

Environment & Sustainability

Strategy 2042



Welcome

"All Australians rely on the environment. Healthy ecosystems and biodiversity are vital for human survival, quality of life and economic prosperity." - 2021 State of the Environment Report (Australia).

A healthy environment allows for a healthy, vibrant community which in turn supports a healthy, prosperous economy. That means we need to look after the natural resources or natural capital (like native vegetation, soil, wetlands, rivers, biodiversity and clean air) that we depend on for our food, clean water and air, livelihoods and lifestyles.

The 2021 State of the Environment Report outlined that the state and trend of Australia's environment is poor and deteriorating because of increasing pressures from unsustainable land use, climate change, habitat loss, invasive species and resource extraction.

The Environment and Sustainability Strategy provides a long-term aspirational roadmap to guide the actions of Council and our partners to advance our vision and shared direction for healthy environments and sustainable lifestyles through to 2042.

This strategy responds to the pressures facing our region and key international, national, state and local considerations and will help to deliver the 'Our Healthy Environments' goal and outcomes identified in our Corporate Plan 2022-2027. It sets strategic priorities, policy directions, measures and actions to advance our outcomes over the short, medium and long-term. It also provides a clear approach to regular monitoring and reporting our progress towards achieving these outcomes.

It is one of six Council strategies that will play a central role in delivering long-term transformational change as our region grows and evolves. Together they enable an integrated and balanced approach to planning, ensuring our natural environments are protected and our communities have the services and infrastructure they need.

As we face the key challenges of responding to climate change, intensifying natural hazards and reversing the impacts of habitat and biodiversity loss we will need to take an integrated and collaborative approach recognising the roles of Council, other levels of government, Traditional Custodians, tertiary and research institutions, industry and business, landowners and the wider community to contribute to meaningful change.



Corporate Plan 2022-2027

Our Vision

Our Moreton Bay. Amazing places. Natural spaces.

Our purpose

Our communities are central to what we do. Working together, we aim to make our Moreton Bay a great place now and for future generations.

Our Strategic Pillars



Our Values

Service, Teamwork, Integrity, Respect, Sustainability



Acknowledgement

We acknowledge the Jinibara, Kabi Kabi, and Turrbal peoples as the Traditional Custodians of the land, seas, skies and waterways of the Moreton Bay region and beyond, and pay our respects to their Elders, past, present and emerging. We recognise that the Moreton Bay region has always been a place of cultural, spiritual, social and economic significance to Aboriginal and Torres Strait Islander peoples and this connection is enduring.

We are committed to working in partnership with Traditional Custodians and other Aboriginal and Torres Strait Islander communities to shape a shared future that celebrates Aboriginal and Torres Strait Islander histories, cultures and contributions as an irreplaceable foundation of our region's collective identity.

Taking action on reconciliation

As this strategy was being developed, Council was also developing its first Innovate Reconciliation Action Plan (Innovate RAP), informed by Aboriginal and Torres Strait Islander voices.

The Innovate RAP aims to improve Council's capacity to deliver positive

outcomes for Aboriginal and Torres Strait Islander communities by acting as a foundation for respectful relationships, stronger partnerships and meaningful opportunities.

The Innovate RAP, along with our broader reconciliation activities, recognises the important role and deep traditional knowledge of Traditional Custodians and Aboriginal and Torres Strait Islander communities in looking after our environment and caring for our region.

It builds on existing work to strengthen positive relationships with the region's Aboriginal and Torres Strait Islander communities through initiatives such as the Moreton Bay Murri Network and Yarning Circle, Local Aboriginal Languages Project, Welcoming Places in our libraries, and cultural heritage preservation.

The Innovate RAP will help us to effectively leverage our resources and influence to combat racism and support equity and opportunities for all our region's peoples. It represents a deliberate step on a longer journey that will occur throughout the life of this strategy.

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Status

This Strategy was adopted by Council resolution on 14 June 2023.

Disclaimer

Moreton Bay Regional Council and its officers accept no liability for decisions made based on information, expressed or implied, provided in this document.

Message from the Mayor

We believe that Moreton Bay should go green as it grows.

Our communities cherish the amazing places and natural spaces that make up Moreton Bay. This includes our beaches, wetlands, waterways, rainforests, bushland, coastal and marine environments, and the wildlife these habitats support.

You have resoundingly told us that you want Council to do much, much more to protect our environment especially in the face of the drastic changes forecast over the next 20 years. So we have committed to preserving 42 percent of our region with native vegetation cover and limiting our urban footprint to 25 percent of our land area. In doing this we will become the 'lungs' of South East Queensland.

It's time for Moreton Bay to become a future-focused Council.

An overwhelming 73 percent of our communities told us that reducing Council's own carbon footprint is a good use of public money. We have listened and set a corporate, science-based, greenhouse gas reduction target of net zero emissions for council operations by 2039.

This ambitious target sets the tone for our new Environment and Sustainability Strategy and steps up to the challenge of meeting your expectations and aspirations, with actions over the next 20 years.



We want this Council to be a leader in sustainability through impactful initiatives, even if they are complex and expensive. For example, more than half of our emissions come from waste; introducing our own Food Organics and Garden Organics (FOGO) system will go a long way to addressing the issue. We also want to divert 85 percent of waste from landfills and increase our recycling rate to 70 percent by 2040.

This is what we mean by 'Going Green As We Grow'. Unlike other councils and organisations, we don't want to rely on purchasing carbon credits. We are committed to do the hard work to make a real difference for our environment. I hope you share our excitement for safeguarding our region of amazing places and natural spaces.

Peter Flannery
Mayor Moreton Bay Regional Council

Our Moreton Bay

Our region today

Our Moreton Bay region is an amazing place located in the heart of South East Queensland.

It has been home to the Jinibara, Kabi Kabi, and Turrbal peoples for thousands of years and they continue to have a deep connection to and custodianship of the region's land, seas, skies and waterways.

Today our region and its communities are home to people from a wide range of cultural backgrounds and welcomes visitors from all parts of Australia and around the world. We have a diverse range of community, cultural, sporting and recreation activities that contribute to an enviable lifestyle.

Our region is recognised for its natural beauty with access to the iconic waters of Moreton Bay and the D'Aguilar mountain range. We have extensive waterways, wetlands and bushland corridors with an abundance of wildlife, much of which has national and international significance.

Our region is growing with around 10,000 new residents each year and a population nearing 700,000 by 2042. We have a diverse set of urban, seaside, semi-rural and hinterland communities linked by multiple urban centres including Caboolture, Morayfield, North Lakes, Redcliffe, Strathpine, and other smaller centres that support jobs and services for our communities

Our region's economy has evolved as the engine room of the South East Queensland economy. We are a flourishing base for a range of sectors including advanced manufacturing, food and agribusiness, tourism and knowledge-based industries. Our proximity to key transport and logistics infrastructure provides direct access to domestic and global markets, supporting our ability to attract investment, tourism and other economic opportunities





Nearing 500,000

Population
(additional 200,000 by 2041)



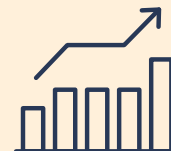
3rd largest

Local government in
Australia by population



3rd largest

Number of residential
dwellings in Australia
(185,149 dwellings plus over
90,000 by 2041)



5th fastest growing

Local government in
Australia by population
(2.2% annual growth)



2,045km²

Land area



3,806km

Roads



294km

Coastline and
estuaries



14,000+ha

Reserves and
local parks



\$19 billion+

Local economy



32,000+

Registered businesses



4 million+

Visitors each year



3,000+

Students at UniSC
Moreton Bay



39 years

Median resident age



94.4%

Residents in the labour
force are employed



49.5%

Residents live and work
in the region



65%

Residents travel to
work by car

Source: Census 2021, Australian Bureau of Statistics; Queensland Government Statistician's Office, Population Projections, 2018; National Institute of Economic and Industry Research, Moreton Bay Region Economic Profile, 2022, compiled and presented in economy.id; Australian Business Register, 2022





Our environments today

The Moreton Bay region is more than 2,045 square kilometres and encompasses a vast range of natural environments from coastline in the east through to the hinterland ranges in the west. Our region of natural beauty includes the iconic Moreton Bay and the D'Aguilar mountain range, with extensive waterways, wetlands and bushland corridors. Forty-two percent of the region is covered in native vegetation (see map on Page 11) and there are more than 14,000 hectares of Council reserves and parks. With an abundance of wildlife, much of which is of national and international significance, these environments support over 2,419 plant and 805 animal species.¹

Our green spaces form part of the character and amenity of our communities. Mapping of native and exotic tree cover (defined as any tree exceeding two metres in height) in suburbs across much of the region reveals increases in cover between 2021 and 2022. Many rural areas such as Moorina, Welsby and Kurwongbah recorded significant increases (8.7%, 8.0% and 7.6%) in addition to more developed areas including Narangba, Griffin and Mango Hill (4.2%, 3.1% and 2.6% respectively).²

The Moreton Bay Region experiences hot, humid summers and mild winters with our inland areas encountering more extreme

weather conditions than their coastal counterparts. Bureau of Meteorology statistics drawn from our Redcliffe weather station showed an average daytime high of 28-30°C and a minimum of 18-19°C between January and March 2022. The mean annual rainfall for our region is 1,147mm and we experience an average of 1.6 days of extreme heat over 35°C per year.³

Our region is exposed to a variety of natural hazards including heatwaves, earthquakes, bushfires, severe thunderstorms, east coast lows and cyclones. In the last 20 years 127 severe storms have been recorded in the Moreton Bay region and two tropical cyclones (Marcia and Debbie) have passed within 200km. Flood watch events for the upper Brisbane River, and Pine and Caboolture Rivers affecting our region were issued on nine and eight separate occasions respectively between June 2021 and May 2022. This is an increase on the annualised average of two events per annum in the preceding five years.

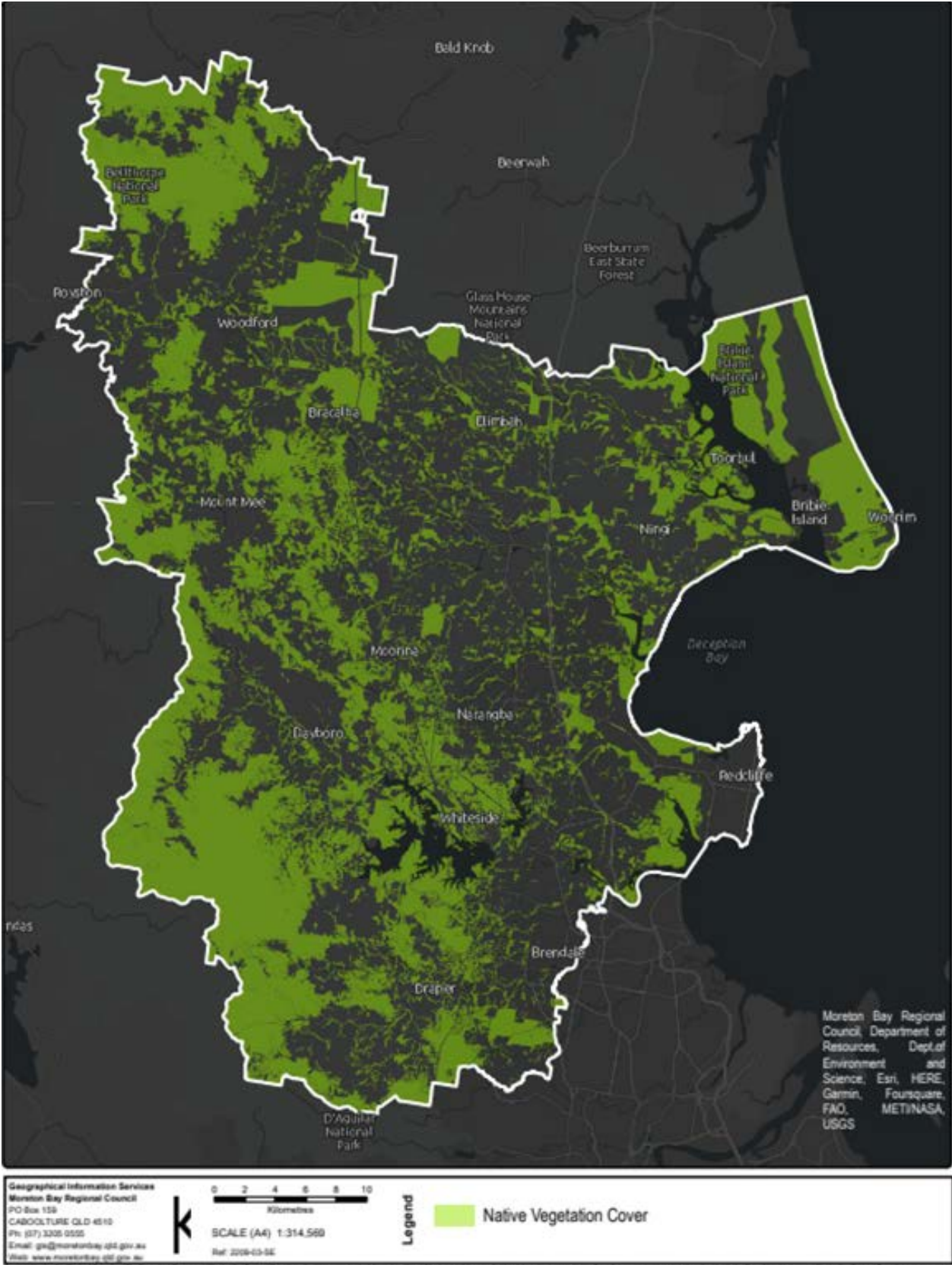
Although some areas experience bushfires throughout the year, the greatest risk of fire danger is in spring and early summer when the vegetation is at its driest. Fire incidents across the region have been lower in the last two years due to the wetter conditions resulting from the La Nina phenomenon.

¹ WildNet database.

² [Moreton Bay, Queensland Medium-High Vegetation >2m, 2021; 2022.](#)

³ Moreton Bay Regional Council (MBRC), unpublished, 2023.

Native vegetation cover



Our drivers of change



Council's Corporate Plan 2022-2027 identifies six overarching drivers of change that will continue to influence our work over the next 10-20 years: sustainability, planning for growth, community identity, digital transformation, community trust and adaptive workplaces.

