Coast is the essence of our region and helps to define our identity and culture.

The natural and built elements, have their own intrinsic ecological, social and economic value. In combination they create our local and iconic views and vistas, scenic corridors, open space environments and the character of our region.

The scenic amenity values of the Sunshine Coast can be broadly grouped into five zones which are summarised below and presented in Figure 8:

- Coast: the region is known for its beautiful beaches, bays, coastal headlands, islands
 and communities near the sea. Our coast is a national and international drawcard for
 tourism
- Coastal plain: extending from the coast to the foothills of the Blackall Range and Peachester escarpment, this low-lying area supports extensive waterways and wetlands with unique plant and animal populations, prominent volcanic landforms and expanses of farming, forestry, other rural activities and urban living.
- Foothills: this area starts where the coastal plain rises up to the Blackall Range and Peachester escarpment, and is home to numerous railway corridor towns, tall open eucalypt forests and riparian rainforests.
- Hinterland: features towering eucalypts, lush rainforests and spectacular views over surrounding landscapes. The hinterland comprises distinctive landmarks, towns and essential elements that add to the character of the Sunshine Coast.
- Regional inter urban break: is a mosaic of rural, forestry, environmental and
 recreational areas in the south of the Sunshine Coast. It contains the nationally
 recognised Glass House Mountains, the internationally significant Pumicestone
 Passage and defines the region from the Brisbane—Caboolture urban growth front.



Figure 8: Map and profile of landscape zones

Impacts of drivers of change

The drivers of change will have varying levels of impacts on landscape and character and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- loss of landscape and amenity values due to an increased visual prominence of the built environment
- · changes to the extent of low-lying coastal and open space landscapes
- changes to the character of natural and rural areas and communities due to increased use by residents and visitors
- loss of regional inter urban break.

Council's role

Council has a key role in setting the strategic direction which shapes the character and protects the landscape of the Sunshine Coast. It is council's role to protect and enhance outcomes on the ground through planning regulations, delivering responsible infrastructure, advocating to Federal and State Governments and working collaboratively with local industries and community to influence the region's landscape and character.



Landscape and Character policy positions

- 1.1 The distinctive and diverse landscape of the Sunshine Coast is preserved to maintain the beauty of the area:
- The landscape is retained and continues to underpin the character of the Sunshine Coast.
- b) The urban form is contained within the defined urban footprint.
- The natural landscape remains intact, undiminished and protected from intrusive development.
- d) Prominent natural landscape features are protected and celebrated.

- 1.2 The character and heritage values of the Sunshine Coast retain the unique identity of the area:
- a) The natural, cultural, spiritual and heritage values of the landscape are recognised and preserved.
- The Sunshine Coast's character and identity is strengthened to remain distinctive.
- The local character and identity of neighbourhoods, towns and rural communities are recognised and reflected in our future.
- d) Connections of Aboriginal Traditional Owners to the landscape and their role as traditional custodians is recognised and respected.

- 1.3 The visual amenity and community view lines are preserved and enhanced:
- a) The renowned and varied views and vistas fundamental to the attractiveness of the region are preserved.
- b) Local community views creating a sense of community identity and place are recognised and respected.
- c) Regional inter urban break and sub-regional inter urban breaks are maintained to protect the Sunshine Coast image and support our livelihoods and lifestyle.
- Emerging urban form complements the landscape and character of the Sunshine Coast.

Target

A measurable target has been set for Landscape and Character. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

 No loss of the regional inter and sub-regional inter urban breaks in their current extent by 2041.



Biodiversity

Outcome 2041: Our native plants, animals and habitats are healthy, resilient and valued by the community.

Description

Biodiversity is the variety of all life — plants, animals and microorganisms, their genes and the ecosystems they inhabit. The Sunshine Coast is recognised for its rich biodiversity which is supported in natural areas that include terrestrial bushland, the coast, waterways and wetlands. It is also supported in both the rural and urban landscapes.

The Sunshine Coast's sub-tropical location and climate and varied landform supports a diverse range of plants and animals, from tropical through to temperate and marine through to lowland and upland species.

The wellbeing of all Sunshine Coast residents is intimately linked to and dependent upon the region's biodiversity and its preservation. Healthy ecosystems help us sustain a range of ecosystem services including productive soils, clean air and water.

Aboriginal peoples have been stewards of the Sunshine Coast natural environment for thousands of years and have maintained a deep cultural, spiritual and social relationship with biodiversity. Today's community continue to strongly value and appreciate the region's plants and animals, which is demonstrated by having one of the most active community conservation networks in the state.

The building blocks of our biodiversity are our habitat areas. They include vegetation, resources such as water, soil and air, plants and animals and the interactions between all these elements. At the landscape scale, biodiversity can be understood as the spatial network of different habitat areas, their connectivity and their quality or functionality.

Some of the Sunshine Coast's habitat areas are managed within the conservation estate, which represents a collection of lands where biodiversity is conserved through protected and voluntary conservation areas. The protected areas include National Parks, Conservation Parks, nature refuges, council environmental reserves and covenants, while the voluntary conservation areas include private lands managed through the Land for Wildlife Program. Habitats within the conservation estate are managed to reduce the impacts from pest species, urbanisation and habitat loss and fragmentation.

The conservation estate provides the window into local biodiversity. In these areas, residents and visitors can immerse themselves in nature and encounter the many and varied plants and animals while walking, riding, picnicking by a waterway or enjoying an iconic vista. For example, our renowned conservation areas such as the Glass House Mountains, Pumicestone Passage, Conondale Range and Maroochy-Wallum corridor draw visitors to the region, providing opportunities to support local businesses and the economy.



A snapshot of Biodiversity

75 different regional ecosystems

54% of council area has native vegetation

72% of native vegetation is in large core habitat areas

49 regional ecosystems are adequately represented in protected areas

75% of native vegetation is remnant and25% is non-remnant

2,600 plant species and 850 animal species

14 endangered regional ecosystems

44% of native vegetation is in the conservation estate

Rare and threatened species: **76** plants and **59** animals

Impacts of drivers of change

The drivers of change will have varying levels of impacts on biodiversity and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- further habitat loss and fragmentation
- · changes in the extent/distribution of plant and animal populations
- · changes in habitat functionality and species behaviour
- · increase in pest plants and feral animals
- increased demand for community access and use of conservation areas for tourism and recreation.

Council's role

Preserving and conserving the biodiversity of the Sunshine Coast is the responsibility of the entire community. Council's role is to work collaboratively with all stakeholders, advocating for the ongoing protection, building and strengthening stewardship and implementing legislative planning and regulatory powers to preserve these natural assets.

In addition council has a role in the management of environmental reserves to both protect and enhance the ecological values and provide opportunities in keeping with the natural setting for public access and enjoyment.



Biodiversity policy positions

- 2.1 Natural ecosystems and the native plants and animals they support are preserved:
- A) Habitat areas are ecologically functional and well connected.
- Ecological functionality of habitat areas is maintained under changing environmental conditions.
- Viable populations of native flora and fauna are maintained.
- d) Vegetation community diversity is maintained.
- e) Environmentally significant habitat areas are protected.
- f) Habitat extent and condition (composition, structure and function) is maintained.
- g) Remnant vegetation is protected.

- 2.2 Priority habitat areas are protected, enhanced, connected and responsive to changing environmental conditions:
- An expanded conservation estate increases protection and connectivity.
- Rehabilitated and restored strategic corridors enable fauna movement, gene flow and species and habitat migration.
- c) Fauna movement between priority habitat areas is maintained or facilitated.
- d) Strategic management of pest plant and animals reduces impacts on native bushland and wildlife.
- e) Habitat extent, composition, structure and function is improved.
- Biodiversity conservation incorporates the predicted impacts from climate change and natural hazards.
- g) Strong partnerships and collaboration deliver biodiversity conservation outcomes.
- h) The conservation estate is protected from fragmentation and encroachment.

- 2.3 Biodiversity is valued, respected and used sustainably to support our lifestyle, livelihoods and sense of place:
- a) Biodiversity values and ecosystem services are appreciated by the community to ensure ongoing support for preservation.
- b) Cultural heritage associated with biodiversity is preserved and promoted.
- Recreational activities and supporting infrastructure in or near conservation areas minimise impacts on biodiversity values.
- d) Commercial activities complement the biodiversity values and contribute to the economy.
- e) Industries are appropriately located and implement best practice to minimise impacts on biodiversity.
- Offsets are required for unavoidable vegetation clearing when an overriding public need is demonstrated.

Refer to Part C for technical detail and planning directions specific to the Biodiversity theme.

Target

A measurable target has been set for Biodiversity. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

• Maintain the 2016 extent of native vegetation (no net loss) by 2041.



Waterways and Wetlands

Outcome 2041: Waterways and wetlands are healthy, resilient to change and valued by the community.

Description

Waterways and wetlands are the living arteries of our natural environment that convey or hold water in the landscape. They form networks within river catchments bounded by landforms such as hills and ranges. Most are naturally-occurring but they also include modified and constructed channels, lakes or other bodies of water, including canals.

