

A young girl with pigtails, wearing a striped shirt and denim overalls, stands in a strawberry field. She is holding a wicker basket filled with strawberries. The field is covered with white plastic mulch and green strawberry plants. The background is a bright, sunny outdoor setting. The image is framed by a large, diagonal, lime-green and teal graphic element.

**DRAFT
WIDE BAY BURNETT
REGIONAL PLAN 2022**



**Queensland
Government**

Acknowledgement of the First Nations people of country

The Queensland Government, on behalf of the community, pays respect to Elders past, present and emerging. The government recognises that the land, water and seascapes of the Wide Bay Burnett region form traditional landscapes that were managed for thousands of years by First Nations peoples to provide the resources required for life.

Although these landscapes have changed and are now shared, First Nations peoples have an ongoing and unique connection to their ancestral lands and have responsibilities to the land under their traditional law and customs.

The Queensland Government also recognises First Nations peoples who have been granted native title over land and sea country and their active role in the ongoing management of cultural resources for the important role they play in the social, spiritual and economic future of these communities.

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A message of thanks

The draft Wide Bay Burnett Regional Plan 2022 (draft WBB Regional Plan) has been prepared in partnership with key stakeholders from across the region and beyond. The Queensland Government would like to thank these stakeholders for their ongoing support for the plan and their commitment to the region. Without the collective regional insight and knowledge of these stakeholders, the draft WBB Regional Plan would not have been possible. A special thanks goes to:

- › The Honourable Dr Steven Miles – Deputy Premier, Minister for State Development, Infrastructure, Local Government and Planning and Minister Assisting the Premier on Olympics Infrastructure
- › Nikki Boyd MP, Assistant Minister for Local Government
- › Bundaberg Regional Council
- › Cherbourg Aboriginal Shire Council
- › Fraser Coast Regional Council
- › Gympie Regional Council
- › North Burnett Regional Council
- › South Burnett Regional Council
- › Individuals and representatives involved in ongoing working groups including First Nations people, industry, community and environmental representatives, and state agencies.

Foreword

Like many regions across Queensland, Wide Bay Burnett is experiencing a period of significant growth and change that will bring huge opportunities for its people and businesses.

It is one of the most diverse regions along the eastern seaboard of Australia, boasting outstanding natural assets and resources, agricultural land, and unique townships.

The region's agriculture, renewable energy, manufacturing and tourism industries are key contributors to Queensland's economy.

Green energy, circular economy and new economy



The Honourable Steven Miles MP

Deputy Premier and Minister
for State Development,
Infrastructure, Local Government
and Planning and Minister
Assisting the Premier on
Olympics Infrastructure

minerals markets have all made their mark in the region and Wide Bay Burnett is well positioned to be a future leader in the renewable energy transition into other states and national networks.

With its proximity and connection to Queensland's capital city, international airport, ports and major distribution centres, the region is positioned to influence strategic economic advantages from around the world.

Wide Bay Burnett is a true lifestyle destination. It is essential that the region continue to develop as a great place to live and maintain its character and the aspects that people who live in those communities value.

The region has Queensland's second largest population and, as more people move to Queensland, will need to be supported to grow in a sustainable way – socially, environmentally and economically.

In the past the region has been through periods of strong economic growth backed by regional coordination, collaboration and smart decision-making around planning, infrastructure and investment. The Wide Bay Burnett Regional Plan 2022 looks to build on this work by responding to new economic opportunities, supporting sustainable growth and enhancing liveability across the region over the next two decades.

By setting a 25-year vision, the plan seeks to provide greater certainty around infrastructure delivery and targeted investment to promote future economic growth and raise living standards. This will be supported by ongoing collaboration between the state government, local governments, the community and industry for the continued prosperity of Wide Bay Burnett.

In developing the Wide Bay Burnett Regional Plan 2022 we consulted with the community and undertook extensive engagement with our

local government partners and key stakeholders, including state agencies and representatives from First Nations, industry, and community groups.

We know we need to do more to keep young people in the region, address social disadvantage, provide opportunities for workforce training and access to jobs in new economy, innovation, entrepreneurship and high-tech markets.

Retaining young people is not only about providing lifestyle choices around housing and access to services, but also about workforce participation, skills and capabilities training focused on building the working age population.