The following key issues and opportunities are particularly important to consider if we are to create the healthy environments and sustainable lifestyles we seek now and in the future. These issues and opportunities underpin this strategy's priorities, policy directions and actions.

Key issues and opportunities

According to the 2021 State of the Environment Report, Australia's environment is poor and deteriorating because of increasing pressures from climate change, unsustainable development, habitat loss, invasive species, pollution and resource extraction.⁴

There are opportunities to improve the health and condition of our natural environment and ensure long-term sustainable outcomes through the combined efforts of all stakeholders.



⁴ [*Australia: State of the Environment 2021.*](#)



Key issue 1: Growth and associated development pressures

Moreton Bay is one of Australia's fastest growing regions. It is anticipated that by 2031, the region will have a larger population than Tasmania. Over the next 20 years, an additional 200,000 people will move to the region, resulting in approximately 700,000 people calling Moreton Bay home.

Accommodating anticipated population growth is a matter that Council has legislative obligations to plan for and is set out in the state government's South East Queensland Regional Plan (ShapingSEQ). ShapingSEQ identifies an urban footprint to accommodate urban development requirements to 2041 and includes established urban areas and land for potential urban development.

ShapingSEQ requires Council to plan for a minimum of 88,300 new dwellings to be built in the region between 2016 and 2041.⁵ However more recent projections suggest that around 90,000 new dwellings will need to be accommodated by 2041. This equates to around 4,500 dwellings per year. Equally important from a sustainability point of view are the employment land and social infrastructure (eg schools, community centres, libraries etc) needs and the economic growth required to support a growing population.

The construction of housing, businesses, industry, social and other infrastructure requires land and resources. This will place pressure on our existing environment. However, it also provides an opportunity to use existing urban land and resources most efficiently and plan and construct our communities in new ways to be more sustainable, supporting our healthy environments and lifestyles, responding to climate change and addressing natural hazard risks.

Council's Growth Management Strategy sets out how Council will manage urban growth in the region including how key growth challenges will be addressed over time. This strategy provides strategic and policy guidance on aspects of the built environment, responding to climate change and addressing natural hazards as well as fundamental principles on conservation of the natural environment and ecosystem services on which we all rely.



⁵ [*Shaping SEQ: South East Queensland Regional Plan 2017.*](#)



Key issue 2: Climate change

The impacts of climate change are serious and widespread. While Queensland has long experienced extreme weather, climate change is influencing the frequency and severity of these events across the globe.⁶ This increased frequency of extreme weather and natural disasters impacts our communities' ability to recover due to less time between events.

Every increment of average global warming causes wide ranging changes to temperatures, precipitation and soil moisture that vary across different regions.⁷ Regional projections indicate that South East Queensland will experience increasing temperatures, more frequent hot days, harsher fire weather, and increasing rainfall variability.⁸ Under a high emissions scenario Brisbane's climate in 2030 would be more like the current climate of Bundaberg.⁹

The Intergovernmental Panel on Climate Change 2022 Sixth Assessment Report confirms the increasing impacts on natural and human environments, and alteration of our climate, environment and living conditions.

Global surface temperature will continue increasing until at least 2050 despite steps taken now

Immediate deep cuts in greenhouse gas emissions could hold global warming below 2°C

Warming would reach about 2.4°C by 2050, rising to about 4.4°C by 2100¹⁰ (under unabated business as usual greenhouse gas emission rates)

Another important consequence of the changing climate in our region is rising sea-levels, which will expand areas affected by tidal inundation and increase coastal erosion. Global sea levels respond slowly to greenhouse gases, and despite potential cessation of emissions, there will be a continuing sea level rise over the centuries.

What happens beyond 2050, however, depends on the success of global emissions reduction action. According to the NASA Sea Level Projection Tool,¹¹ the most likely global and regional sea level rise in 2100 is approximately 0.77m for a business as usual emissions reduction pathway.

Global warming between 1.5°C and 2°C, consistent with the Paris Agreement (an international treaty on climate change adopted by 196 Parties at the Conference of Parties 21 in Paris, on 12 December 2015), would most likely limit sea level rise in the Moreton Bay region to between 0.42m and 0.5 by 2100.¹²

⁶ [IPCC Sixth Assessment Report: Summary for Policymakers.](#)

⁷ [IPCC WGI Interactive Atlas.](#)

⁸ [State of the Climate Report.](#)

⁹ [Climate change in the South East Queensland region: version 1.](#)

¹⁰ [IPCC Sixth Assessment Report: Technical Summary.](#)

¹¹ [Sea Level Projection Tool.](#)

¹² [Sixth Assessment Report: Technical Summary: Sea Level Projection Tool.](#)



Key issue 3: Biodiversity and habitat loss

The variety of habitat in our region can be found in coastal areas, wetlands, rainforests and mountainous areas and are home to a diverse array of plant and animal species. The different combinations of landforms and soils support vegetation communities like eucalypt forests and woodlands, melaleuca (paperbark) woodlands, coastal saltmarshes and mangroves, rainforests and vine thickets. These communities cover 42% of the region (see map on page 11) and are found within National and Conservation Parks, State Forests and Council's reserve network as well as on private land¹³. These diverse natural areas are the foundation of the rich biodiversity in our region, highly valued by the community and part of our identity.

Land clearing over time has removed and isolated habitats, amplifying the threatening processes and impacts of urban and rural development and a changing climate on plants and animals. At present, 33 native plants and 51 native animals in the region are listed as threatened under national and state legislation.¹⁴

It has been estimated that native vegetation clearing has occurred at an annual rate of 0.45% resulting in more than 20,000 hectares of native vegetation being cleared since 2000. Eucalypt forests and woodlands located on floodplains have experienced the most decline across the region with 17.6% (3,135 hectares) remaining. This has implications for the survival of species like the iconic koala, which has experienced a 62% loss of habitat in the region since European colonisation.¹⁵

The resilience of some species will be threatened by the impacts of climate change, including increasingly severe bushfires, particularly if their ability to migrate or adapt is limited by environmental conditions such as poor habitat connectivity or the availability of other suitable habitats. Another consequence of climate change is sea level rise which has implications for the extent of important mangrove habitats.

Another consideration for biodiversity conservation is the management of pest animals and plants. The impacts of pest animal and plant species will vary and often treatment responses and approaches may have to be tailored based on an assessment of risks and circumstances. For example, Fire ants are an introduced pest from South America. They cause significant social and economic impacts from their aggressive behaviour and painful sting, as well as environmental impacts by feeding on ground-dwelling or nesting fauna, eating, and damaging seeds and displacing some native species.¹⁶ Fire ants were detected in the region in 2022 as part of the national eradication program.¹⁷

Council undertakes pest management activities and is working with stakeholders to continue to address current and emerging threats, which will be important to biodiversity conservation, particularly with the increasing influence of climate change.

¹³ MBRC, unpublished, July 2022.

¹⁴ MBRC, unpublished, July 2022.

¹⁵ MBRC, unpublished, July 2022.

¹⁶ [National Fire Ant Eradication Program, Environmental impacts.](#)

¹⁷ [Fire Ant Map.](#)

Opportunity 1: The economy, innovation and technology

Our Moreton Bay economy is evolving. By 2041 it is expected to more than double compared to 2020, reaching \$40 billion and creating an additional 100,000 new jobs and 16,000 new businesses.¹⁸ This new growth will bring both sustainability challenges and opportunities for the future of our region.

The CSIRO's Our Future World¹⁹ report identifies seven global megatrends that will impact how we live over the coming decades. Three megatrends that are relevant include:

- the rapidly growing digital and data economy
- the rise of artificial intelligence and advanced autonomous systems to enhance productivity and outputs across all systems
- an increased focus on potential solutions to our resource constraints through synthetic biology, alternative proteins, advanced recycling and the net-zero energy transition.²⁰

Council's Regional Economic Development Strategy identifies knowledge, innovation and entrepreneurship as a priority high value-adding industry that will support the future economy of the region.

Proactively responding to the opportunities provided by these megatrends, coupled with a strategic vision for a sustainable and economically competitive region, will foster a diversity of industries, sectors and businesses that embrace innovation, technology, sustainability and a circular economy.

Opportunity 2: Resilience

Our environmental, social, cultural and economic assets will be under increasing pressure as our region is exposed to the adverse effects of climate change. Extreme weather events such as bushfires, floods, storms and heatwaves are occurring more frequently and intensely and this is expected to continue.

Average and extreme temperatures will increase. The combination of sea level rise and storm tide inundation will threaten coastal areas. Wind hazard events will also become increasingly frequent and severe. These hazards have potentially significant implications for our safety, health and way of life.

Adapting to these challenges presents an opportunity to re-think how we live, design our buildings and infrastructure, manage our natural areas and disaster events, and protect our most vulnerable. We can transition from reacting to and recovering from these changes, to being proactive by addressing risks and planning for resilience to enable our communities to thrive in the future.

¹⁸ [Moreton Bay Regional Economic Development Strategy](#).

¹⁹ [Our Future World](#).

²⁰ [Seven megatrends that will shape the next 20 years](#).

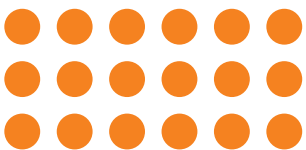


Opportunity 3: Brisbane 2032 Climate Positive Games

The Brisbane 2032 Olympic and Paralympic Games will provide the region with many opportunities including increased international tourism, trade and business investment to social benefits around community pride and enhanced partnerships between the different levels of government.

Importantly, the requirement to deliver a climate positive Games will foster innovation and behavioural change through efforts

to minimise the impact of the Games on the natural environment and ensure an enduring legacy. This could include greater consideration of the environmental performance of infrastructure, using nature-based solutions for engineering problems, implementing circular economy practices, reducing greenhouse gas emissions and promoting and using more sustainable forms of transport.



Our strategic framework

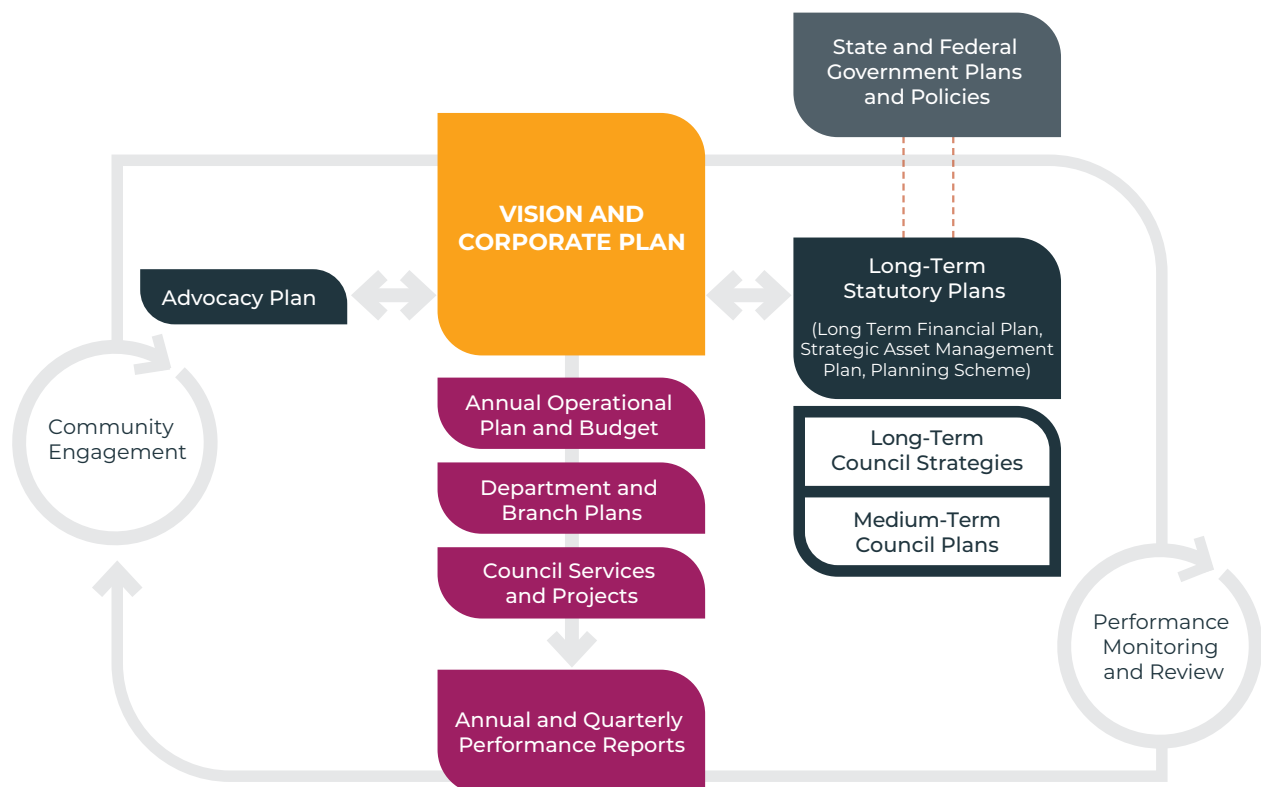
Our planning approach

Our approach to strategic planning is based on the integration of our vision, corporate plan, long-term financial and asset management plans, the planning scheme, other planning instruments, long-term strategies and supporting plans.

Our strategies are integral to delivering long-term transformational change and responding to current and emerging trends, challenges and opportunities. They draw on all areas of Council, and are informed by consultation with our communities, stakeholders, and other levels of government.

This Environment and Sustainability Strategy complements Council's other five long-term strategies through a consistent program of collective planning, decision making, performance monitoring and reporting.

Moreton Bay Regional Council Integrated Planning and Performance Framework



Our strategy framework

This strategy provides a whole-of-council framework that is intended to guide decision making, drive implementation and prioritise action and investment. To do this, supporting plans will have a key role in strategy delivery. These are outlined below.



Some of these plans are already in existence or in preparation and others will be developed in the coming years (marked with an asterisk) to address identified gaps, enhance integration and alignment with the directions in this strategy.



Our policy influences

This strategy has been informed and guided by applicable international, federal, state and regional frameworks, legislation, strategies and plans.

Federal and state legislation

It is estimated 100 pieces of legislation and practice standards govern and are incorporated into Council's operations to ensure the environmental health and sustainability of our region.

The snapshot below indicates the depth and complexity of this regulatory environment:

- 20+ federal legislation/regulations
- 60+ state legislation/regulations
- 30+ address biodiversity and/or biosecurity
- 10+ address waste management
- 10+ address climate resilience, emissions mitigation and/or disaster planning.