Waterways are the pathways that runoff follows from high areas down through a catchment. They can transition from upland gullies to flowing streams and also pass through wetland areas.

Wetlands are local freshwater or tidal areas where water spreads out or sits in the landscape. They include vegetated wetlands, open waterbodies and groundwater aquifers.

Constructed Waterbodies are a further element of the waterways and wetland network. Constructed waterbodies can result from land reclamation activities associated with urban developments, the rehabilitation of resource extraction pits (eg after sand or gravel mining), or are constructed as landscape features.

Riparian areas are important components of waterways and wetlands. They are wet fringing zones that have different physical and ecological characteristics to adjoining terrestrial habitats. Riparian areas filter out pollutants in runoff from surrounding land uses. Vegetation in riparian areas also reduces bank slumping and erosion and provides shading, temperature regulation, debris for in-stream habitats and organic matter for aquatic foodwebs.

Waterways and wetlands support a wide range of habitats, including freshwater pools, riffles and riparian areas, paperbark, sedge and wallum wetlands and estuarine seagrass meadows, mangroves and inter-tidal flats. These habitats are home to diverse and specialised wildlife, including fish, crustaceans and shellfish, water birds, frogs, turtles and aquatic mammals. They also provide refuges and movement corridors for terrestrial wildlife.

For thousands of years the Sunshine Coast's waterways and wetlands have been integral to the livelihoods, customs and spiritual beliefs of Aboriginal peoples. Waterways have also been a focal point for explorers and settlers, critical for drinking water, food and transport. As a result, most of our local urban settlements were founded and grew alongside them.

In the present day, waterways and wetlands continue to enrich local lifestyles. They provide unique opportunities for recreational activities such as swimming, boating and fishing, and along their foreshores, for walking, cycling and social gatherings. They support the wellbeing of individuals and provide a sense of place and identity for communities. Waterways and wetlands also provide a natural advantage for the local economy by supporting important local industries such as water-based recreation and tourism, agriculture and commercial fisheries. Constructed waterbodies are managed to balance their designed purpose and risk mitigation, while maximising community benefits.



A snapshot of Waterways and Wetlands

5 major river catchments

4 catchments with a "**Good**" waterway health grade*

"Very high" social and economic benefits from coastal catchments*

A **12,000km** waterway network, including **3,700km** of creeks and rivers 390ha of freshwater wetlands

80ha of public constructed waterbodies and **300ha** of canals

Pumicestone Passage: an internationally significant wetland Iconic local aquatic animals: Mary River cod, Mary River turtle, Maleny crayfish, Australian lungfish, black swan Rare and threatened aquatic species: **6** plants and **24** animals

Impacts of drivers of change

The drivers of change will have varying levels of impacts on waterways and wetlands and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- poorer water quality, damage to aquatic and riparian habitats and hydrological modifications
- changes in the extent/distribution of aquatic plant and animal populations
- changes in aquatic habitat functionality and species behaviour
- · increase in aquatic weed and pest animals
- increased demand and potential conflict for community access and use of waterways for tourism and recreation activities.

Council's role

Council, the State Government, natural resource managers and the community all contribute to the management of our waterways and wetlands. Council plays a key role contributing to improved outcomes through setting strategic direction, implementing planning and regulatory powers and on-ground programs. Through advocacy and partnerships council also supports the activities of other stakeholders that complement the delivery of the waterway and wetland outcome.

^{*}based on 2016 Healthy Waterways Report Card



Waterways and Wetlands policy positions

- 3.1 Natural waterways and wetlands are preserved and enhanced to support healthy and diverse aquatic habitats and species:
- The preservation and enhancement of diverse in-stream and wetland habitats and floodplain function sustains aquatic biodiversity.
- Native vegetation in waterway and wetland riparian areas is protected and restored.
- Water quality, hydrological processes, groundwater and floodplain function are maintained or improved.
- Aquatic and riparian pest plants and animals are managed strategically to reduce impacts on native species and habitats.
- viable populations of priority aquatic species are conserved or restored.
- The management of waterways and wetlands incorporates the predicted impacts from climate change and natural hazards.
- Matural waterways and wetlands are not diverted or modified.

- 3.2 Constructed waterbodies are managed efficiently to provide social and economic services and preserve downstream environmental values:
- a) New constructed waterbodies are avoided unless an overriding public need is demonstrated.
- b) Constructed waterbodies are designed, constructed and funded to minimise risk and maintenance burdens for full asset life cycle and maximise community benefit.
- c) Constructed waterbodies are managed for their designed purpose.
- d) Constructed waterbodies meet conditioned water quality objectives.
- Water quality, hydrology and ecological processes are maintained to prevent impacts within waterbodies and on receiving waters.

- 3.3 Waterways and wetlands are valued, respected and used sustainably to support our lifestyle, livelihoods and sense of place:
- Recreational activities and supporting infrastructure in or near waterways and wetlands minimise impacts on ecological health.
- b) Waterway and wetland values and ecosystem services are widely appreciated by the community to ensure ongoing support for their preservation.
- c) Cultural heritage associated with waterways and wetlands is preserved and promoted.
- d) Commercial activities complement the waterway and wetland values and contribute to the economy.
- e) Industries are appropriately located and implement best practice to minimise impacts on waterways and wetlands.
- f) Impacts on private lands and infrastructure from natural processes such as erosion are the responsibility of landowners.
- g) Mitigation works to protect land and infrastructure do not impact on adjacent or downstream land, infrastructure and waterway health.

Refer to Part C for technical detail and planning directions specific to the Waterways and Wetlands theme.

Target

A measurable target has been set for Waterways and Wetlands. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

 Maintain and improve the ecological health of waterways and wetlands across each of the Sunshine Coast's river catchments to a good or excellent grade by 2041.



Coastal

Outcome 2041: Our coastal areas are healthy, resilient to climate change impacts and support sustainable use.

Description

The coast is the tidal foreshore and adjacent lands that include the built and natural environments. It is a defining natural feature and incorporates the coastal plains, dunes, open beaches, rocky shores, estuaries, and near-shore marine waters, reefs and coastal lagoons.

The natural features of the coast support varying habitats and include sand dunes, beaches, high ecological value waters, the Ramsar listed Pumicestone Passage, and the Mount Coolum, Mooloolah River and Bribie Island National Parks. The coast supports numerous iconic species, including dolphins, whales, migratory birds, the vulnerable dugong and green turtle, and the endangered loggerhead turtle.

The coast has supported the cultural values and the provision of resources to Aboriginal people for tens of thousands of years. Additionally, there are numerous sites of historical significance post-European settlement along the coastline.

Our coastal environments contribute significantly to our identity and lifestyles. Locals and tourists continue to admire the coastal landscapes and access the coastal environment to enjoy activities such as swimming, surfing, fishing, snorkelling, and recreating along the coastal pathways. The coast is critical for the tourism industry as part of the regional economy.

Use and enjoyment of the coast is maximised when ecosystems are healthy and supported by appropriately located, designed and serviced coastal parklands, paths, beach accesses and other supporting facilities.

Coastal foreshores are dynamic and can change location and form over time in response to waves, ocean currents, sand deposition and coastal erosion. Weather and tides generate currents, waves and water level variations. In turn, these drive long-shore movement of sand from south to north and alternating erosion and accretion of the foreshore. Some processes create coastal hazards such as erosion and inundation that threaten buildings, assets and communities.

The natural values of the coast can be affected by the use of resources and land, and associated issues, such as pest species, littering, stormwater and wastewater discharges. Natural areas are typically able to better accommodate the effects of coastal processes and serve to buffer developed lands and infrastructure from coastal hazards.

Most of the Sunshine Coast's significantly modified coastal foreshores are highly used and have significant built assets located directly next to the foreshore. These assets are typically protected by seawalls, revetment walls or groynes and the adjacent beaches are often reliant on periodic sand re-nourishment.



A snapshot of Coastal

60km of open shoreline:

53km of open beaches

7km of rocky shores

near-natural

51km of coastal pathways

63% of the coast is natural or

70km of lower estuary foreshores

75% of foreshores support moderate to high recreational

use

Iconic species: marine turtles, dugong, migratory birds, whales

Access supported with:

- 248 beach accesses
 - 32 boat ramps

More than 8km of constructed erosion protection works

4 coastal lagoons

Impacts of drivers of change

The drivers of change will have varying levels of impacts on coastal areas and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- changes to coastal ecosystem dynamics and plant and animal species distributions
- increased impacts on natural environments and built environments from coastal hazards
- poorer water quality, increased vegetation clearing and hydrological modifications due to increasing population growth and climate change
- increased demand and potential conflict for community access and use for tourism and recreation activities.

Council's role

Council plays a key role in the planning and management of our beaches, dunes, coastal environment reserves and shoreline protection structures through a combination of regulatory and legislative powers, as an infrastructure planner and provider and as an advocate to other levels of government and private landowners. Collaborative partnerships and education with community groups are a valued component of council's approach to coastal management.