The above federal and state legislation addresses concerns as diverse as the management of natural resources, heritage and identity, economic development, resource efficiency, urban growth, transport, emissions mitigation, hazardous materials and chemicals, climate resilience, disaster management planning and the provision of local infrastructure.

The development of this strategy has been influenced by the complex regulatory environment in which Council operates.

The *Local Government Act 2009* and *Local Government Regulation 2012* is the principal legislation governing Council's establishment, constitution and operation.

The sections below set out key state and federal legislation, policies and strategies as well as relevant global frameworks.

Key legislation

Environment Protection and Biodiversity Conservation Act 1999 (federal) protects and manages flora, fauna, ecological communities and heritage places.

Planning Act 2016 outlines an efficient, effective, transparent, integrated, coordinated, and accountable system of land use planning, development assessment and related matters for ecological sustainability in Queensland.

Environmental Protection Act 1994 protects Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, while maintaining ecological processes.

Vegetation Management Act 1999 regulates the clearing of vegetation in Queensland.

Waste Reduction and Recycling Act 2011 contains a suite of measures to reduce waste generation and landfill disposal and encourage recycling.

State plans and strategies

State Planning Policy sets out assessment requirements for development applications where the state has an environmental or other planning interest. It also includes considerations and outcomes that must be addressed when making or amending planning schemes.

South East Queensland Regional Plan (ShapingSEQ) guides regional growth and development within South East Queensland.

Queensland Climate Adaptation Strategy 2017-2030 focuses on understanding climate risk, access to the best risk analysis tools to support adaptation, integration of climate adaptation into policies, and collaborative implementation.

Queensland's Zero Emission Vehicle Strategy 2022-2032 focuses on accelerating Queensland toward a cleaner, greener transport future while ensuring the energy network supports the transition to zero emission vehicles.

South East Queensland Koala Conservation Strategy 2020-2025 sets out the Queensland Government's collaborative approach to halting the decline of koala populations. Focusing on habitat protection, restoration and threat mitigation, its actions respond to the key recommendations and objectives provided by the Queensland Koala Expert Panel.

South East Queensland Natural Resource Management Plan 2009-2031 (2021 Update) sets region-wide targets to preserve the health of our natural assets. The most recent five-year update in 2021 found progress towards region-wide targets has been variable. The plan's responses were reviewed across each target area to account for this most recent information.

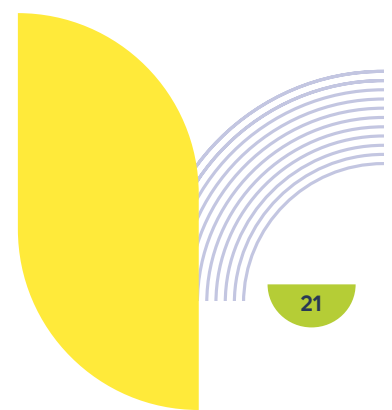
South East Queensland Waste Management Plan is a collaborative response from South East Queensland councils to the challenge of waste management under conditions of continuing population growth. Canvassing both behavioural change campaigns and infrastructure options, it sets direction to develop the region's capacities in resource recovery and value maximisation.

Global frameworks

The *Intergovernmental Panel on Climate Change (IPCC)* has identified climate change risks and impacts for the Australasian region, which are particularly relevant for South East Queensland and the Moreton Bay region.

Adverse impacts on ecosystems and human systems resulting from extreme weather events and climate impacts including heatwaves, floods, droughts, storms and fires are expected to increase which will exacerbate underlying existing vulnerabilities. This highlights the importance of taking immediate action to mitigate and adapt to the risks and impacts of a changing climate.

The IPCC's Sixth Assessment Report recommends immediate action on climate change to keep global warming below a 2°C increase, in accordance with the Paris Agreement. These global issues with local impacts have been taken into consideration in the development of policy directions and targets in this strategy to address climate change and natural hazard risks and as part of being a more sustainable and resilient region.





Sustainable Development Goals

Council's vision for the future of the region reflects the United Nations Sustainable Development Goals (SDGs) which provide a shared blueprint to address common social, economic and environmental issues that impact all communities on a global and local level.

The [2030 Agenda for Sustainable Development](#) was adopted by all United Nations Member States, to guide global sustainable development to 2030 and comprises of 17 SDGs. The SDGs aim to ensure a holistic approach to sustainable development by aligning strategies that improve health and education, reduce inequality, and spur economic growth, while tackling climate change and working to preserve our natural environments.

The Australian Government has committed to the SDGs, providing direction to all levels of government and a shared responsibility in working towards the goals. All SDGs complement and reinforce each other to support the overarching objective of global sustainability.

This strategy strongly aligns with the following SDGs, however, we recognise that the other SDGs may also complement and support this strategy's goal and help shape better local outcomes.



Our region's support in hosting the Brisbane 2032 Olympic and Paralympic Games provides a point of focus for the achievement of these SDGs.

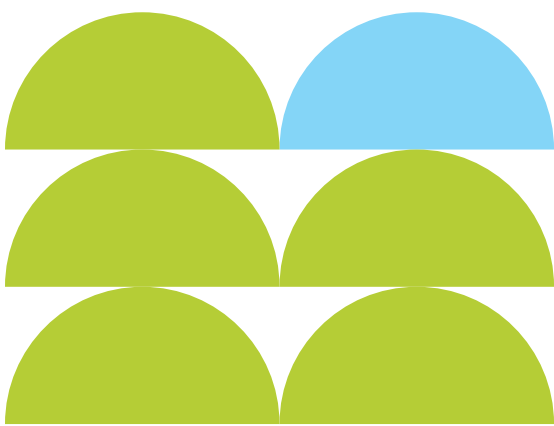


Council's role

Council adopts several roles to achieve this strategy's outcomes and priorities. Council will provide leadership to deliver services and programs, as well as regulate, advocate, educate, facilitate or partner with our communities and other stakeholders, together all these roles play a part in protecting the environment and promoting sustainability. Council will undertake each of these roles, to varying degrees, as part of its ongoing journey to create and maintain healthy and natural built environments

Our community places high value on the diverse habitats and our region's natural beauty and unique lifestyle. Council also plays an important role as a leader in planning for its future growth and as a steward of our region's environment by actively working to raise awareness and build greater community understanding and participation in preserving and enhancing our biodiversity and natural spaces.

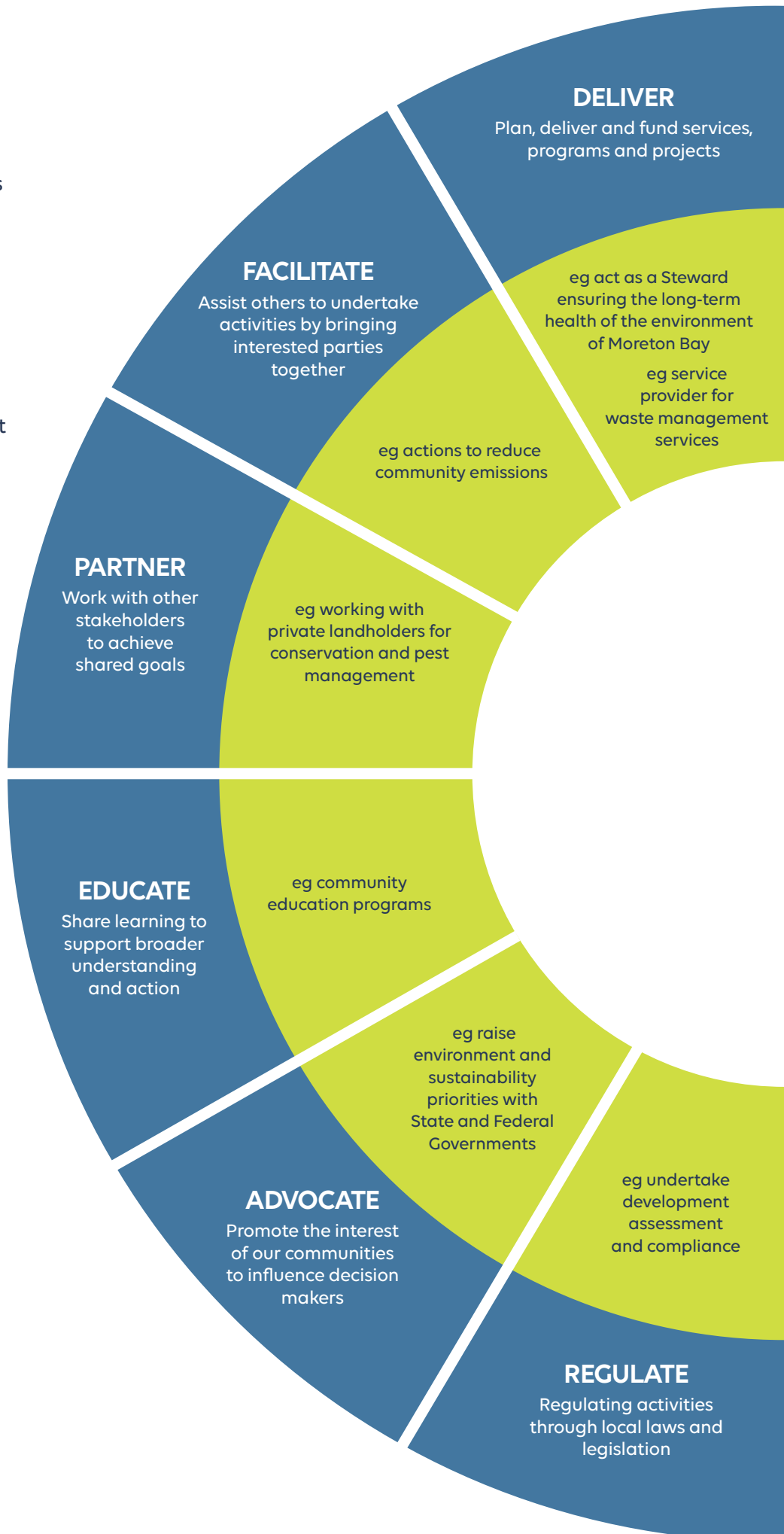
Where Council does not have a direct role, it can advocate to other levels of government for improved outcomes. It is important to recognise that Council is not solely responsible for funding, achieving outcomes or policy change for many matters, with some issues (such as statutory koala protections) the responsibility of state and federal governments.

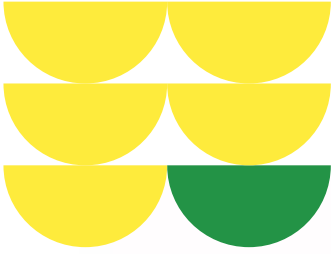


Our services

Our services that support this strategy's delivery include:

- Environment and Sustainability Planning
- Environment Education and Awareness
- Environment and Conservation Management
- Waste and Recycling
- Bushfire management
- Flood and Stormwater Management
- Coastal and Waterway Management
- Regional Planning and Place Making
- Development Services
- Infrastructure Planning
- Emergency and Disaster management
- Trade and Investment Attraction
- Asset Management and Maintenance.





Strengthening stewardship, collaboration and partnerships

Council recognises that stewardship of our environment is a shared responsibility. Council's role is to work collaboratively with all stakeholders such as Traditional Custodians, government agencies, education and research organisations, industry and business sectors,

and landholders to share knowledge, ideas and opportunities to seek to influence change through advocacy and partnerships, to ensure sustainable actions for the future benefit of our communities.

Our engagement and research



How we developed this strategy:

Learning from existing work	Benchmarking and research	Internal consultation	Community engagement	Technical expertise
Looking at what Council is already doing has helped reflect on our existing approaches and how we can build on our successes.	Researching and learning from others has helped to identify and apply best practice to address key challenges and take advantage of opportunities.	Collaborating across Council departments has helped create a strategy that is relevant to all our teams and works together with our other strategies to deliver our vision.	Our communities have provided great insights into the most pressing issues and priorities our strategies should address.	Seeking the expertise of technical and sector experts has helped outline and test ambitious and achievable pathways.

Working with our communities

This strategy has been informed by extensive community engagement around Council's Our Moreton program, as well as data from our Moreton Says surveys.

This comprehensive engagement exceeded previous community engagement programs. It provided several opportunities for Council's strategy teams to meet with our communities.

We listened to residents and visitors across the region to ensure our long-term planning reflects their aspirations and priorities.

These engagement activities enabled us to create a strategy that reflects the priorities and aspirations of our communities and stakeholders. Our communities' views demonstrated strong values about the importance of the natural environment and support for ensuring priority actions are undertaken to respond to climate change.

80 community members attended a Summit which included consultation for this strategy	4000+ people responded to the Moreton Says survey which rated the environment as the region's top value
60 people provided feedback on the draft Strategy via a survey, identified gaps and suggested improvements	9 submissions received from interest groups and related individuals on the draft Strategy

What we heard from our communities

Our communities contributed to this strategy through a summit, forums, surveys, youth program, and engagement events.

The following themes emerged through consultation activities undertaken to inform preparation of the draft strategy:

1. Natural areas and wildlife habitats	<ul style="list-style-type: none">• Our flora and fauna are a unique part of the region's identity. Our communities want Council to prioritise their preservation, protection and restoration.• Habitat restoration and wildlife corridors are also important to our communities. Residents made suggestions about environmental protection, and increasing natural areas managed for environmental purposes.• Our communities want Council to set high standards of environmental performance for development. Residents identified finding a balance with growth as a key issue. They did not want growth to come at the cost of the natural environment.
2. Coasts and waterways	<ul style="list-style-type: none">• The preservation of the region's natural environment is a high priority for our communities.• The community wants Council to ensure effective management of waterways and coastal health.
3. Sustainable living - buildings, neighbourhoods & infrastructure	<ul style="list-style-type: none">• Our communities want us to improve our region's sustainability through better infrastructure building practice, limits on urban sprawl and better designed neighbourhoods and buildings.• When asked about new developments, 6 in 10 survey respondents said they want buildings that are suitable for the climate and incorporate greenery.• 2 in 5 people prioritised the use of environmentally responsible construction materials and practices.
4. Climate change and natural hazards	<ul style="list-style-type: none">• Climate change is a major concern for our communities. Engagement discussions focused on mitigation, education and resilience.• Surveys demonstrated 73% of respondents agreed or strongly agreed that reducing Council's carbon footprint is good use of public money.• Similarly, 76% agreed or strongly agreed that helping community members reduce their carbon footprint was a good use of public money.
5. Waste and recycling	<ul style="list-style-type: none">• Our communities said they are motivated to reduce waste, recycle and reuse items such as building materials and generally consume less.• They were concerned about how waste will be managed as the region's population grows.• Residents consistently identified improvements in recycling and waste collection as factors that would support sustainable waste management behaviours.

6. Sustainability in our communities

- Our communities told us they want higher Council standards and service performance to achieve improved environment and sustainability outcomes.
- Residents are interested in reducing water use, energy saving technology, more solar electricity, growing food locally and electric vehicles.
- They support climate change education and resilience building.
- Residents identified factors such as cost as a barrier to more sustainable lifestyles. There are also barriers such as the need for more effective public transport and active transport infrastructure.

Residents' priorities from the original consultation aligned with the Community Wellbeing, Growth Management, Integrated Transport and the Regional Economic Development strategies. They focused on achieving more sustainable growth, sustainable development outcomes and protecting the natural environment. Council subsequently consulted on the draft Strategy and received feedback via a survey and written submissions.

The following are points of interest from the feedback received:

- 77% of survey respondents agreed that the strategy covers the most important issues to ensure a healthy environment and sustainable lifestyles.
- At least 75% of survey respondents supported or strongly supported the strategic priorities.
- The most supported strategic priority related to improving land management practices in catchments to restore water quality and quantity.
- There was some concern about how the strategy would be practically implemented, enforced, and competing priorities managed (including conflicts with other strategies).
- An increased emphasis on community greenhouse emissions, the desire for more specific targets, and reflecting the benefits of habitat protection and waterway corridors.

This feedback resulted in several changes and will also inform the preparation of detailed plans to assist with this strategy's implementation.

Council has released several consultation reports that summarise community feedback received during each consultation phase. These are available on Council's [Your Say Moreton Bay](#) website.





What our research told us

We used the following research to inform this strategy:

- benchmarking against other councils and scanning relevant sectors for good practice
- review of relevant national and global trends
- review of key state and federal policy settings
- internal consultation across council departments.

This research included an inventory of greenhouse gas emissions and expert advice which helped inform our selection of the net zero emissions reduction target for Council operations by 2039 (addressed in Outcome 4) using internationally accepted science-based methods.

In addition to undertaking engagement with our community, an internal engagement process was also undertaken to gather data and ideas and support preparation of this strategy and implementation of its actions. A stocktake of our environmental and sustainability activities confirmed Council has business as usual activities across conservation, fauna (including key species) management, water quality, catchment management, waste management and recovery, active transport, sustainable living, climate change mitigation and natural hazard management.

This review also revealed opportunities for better alignment and coordination of existing efforts, strategic priority setting and opportunities for more action in some key areas. This strategy will assist Council to address those opportunities and align its priorities and policies.

As staged implementation of this strategy occurs Council will continue to progress significant environment and sustainability initiatives in the region, including the following:

- | | |
|--|--|
| • Land Buyback for Environmental Purposes program | • ASPIRE circular economy marketplace platform |
| • Voluntary Conservation Agreements | • Feasibility investigation for Council solar farm |
| • Land for Wildlife program | • FOGO (food organics, garden organics) third bin collection service feasibility investigation and rollout |
| • Bushcare program | • Shoreline erosion management planning |
| • Tree planting program | • Living Coast Plan implementation |
| • Green infrastructure (fauna movement infrastructure and signage) program | • Natural hazard (flood, bushfire, urban heat, landslide) investigations. |
| • Environmental Education Centres and engagement programs | |
| • Landfill gas collection and conversion to energy at waste facilities | |



Our strategy roadmap

Our journey ahead

Achieving healthy and resilient natural and built environments that enhance our identity, support biodiversity and our sustainable lifestyles requires an integrated policy approach combined with ongoing action in collaboration and partnership with stakeholders and the community.

Our strategy roadmap is grounded in the identification of overarching guiding principles which inform the delivery and review of this strategy. It is then structured around the six outcome areas that support the Our Healthy Environments goal.

Outcome 1: Biodiversity and habitats

Our special natural areas and wildlife habitats are connected, protected and enhanced.

Outcome 2: Coasts and waterways

Our coasts and waterway catchments are used sustainably, and environmental values are protected and enhanced.

Outcome 3: Sustainable living

Our neighbourhoods, buildings, and infrastructure support sustainable living.

Outcome 4: Climate action

We understand and proactively respond to climate change and natural hazard risks.

Outcome 5: Use of resources

We enable our materials and resources to be used cleverly and recycled to avoid waste and pollution.

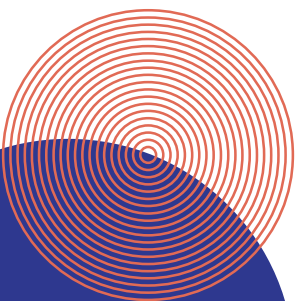
Outcome 6: Sustainable choices

Our communities and businesses practice sustainability in the choices they make every day.



Each outcome includes strategic priorities, policy directions, measures of success and targets where a specific and measurable value has been identified. Strategic priorities are longer-term and higher-level objectives that assist to break down the outcome into component parts. Policy directions give more clarity around the mechanisms, key decisions and general actions/directions that need to be taken to achieve the strategic priorities, targets (where relevant) and overall outcome.

The approach to monitoring and review and foundational actions for the first five years rounds out the roadmap approach and is included at the end of this strategy.





Our guiding principles

The following five fundamental guiding principles provide the overarching framework for how this strategy will be implemented and reviewed.

Demonstrating leadership

We will lead by example, inspire best practice from local industry and the community and empower our stakeholders to take action.

Collaborative and innovative

We always strive for the best outcome possible using innovation, collaboration and partnerships.

Adaptable and resilient

We are flexible and adaptable in our responses to rapid advances in technology, emerging data, changing circumstances, community views, new opportunities and emerging threats and trends to ensure resilient outcomes.

Best practice and contemporary information-led

We seek the best available information, practices, science and advice, and continually update our knowledge and skills.

Sustainable

We embrace and integrate the following principles of ecologically sustainable development.²¹

- The precautionary principle: If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- Inter-generational equity: The present generation should ensure the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.
- Conservation of biological diversity and ecological integrity: Conservation of the variety of life forms as the foundation for social and economic systems.
- Improved valuation, pricing and incentive mechanisms: Environmental factors and considerations (such as life cycle costs or polluter pays) should be included in the valuation of assets and service.

²¹[*Environment Protection and Biodiversity Conservation Act 1999: Section 3A.*](#)

Outcome 1: Biodiversity and habitats

Our special natural areas
and wildlife habitats
are connected, protected
and enhanced.

Why is this important?

Our natural areas support different ecosystems and vegetation communities and consist of an extremely diverse range of plants and animals.

Over 42% of the region is covered in native vegetation. Notable protected areas include D'Aguilar National Park, Freshwater National Park, Sheep Station Creek Conservation Park and Beerburrum West State Forest.

Our region's biodiversity has been significantly reduced by habitat loss from land clearing and fragmentation due to rural production, expansion of urban development and infrastructure.

The health of our biodiversity is also under pressure from pest and weed incursion, and changes in the distribution of native plant and animal populations, habitat function and species behaviour. Climate change and increasing frequency of natural hazards and extreme events is placing stress on our natural ecosystems and their ability to adapt, leading to an overall loss of ecological resilience.

The region is known for its beautiful natural areas. Residents are passionate about protecting the natural environment, which is central to our lifestyle and provides the green spaces in which to play, relax and enjoy, as well as ecosystem services central to our wellbeing such as clean air and water. Protecting and enhancing natural areas will help safeguard the region's unique environmental values and natural capital for future generations.

Council is already undertaking a number of programs and initiatives to protect, restore and rehabilitate natural areas and improve conservation outcomes. This strategy will continue to support, promote and expand this work on both public and private land, including through partnerships with stakeholders. By enhancing environmental values, Council will continue supporting the natural ability of ecosystems to restore and retain their value and have the best chance to adapt following impacts by natural hazards, or other stressors.



United Nations Sustainable Development Goal alignment

This outcome aligns strongly with the following three goals as our natural environment and biodiversity are integral to our economy, lifestyles, and the opportunities we seek:



Goal 8 seeks sustained, inclusive and sustainable economic growth, full and productive employment with decent work for all. The need to promote sustainable tourism, which will remain central to the region's image, is specifically recognised under Goal 8.

Goal 14 seeks to conserve and restore coastal and marine areas, promote sustainable use of marine resources and reduce marine pollution.

Goal 15 seeks to protect, restore and promote sustainable use of terrestrial ecosystems. In line with these goals, caring for our terrestrial and marine natural areas will help to promote local businesses and support sustainable jobs into the future.

What we are already doing

- Council's Land Buyback for Environmental Purposes program has secured 99 hectares of koala and wildlife habitat since 2020.
- Council has planted more than 112,000 trees across 111 sites since 2014 as part of its voluntary offsets program for Council projects.
- Signage and wildlife stencils on roads in habitat areas and ecological corridors promote native animal awareness.
- Rope bridges, underpasses, refuge poles and animal exclusion fencing at key crossing points minimise vehicle collisions with native animals.
- Council programs that manage invasive weeds and pest animal species.
- Land for Wildlife is a voluntary conservation program that partners with 600 landholders.



Our strategic priorities

- Connect, protect, enhance and expand our region's network of natural areas, wildlife habitats and movement corridors, and mitigate the threats which challenge their viability.
- Facilitate effective partnerships with private landholders, other levels of government, Traditional Custodians and community organisations to support the protection, enhancement and connection of special natural areas, wildlife and their habitats.
- Establish a monitoring and reporting program for the health of the region's special natural areas and wildlife to inform coordinated management.

Our target

- Maintain the extent of native vegetation* cover (currently 42%) in the region whilst accommodating population growth (no net loss†) and review the target by 2028 with a view to increasing cover over time.

**includes vegetation mapped as koala habitat area on the Koala Conservation Plan Map and vegetation included on the Queensland Government High Value Regrowth and Remnant Vegetation Maps*


† no overall reduction in native vegetation cover

Our policy directions

- Vegetation community diversity and wildlife habitat extent and condition (ie composition, structure and function) is maintained with a view to increasing both over time, and remnant and high value regrowth vegetation is protected.
- Identify current and emerging threats to biodiversity from pest plants and animals and incorporate responses into planning and operational decision making.
- Plan wildlife corridors for connectivity to allow wildlife movement, improve genetic diversity within species, and facilitate wildlife population responses to climate change, while recognising the need to buffer for edge impacts (eg weeds, changes in vegetation cover) and avoid adverse impacts from infrastructure such as road corridors, and urban development.
- Select priority areas for restoration, enhancement and wildlife corridors based on existing or potential environmental values, the area's function and the ecosystems it supports in the landscape.
- Work in partnership with the Queensland Government to expand the conservation estate, increase protection, biodiversity and connectivity of natural areas, and support environmental values.
- Identify, expand and connect isolated natural areas for protection on Council land where possible to improve ecological viability, increase wildlife habitat, respond to a warming climate, and provide managed access for enjoyment and education (where appropriate).

- Plan and undertake enhancement and restoration of natural areas in Council's estate using best practice approaches to address ongoing maintenance and hazard reduction requirements, access, weed and pest management, pollution, litter control, and facilitate connections to other natural areas.
- Land acquisitions and private land conservation are focused on achieving ecologically viable natural areas and habitats through linkages with other natural areas across the landscape and undertaking restoration in priority areas.
- Facilitate programs and projects that increase urban biodiversity, wildlife habitats and connectivity, increase urban tree cover and greening of the urban landscape.
- New development in existing and emerging urban areas avoids impacts on regional-scale corridors, riparian (waterway) and wetland areas, larger natural areas, and values and significant wildlife habitats to preserve linkages across the landscape and retain connected habitats for native wildlife.
- New development outside of existing and emerging urban areas avoids impacts on and further enhances natural areas and wildlife habitats, riparian (waterway) and wetland areas providing linkages to regional and local-scale corridors or other natural areas.
- Locate fauna movement infrastructure in areas that maximise safe movement of wildlife across the landscape, reducing barriers between and within local and regional-scale corridors, and linking natural areas.
- Council will lead and work collaboratively with stakeholders, advocate for ongoing protection of natural areas, build and strengthen stewardship, and effectively implement legislative, planning and regulatory provisions to preserve environmental values.
- Local and regional priority areas for restoration and enhancement are identified and private landholders and other stakeholders partner with Council on restoration activities supported by information, education material and advice.

Our measures of success

Measure		Desired target or trend
Improved green infrastructure network, safely connecting natural areas and wildlife habitats		Increase
Increased protected natural areas and land managed for wildlife habitats		Increase
Native vegetation cover		42%

Outcome 2: Coasts and waterways

Our coasts and waterway catchments are used sustainably, and environmental values are protected and enhanced.



Why is this important?

The region features numerous freshwater and marine habitats that provide many functions and benefits, such as fish breeding grounds, migratory and threatened species habitat, water quality improvement, beach and bank stabilisation, clean air and scenic amenity that contribute to the wellbeing of our communities.

Moreton Bay's coastline consists of beaches, canals and estuary areas and the region has three major river systems and many smaller creeks and catchments. While the Stanley River flows inland to a significant water storage dam, the Pine River, and the Caboolture River and a number of smaller creeks flow into Moreton Bay.

Large areas of Moreton Bay are protected and recognised as wetlands of international significance and as Queensland State Marine National Parks. There are more than 2,600km of streams and waterways mapped by Council within the region. Managing the health of our rivers, streams and the water that flows into them is important for the overall health of Moreton Bay.

Numerous wetlands are located within the region including both freshwater and marine habitats. Over 9,000 hectares of Moreton Bay's coastal areas, including the Pumicestone Passage, are recognised as a Ramsar wetland of international significance for migratory shorebirds. Bribie Island wetland areas, dominated by Melaleuca tree species (Paperbark) and Eucalyptus tree species as well as heath vegetation, have also been recognised as nationally important wetlands.²²

Moreton Bay provides important feeding areas for several nationally threatened wildlife species, such as the green turtle, hawksbill turtle and loggerhead turtle, as well as the internationally vulnerable dugong.

The area is also home to many migratory birds that are protected by international conservation agreements.