Coastal policy positions

4.1 The natural values and function of coastal environments are preserved:

- a) Natural coastal processes are preserved.
- b) Coastal landforms and vegetation communities are protected and rehabilitated.
- Native coastal fauna populations are maintained and enhanced.
- d) Water quality is maintained and enhanced to support ecosystems and associated coastal values.
- 4.2 A healthy coast and nearshore marine environment is preserved to sustain our unique coastal lifestyle and economy:
- a) Coastal recreational, social and economic activities have minimal impact on coastal values and natural processes.
- b) Coastal access is provided through formal access points.
- Coastal cultural heritage values are preserved and appreciated.
- d) Coastal vegetation is not impacted except where required for approved coastal dependent development and the construction and maintenance of community recreational and access infrastructure.

4.3 Coastal hazard risks are known and avoided or otherwise adequately addressed, forming part of long-term adaptation planning:

- a) New permanent development is located outside of the Coastal Erosion Prone Area unless it is deemed coastal dependent development / community infrastructure.
- b) Coastal dependent development /community infrastructure is resilient to coastal hazards.
- c) Impacts on coastal values and processes from coastal dependent development /community infrastructure are avoided or minimised and mitigated.
- d) Coastal protection works are designed, managed and renewed to be fit for purpose and minimise risk for full asset life cycle
- Planning and development in the Coastal Hazard Area provide for resilient communities and infrastructure.
- f) Disaster management planning for emerging and existing communities incorporates coastal hazard considerations.
- g) Coastal hazards information is made available in a form that is easily understood.
- Protection or management of private coastal assets is not the responsibility of council.

Refer to Part C for technical detail and planning directions specific to the Coastal theme.

Target

A measurable target has been set for Coastal. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

Maintain and improve the health of our beaches to good or excellent grade by 2041.



The Environment we Create

Framed within the region's unique natural environment are the structures and places – the built environment – that we create to allow us to move around, live in healthy and comfortable homes, go to work and play in interesting and diverse places.

The quality and design of our neighbourhoods, towns and centres has a significant impact on our daily lives. Sustainable and good urban design makes a valuable contribution to our economy, our natural and built environment and the liveability of our communities. While the abundant natural environment provides the backdrop to our identity, it is the built environment, stories of our past, the people that live here and our ability to respond to change that creates the character and strong sense of place and liveability on the Sunshine Coast.

While we have strived to integrate the built environment with the natural environment as a defining character of the region, emphasising our natural advantage and green credentials. It is the built form, the environment we create that we can shape and transform to ensure the region adapts and responds to the many changes and create a more sustainable future.

These built elements also have a significant impact on the natural environment with major transport corridors dividing our region from east to west, buildings redefining the coastline and neighbourhoods, and rural living changing the landscape in which we live. The continual pressure of urban expansion to house the increasing population and visitors is one of the biggest challenges for the ongoing protection of our natural environment.

The built environment of the Sunshine Coast has been shaped by our history with early colonisation based around the harvesting of natural assets, development of farmlands and major transport routes. These early settlement patterns have been built upon by the urbanisation of the coastal strip for lifestyle and tourism opportunities, creating the Sunshine Coast we know today.



Over 70% of our residents live along the coastline putting significant pressure on the built environment in this narrow strip and challenging our ability to maintain the relaxed lifestyle, protect assets from coastal hazards and retain the connection with the natural environment that is so highly valued.

Like many local governments the Sunshine Coast is continually challenged by the growing popularity of the region, the changing economic drivers and uncertain and changing climatic events. Understanding how the built environment should respond and adapt to these many pressures is a major challenge for our region.

Council's strategic directions are to ensure that the region's built environment, in conjunction with its natural environment, delivers residents and visitors a healthy and liveable environment, now and into the future.

These strategic directions are progressed under five themes:

- Open Space creating a diverse network of reserves, parks, sports grounds and trails
 that provide green spaces to conserve, recreate and reflect, contributing to our healthy
 lifestyle.
- Flooding and Stormwater managing flood risk and protecting people and the natural and built environments through proactive planning and a quality urban stormwater network.
- Neighbourhoods and Housing developing neighbourhoods and housing that
 promote and provide a diversity of affordable and sustainable living options for all our
 community.
- Social Infrastructure creating a network of facilities and services that encourage community participation, nurture physical and mental health, and build community resilience
- Sustainable Design facilitating urban and architectural design that is responsive to the changing environment and minimises the impacts of our living footprint.

Each theme is further explained in this section.





Open Space

Outcome 2041: A diverse and green network of open space contributes to our healthy lifestyle.

Description

Open space is the 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.

Our open space network is highly valued by the community and contributes to the Sunshine Coast's unique character, relaxed and healthy lifestyle and rich biodiversity. It gives a sense of ownership and belonging to local communities and neighbourhoods, making them desirable places to live. It provides spaces for active sport and recreation, encouraging a healthy community. It provides the 'green frame' of our urban areas, edging our rivers and foreshores. It also makes the Sunshine Coast an attractive place to visit and supports tourism, events and economic growth.

Open space across the Sunshine Coast is owned and managed by council, the State Government and numerous other public and private land managers. It is the council owned and managed open spaces that are the focus of this draft strategy. Securing and developing publicly accessible open space is a high priority of council and a range of mechanisms are utilised to ensure appropriate and functional open space is publicly accessible.

Open spaces managed by other landowners significantly contribute to the Sunshine Coast open space network and the policies within this draft strategy can be used to guide partnerships and collaborative management efforts with other open space providers for the benefit of the community.

The Sunshine Coast's open space areas have been grouped into four categories based on their primary use, to assist with their planning, development and management. Most areas have multiple uses and contribute to other categories in a secondary role. The four primary uses and the types of open spaces are:

- Recreation council-wide, district and local recreation parks and playgrounds, amenity reserves, linear parks, landscape corridors and trails. These are spaces that the community can use for informal social, recreational and cultural activities. They connect people to places and provide visual relief from the built form.
- Sport council-wide, district and local facilities for practising and playing formal sports, including fields, courts and supporting infrastructure. This category includes specific-use sports that have limited multi-use due to the nature of the sport.
- Environmental and coastal areas that support the preservation and enhancement of biodiversity. These also include coastal protection and environmental areas. They can provide opportunities for people to interact with the natural environment where appropriate.
- Other areas such as education facilities, streetscapes, drainage reserves, and waterways that contribute to open space functions but which is not their primary role. This category also includes other open space including land not controlled by council such as National Parks.



A snapshot of Open Space

78,000ha of open space 8,800ha of open space 1,000ha for recreation use

managed by council

1,800ha of sports grounds **334** playgrounds **40%** of park visitors use them

frequently

Over **1,000** recreation parks **1,200ha** for specific purpose **6,000ha** for environmental sports and coastal purposes

Impacts of drivers of change

The drivers of change will have varying levels of impacts on open space and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- increased pressure on natural and developed open spaces in and around urban areas
- impacts on high use open spaces along the coast and adjacent to waterways as a result of sea level rise and flooding events
- loss of or damage to culturally significant landmarks, vegetation and grass surfaces as more severe weather events occur
- increasing need to provide cooler, vegetated areas to balance increasing temperatures
- · increasing demand to support emerging tourism and sporting event sectors
- reduced physical activity resulting in an increase of chronic diseases.

Council's role

Council has a key role in the planning, land management and infrastructure delivery of a publicly accessible open space network for recreation, sport, amenity and conservation purposes. Council is responsible for the setting of strategic directions, developing policy, implementing planning and regulatory powers to expand and maintain a quality network.

Council also works collaboratively with other open space land managers developing strong partnerships to gain public access to open spaces which further contribute to the diversity of a regional network.



Open Space policy positions

- 5.1 An integrated and connected open space network is provided that is responsive to a changing environment and respects community needs:
- a) Future generations experience similar or improved provision and standards.
- b) Open Space is protected for its openness and function.
- c) Open space is flexible and adaptable to allow for diverse recreational, sporting and cultural experiences.
- d) The network is affordable, resilient and reflects the local character.
- e) The network plays a role in mitigating the impacts of climate change.
- f) The community's recreation use and commercial activities are complementary and integrated.
- Effective and efficient use of open space is strengthened by colocation and multi-use.

- 5.2 The Open Space network ensures equitable access to a range of experiences to encourage active and healthy lifestyles and supports community wellbeing:
- a) Functional, safe and wellconnected spaces and places are provided.
- b) Innovation, activation and creativity are driving factors.
- c) Walkable access to recreation parks in urban areas supports selfcontained and active communities.
- d) People are connected to nature and outdoor experiences.
- e) Sport and active recreation spaces are provided to encourage participation and involvement.

- 5.3 Open Space provides the green frame around and within our built form to connect us to the environment and create a strong sense of identity within a community of communities:
- a) Open spaces are protected from urban expansion, over embellishment and utility encroachment.
- b) Open Space connects and frames urban and rural communities, strengthening identity.
- Urban forests and gardens in our parks and streets support and enhance social, economic and environmental values.
- d) Ecological and open space values continue to build upon our natural advantage.
- Environmental values are balanced with recreation opportunities in keeping with the natural setting.
- f) Cultural and heritage values within our public open spaces are preserved.

Refer to Part C for technical detail and planning directions specific to the Open Space theme.