The natural beauty of the Bay attracts many recreational visitors. Our coastline and waterways are a major tourism drawcard, which contributes to the region's economy. These areas provide for recreational activities such as bush walking, bird watching, four-wheel driving, camping and kayaking. In 2018/19 tourism brought 4.7 million visitors who spent \$1.1 billion in the Region, supporting 5,313 jobs. As our population grows and visitor numbers increase, it will be important that residents and visitors interact with the Bay in a sustainable way, ensuring its health for future generations.

A changing climate will result in altered rainfall patterns (duration and quantity), extreme weather events, sea level rise and rising temperatures, which will affect the health and function of our waterways and wetlands. These impacts will be compounded by existing pressures on water supply from infrastructure, agricultural and urban uses.

There is increasing recognition of the contributions made by wetlands and waterways to biodiversity and environmental condition. They perform vital roles improving water quality, storing carbon and providing a refuge for wildlife during drought periods. Artificially created wetlands and waterbodies for bioretention in urban environments can also provide these benefits.

These areas also help communities adapt and respond to the effects of a changing climate. They cool the environment, retain soil moisture during drought, moderate flood impacts on community infrastructure and businesses, as well as slow the effects of sea level rise and encroachment on inland landscapes. As the pressures of growth and a changing climate increase, protecting the network of our vegetated waterways, streams and wetlands therefore becomes more important than ever.

²² [Australian Wetlands Database.](#)

United Nations Sustainable Development Goal alignment

This outcome aligns strongly with the following four goals which focus on the different actions required to preserve clean waterways and healthy coastal environments.



Goal 6 seeks sustainable water management, while Goal 14 seeks conservation and sustainable use of marine environments and resources. As in Outcome Area 1, Goals 8 and 15 are again relevant, though there is greater emphasis here on preventing pollution, water quality and our coastal environments. Conservation of our region's terrestrial ecosystems, which contribute to Goal 15, also helps protect the freshwater resources and coastal environments that are relevant to Goals 6 and 14.





What we are already doing

- Trash racks and gross pollutant traps reduce litter entering our waterways.
- Maintain stormwater infrastructure, such as pipes, channels and culverts, so the drainage system performs as intended.
- Coastal assets, such as jetties, pontoons and boat ramps ensure safe access to coastal waters.
- Beach nourishment at Woorim reduces erosion risks and protects dunes for turtle nesting.
- Seawall repairs at Bongaree Beach and Toorbul use structures and coastal vegetation to protect the shoreline.
- Water quality monitoring and aeration at Beachmere Lake reduces the risk of fish kills.
- Community Bushcare programs on coastal dune and upstream riparian areas.
- Local clean up activities (eg Clean Up Australia Day).
- Education and Engagement Program targeting coastal areas.
- Comprehensive network planning for stormwater quality infrastructure, including actions aimed at sustainable nutrient (from runoff) targets for waterways.
- Total Water Cycle Management Plan project review and update (2020-2022) enables strategies and actions to achieve the vision for water cycle outcomes and aligns land use planning and sustainable water management considerations.



Our strategic priorities

- Protect, maintain and manage creeks, waterways and wetlands as natural systems so they are healthy, thriving and resilient to the impacts of climate change.
- Improve land management practices in the region's catchments to restore the quality and quantity of water in our waterways to meet the needs of the environment and community.
- Integrate consideration of ecological values and ecosystem services (eg the functions that benefit the community like flood defence and bank stabilisation) of waterway corridors, wetlands and riparian areas into management decisions that affect waterway protection, restoration and enhancement.
- Facilitate effective partnerships between public and private landholders, other levels of government, Traditional Custodians, community organisations and Council to facilitate integrated catchment and coastal management including restoration, protection and enhancement of environmental values.

Our policy directions

- Support the ongoing survival of key terrestrial and marine species that use Moreton Bay and its coastal areas (particularly those already under threat) by considering how management decisions impact their distribution, habitat and life-cycle requirements.
- Support protection of instream and wetland habitats and aquatic biodiversity through:
 - improvements to their identification
 - water quality
 - riparian area restoration and management
 - minimising modifications to banks and channels
 - removing artificial impediments to fish movement.
- Ensure that creeks and waterway corridors are protected and maintained as natural systems, as important links to and between regional and local-scale corridors and natural areas.
- Recognise that creeks and waterway corridors are places of significant cultural value for Traditional Custodians and those values are to be protected and respected.
- Consider the extent of ecosystem changes anticipated due to a warming climate in decision-making and planning for coastal communities.
- Coastal ecosystems are managed to preserve their protective and ecological benefit to the region's coastline.
- Water sensitive cities principles are incorporated into total water cycle management planning which effectively integrates land use planning and sustainable water management considerations.
- Prioritise improvements to water quality in creeks and waterways through initiatives and partnerships which minimise pollution caused by runoff from urban and rural environments.
- Support litter prevention awareness and clean-up programs to avoid pollution of waterway, coastal and marine environments and impacts on marine life.

Our measures of success

Measure		Desired trend
Improved quality of our local waterways		Increase
Increased protected natural areas and land managed for wildlife habitats		Increase

Outcome 3: Sustainable living

Our neighbourhoods,
buildings and
infrastructure support
sustainable living.



Why is this important?

Rapid population growth, changes to our demographics and household compositions, patterns and modes of working and transport, and climate change impacts require thoughtful and intelligent planning and design of our homes, neighbourhoods, and infrastructure.

These changes will place our natural environment under significant pressure. How we live in the environment may need to change as we transition to a more sustainable way of life. Our communities range from urban hubs and seaside towns to hinterland villages. This means there is no one solution to what our communities need to support more sustainable living.

How we plan and design our built environments can significantly influence people's daily choices. Key elements of sustainable communities in a changing climate²³ include heat island mitigation, reduced energy demand, and access to services and active transport options.

Well designed and planned neighbourhoods, buildings and infrastructure can help reduce the number of private vehicle trips, promote active lifestyles, reduce urban heat, and facilitate lower energy and water consumption. These factors can also influence health and wellbeing, affordability and quality of life - all aspects that contribute towards sustainable living.

However, there are many challenges to overcome. Over the past 10 years median lot sizes have reduced while house sizes have increased. This affects how people and communities use their neighbourhoods, often resulting in greater demand on energy and road transport networks, fewer backyards and trees, and increased urban heat hazard potential.

As the population grows, the need to grow and live sustainably becomes increasingly important. This strategy supports the Growth Management Strategy in navigating the challenges associated with accommodating population growth while maintaining liveability and environmental values. A key part of that will be through the implementation of an urban growth boundary and the effective realisation of infill development opportunities on land within it, in a way that is sensitive to its environmental context and responsive to the climate, resilience and sustainability challenges of the region.

By taking a sustainable approach to our future growth, we can strike a balance that will accommodate growth and economic prosperity, while protecting our beautiful natural environment and enviable lifestyle.

²³ [Chapter 4: Urban and coastal planning.](#)

United Nations Sustainable Development Goal alignment

This outcome aligns strongly with the following three goals which focus on well-being, sustainable energy and urbanisation.

3 GOOD HEALTH
AND WELL-BEING



7 AFFORDABLE AND
CLEAN ENERGY



11 SUSTAINABLE CITIES
AND COMMUNITIES



Goal 3 seeks to ensure healthy lives and promote well-being for people at all ages, and Goal 7 seeks universal access to affordable, reliable and sustainable energy. Actions that reduce the health risks of urban heat or promote access to renewable energy, will contribute to these goals.

Outcome area 3 also aligns with Goal 11, which seeks to make cities and human settlements inclusive, safe, resilient and sustainable. This goal focuses on the processes of urbanisation, participatory planning, and opportunities to design cities sustainably as they grow. Specific targets under this goal seek universal access to the benefits of urbanisation, particularly for those in vulnerable situations, women, children, persons with disabilities and older persons.

This includes access to:

- safe, affordable and sustainable transport
- safe green and other public spaces.



What we are already doing

- Your Next Generation Home Guideline provides practical sustainable design choices to make homes more economical and sustainable.
- Your Climate Smart Living Guideline provides practical tips for building, renovating or buying a house in our region.
- Naturehoods: Your Backyard and Outdoor Spaces Guideline provides practical tips on designing your backyard or small outdoor space.
- Since 2017, Walk to school shade projects resulted in 35km of tree plantings in Caboolture, Deception Bay, Kallangur, Kippa-Ring, Margate, and Murrumba Downs.
- New policy to guide the future of the Narangba Innovation Precinct, home to many large-scale industrial enterprises.
- Advocacy through the Local Government Association of Queensland (LGAQ) to promote energy efficient design in building standards.
- Investigation into the performance of Next Generation Neighbourhood Precincts.

Our strategic priorities





- Establish equitable access to walkable, complete communities for new neighbourhoods which are livable and leafy, support urban biodiversity, promoting local economic opportunities and social connectedness.
- Plan and design neighbourhoods, buildings and infrastructure to respond sensitively to their natural environment context, achieving sustainable development outcomes and supporting future growth.
- Neighbourhoods and buildings are efficiently serviced and provide for effective waste minimisation and management, water and energy efficiency, and reduced reliance on non-renewable energy and fuel sources for electricity and transport.
- Design buildings and infrastructure that are responsive to our changing climate and increasing natural hazard risks with the planning, design and building of cities, towns, neighbourhoods, streets and places reflecting best practice approaches in disaster risk reduction, resilience and adaptation.



Our policy directions

- Council supports well-planned communities and places that are socially connected, resilient, climate-responsive and designed for safety to support biodiversity and efficient use of land and resources.
- Council supports the integration and connection of new and existing neighbourhoods with recreation and natural areas using shaded pathways that enable year-round walking and cycling.
- Council supports active transport (walking and cycling), reduced car dependence and lower carbon transport options and incorporates them in existing neighbourhoods, and the planning and design of new neighbourhoods.
- Planning and design of neighbourhoods, streets and public places considers urban heat island effects, and how they can be addressed to create cooler communities and reduce the impact of extreme heat events.
- Identification of new future growth areas avoids larger natural areas and habitats to preserve and restore links across the landscape and protect the region's biological diversity.
- Council supports and encourages uptake of sustainable design elements across new and retrofitted infrastructure including renewable energy installations, green roofs and walls, water and energy efficiency measures and low embodied carbon materials.
- Circular economy and local economic opportunities (eg supporting incubator projects, microbusinesses and industry co-location) are considered when planning for new neighbourhoods and centres.
- Land for sustainable farming and agribusiness will be retained to contribute to regional resilience and economic growth.
- Council supports community gardens and urban farming for local food production and community resilience.
- The settlement pattern for the region is informed by and responds to the scale and implications of natural hazards and climate change risks and the built environment and supporting infrastructure are planned, designed and built to increase resilience and support all people to thrive and adapt to a warming climate.
- Council leverages partnerships with key stakeholders (including federal and state government and industry) to advocate for, and facilitate, sustainability-led urban form outcomes and projects.

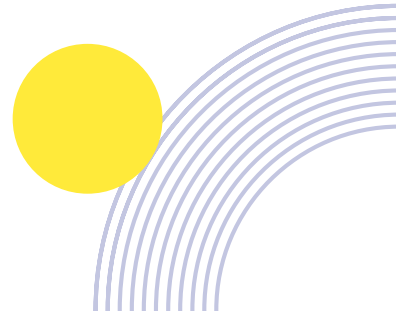
Our measures of success

Measure		Desired trend
Improved green infrastructure network, safely connecting natural areas and wildlife habitats		Increase
Increased protected natural areas and land managed for wildlife habitats		Increase
Improved quality of our local waterways		Increase
Reduced bushfire risk on Council managed land		Increase



Outcome 4: Climate action

We understand and proactively respond to climate change and natural hazard risks.



Why is this important?

Climate change impacts are already being experienced at regional and local scales. The expected effects of climate change include rising sea-levels and coastal inundation, increased bushfires, increased intensity and frequency of heatwaves, and increased intensity of storms and extreme rainfall events leading to flooding.²⁴ The consequences of these climate change impacts are already being felt in natural areas and by many communities across our region.

The latest research is telling us that global warming of 1.5°C and 2°C will be exceeded this century unless deep reductions in global greenhouse gas emissions occur in the coming decades.²⁵

In response, Council has calculated a greenhouse gas emissions reduction target for its operations, using internationally accepted science-based methods. This strategy sets that target at net zero operational emissions by 2039.

Every increment of global warming will intensify the severity and frequency of extreme weather events and increase natural hazard risks. Sea level rise will increase coastal erosion, permanent inundation and storm tide surges.

Even if the goal to limit global average temperature rise to below 2°C above pre-industrial levels is reached, a legacy of historical greenhouse gas emissions means an expected intensification of consequences in future.

A decline in average annual rainfall with increasing heat stress will produce 'heat island' effects. Localised heat build-up and release is a key hazard for urban areas. This is because urban heat island impacts on human and environmental health will increase with

climate change driven temperature increases, amplified by increasing smog and pollution levels in urban centres.

Council research indicates that average land surface temperatures in the region's suburbs have ranged from 38°C to 45.4°C in summer. This is 7.5°C to 14.9°C higher than the average land surface temperature in D'Aguilar National Park,²⁶ demonstrating the temperature difference between built and natural environments.

These challenges can be addressed through urban form design (shape, size, density and configuration of settlements) and micro-climate mitigation actions such as increased and strategically placed tree cover as well as climate responsive design elements (eg green infrastructure, shaded streetscapes, light coloured roofs, spacing between buildings, green facades and optimal site coverage).

Heat island and water scarcity pressures are most keenly experienced by vulnerable communities who cannot afford home insulation and air-conditioning but are affected by increasing energy and pollution emissions. These disproportional societal effects may lead to social inequality, disruption and increased demand for health and social services.

This strategy recognises the need for a risk-based approach to natural hazard planning and adaptation for climate change impacts. It will facilitate direct action to mitigate and adapt to climate change and respond to current and future natural hazards by increasing resilience and reducing disaster risks.

²⁴ [*Pathways to a Resilient Queensland: Queensland Climate Adaptation Strategy 2017-2030.*](#)

²⁵ [*Synthesis Report of the IPCC Sixth Assessment Report: Summary for Policymakers.*](#)

²⁶ MBRC, unpublished, January 2023.

United Nations Sustainable Development Goal alignment

This outcome aligns strongly with the following five goals across well-being, cities and infrastructure, climate action and partnerships



Goal 3 is concerned with health and well-being for people at all ages. Goal 9 seeks resilient infrastructure and sustainable industrialisation. Goal 13 sets out the need for urgent action to combat climate change.

Respectively, these goals highlight various roles in the global challenge of combating climate change and its impacts. Innovative industry is needed to help drive a shift to clean and environmentally sound technologies, and there is increasing need for adaptation to climate-related impacts.

Additionally, managing the growth of our urban areas in ways that build resilience, reduce, avoid or mitigates risks arising from natural hazards and limit greenhouse gas emissions will support Goal 11. Strengthening our capacities for sustainability, for example through enhanced partnerships and supportive policy, will contribute to Goal 17.



What we are already doing

- A 30kW rooftop system at Caboolture Memorial Hall and 145 kW of solar panels on The Corso.
- Lighting, heating and cooling upgrades, and additional electricity metering at 23 facilities to save energy in Council operated buildings.
- Options analysis to determine suitable sites for a large-scale solar farm.
- Two solar powered lawn mowers.
- Ningi transfer station is 100% powered with solar energy and could provide a model for other material management facilities.
- Landfill gas feeds power plants at the Bunya, Caboolture and Dakabin waste facilities. The methane captured from landfill generates enough electricity to power 7,000 homes.
- Council's Living Coast Plan responds to community concerns and increasing threats to our infrastructure, services and environment.
- Your Flood Smart Building Guide provides tips for rebuilding or retrofitting in a flood-prone area.
- Updating Council's flood modelling.
- Continuing to make annual inventories of Council's greenhouse gas emissions which will assist with tracking progress toward our science-based target.

Our strategic priorities

- Reduce greenhouse gas emissions from Council's operations to demonstrate leadership in emissions reductions and in recognition of Australia's international commitments to reduce emissions and keep global average temperatures to below 2°C and as close to 1.5°C as possible.
- Demonstrate leadership in sustainably managing Council operations and build internal capacity to respond proactively and promptly to a warming climate and effectively identify, assess and plan for increased resilience to natural hazards and climate risks in the region.
- Council's operations, planning and decision-making are informed by and respond to a robust understanding of current and future natural hazard and climate change risks.
- Increase community awareness and understanding of natural hazards (including extreme weather events) and climate change impact to strengthen community resilience and capacity to respond and adapt to the effects and impacts of a warming climate and increasing risks of natural hazards.
- Community actions to reduce personal, household and business greenhouse gas emissions are supported by Council programs, initiatives and information which build awareness and inform action.



Our target

- Net zero greenhouse gas emissions by 2039 for Council's operations.


Our policy directions

- Council actively plans for a warming climate using best practice approaches in risk-based planning, climate resilient design, adaptation, avoidance and mitigation strategies to reduce disaster risk and increase community resilience.

Climate Change Mitigation

- Prioritise practical measures to reduce greenhouse gas emissions as the primary and immediate means of a mitigation response to a warming climate.
- Reduce greenhouse gas emissions from new buildings and infrastructure using a selection of materials, sustainable design and renewable energy.
- Council supports use of renewable energy and energy efficient devices and appliances across its operations.
- Engage stakeholders to support projects and initiatives that create sinks that store greenhouse gases in vegetation and soils, including urban forests and tree planting, regenerative farming, land and biodiversity restoration projects.
- Publish Council's greenhouse gas emissions annually with base data inputs revised as accepted methodologies change and organisational capacity and data systems allow.
- Support the regional implementation of community greenhouse gas emissions reduction initiatives by other levels of government and stakeholders, including collaboration with all stakeholders to assist with the monitoring, reporting and mitigation of greenhouse gas emissions.

Climate change adaptation

- Council decision-making processes and operations are informed by a climate change adaptation risk assessment which analyses the nature of the risks, including transitional risks over time, and their financial, operational and management implications.
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Natural hazards

- Support nature-based solutions when responding to natural hazard risks, including vegetation protection, revegetation, re-naturalising grey infrastructure such as stormwater drains, ecosystem restoration, reducing hard surface areas, providing space for floodplains, forests and urban greening.
- Prioritise long-term natural hazard and climate resilience of communities, reduction of disaster risk, and use of risk-based strategic land use and infrastructure planning, from an individual site scale to planning for future growth areas.
- Community infrastructure that is essential to keep accessible and functioning during natural hazard events and those land uses that are hard to evacuate or accommodate vulnerable people, are located away from areas at risk from natural hazards like flooding, bushfire, coastal erosion and inundation.
- Prioritise and deliver climate change and natural hazard preparedness and risk adaptation education to empower local businesses, industry and the community to make informed decisions.

Our measures of success

Measure		Desired trend
Reduced greenhouse gas emissions from Council operations		Net zero greenhouse gas emissions by 2039
Reduced bushfire risk on Council managed land		Increase

Outcome 5: Use of resources

We enable our materials and resources to be used cleverly and recycled to avoid waste and pollution.

Why is this important?

Many of the resources we use in our daily lives are finite. It makes sense to reduce waste using resources efficiently and wisely to keep products and materials in use for as long as possible.

Resource efficiencies benefit communities, businesses and the natural environment through cost savings, reduced greenhouse gas emissions, and reduced waste in landfill.

We must use resources wisely to balance the needs of current and future generations. Resource efficiency and the circular economy is about changing consumption and services practices, so products become more durable, reusable, repairable, and recyclable.²⁷ Circular economy practices provide the tools to reduce waste and increase product repurposing and reuse, resulting in employment creation and economic growth.²⁸

This strategy will build on existing initiatives and encourage sustainable consumption and production through innovative and efficient solutions to recycle, repurpose and reuse materials. It will also support communities and businesses to use resources wisely to drive innovation, job creation and economic growth in a circular economy.

United Nations Sustainable Development Goal alignment

This outcome aligns strongly with the following four goals which relate to economic growth, industry and infrastructure, urbanisation and consumption and production.



Goal 8 seeks sustained and inclusive economic growth, with decent work for all. Goal 9 seeks to build resilient infrastructure, promote sustainable industrialisation and foster innovation. Goal 11 seeks sustainability in cities and Goal 12 seeks sustainable patterns of production and consumption. One of the targets under Goal 8 seeks to decouple economic growth from environmental degradation, while a target under Goal 12 highlights the need for environmentally sound management of wastes to minimise adverse impacts on health and the environment. This Outcome requires continuing innovation to repurpose current waste streams and design new products to aim for zero waste.

²⁷ [What is a circular economy?](#)

²⁸ [Regional Economic Development Strategy.](#)



What we are already doing

- Businesses in the region with fewer than 100 employees can access the free ASPIRE digital tool to transform their waste removal processes, potentially turn their waste materials into income, and track their carbon footprint.
- Free Rethink waste, recycling and composting workshops for residents.
- Council supported Clean Up Australia Day, International Composting Awareness Week, and National Recycling Week activities.
- 12 waste management facilities accept a wide range of materials for reuse, recycling and disposal.
- Treasure Markets at Dakabin and Caboolture waste facilities rescue useful furniture, cookware, building material, bicycle parts etc from landfill.
- The Sustainability Champions Awards recognise schools and early learning centres leading the way in reducing their waste to landfill.
- Rainwater storage has been installed at The Corso, Caboolture Hub and under sports fields in Samford and Burpengary.
- From early 2024, Unitywater's Wamuran Irrigation Scheme will provide recycled water for sustainable agribusinesses and divert significant quantities of nitrogen and phosphorus from the Caboolture River.
- Council is preparing to deliver a FOGO third bin waste collection service.

Our strategic priorities

- Facilitate and expand sustainable waste management approaches which reduce waste to landfill and maximise resource recovery and reuse in response to population and economic growth and changes to technology.
- Implement circular economy principles to keep products and materials in circulation, reducing pressure on the region's natural resources.
- Encourage sustainable consumption and production patterns to help reduce waste and pollution to minimise adverse impacts on the natural environment.
- Encourage sustainable use of soil and water resources and conserve good quality farming land to support the food and agribusiness industry and promote local resilience and economic growth.

Our targets

- Divert 85% of waste from landfill by 2040.
- Increase recycling rates to 70% by 2040, including reducing contamination of recycling.

Our policy directions

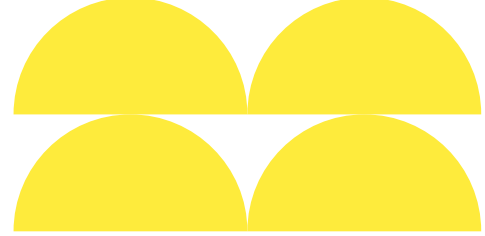
- Incorporate the waste hierarchy (prevent, reduce, reuse then recycle) into decision-making and policy.
- Incorporate innovative and efficient ways to recycle, repurpose and reuse materials into Council projects and activities.
- Council landfill management is based on the principle of waste as a resource and incorporates innovative approaches, technologies and solutions for maximum efficiency and reduced pollution.
- Incorporate the circular economy principles into decision making and policy: eliminate waste and pollution, circulate products and materials (at their highest value), and regenerate nature.
- Support communities and businesses to make informed purchasing decisions and have access to recycling, repurposing and reuse options for products and materials to contribute to keeping them in circulation and avoiding waste.
- Develop and expand businesses, industries and supply chains that are responsive to new markets and circular economy opportunities, support them through co-location, partnerships, networking opportunities and promotion of best practice and case studies.
- Adopt appropriate innovative solutions and technologies for energy, water and other resource use efficiencies.
- Collaborate with stakeholders to expand on the Regional Economic Development Strategy and encourage and maximise sustainable production and use of local food and fibre resources that support sustainability outcomes such as low food miles eating, farm-to-plate and buy local.
- Collaborate with the Queensland and Australian Governments on their initiatives for plastic pollution reduction and other waste minimisation opportunities.

Our measures of success

Measure	Desired trend
Increased waste is recycled and diverted from landfill	85% waste diversion from landfill by 2040 70% recycling rate by 2040

Outcome 6: Sustainable choices

Our communities and businesses practice sustainability in the choices they make every day.



Why is this important?

Every day we make choices about what we buy, how we move around and what we throw away. Practicing sustainability can take many forms, such as supporting local businesses, using renewable energy, low emission transport, or growing our own food. It is important that our businesses and communities have the necessary information and resources to participate in behaviours, actions and practices that lead to a sustainable lifestyle.

Our Moreton pulse survey identified residents were already taking actions to live more sustainably, such as recycling, reducing energy consumption and re-using waste. This strategy will continue to support communities to make these choices, provide resources and incentives to make sustainable living more accessible to everyone.

The region also has businesses who champion sustainable and circular economy practices, including IKEA, and paddock to plate and

low food-mile initiatives such as REKO which link small producers to customers to create sustainable food supply chains. There is an opportunity for the region to establish its sustainability credentials and attract more like-minded companies to create an innovative hub which focuses on positive impact.²⁹

It will be important for our residents and businesses to work together with Council and key partners to support sustainability initiatives to achieve this outcome, due to the complex issues and expected pace of change.

Community education and business development programs undertaken to support the outcomes of the Regional Economic Development Strategy, can work to ensure that residents and businesses fully benefit from opportunities generated from the transition to a low carbon and low waste future. Equally, Council can draw from the best current examples and promote sustainability practices most beneficial to our region.



²⁹ [*Sustainability - caring for people and the planet.*](#)

United Nations Sustainable Development Goal alignment

This outcome aligns strongly with the following five goals which relate to education, energy, industry and infrastructure, urbanisation and partnerships.



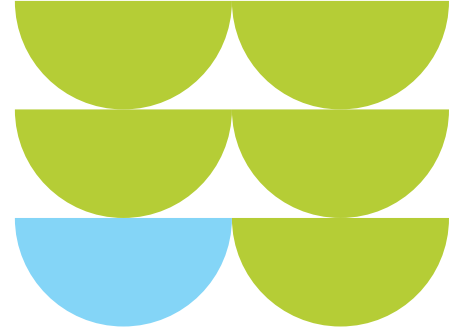
The above goals are relevant but the scope for contributions to Goals 4 and 9 are particularly worth mentioning. Goal 4 is relevant because, as an educator and facilitator, Council can help our communities acquire the knowledge and skills that promote sustainable lifestyles. Goal 9 is relevant because everyday sustainability also requires access to sustainable waste, transport and energy infrastructure.

Goal 17 seeks to strengthen the means of implementation through partnerships, including public-private and civil society partnerships supported by effective policy.

Working toward this outcome area may therefore involve a wide range of actions relevant to the goals. It could require innovation and may involve new kinds of partnerships with communities, infrastructure providers, business, and other stakeholders.

What we are already doing

- Environmental education centres at Burpengary, Caboolture, Griffin and Eatons Hill offer school programs, community activities and workshops that focus on the natural environment and sustainable living.
- Waste education programs reached thousands of students in 2020/21.
- Council partnered with Grow it Local to help residents and groups connect with others and share produce, knowledge, seeds, recipes, space, and skills.
- The Sustainable Moreton Bay Business Toolbox showcases our sustainable precincts and links businesses and sustainable start-up enterprises to resources.

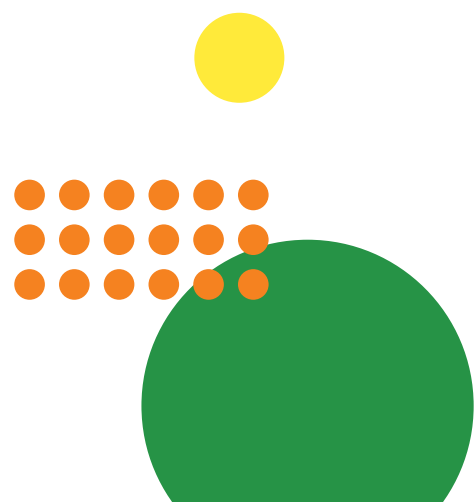


Our strategic priorities

- Support our communities to make sustainable lifestyle choices through purchasing decisions, water and energy use, transport mode and travel choices.
- Support businesses to embed sustainability and circular economy principles in their daily activities, systems and processes.
- Our region's sustainability credentials attract aligned industries and businesses that contribute positively to innovation, entrepreneurship and economic growth.