Target

A measurable target has been set for Open Space. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

 Maintain the 2016 rate of provision for publicly accessible open space network by 2041.



Flooding and Stormwater

Outcome 2041: Flood risk is managed for community wellbeing, facilitated by an integrated stormwater network that contributes to waterway health.

Description

Flooding and stormwater management are issues at the interface of the natural and built environments.

Flooding results from intense or sustained rainfall, storm tides or a combination of both, temporarily inundating or flowing across land that is normally dry. Rainfall-based flood waters are typically fresh and laden with sediment and other pollutants. Storm tides result from a temporary increase in sea level and their floodwaters are mostly marine and salty. They are generally caused by severe coastal weather systems such as tropical cyclones or east coast lows.

Flooding can be a risk to property and life. Its effects on the built environment and society range from nuisance to tragic and catastrophic. It is therefore critical that flood risk is managed and mitigated. Protecting flood storage and conveyance is essential to the management of flood risk.

Stormwater is runoff from rainfall that flows overland and through an urban stormwater network. The urban stormwater network is critical for the movement of runoff through the built urban environment. Urban stormwater is commonly directed through underground pipes but can also travel as surface flows in open drains, culverts, roadways, natural channels and overland flow paths. It can be temporarily detained in storage structures such as dams or detention basins before being released to natural receiving waters.

During high-rainfall events, runoff volumes can exceed the capacity of the underground pipe system. In these conditions, more stormwater is conveyed over the surface, which results in short-term flooding across roads and other surface flow paths, such as parks and sports grounds.

As stormwater runoff is conveyed through the urban environment it becomes polluted with litter, road and industrial sourced oils, chemicals and heavy metals as well as sediment from areas of bare earth. Water quality usually gets worse when stormwater is stored, leading to low oxygen levels, algal blooms and other nuisance conditions. To protect the public and the environment, stormwater runoff needs to intercept and treat pollutants before being discharged or reused.

On the Sunshine Coast, stormwater is treated through a mix of engineered structures such as gross pollutant traps and more natural features such as wetlands and bio-retention basins. Stormwater treatment and flow-detention structures are commonly co-located with parks, sportsgrounds and other areas at the boundary between natural and built environments.



A snapshot of Flooding and Stormwater

1,122km of stormwater pipes with diameter larger than

47,376 stormwater pits

73km of box culverts

with diameter larger than 300mm

148km of open drains

1,269 water quality treatment devices

56 rainfall flood warning gauges

42 river level flood warning gauges

5 regional catchments with current flood mapping

Impacts of drivers of change

The drivers of change will have varying levels of impacts on flooding and stormwater and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- increases in the rainfall intensity of storms and the frequency of cyclones will lead to increases in the magnitude, frequency and consequences of flooding
- increased impervious areas will lead to more stormwater runoff and pollutant loads, challenging the capacity of the existing network
- increasing demand for, and yield of, developable land increasing the pressures of locating stormwater infrastructure to avoid conflicts with other networks
- land identified for economic development will often be flood constrained.

Council's role

Council in collaboration with the State Government manage flood risk through planning and development controls, disaster management activities, community education and advocating the need to be prepared for extreme weather events. Provision of local flood knowledge is a vital role of council in informing these activities.

In addition council has a key role as an infrastructure provider and custodian, planning, delivering and managing a stormwater network to manage the quantity and quality of stormwater runoff across the region.



Flooding and Stormwater policy positions

6.1 Flood risk is managed for the wellbeing of our communities:

- a) Development will be provided with acceptable flood risk and will not burden emergency services.
- Flood immunity (from rainfall induced flooding) of existing communities is improved through the exploration of effective flood mitigation measures where practical.
- Disaster management activities cater for our communities before, during and after events.
- d) Flood risk information is made available in a form that is easily understood.
- e) Insurance affordability is promoted through the provision of information to industry.

6.2 Flooding and stormwater assets are effective and responsive to a changing environment:

- a) Infrastructure is designed to be effective until the end of its design life.
- b) Infrastructure that is a burden or liability for council is avoided.
- c) Accurate and current models, mapping and other corporate datasets inform the understanding of flood risk and stormwater network effectiveness.
- d) Performance and condition of assets is monitored to ensure effectiveness.
- e) Land for stormwater management purposes is appropriately located and designated.

6.3 Flooding and stormwater management protects the natural and built environment:

- a) Flood plains are protected for their intrinsic environmental, social and economic values.
- b) Development in the flood storage preservation area only occurs where there is overriding community need with acceptable associated impacts and minimal alteration to the floodplain.
- Development ensures that areas of community isolation are not created.
- d) Stormwater quality treatment is provided to protect receiving waters and the health of our community.
- e) Stormwater treatment is complementary and integrated within the public realm, using natural processes to the greatest extent possible.
- f) Flood conveyance pathways are protected or enhanced.
- g) Natural waterways are not diverted.

Target

A measurable target has been set for Flooding and Stormwater. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

• All urban areas have local area drainage models by 2041.



Neighbourhoods and Housing

Outcome 2041: A diversity of neighbourhoods and housing provides sustainable and affordable living options for everyone.

Description

The settlement pattern of the Sunshine Coast is a mix of vibrant coastal living and a relaxed, productive and rural lifestyle. This mix reflects well-defined urban areas, distinctive townships, rural-residential, farming areas and tourist accommodation. These settlement areas contain the neighbourhoods and housing where we live, spend our leisure time, and ideally where we work.

The built form of our urban and rural housing is an important part of who we are, the lifestyle we lead, how we live in the neighbourhood and our wellbeing. The Sunshine Coast typically consists of low-density neighbourhoods where access to services and employment is mainly by private vehicle with limited access to public transport. The majority of our population reside along the coastal strip with key employment nodes in centres, industrial estates and employment hubs such as hospitals.

The hinterland towns and surrounding areas provide a more rural lifestyle with the larger service towns of Nambour and Beerwah supporting a network of towns and villages such as Yandina, Eumundi, Maleny, Kenilworth and Beerburrum. These towns and villages support a thriving rural community and play a key role in defining the built character of the Sunshine Coast.

New communities are developing in coastal areas such as Pelican Waters, Caloundra South, Sippy Downs, Palmview, Mountain Creek, Little Mountain and Peregian Springs. These neighbourhoods are generally of a more compact urban form featuring primarily separate dwellings on smaller sized lots.

There is a significant shortfall in housing diversity on the Sunshine Coast. Importantly, the mix of housing is not matching the household types seeking accommodation. A major challenge for the Sunshine Coast is the need to provide greater diversity of housing choice in the delivery of over 90,000 new dwellings and continue to contain this growth within the defined urban footprint.

In addition to the lack of diversity, housing stress and affordability continues to be a major challenge. The housing stress is felt mostly by low to moderate earners (25%) with higher than the state average median house price and increasing household running costs. With low levels of social housing, limited rental availability and competing demands for tourist accommodation, housing is a major challenge for the Sunshine Coast.

For our future health, resilience and economy, an availability of sustainable and affordable living options to meet the diverse needs of all the community are essential. Where we locate and how we accommodate future generations is fundamental to the region's liveability.



A snapshot of Neighbourhoods and Housing

127,000 dwellings 1 principal and 6 major activity centres service the Sunshine

Coast

Housing stress affects **1** in **3** households

73% of dwellings are separate houses

Median house price of \$510,000 is higher than State median of \$475,000

Over **8 million** visitor nights per year

3 out of 5 households contain

only 1 or 2 people

2.3% of dwellings are for social housing

The urban footprint constitutes

16% of the Sunshine Coast
area

Impacts of drivers of change

The drivers of change will have varying levels of impacts on neighbourhoods and housing and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- · reduced access to backyards and private green space
- increased pressure on maintaining the urban footprint
- increasing cost of housing (both purchase and rental) in comparison to income levels
- more frequent risk of isolation and reduced access to services
- concentration of population along the more vulnerable floodplains and coastal areas
- increased demand for high levels of safety and security, and access to 24/7 services.

Council's role

Council has the ability to influence settlement patterns, neighbourhood layouts, housing form and major infrastructure delivery through advocacy and collaboration with Federal and State Governments and private sector. At a local level setting policy direction, strategic planning and utilising our legislative planning role through the planning scheme are critical roles council plays in this theme.

The private sector is a major contributor to the delivery of neighbourhoods and housing and it is also important that council works in a strong advocacy and facilitation role with the private sector to achieve desired outcomes. The delivery of adequate community and social housing is the role of State and Federal Governments.



Neighbourhoods and Housing policy positions

- 7.1 Good urban form supports compact and self-contained neighbourhoods to improve the use of existing infrastructure and minimise the use of resources:
- a) Urban growth is consolidated around activity and employment centres and along major transport corridor nodes to minimise our living footprint.
- Neighbourhoods and centres are built on the principles of sustainability, community safety and resilience.
- vibrant spaces, places and streets support living in compact neighbourhoods.
- Active and public transport options are available to reduce car dependency and increase connectivity.

- 7.2 Choice within a variety of neighbourhoods provides opportunity to meet the changing needs of the community:
- Neighbourhoods contain a mix of dwelling size and types to suit a range of household types, sizes and lifestyles, including tourism needs.
- An increased supply of smaller dwellings is encouraged to meet the needs of smaller households.
- Flexible, innovative and contemporary housing options are embraced to meet changing needs.
- Adaptable and universal housing with access to community spaces and services facilitate inclusive communities.

- 7.3 Access to affordable living options for all household types and income levels contribute to our liveability:
- a) Neighbourhoods are designed to be sustainable and safe, encouraging walkability and social interaction.
- b) Housing meets the needs of low and moderate income households in terms of design, ongoing costs and access to services.
- c) An adequate supply of social and community housing is maintained and expanded to meet needs.
- Affordable housing in close proximity to services and facilities is protected and enhanced.
- Innovative housing options are supported to deliver affordable and sustainable living.

Target

A measurable target has been set for Neighbourhoods and Housing. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

• Increase the mix of housing by 2041.



Social Infrastructure

Outcome 2041: A network of social infrastructure encourages community participation and underpins liveability.

Description

Social Infrastructure refers to a range of facilities delivered and operated to support the community. It includes significant infrastructure such as schools, universities, hospitals and emergency service facilities. It includes health and safety facilities such as cemeteries, public amenities and lifeguard services. It also includes places where the community can meet, enjoy indoor sport and recreational activities, engage in creativity and the arts and develop and access information, services and programs.

Social infrastructure is essential for creating communities that are connected, empowered and able to adapt and respond to change. It brings people together, fosters social capital and capacity and supports individuals, families and communities to grow and thrive. Investment in social infrastructure promotes and supports community and business interactions. It is important for the wellbeing, sustainability and economic development of our communities.

The Sunshine Coast's diverse social infrastructure network is provided by all levels of government and community, not-for-profit and private organisations. Within the overall network, council has key responsibilities for:

- community use facilities spaces for people to meet, recreate and develop including community venues, libraries and cultural facilities
- sport and recreation facilities aquatic facilities, indoor sport and recreation facilities and showgrounds/major outdoor events spaces
- facilities that support community health and safety, including land for emergency services, lifeguard facilities, cemeteries and public amenities.

Population growth and changing needs is increasing the pressure on existing facilities and creating a demand for new facilities in developing communities. Careful planning is needed to balance investment between operational needs of the existing network and the needs of developing communities.

Land available for new social infrastructure is limited and has to be used efficiently to cater for community needs. A forward looking approach, sustainable and climate responsive design, co-location, collaboration and partnerships will be essential to ensure an ongoing, high-performing social infrastructure network.

Over the next 25 years, key priorities for council are to secure appropriate land and to facilitate a sustainable and co-ordinated delivery of a diverse network. In partnership with the community and not-for-profit organisations such as schools, council will advocate, facilitate and deliver a social infrastructure network that is responsive to changing demands.



A snapshot of Social Infrastructure

Over 100 community venues 8 libraries with 1.5 million 21 cultural facilities

visitors per year

14 swimming pools with over 1 2 indoor sport and recreation 41ha of cemeteries million visits per year facilities

2 showgrounds Over 117ha of social 21 patrolled beaches infrastructure land

Impacts of drivers of change

The drivers of change will have varying levels of impacts on social infrastructure and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- greater expectations relating to the diversity, functions and quality of infrastructure and services
- · higher construction standards and increasing operational costs
- need for more community emergency shelters located close to population centres
- increasing demand for high quality regional infrastructure to cater for events
- increasing demand and provision of smart technology to support community participation.

Council's role

Council plays a key role in setting strategic direction, developing and delivering infrastructure to enable access to social infrastructure for existing and future generations.

In addition council has a role to work with other providers actively seeking opportunities for partnerships and shared arrangements to develop and expand the diversity and quality of facilities available to the community.



Social Infrastructure policy positions

- 8.1 The social infrastructure network is equitable and accessible to meet the needs of existing and future communities:
- a) Places and spaces cater for a wide and diverse range of activities to support community wellbeing.
- b) Land and resources are used efficiently and balance the needs of existing and emerging communities.
- c) Land to support the network is appropriately located and is retained for community purposes for future generations.
- d) Social infrastructure is multipurpose, flexible and adaptable to changing needs.
- e) The network is resilient, viable and utilises innovative technology and principles of sustainability.

- 8.2 Strong partnerships and collaboration deliver an integrated and complementary network:
- a) Economic development and investment opportunities are leveraged to achieve viable community outcomes.
- b) Co-location with compatible uses and the sharing of spaces and resources increases activity and reduces cost.
- Access to a diverse range of facilities to meet community needs is complemented through partnerships.

- 8.3 Social infrastructure facilitates inclusive communities and strengthens the local character, heritage and identity:
- a) Social infrastructure is inclusive, welcoming and affordable, bringing people together.
- Infrastructure contributes to the health, safety and resilience of our communities.
- c) Community spaces provide a focal point for interaction and activation, contributing to a sense of place and vibrancy.
- d) Local history, character and identity is reflected and celebrated through the network.

Refer to Part C for technical detail and planning directions specific to the Social Infrastructure theme.

Target

A measurable target has been set for Social Infrastructure. Measuring performance against this target will provide an indication of our progress towards achieving the outcome

 The principal and major activity centres will be well serviced by a suite of social infrastructure by 2041.



Sustainable Design

Outcome 2041: A well-designed built environment that minimises environmental impacts, improves liveability and supports community resilience.

Description

Sustainable Design is a holistic approach to creating a built form that enhances the natural environment, maximises resource efficiency and increases resilience to a changing climate. In addition, sustainable design creates opportunities to create greater community connections, can improve productivity, and health and wellbeing outcomes. Done well, it is an effective mechanism to improve biodiversity outcomes in an urban setting.

Sustainable Design applies to all buildings, neighbourhoods and their surrounds constructed on the Sunshine Coast. This includes residential, commercial, social infrastructure, sport and recreation facilities, as well as infrastructure within the public realm.

The Sunshine Coast's subtropical climate, characterised by stable year-round temperatures with warm, humid, and often wet summers and mild dry winters, provides an opportunity to achieve simple and cost effective sustainability outcomes.

The key features of sustainable design include:

- · passive and resilient design features
- · use of sustainable building materials
- renewable energy generation
- · energy and water efficiency
- · indoor environmental quality airflow, daylight, views
- waste management avoiding, reusing and recycling during construction and operation
- design for need, function and adaptive reuse
- use of multifunctional living infrastructure (eg green walls) that create connections to nature.

Sustainable Design is core to achieving healthy, affordable, diverse and functional buildings and neighbourhoods while minimising impacts on the natural environment. Benefits to our environment, economy and community include:

- a practical and cost-effective way to reduce energy and resource usage, reduce greenhouse gas emissions and potentially reduce future climate risks
- lower operating costs for homes and commercial buildings
- opportunity for adapting buildings and infrastructure so that they can be reused for other purposes
- improved productivity and wellbeing of occupants.

As innovation in design, construction methods and technologies improve, it is anticipated that the benefits of sustainable design will increase and the cost of design measures will decrease. As a result, it is expected that adoption of Sustainable Design will increase in all building types constructed across the region.



A snapshot of Sustainable Design

70% of people live within the coastal strip

137,000 buildings on the Sunshine Coast

66% of urban Local Planning Areas covered by vegetation or shade

Urban Design Advisory
Panel established in (2009)

Most buildings are not designed for **sub-tropical living** or a changing climate

10 Sunshine Coast developments have Green Star accreditation of four stars or better

Impacts of drivers of change

The drivers of change will have varying levels of impacts on sustainable design and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- a rapid increase in demand for residential and commercial buildings could reduce the uptake of sustainable design elements
- potential reduction in building values and an increase in repair and insurance costs for buildings, particularly those in coastal hazard zones and bushfire and flood prone
- potential increase in operational and living costs due to buildings that do not have sustainable design features incorporated
- reduced thermal comfort in buildings due to more frequent and prolonged heat waves.

Council's role

Council has a key role through advocacy, collaboration and education with industry and community to influence and promote sustainable design outcomes within the built environment of the region. As a key provider of civic, administrative, public realm and social infrastructure, council has an opportunity to lead by example in designing a sustainable built form, and demonstrating the benefits and opportunities of designing for a sustainable future.



Sustainable Design policy positions

- 9.1 The built environment is designed to be low carbon, resilient, well connected, have minimal environmental impact and enhance the liveability and local character:
 - a) Buildings and structures are responsive to sub-tropical climate and local character.
 - b) Design, construction and management are resource and cost effective, site responsive and maximise self-sufficiency.
 - c) Carbon emissions are reduced through design and construction.
 - Innovative design and alternative materials are incorporated to improve the built environment.
 - e) Designs are adaptive and responsive to changing lifestyles and community needs, natural hazards and climate change.
 - f) Design contributes to the health and wellbeing of individuals, households and communities.
 - g) A sustainable built environment is delivered through partnerships and collaboration with community and industry.