Our policy directions

- Increase access to and awareness of how to implement sustainability practices into daily life for residents and businesses and promote best practice and case study examples.
- Facilitate and support stakeholder partnerships to leverage funding for initiatives that:
 - increase and share knowledge about how to live and work sustainably
 - support incubator, demonstrator or trial projects
 - support innovative approaches and new technology
 - allow catalytic or best practice projects to be undertaken.
- Council's industry attraction initiatives and purchasing policy encourage sustainable and climate positive businesses and industries that consider the impacts of investment decisions on the environment, their customers and supply chains to make sustainable choices.



Delivering our strategy

This strategy provides strategic direction to Council's environment and sustainability policies, plans, programs and services. The strategy's timeline looks to 2042 to align with our vision, while focusing on the next 5-10 years. To successfully navigate our roadmap and achieve our strategic priorities, we will all have to work together to focus on everything from long term actions to daily activities for sustainable lifestyles.

This strategy will directly guide preparation of supporting plans and indirectly inform and influence other plans and policies (eg Council planning instruments). This strategy also guides decision-making across matters related to all six outcome areas.

Planning our actions

This strategy is supported by an action plan that identifies priority actions to be delivered over the next five years. This plan may be reviewed during this time to include new actions as they are identified or amend actions to ensure we are meeting expectations.





Monitoring our success

Our progress towards this strategy's achievements will be monitored and reported through Council's annual report. This will include progress against our measures of success, targets and actions. These reports will be shared with our communities to drive transparency, uphold Council's value of sustainability and ensure accountability as we continue to explore ways to improve accessibility.

Monitoring and reporting on the success of individual actions can include various metrics, eg community members engaged in education programs, dollars and emissions saved on climate mitigation activities, volunteer hours spent delivering environmental programs or activities.

In this strategy we have identified the importance of programs to monitor the health of our environment and ecosystems. As we continue to develop the data collection and monitoring systems needed, the results will be incorporated into existing (eg annual report) and/or new reporting where most effective for management and stakeholder awareness purposes.

Reviewing our strategy

This strategy is a living document that will be adjusted as required. It includes a major review every five years to align with our Corporate Plan review process. This will ensure the strategy is achieving the intended outcomes, responds to emerging challenges and opportunities, and meets community expectations.

Input to this strategy may be reviewed to incorporate relevant updates to the following:

- consideration of new targets and data gathered within supporting plans
- consideration of whether additional strategy targets or measures of success are desirable following initial implementation of the strategy
- consideration of any new actions or amendments to existing actions to reflect implementation progress, opportunities or barriers.

Resourcing our strategy

Our annual budget and operational plan process will guide priorities and resource allocation to progress this strategy's implementation and supporting plans.

This strategy will also guide our advocacy work to help influence collaboration, partnerships and resourcing for our communities.

Thank you for helping us shape our environments for the future.

Action plan

The action plan below sets out actions to be achieved in the first five years following adoption of this strategy. As this is Council's first Environment and Sustainability Strategy, these actions set the foundation to enable change over time. These actions are also the foundation for further initiatives, projects and actions to come in the following years.

The first tranche of actions focus on putting plans in place which in turn, will guide further practical actions in the future. These Council plans will assist with leveraging funding and engaging stakeholders to improve the overall efficiency and effectiveness of the measures and actions proposed.

The actions also focus on continuing and expanding business-as-usual or planned actions that are effective and supported by the community. These are important stepping stones to achieving progressively bigger projects in the future.

Council is also looking to expand its focus on providing information and support to the community and businesses which will enable on-ground and practical action for healthy environments, protecting biodiversity and supporting sustainable living.



Action Plan

No.	Actions	Council roles	Timeframe
Outcome 1: Our special natural areas and wildlife habitats are connected, protected and enhanced			
1.1	<p>Develop a Biodiversity Plan that:</p> <ul style="list-style-type: none"> Identifies the region's values and biodiversity outcomes Outlines the approach to identify and connect regional and local wildlife corridors Identifies strategic rehabilitation and restoration priorities including consideration of threatened species and species at risk of becoming threatened within the region Considers the impacts of a changing climate on the region's ecosystems and identifies the role of refugia and migration of species and ecological communities over time Informs the Planning Scheme and other planning instruments Sets out a monitoring and reporting plan and indicators Identifies how to support the community and stakeholders to achieve biodiversity outcomes Identifies key biodiversity matters that Council will advocate to other levels of government. 	Deliver	Short-term
1.2	<p>Develop an Open Space Plan that:</p> <ul style="list-style-type: none"> Defines functional differences between natural areas (including wildlife corridors), recreation and active green spaces Considers the importance of Council's open space and green network to link, enhance and protect regional and local wildlife corridors and natural areas Considers the importance of urban biodiversity and tree cover, and how to maximise it when managing the open space network Minimises the impacts of using the active open space network (including associated infrastructure) on surrounding natural areas Considers opportunities to connect people with nature that benefit them and the environment. 	Deliver	Short-term
1.3	<p>Develop a Biosecurity Plan that:</p> <ul style="list-style-type: none"> Addresses the General Biosecurity Obligation (GBO) in the <i>Biosecurity Act 2014</i> Outlines how residents can also meet their GBO Details how Council can assist residents through its programs and services. 	Deliver	Short-term
1.4	Continue a compliance program focusing on education and awareness to address sediment and erosion control from building and construction sites, illegal vegetation clearing and filling floodplain areas.	Deliver	Ongoing
1.5	Undertake a review of the region's significant environmental values and determine the next steps to improve their protection.	Deliver	Short-term



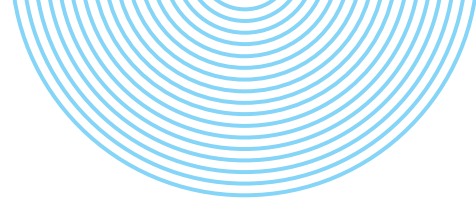
No.	Actions	Council roles	Timeframe
1.6	<p>Plan for and support eco and nature-based tourism by:</p> <ul style="list-style-type: none"> Facilitating equitable access to and management of natural areas, vistas and recreational environments Supporting sustainable experiences and activities that respond sensitively to their environmental context (ie avoid or minimise disturbance to existing vegetation, waterways and surrounding natural areas, and use water and energy efficiently) Supporting experiences and activities that enable restoration and protection of natural areas and wildlife habitats as co-benefits Facilitating Traditional Custodians to deliver Aboriginal and Torres Strait Islander cultural tourism experiences. 	Deliver	Ongoing / Medium-term
1.7	Expand the Environmental Offsets Program for Council projects to coordinate strategic approaches to offsetting, delivery and program evaluation.	Deliver	Ongoing
1.8	Continue the Land Buyback for Environmental Purposes program and investigate partnership funding, philanthropic investment and voluntary contribution opportunities to accelerate acquisitions.	Deliver	Ongoing
1.9	Continue to support pest animal management programs and terrestrial and aquatic weed treatment programs.	Deliver	Ongoing
1.10	Continue to engage with Aboriginal and Torres Strait Islander people on management of Council reserves and natural areas.	Partner	Ongoing
1.11	Undertake further local-scale native vegetation mapping to assist with priority area identification and planning.	Deliver	Medium-term
1.12	Support private landholders to protect and restore the natural environment through ecological restoration advice and incentives.	Educate	Ongoing
1.13	Develop a strategic education framework to guide stakeholder engagement across environment and sustainability matters including local biodiversity conservation and restoration.	Educate	Medium-term
1.14	Support community groups to advance opportunities to care for wildlife, through rescue and rehabilitation services.	Facilitate	Ongoing
1.15	Continue support for existing programs such as Voluntary Conservation Agreements, Land for Wildlife and Bushcare.	Partner	Ongoing
1.16	Engage with stakeholders to undertake a data availability and gaps analysis and identify opportunities to work together to monitor and report on the region's health and condition of natural areas and wildlife.	Partner	Medium-term
1.17	Continue to work with stakeholders and partners on koala habitat restoration, threat identification and reduction and disease identification, treatment and prevention projects.	Partner	Ongoing
1.18	Continue to work with the Queensland Government and key stakeholders on initiatives such as the South East Queensland Koala Conservation Strategy, and investigate partnership opportunities for increased koala habitat protection and coordinated koala conservation efforts.	Partner	Ongoing

No.	Actions	Council roles	Timeframe
Outcome 2: Our coasts and waterway catchments are used sustainably, and environmental values are protected and enhanced			
2.1	Continue and expand works to restore and regenerate riparian areas.	Deliver	Ongoing
2.2	Update mapping of the region's waterways and riparian areas to inform planning and environmental management and restoration projects.	Deliver	Medium-term
2.3	Identify appropriate locations and opportunities to retrofit and re-naturalise built infrastructure (ie to allow a waterway, drainage line or creek to mimic its original state) to improve waterway health.	Deliver	Medium-term
2.4	Review current water quality monitoring activities to determine the role, purpose and frequency of future activities.	Deliver	Medium-term
2.5	Advocate for the removal or retrofitting of significant barriers to waterway fish passages, identify opportunities to resource local projects, and deliver a barrier remediation program in Council-controlled areas with grant funding opportunities to be sourced.	Deliver	Ongoing/ Medium-term
2.6	Implement Council's Living Coast Plan to guide the management of coastal hazards, infrastructure, services and the environment.	Deliver	Short-term/ Medium-term
2.7	Partner with stakeholders to prepare integrated catchment management plans that address catchment challenges and risks to water quality.	Deliver	Short-term/ Medium-term
2.8	Complete the Integrated Water Management Plan that coordinates stormwater infrastructure planning with wastewater and water supply planning in consultation with Unitywater.	Deliver	Short-term
2.9	Seek funding, partnership and collaboration opportunities with external stakeholders for priority total water cycle management and catchment management initiatives, including water security, quality and quantity management to improve waterway health and condition.	Deliver	Short-term
2.10	Support the community to manage waterways on private property by providing educational resources and information.	Educate	Short-term
2.11	Continue and expand work to deliver education, awareness and clean-up programs and support additional events that provide sustainable options to prevent plastics and other waste from entering waterways and the ocean.	Partner	Ongoing
2.12	Investigate opportunities for wetland and vegetation restoration projects to achieve integrated outcomes such as biodiversity, water quality, carbon drawdown (sequestration) and natural hazards planning.	Partner	Medium-term



No.	Actions	Council roles	Timeframe
Outcome 3: Our neighbourhoods, buildings, and infrastructure support sustainable living			
3.1	Investigate opportunities to better incorporate sustainable design principles in Council's policies and plans to create neighbourhoods and places that support sustainable living.	Deliver	Ongoing
3.2	Establish and publicise tree cover baselines and targets for urban areas to focus actions on urban greening and cooling.	Deliver	Medium-term
3.3	Increase urban tree cover across the region to enhance the walkability of neighbourhoods and cool urban environments, focusing on new growth areas and those experiencing urban heat island impacts.	Deliver	Ongoing
3.4	Investigate opportunities to support sustainable and low carbon projects through Council's Community grants program.	Deliver	Short-term
3.5	Review Council's project management, planning and procurement processes and identify opportunities to include sustainability criteria and design principles.	Deliver	Medium-term
3.6	Undertake a regional green business and industry analysis. Incorporate findings to ensure sustainable and circular economy business opportunities are included in design planning for new neighbourhoods and precincts.	Deliver	Ongoing
3.7	Partner with infrastructure providers, the urban development industry and/or tertiary institutions to identify strategic and research opportunities to reduce the environmental footprint of urban development.	Partner	Medium-term
3.8	Work with the development industry to identify opportunities for greater community uptake of climate resilient and sustainable development options.	Partner	Ongoing
3.9	Support built environment and infrastructure opportunities through the Climate Positive Brisbane 2032 Olympic and Paralympic Games.	Partner	Ongoing
3.10	Promote the region's industry leading projects that demonstrate excellence in sustainable and low carbon building standards.	Partner	Ongoing
3.11	Provide practical information on designing buildings and communities for sustainability, changing climate conditions and transition to a low carbon future.	Partner	Medium-term





No.	Actions	Council roles	Timeframe
3.12	Advocate to state and federal governments to improve interrelationships between building codes, legislation and planning schemes to better reflect energy efficiency and building sustainability outcomes in policies.	Advocate	Medium-term
3.13	Support and advocate for ongoing changes to national and state building standards to facilitate a trajectory for low and zero energy buildings that is aligned to current emissions reduction targets.	Advocate	Short-term
3.14	Investigate opportunities to link community groups with grants for retrofits and/or incubator projects that support sustainability outcomes.	Advocate	Medium-term
Outcome 4: We understand and proactively respond to climate change and natural hazard risks			
4.1	Identify and facilitate renewable energy projects in our region, including decentralised renewable energy generation projects.	Deliver	Medium-term/Long-term
4.2	Continue investigations into the feasibility of a solar farm for Council's electricity needs.	Deliver	Ongoing
4.3	Undertake annual corporate greenhouse gas inventories to monitor greenhouse gas emission reductions and progress towards the net zero target.	Deliver	Ongoing
4.4	Transition to energy efficient devices across Council operations.	Deliver	Ongoing
4.5	Review and update Council's Climate Change Policy to reflect our mitigation target and pathway for climate change action.	Deliver	Ongoing
4.6	Develop a Climate Change Mitigation Plan that considers: <ul style="list-style-type: none"> • An emissions reduction pathway for Council operations including fleet decarbonisation, renewable energy and other mitigation activities • Any approach to carbon offsets • Carbon drawdown (sequestration) opportunities • Community mitigation opportunities and defining Council's role • Education and engagement • Advocacy priorities • Partnerships, collaborations and resources • Emissions reporting framework, methods and implementation. 	Deliver	Short-term