9.2 Living infrastructure is integrated with the built form to create liveable neighbourhoods and great urban places:

- a) Connectivity and enhancement of the natural and built environments is achieved through living infrastructure and green corridors.
- Buildings and houses are designed to relate and interact with streets to create attractive places that encourage social interaction and pedestrian use.
- Street corridors are adequate in width and designed to host pathways, infrastructure and shady trees which create safe walkable streets.
- d) Private open space and living infrastructure contributes to the character and amenity of neighbourhoods and places.

Target

A measurable target has been set for Sustainable Design. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

 Increase the number of developments which are verified as achieving a minimum Green Star Rating of 5 and/or NABERS rating of 5, or equivalent nationally recognised sustainability rating, by 2041. This page has been intentionally left blank



Living in the Environment

As outlined in previous sections of this draft strategy, the region's desirable lifestyle and distinctive natural environment will continue to attract more residents and visitors over the next 25 years.

With an estimated resident population of 500,000 by 2041 requiring over 90,000 new dwellings and new infrastructure, as well as increasing tourist numbers and a changing economic base, our natural environment will be under significant pressure to continue to provide essential ecosystem services and support the lifestyle and livelihoods of the community. The way we live in the environment may need to change as we transition to a more sustainable way of life. It will be our response and adaptation to these significant changes that will build the resilience of the region.

Like the rest of the globe, the Sunshine Coast is in an unprecedented time of rapid change, greatly assisted by the use of new technologies and better access to data and information influencing how we interact with and live in the world. In addition, the rise of the 'sharing economy' is challenging traditional models of business delivery and opening up new opportunities for direct public investment, such as communal ownership in energy generation and distribution.

We are also at a critical time in our response to climate change. Like any complex issue, climate change is multi-faceted and interconnected occurring across a range of systems (ecological, economic and social). Impacts already being experienced will be magnified by the increase in population and economic growth, which in-turn will drive an upsurge in greenhouse gas emissions largely as a result of increased resource consumption.



Our ability to effectively respond to, and reduce the impacts of climate change will be hampered if we continue with business as usual approaches to the way we live. How we develop and locate our neighbourhoods, businesses and infrastructure, design our buildings, generate and access energy, dispose of waste and consume resources will all need to adapt and change if we are to maintain a sustainable future.

Successfully negotiating these challenges will require innovative thinking and collaborative actions to effectively manage the growth anticipated, modify our behaviours and the decisions we make as individuals, and as a community, to anticipate and adapt to what is coming our way. It is about understanding the potential effects of these changes while having the courage to embrace the opportunities that will present to improve our environment, social and economic health and wellbeing.

The Sunshine Coast is already on the journey to transition to live more sustainably and it is now a reality that energy derived from renewable sources can drive economic growth. This is set to rapidly increase as new innovations and technologies are deployed, making renewable energy more reliable and affordable.

To fully realise this transformation, council's strategic directions for how we live in the environment include assisting the community to understand and be empowered to live sustainably, adapt and reduce exposure to climate risks, maximise resource efficiency while supporting a transition to a clean energy and minimal emissions future.

These strategic directions are progressed under three themes:

- Energy and Resources transitioning to a low carbon community through clean and secure energy sources, effective and efficient use of resources and emerging technologies.
- Sustainable Living changing our behaviour to increase sustainable living practices and improve the way we live.
- Adaptation and Resilience anticipating and proactively responding to changing climate and natural hazards to build community resilience.

Each theme is further explained in this section.





Energy and Resources

Outcome 2041: A low carbon, energy and resource efficient community making sustainable choices.

Description

The Sunshine Coast's community and visitors consume energy in the form of electricity and fuels for lighting and heating or cooling and to power vehicles and business. We also use natural resources such as water and agricultural lands for food production.

Energy, food and water are essential to our individual lives, society and economy. None of us can live or function without them. The waste we generate including green or organic waste, can be reduced and managed so that it becomes a usable resource rather than an environmental issue that contributes to greenhouse gas emissions. It is critical that we manage our energy and resources efficiently and sustainably to support a thriving community now and in the future.

Households can achieve better energy performance and lower running costs. Businesses can gain improved cash flows, greater productivity and higher profits. Energy and resource efficiency also reduces environmental impacts and greenhouse gas emissions, supporting a healthier planet.

Council and the community need to act to ensure a sustainable Sunshine Coast community and minimise financial and environmental risks such as extreme climate events.

This requires a transition to using cost effective, low (or zero) carbon energy and renewable resources delivered through resilient assets and systems that maintains business continuity and confidence. The community will benefit from this transition through:

- · cost savings from reduced energy and resource consumption
- · reduced exposure to increasing energy costs
- · reduced greenhouse gas emissions and environmental impacts
- access to energy and resource assets and distribution systems that are resilient to climate risks
- maintained and enhanced liveability and lifestyle
- innovative opportunities that emerge from the transition to a low-carbon and resourceefficient community.

This transition will also ensure that the Sunshine Coast contributes to achieving international, federal and state greenhouse gas reduction targets.



A snapshot of Energy and Resources

Greenhouse gas from community waste and electricity is equivalent to emissions from **155,000** cars per year

1,400 gigawatt hours of electricity used by the community per year

38% of dwellings have solar power compared to 20% average across Australia

Community generates

24,000 garbage trucks

of waste per year

First local government in Australia to build a utility scale solar farm Community waste: 39% diverted from landfill 61% landfilled

Community consumes **8,800** Olympic swimming pools of potable water per year

20% of land is used for food production

Council organisational greenhouse gas emissions:

- 11% electricity
- **78%** council and community waste
- 6% street lights
- 4% fuel
- 1% liquid petroleum gas

Impacts of drivers of change

The drivers of change will have varying levels of impacts on energy and resources and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- · the cost and availability of energy and resources
- · increased demand for energy, resources, consumables and services
- an increase in waste generated and sent to landfill
- increased greenhouse gas emissions
- increased risk to energy security and resource infrastructure, especially energy, water, transport of essential goods and waste disposal facilities, due to extreme weather events.

Council's role

Council's key role is to provide strong leadership and strategic direction for the use of innovative technology and techniques, transitioning to a new approach of energy and resources use on the Sunshine Coast. Council will lead by example, trialling new technology and sharing learnings, knowledge and collaborating with industry and the community to effect change.

Regulation of energy markets and setting national energy renewable targets is the responsibility of Federal and State Governments.



Energy and Resources policy positions

10.1 Energy and resource usage, and waste management are transformed to minimise emissions and maximise environmental, social and financial benefits:

- a) Greenhouse gas emissions are minimised and residual emissions are managed to mitigate climate risk.
- Renewable energy usage is maximised and underpins a transition to a clean energy future.
- c) Consumption of energy and resources is minimised and managed to reduce costs, waste generation and environmental impacts.
- d) Innovative solutions and technologies are tested and adopted to achieve energy, waste and resource efficiencies.

10.2 Essential resources and systems are secure and resilient to change:

- Agricultural and food production areas are protected from urban development and enable an adaptive and flexible local food supply.
- Resources and services are sustainably sourced locally to support self-sufficiency.
- Disruption to energy, water and waste assets from climate risks are minimised.
- Energy and resource security, including business continuity is provided through a diversity of centralised and decentralised systems.

Target

A measurable target has been set for Energy and Resources. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

· Reduce council's greenhouse gas emissions to net zero by 2041.





Sustainable Living

Outcome 2041: Sustainable living practices are embedded in our community culture.

Description

Sustainable Living focuses on the relationship between how people live in the natural and built environments. It is about responding to change through making sustainable choices and decisions that result in positive behaviours that reduces the use of natural resources, improves well-being and builds resilience.

Sustainable living applies to communities, individuals, households, and to business and industry. It also applies to how council undertakes its business and makes decisions. Key areas of focus are choices and behaviour involving transportation, energy consumption and renewable options, food and other consumables, water, waste and housing including planning, design and construction.

As many communities strive to live more sustainably the Sunshine Coast has struggled to reduce dwelling size with the average house on the Sunshine Coast increasing in size over the last 10 years. These larger homes are often being built on smaller lots changing the way our neighbourhoods function, placing greater pressure on public land for access to green space and outdoor activities.

With the majority of residents living in large detached low density housing with a reliance on private car travel and limited access to frequent public transport, we place significant pressure on our finite resources and existing infrastructure.

Having a better understanding of how current living practices impact our natural environment and liveability will enable us to deliver more effective programs and information to enable a transition to a more sustainable lifestyle.

The benefits and outcomes of sustainable living can offer both long-term and short-term gains. Benefits include:

- cost savings from reducing energy and resource consumption
- · enhanced financial advantages and performance
- reduced greenhouse gas emissions
- improved community wellbeing
- mitigating human impact on the environment.

The impacts of choices and behaviour vary, depending on the nature of the business and/or a person's location, habits, and personal preferences. To maintain and improve our enviable lifestyle and healthy environment it is essential to enable the community and businesses to strengthen their knowledge, skills and social connections to live sustainably.

Enabling informed decisions, through innovative systems and processes, will increase our capacity for taking collective action.



A snapshot of Sustainable Living

Council partners and supports community **sustainability programs**

9 sustainability programs provided for council staff

52% of households have 2 or more cars

10% of residents participate in council-run sustainability programs

44% of council staff participate in sustainability programs

Average of **172L** of water consumed per person per day

Over **40** community gardens: **8** on council land

House size has increased by **70%** over 25 years

Household waste:
16% of waste in general
waste bins could be recycled
1 in 5 bags of groceries is
wasted

Impacts of drivers of change

The drivers of change will have varying levels of impacts on sustainable living and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- an increasing requirement for effective sustainability engagement and change management programs
- · an increasing demand for services and infrastructure
- a decline in liveability and affordability driven by rapid population and economic growth
- · disruptions to our way of life caused by more extreme weather events
- changes in climate that impact the health and wellbeing of communities, particularly vulnerable groups

Council's role

Council's role is to support the community to take a more sustainable approach to living on the Sunshine Coast, become more resilient to climate change through strong leadership, education, partnerships and ongoing advocacy. Within its own business activities, council's role is to embed sustainability and resilience into council systems and processes, delivery of infrastructure and facilities and service provision.



Sustainable Living policy positions

- 11.1 Strong leadership and collaboration empowers the community to act and embrace sustainable behaviours:
 - a) Community willingness to act is supported and community capacity enhanced.
 - Innovative technologies and concepts are trialled and knowledge shared to increase community awareness and uptake.
 - Strong and enduring partnerships are established and supported to improve resilience, embed sustainable living practices and grow business opportunities.
 - d) Sustainability principles are embedded into systems and processes to inform and guide decision making.

Target

A measurable target has been set for Sustainable Living. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

 Increase community understanding and adoption of sustainable living practices by 2041.





Adaptation and Resilience

Outcome 2041: An adaptive and resilient community which anticipates and is responsive to a changing environment.

Description

As we seek to live in a more sustainable manner we also need to build our community's ability to respond and adapt to changing climatic conditions. Based on recent climate projections, we can expect our natural and built environments and communities to be exposed to a range of impacts such as more intense storms and flooding; increased damage to buildings and infrastructure; prolonged heat waves impacting public health and increased bush fire risk, as well as potential shifts in the diversity of our plants and animals as conditions change due to increased climate variability.

These impacts have the potential to affect the way in which we live, how we recreate and experience our natural environment and ultimately the liveability of our region.

Adaptation and resilience focuses on minimising the impacts of climate change and natural disasters within the context of an increasing population and changing economy. It promotes a 'No-Regrets' approach to increase climate and natural disaster resilience of the Sunshine Coast and is a key approach to underpinning a liveable region.

'No-Regrets' approaches are based on taking action now without being certain about all dimensions of future climate change. In this context, measures are implemented in a precautionary sense with the aim of responding to likely impacts before the risks become too great, providing benefits for future generations, while also enhancing the living conditions of people in the present. It is an approach designed to respond to different types of hazards while also delivering environmental, social and economic benefits.

Becoming a well-adapted and resilient community is a long-term strategy which requires a shared responsibility with collective outcomes being achieved through planning and the implementation of timely action by householders, asset owners, communities, businesses and government. Increasing the community's awareness of these changes and planning for these events will become a vital element of how we plan to live in our natural environment and influence the decisions we make in regard to future development.

Underpinning this approach is a need for innovative systems, processes, and informed and flexible governance structures. These are essential as they will enable critical decision making, allowing us to determine when, how and where adaptation actions are delivered. Similarly, increasing community capacity in this area will also be critical to ensuring the delivery of sustainable and enduring outcomes.

Successful adaptation can offer both long-term and short-term gains, including:

- increased resilience to the impacts of climate change across all sectors (social, economic and the environment)
- improved community safety and wellbeing (especially for vulnerable members of the community)
- · ensuring the built environment is resilient to environmental change
- ensuring critical infrastructure is resilient to natural disasters and climate change influences
- enhanced financial advantages and performance
- · ensuring a sustainable balance between human activity and the natural environment.



A snapshot of Adaption and Resilience

Beach nourishment: placement of approximately **55,000m**³ of sand across 4 locations

Projected sea level rise of **0.8m** included in the Planning Scheme

Over **\$1.2 million** is allocated per annum on mosquito control / and vector-borne disease prevention

Over **\$6.1 million** is allocated per annum on disaster response, recovery, planning and mitigation

A Local Disaster Management Group with **28** member organisations Online Disaster Hub
providing resources and
real-time information before,
during and after a disaster
event

Annual Average of **6** Disaster Activations for Severe Weather and Flood Events

43 facilities can function as evacuation centres or places of shelter

Impacts of drivers of change

The drivers of change will have varying levels of impacts on our ability to adapt and respond to change and will continue to present significant challenges for the future. Without intervention or proactive management, key impacts may include:

- · potential degradation and loss of natural values and ecosystems
- increasing numbers of people and assets exposed to the consequences of natural hazards
- · escalating operational, living and insurance costs for asset owners and operators
- increasing health impacts as temperatures and heat waves become more frequent and prolonged.

Council's role

As an asset custodian and provider of public infrastructure council plays a key role by ensuring these assets are appropriately located, designed, constructed, managed and maintained to enable ongoing functionality and accessibility.

Council also provides strong leadership and strategic direction which supports the development of communities that are resilient to natural disasters and climate change via its legislative role in disaster management.

In addition, council's role is to embed adaptation and resilience measures into systems and processes.



Adaptation and Resilience policy positions

12.1 Adaptation enables the whole community to build climate and disaster resilience:

- Risk assessment, adaptation, mitigation and disaster management are embedded into decision making, systems and processes.
- Resilience is enabled through cost effective investment in risk assessment, adaptation, disaster management and the utilisation of innovative technologies and concepts.
- Accurate and current models, mapping and other corporate datasets inform the understanding of the risks associated with climate change.
- d) Adaptation and disaster risk reduction planning mitigates economic, social, environmental and infrastructure impacts.
- Strong and enduring partnerships are established and supported to improve understanding and action on climate adaptation.
- f) Collective action delivers a resilient Sunshine Coast.

Target

A measurable target has been set for Adaptation and Resilience. Measuring performance against this target will provide an indication of our progress towards achieving the outcome.

· Maintain or increase community resilience by 2041.



Implementing the strategy

A range of council services are central to the delivery of the final strategy and will be informed by these strategic directions. In addition to these services, a suite of transformational actions are required to actively respond to the drivers of change and contribute to a healthy environment and liveable Sunshine Coast by 2041.

Transformational actions and strategic pathways

To activate and implement the policy positions, 26 transformational actions have been developed which seek to deliver an integrated and targeted approach. These transformational actions will be delivered through five strategic pathways that guide implementation and assist in achieving a healthy environment and a liveable Sunshine Coast:

- 1. A resilient region shaped by clever planning and good design.
- 2. Protection and enhancement of our natural assets and distinctive landscapes.
- 3. Responsive, accessible and well managed assets and infrastructure.
- 4. Transitioning to a sustainable and affordable way of living.
- 5. A reputation for innovation and sustainability.

Table 1 summarises these transformational actions under the strategic pathways and demonstrates how each of the actions contributes to the integrated delivery of theme outcomes. Some of the projects are currently underway or in planning stages, while others will be considered over the term of the final strategy.

These actions form the basis of the Five-Year Implementation Plan outlined in further detail in Part B.

Table 1: Summary of transformational actions

						The	mes					
Actions		Biodiversity	Waterways and Wetlands	Coastal	Open Space	Flooding and Stormwater	Neighbourhoods and Housing	Social Infrastructure	Sustainable Design	Energy and Resources	Sustainable Living	Adaptation and Resilience
Strategic Pathway 1. A resilient region shaped	by cle	ver p	lanning	g and	good							
Protecting the Regional Inter Urban Break Protecting the Moreton Bay-Sunshine Coast Regional Inter Urban Break in perpetuity to secure the environmental, production and recreation values. Better buildings through sustainable design Embedding sustainable, liveable and affordable design into our built environment that celebrates the subtropical lifestyle of the Sunshine Coast.	•	•	•		•	•	•	•	•	•	•	•
3. Housing diversity Demonstrating that we have capacity in our urban footprint to house the proposed growth in a range of sustainable and affordable living options.					·		•	•	•			
4. Finding the happy medium Create a street-scale demonstration project to showcase sustainability, good urban design and the benefits of medium density living in partnership with industry.				<	•	•	•		•	•	•	
5. Being prepared Proactively planning for the potential impacts of climate change and natural hazards to build the resilience of the region.		•		•		•	•	•			•	•
Strategic Pathway 2. Protection and enhancer	nent of	f our r	natural	asset	ts and	distin	ctive la	andsc	apes			
6. 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.	•			•	•			•			•	
7. 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'.	•	•	•	•	•		•					
8. Maintaining the blue by protecting the green Delivering healthy waterways and beaches that continue to support our lifestyle and livelihoods through integrated catchment management.		•	•	•		•					•	
9. Stopping the brown from coming down Partnering with the rural, urban development and industries to reduce the impacts of sediment, nutries and pollutants on waterway health. 10. Column the rural pollutants on waterway health.			•			•	•					
10. Celebrating our landscape and character Identifying and understanding the defining landscapes, character and history of the Sunshine Coast to enable growth and development to be respectful and complimentary for the future.	•	•	•	•	•						•	