No.	Actions	Council roles	Timeframe
4.7	<p>Prepare a Climate Change Adaptation and Resilience Plan that considers:</p> <ul style="list-style-type: none"> • Climate change risk assessments outcomes • Community resilience • Options for an equitable transition for communities in affected areas • Awareness, education and engagement programs • Climate resilient development guidelines • Advocacy priorities • Partnerships, collaborations and resources • Research, data and monitoring and evaluation. 	Deliver	Medium-term
4.8	Continue actions that proactively manage and respond to natural hazard risks (including bushfires) on Council land.	Deliver	Ongoing
4.9	Continue projects that review and update mapping for bushfire hazard, landslide and flood risks.	Deliver	Ongoing
4.10	Undertake whole of region natural hazard risk assessments, including impacts of climate change, to inform strategic land use planning, policy, plans and decision-making for: bushfire, flooding, urban heat, landslide, storm-tide inundation, and coastal erosion.	Deliver	Ongoing
4.11	Develop an Urban Heat Adaptation Plan which identifies priority actions to support planning for existing and new communities to adapt to urban heat hazard.	Deliver	Medium-term
4.12	Develop a Flood Risk Assessment Study and associated Flood Risk Management Plans to increase flood resilience in the region.	Deliver	Short-term
4.13	Review the existing Floodplain Risk Management Framework (2015) to reflect a contemporary best practice approach and update Practice Notes 1-11.	Deliver	Short-term
4.14	<p>Continue to deliver on Council's Cities Power Partnership pledges:</p> <ul style="list-style-type: none"> • Install renewable energy (solar PV and battery storage) on Council buildings • Support local community energy groups with their initiatives • Support community facilities to access renewable energy through incentives, support or grants • Encourage sustainable transport use such as public transport, walking and cycling through Council's transport planning and design • Set up meetings and attend events to work with other cities on tackling climate change. 	Deliver	Ongoing
4.15	Review and update shoreline erosion management plans to address emerging sea level rise risks and inform Council's coastal management activities.	Deliver	Medium-term




No.	Actions	Council roles	Timeframe
4.16	Continue to engage with stakeholders on current and future natural hazard risk preparedness and response.	Educate	Ongoing
4.17	Facilitate the take up of electric vehicles and lower emissions forms of transport across the region.	Facilitate	Ongoing
4.18	Investigate short-term education, partnerships and communication activities for emissions reduction and resilience to inform the Strategic Education Framework and future Council plans.	Partner	Short-term
4.19	Collaborate with other councils to address climate change through projects and initiatives for awareness, education, practical action and research.	Partner	Ongoing
4.20	Advocate for the review of state and federal development codes to increase safety and resilience standards for buildings in natural hazard areas.	Advocate	Ongoing
4.21	Monitor policy, legislation and project initiatives undertaken by other levels of government to address climate change action and advocate for Moreton Bay's interests.	Advocate	Ongoing
Outcome 5: We enable our materials and resources to be used cleverly and recycled to avoid waste and pollution			
5.1	Continue landfill gas to energy projects at Council waste facilities and investigate opportunities to improve and expand their effectiveness and efficiency (eg through battery storage).	Deliver	Ongoing
5.2	Deliver upgrades to Council waste management facilities based on Master Plans to provide diversion for increased materials at each site.	Deliver	Medium-term
5.3	Continue preparations for a FOGO (Food Organics Garden Organics) third bin collection service and construction of a food and organic waste recycling facility to divert organic waste from landfill.	Deliver	Short-term
5.4	Review development requirements to support efficient and effective storage and collection of waste, taking into account the intended rollout of a FOGO bin.	Deliver	Medium-term
5.5	Review Council-managed facilities to maximise recycling opportunities.	Deliver	Medium-term
5.6	Support initiatives that share resources, infrastructure, services, recycle or repurpose materials and goods, to reduce demand for new purchases and materials.	Deliver	Ongoing
5.7	Continue to develop the Food and Agribusiness Industry Plan and consider ways to encourage and expand sustainable fishing, regenerative farming and aquaculture practices that contribute to economic growth, increase local food resilience and environmental performance.	Deliver	Ongoing






No.	Actions	Council roles	Timeframe
5.8	Undertake a regional green business and industry analysis to identify opportunities for growth of resource recovery, recycling and innovative low-carbon and sustainable businesses that support a circular economy and local resilience.	Deliver	Short-term
5.9	Deliver waste education programs and initiatives.	Educate	Medium-term
5.10	Encourage local opportunities for remanufacturing (eg using recycled materials for local consumption), recycling or repurposing materials through regional networks and partnerships.	Facilitate	Medium-term
5.11	Continue to support the ASPIRE (Advisory System for Processing, Innovation and Resource Exchange) platform.	Partner	Ongoing
5.12	Collaborate with other councils and industry through projects and initiatives for awareness, education or infrastructure development.	Partner	Ongoing
5.13	Continue to advocate for funding of waste projects in federal, state and regional networks and frameworks.	Advocate	Ongoing
Outcome 6: Our communities and businesses practice sustainability in the choices they make every day			
6.1	Develop a Sustainability at Home Guide for residents which provides easy, low cost examples of how to be more sustainable and overcoming commonly encountered barriers.	Deliver	Medium-term
6.2	Continue to support Grow it Local - a free platform for residents and groups to learn about and grow fresh produce.	Deliver	Ongoing
6.3	Investigate opportunities to deliver sustainability information to the community through existing cultural and educational programs and services (eg art galleries, library programs and education centres).	Deliver	Ongoing
6.4	Develop online practical information about sustainability and the circular economy for residents and businesses, including links to stakeholder and partner resources.	Deliver	Medium-term
6.5	In conjunction with changes to selected Council environment centres, investigate potential for sustainability lab programs to study and demonstrate architectural and building responses to climate, sustainable energy performance, urban heat and waste use.	Deliver	Medium-term
6.6	Support community uptake of energy efficient and renewable energy technology.	Deliver	Ongoing
6.7	Investigate opportunities for a pilot program with targeted resident and business groups to implement sustainability practices that reduce their environmental footprint and can be used to demonstrate sustainable outcomes for the entire community.	Deliver	Medium-term
6.8	Investigate opportunities to support: <ul style="list-style-type: none"> Local businesses to make capital improvements to energy and water efficiency, waste reduction, resource recovery and reducing emissions Sustainability and renewable-energy specific grants for community groups. 	Deliver	Medium-term
6.9	Support community or business initiatives and events that increase participation in sustainability practices and contribute to a sustainable economy and resilient, vibrant community.	Partner	Ongoing



No.	Actions	Council roles	Timeframe
Other actions (not related to a specific outcome area)			
OA.1	Develop a strategic environmental and sustainability education framework and plan for the purpose of prioritising, aligning, resourcing and maximising the delivery of existing and new education and awareness initiatives and activities across Council and identifying partnership, collaboration and funding opportunities, including with schools.	Deliver	Medium-term
OA.2	Review the Sustainability Policy to embed sustainability principles across Council's operations.	Deliver	Ongoing
OA.3	Implement an integrated environmental management system for Council's operations.	Deliver	Ongoing
OA.4	Incorporate environment and sustainability requirements and considerations into Council's project management framework for capital projects.	Deliver	Short-term
OA.5	Incorporate environmental and sustainability principles and considerations into Council's asset management framework including: <ul style="list-style-type: none"> • Reviewing Council's portfolio and strategic asset management plans to recognise and align asset management outcomes • Reviewing asset data creation and management practices to support agreed outcomes. 	Deliver	Ongoing
OA.6	Review and revise Council's current procurement practices and policies to incorporate sustainability and climate change considerations and criteria and assist with data gathering to monitor Council's environmental performance.	Deliver	Short-term
OA.7	Investigate an expanded rollout of smart cities solutions to facilitate data collection and management, efficiency and sustainability outcomes and the advancement of this strategy.	Deliver	Medium-term
OA.8	Investigate ongoing collaborations and partnerships with universities and other stakeholders to address priority environment and sustainability data/knowledge gaps.	Partner	Ongoing
OA.9	Advocate for funding opportunities through the SEQ City Deal to implement strategy actions, e.g.. SEQ Liveability Fund, Resilient Rivers Initiative, and Green Urban Infrastructure Initiative.	Advocate	Ongoing

Glossary

Term	Description
ASPIRE	A digital tool that empowers businesses to exchange waste as a resource across a region.
Biodiversity	The variety of all life forms on earth, including plants, animals and micro-organisms, their genes, and the terrestrial, marine and fresh-water ecosystems of which they are a part.
Business as usual	Actions delivered as day-to-day organisational operations.
Carbon footprint	The amount of carbon dioxide or other greenhouse gases (expressed as carbon dioxide equivalents) emitted into the atmosphere by the activities of an individual, company, country, etc.
Climate change	A change in the pattern of weather, and related changes in oceans, land surfaces and ice sheets, occurring over time scales of decades or longer.
Climate change adaptation	The process of adjusting to actual or expected changes in climate to reduce or avoid climate impacts or exploit beneficial opportunities.
Climate change mitigation	The action we take to limit changes in global climate caused by human activities.
Council	Moreton Bay Regional Council.
Council Budget	Council's annual operational and capital expenditure programs, including long-term financial forecast, financial policies, rates, and charges.
Corporate Plan	Council's five-year roadmap that describes the strategic goals and outcomes that support our vision: <i>Our Moreton Bay. Amazing places. Natural spaces.</i>
Ecosystem	A community of living organisms (plants, animals and microbes) in a particular area.
Ecosystem services	Benefits provided to humans by ecosystems, including: <ul style="list-style-type: none"> • provisioning services, e.g. air, water, and food • regulating services, e.g. climate change mitigation and flood defence • supporting services, e.g. soil formation and pollination of crops by insects • cultural services, e.g. recreational and spiritual benefits.

Term	Description
Greenhouse gas	Gases in the atmosphere such as water vapour, carbon dioxide, methane and nitrous oxide that can absorb infrared radiation, trapping heat in the atmosphere.
Grey infrastructure	Traditional human-engineered infrastructure such as seawalls, pipes, roads and stormwater drains.
Life cycle costs	Costs of resource ownership, including expenses relating to buying, maintaining, operating, and disposing of an object, project or asset.
Long-term	Actions that occur after five or more years, however planning or design may occur in the medium-term.
Low embodied carbon materials	Produce a low level of carbon during the material's production, transportation, and installation.
Measures	Indicators of success against strategy outcomes that help to monitor progress.  Icon indicates this measure is also reflected in the Corporate Plan 2022-2027.
Medium-term	Actions that occur within 3-5 years.
Moreton Bay region	Moreton Bay Regional Council Local Government Area.
Nature based solutions	Actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, and resilience and biodiversity benefits.
Natural capital	The stock of natural resources, including geology, soils, air, water and living organisms, that underpins our economy and society.
Natural hazard	Any potential occurrence of a natural physical event, including heatwave, flooding, bushfire, landslide, earthquake, tsunami, cyclone, severe wind, severe thunderstorm, sea level rise, storm tide inundation and coastal erosion, that may cause damage to property, infrastructure, livelihoods, human health, service provision, environmental resources etc.
Natural hazard risk assessment	An evaluation of the likelihood and consequences of a damaging natural event.
Operational Plan	Council's annual program of services to deliver strategic outcomes against key performance indicators.





Term	Description
Outcomes	High-level focus areas that guide strategic priorities.
Planning Scheme	Guides the development and use of land, buildings and structures in the region.
Polluter pays principle	Those who generate pollution should bear the costs of containment, avoidance, clean-up and remediation.
Reconciliation	Strengthening relationships between Aboriginal and Torres Strait Islander peoples and non-Indigenous peoples to benefit all Australians.
Short-term	Actions that occur within 1-2 years.
Strategic priority	A strategic pathway to achieve an outcome.
Sustainability	To protect the environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.
Urban heat island	An urban or metropolitan area that is significantly warmer than surrounding rural areas due to a concentration of hard sealed surfaces, such as roads, pavement and buildings which absorb and retain heat.
Water sensitive cities principles	Cities as water supply catchments. Cities providing ecosystem services and a healthy natural environment and cities comprising water sensitive communities (CRC for Water Sensitive Cities).



Resource list

- Australian Government (2021) [*Environment Protection and Biodiversity Conservation Act 1999: Section 3A*](#) [website], accessed 12 April 2023.
- Chatham House (17 June 2021) [*What is the circular economy?*](#), accessed 14 August 2023.
- CSIRO (July 2022) [*Our Future World: Global megatrends impacting the way we live over the coming decades*](#), CSIRO website, accessed 12 April 2023.
- (2022) [*Seven megatrends that will shape the next 20 years*](#) [media release], CSIRO, accessed 12 April 2023.
- (2022) [*State of the climate report*](#), Climate Change in Australia website, accessed 2 August 2022.
- Department of Climate Change, Energy, the Environment and Water (2021) [*Australia: State of the environment*](#) [website], accessed 28 July 2022.
- DCCEEW (Department of Climate Change, Energy, the Environment and Water) (n.d) [*Australian wetlands*](#), DCCEEW website, accessed 2 August 2022].
- Department of Environment and Heritage Protection (2017) [*Pathways to a resilient Queensland: Climate Adaptation Strategy 2017-2030*](#), Queensland Government website, accessed 2 August 2022.
- Department of Infrastructure, Local Government and Planning (2017) [*ShapingSEQ: South East Queensland Regional Plan 2017*](#), Queensland Government (Planning) website, accessed 4 August 2022.
- IKEA (n.d) [*Sustainability - caring for people and the planet*](#), IKEA website, accessed 12 April 2023.
- IPCC (Intergovernmental Panel on Climate Change) (2021) [*Summary for policymakers*](#). In: Climate change 2021: The physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, IPCC website, accessed 2 August 2022.
- (2021) [*Technical summary*](#). In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, IPCC website, accessed 2 August 2022.
- (2021) [*Interactive Atlas*](#), IPCC website, accessed 2 August 2022.
- (2023) [*Synthesis report of the IPCC Sixth Assessment Report*](#), accessed 14 August 2023.



- MBRC (Moreton Bay Regional Council) (2020) [Regional Economic Development Strategy](#), MBRC website, accessed 12 April 2023.
- NASA (n.d) Sea [Level Projection Tool](#) [website], accessed 12 April 2023.
- National Fire Ant Eradication Program (n.d) [Environmental impacts](#) [website], accessed 2 August 2022. -- (n.d) Fire ant map [website], accessed 2 August 2022.
- Nearmap (2021) [Moreton Bay, Queensland Medium-High Vegetation >2m](#) [website], accessed 20 June 2022.
- (2022) [Moreton Bay, Queensland Medium-High Vegetation >2m](#) [website], accessed 15 November 2022.
- Parliament of Australia (n.d) [Chapter 4: Urban and coastal planning](#). In: Current and future impacts of climate change on housing, buildings and infrastructure [website], accessed 12 April 2023.
- Queensland Government Department of Environment and Science (2019) [Climate change in South East Queensland region: version 1](#), Queensland Government website, accessed 2 August 2022.
- REKO (n.d) [REKO Australia](#) [website], accessed 12 April 2023.
- Queensland Government (n.d) [WildNet database](#) [website], accessed 4 August 2021.