						The	mes					
Actions	Landscape and Character	Biodiversity	Waterways and Wetlands	Coastal	Open Space	Flooding and Stormwater	Neighbourhoods and Housing	Social Infrastructure	Sustainable Design	Energy and Resources	Sustainable Living	Adaptation and Resilience
11. A step ahead Providing for the reinstatement of vegetation and habitats that locally offset the unavoidable vegetation clearing required for our critical public infrastructure.		•	•									
Strategic Pathway 3. Responsive, accessible	and we	II mai	naged	asset	s and	infrast	tructur	е		•		
12. Growing the natural economy Strengthen the economic base around our natural assets and distinctive landscape features by enhancing a network of nature based recreation experiences supported by overnight accommodation and day visitor options. 13. Healthy beaches Providing a strategic and coordinated approach to	•	•	•	·	•			•	•	•		
the protection, sustainable use and enjoyment of our dunes, beaches, rocky shores and near-shore marine waters.				•							•	•
14. Expanding the green space Securing and activating space for future generations through an accelerated strategic land program to improve conservation, flood mitigation and, sport and recreation opportunities.		•			·	•					•	
15. Great places and spaces In partnership with industry and community develop a network of contemporary places and spaces that provide and support opportunities for creative, community and active experiences.		<						•	•	•	•	
16. Managing our pest plants and animals Providing a collaborative, effective and efficient response to the management of pest plants and animals to reduce their social, economic and environmental impacts.		•	•	•								
Strategic Pathway 4. Transitioning to a sustain	nable a	nd af	fordab	le way	of liv	ing	`	,				
17. Greening our neighbourhoods Delivering cool and shady streets and places to connect and enhance our neighbourhoods and promote biodiversity, resilience and community well- being.		•			•		•		•	•	•	•
18. An involved community A major engagement and marketing program to inspire and empower the community to value the environment and play their part in a liveable, sustainable and resilient future.	•	•	•	•	•	•	•	•	•	•	•	•
19. Changing our ways Transitioning the Sunshine Coast to a more sustainable, resilient and low carbon way of living.							•	•	•	•	•	•
20. Switch to a brighter future Community organisations leading the way to a more sustainable Sunshine Coast through social infrastructure improvements.								•	•	•	•	
21. How we live in the environment Increasing our understanding how people interact with the natural environment.	•	•	•	•	•	•	•	•	•	•	•	•

						The	mes					
Actions	Landscape and Character	Biodiversity	Waterways and Wetlands	Coastal	Open Space	Flooding and Stormwater	Neighbourhoods and Housing	Social Infrastructure	Sustainable Design	Energy and Resources	Sustainable Living	Adaptation and Resilience
Strategic Pathway 5. A reputation for innovation	n and	susta	inabilit	у								
22. Zero emissions organisation Delivering a net zero emissions organisation and transitioning to a renewable energy future.								•	•	•	•	•
23. Attracting sustainable industries Strengthening our region's sustainability vision by attracting and nurturing research and sustainable industries.									•	•	•	
24. Building our knowledge Enabling evidence based decisions for a healthy environment and liveable Sunshine Coast.	•	•	•	•	•	•	•	•	•	•	•	•
25. The living lab Demonstrating design options and the way we live in self-contained neighbourhoods that deliver affordable and sustainable lifestyles.		•							•	•	•	
26. Kicking goals with living infrastructure Create a demonstration project to showcase the benefits and opportunities of the co-location of open space and water sensitive urban design.				<	•	•			•			•

Tracking progress

Monitoring and tracking our progress are critical to ensure the effectiveness of the final strategy. A number of measures and targets have been prepared to enable regular and meaningful reporting.

- Performance measures aligned to strategic pathways inform annual corporate reporting and the review of the rolling Five-Year Implementation Plan.
- Theme-based targets enable monitoring the progress of achieving the theme outcome and collectively the strategic vision. They are reported on a three to five-year basis which enables comprehensive data collection and assessment to be undertaken.

Glossary

A	
Affordable living options	The availability of a diverse range of sustainable housing options to suit all income levels and household types – appropriately located within self-contained neighbourhoods with convenient walk, cycle and public transport access to services.
B	
Biodiversity	A variety of species and ecosystems and the ecological processes of which they are a part.
Built environment	The surrounding components that make up a system of buildings, facilities and infrastructure services.
Bio-retention basins	Landscaped depressions or shallow basins used to slow and treat on-site stormwater runoff.
С	
Catchments	An area of land where water collects when it rains, often bounded by natural features such as hills or mountains from which all runoff water flows to a low point.
Clean energy	Energy sources that emit no greenhouse gases or much lower quantities of greenhouse gases than current fossil fuel energy sources.
Climate change	Natural and human induced changes to the climate attributed to increased levels of greenhouse gases (mostly carbon dioxide) in the atmosphere.
Coastal dependent development	Development that requires land adjoining the foreshore and access to tidal water to function.
Coastal erosion prone area	Parts of the coast considered at risk from coastal erosion or permanent inundation by the sea over a defined planning period.
Coastal hazards	Natural processes of coastal erosion and storm-tide inundation that continually form and reshape the coast.
Coastal hazard area	A mapped area subject to coastal erosion or tidal inundation.
Coastal processes	The natural processes including waves, tides and tidal currents and sand movement.
Connecting habitat area	Habitat areas supporting linkages between core habitat areas.
Conservation estate	A collection of state, council and private lands managed for conservation.
Core habitat areas	Large areas of intact native vegetation.
E	
Ecological connectivity	Natural vegetation corridors that provide connectivity
	between habitats to enable species movement and gene exchange.
Ecologically functional	The effective functioning of habitats to support plants and animals.
Ecosystem services	The benefits people obtain from the natural environment such as clean air and drinking water.
F	
Flood conveyance pathway	Movement of floodwater along a particular pathway.
Flood immunity	Protection or exemption from flood inundation.

Flow-detention structures	Structures or basins that capture stormwater, collect it and slowly release it at a controlled rate so that downstream
	areas are not flooded or eroded.
Fragmentation	Fragmentation is the clearance of native vegetation creating a patchwork of natural areas with limited connectivity.
G	
Gene flow	The movement of genetic material from one population to another.
Greenhouse gases /	Gases that contribute to the greenhouse effect and climate
emissions	change. Gases include carbon dioxide (CO2), methane
	(CH4), nitrous oxide (N20), perfluorocarbons (PFCs),
	sulphur hexafluoride (SF6) and hydrofluorocarbons (HFCs).
Green Star	Green Star refers to an Australian sustainability rating
	system for the design, construction and operation of
	sustainable buildings, fit outs and communities.
H	
High ecological value	Waters that support and maintain diverse species and are
waters	effectively unmodified or highly valued.
Housing stress	Experienced by households when they are paying more than
	they can afford on housing costs. Housing stress commonly
	occurs in households receiving the lowest 40% of income pay more than 30% of their gross income on housing costs.
1	pay more than 50% of their gross income on housing costs.
J	
K	
L	
Living infrastructure	Multi-functional network of natural landscape elements,
Living illiastructure	integrated with the built environments to provide a range of
	ecological, social and economic benefits.
Low-carbon	Minimal output of greenhouse gases.
M	J
Mitigation	Activities to reduce, eliminate or prevent greenhouse gas
	emissions.
N	
NABERS	A national rating system for the built environment that
	measures energy efficiency, water usage, waste
	management and indoor environmental quality.
Natural environment	The resources such as water, soil, air, plants and animals, and the ecological and physical processes that affect them.
Net-zero emissions	Achieving net-zero emissions assumes that emissions are
	measured, reduced as much as possible and then the
	remaining emissions are offset with carbon credits retired annually.
Р	
Pollutant loads	The amount of polluting material entering the environment.
Public realm	Publicly accessible areas including open spaces, buildings and facilities ie civic buildings, streets, pathways, parks.
R	
Ramsar listed	Wetland sites recognised under the International Convention on Wetlands.
Regional inter urban break	An area of forested, agricultural, conservation and
	recreational lands separating the Sunshine Coast from the
	Brisbane-Caboolture area.

Renewable energy	Energy generated from natural resources such as solar, wind and tidal movement, which are renewable (naturally
	replenished).
Riparian areas	Fringing zones along waterways and around wetlands.
S	
Self-contained	An urban residential area with a compact urban form that
neighbourhood	facilitates walk and cycle access to local services and facilities.
Smart technology	A range of integrated information gathering and
	communication technologies such as sensors, data and real- time monitoring used to connect people, businesses, communities and the environment to improve economic, liveability and sustainability outcomes.
Sub-regional inter urban	Areas of agricultural, conservation and recreational lands
breaks	separating urban development areas across the Sunshine Coast.
Т	
U	
Defined urban footprint	Defined by the Sunshine Coast Planning Scheme, the urban boundary identifies preferred settlement pattern and defines the limits of urban development.
V	
W	
Waterways	The surface pathways that rain runoff follows from high areas down through a catchment.
Wetlands	Local freshwater or tidal areas where water spreads out or sits in the landscape.
7	