This plan supports the region's traditional industries and major employers and their transition into modern high-tech systems. It will unlock new opportunities through alignment of strategic planning and investment for current and new businesses in these industries through the supply of regionally significant industrial land that is well serviced with infrastructure and freight connectivity.

Knowledge and service industries will continue to be important for the region and it is necessary to increase specialisations and training in health, aged care, education, and tourism, to provide services for the community.

The natural environment is truly valued by residents and visitors. The focus on the management and rehabilitation of the outstanding natural values of the region, including landscape areas, biodiversity corridors, coastal waters and foreshores and the unique cultural history, ensures the protection of these biodiverse areas.

Environmental management at the local and state level should be done in collaboration with First Nations peoples to tap into their knowledge and connection to land and sea and incorporate practices into modern planning systems.

This plan sets out a long-term vision for the region to deliver more infrastructure, jobs and services for communities in a sustainable way to help shape the Wide Bay Burnett of tomorrow and for generations to come.



Three Moon Silos (North Burnett Regional Council)



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Cania Gorge National Park, North Burnett (Nathan White Images For North Burnett Regional Council)

Regional planning for Wide Bay Burnett

Regional plans are statutory, long-term strategic documents that guide decision-making and investment for state and local governments. They articulate the vision for a region and then provide a contemporary policy framework to inform economic development, plan making and development decisions to achieve this.

The purpose, outcomes, and appearance of regional plans have evolved over time to support the changing needs and aspirations of Queensland's regions. This trend has seen regional plans move from non-statutory plans to comprehensive policy documents, to now more-focused strategic plans.

The draft Wide Bay Burnett Regional Plan 2022 (draft WBB Regional Plan) is a 25-year statutory plan for the local government areas of Bundaberg, Cherbourg, Fraser Coast, Gympie, North Burnett and South Burnett and has been developed through a collaborative stakeholder engagement program and a strong evidence base from expert advice and best practice research.

Prepared by the Department of State Development, Infrastructure, Local Government and Planning (the department) in partnership with the region's six local governments, state government agencies, industry, community, First Nations people and other key stakeholders, the plan seeks to create a common understanding about what is most important for the future of the region and how regional priorities should be achieved.

The regional planning process provides a unique opportunity for the collective Wide Bay Burnett (WBB) region to harness its existing values, prioritise transformative responses and position itself to capitalise on new opportunities as they emerge.

The draft WBB Regional Plan:

- › establishes a shared vision for WBB's future and provides the steps to achieve this
- › identifies and plans for the continued development of a diverse economic profile
- › responds to region-specific challenges and opportunities
- › informs major strategic planning and infrastructure decisions for local governments and state agency's forward planning and delivery
- › provides support for key planning directions through committed actions and governance
- › coordinates regional governance to enable strategic decisions to be made and owned collectively by the region.

Context

Why does WBB need a new plan?

From a growing regional population to a global pandemic, the region has experienced significant changes over the last decade. A new regional plan will better position WBB for the future and enable the region to respond to the changes that have occurred since the release of the WBB Regional Plan 2011. The following changes have accelerated the need for a new plan:

- › responding to the ongoing effects of the COVID-19 pandemic and associated recovery initiatives
- › changing population, demographic and labour force characteristics (increased resident population and median age)
- › emerging economic opportunities and practices influenced by global decarbonisation, technology, logistics, trade and broader national and global economic trends
- › changes in regional coordination, including the role of the Wide Bay Burnett Regional Organisation of Councils (WBBROC)
- › introduction of the *Planning Act 2016* (Planning Act), the *Regional Planning Interests Act 2014* (RPI Act), and a consolidated State Planning Policy (SPP)
- › infrastructure and servicing challenges resultant of increasing urban dispersment, service expectations and ageing cohorts.

What's different with this plan?

The previous regional plan was widely understood and applied, with key policies well-integrated into local government planning schemes. Together with considered local planning, this application has meant that the region has generally managed growth well and does not face the scale of land use conflicts seen in other areas of regional Australia.

Instead, the region requires urgent direction and action on other matters – the drivers for the region. Stakeholders have stressed the critical requirements for the region and the drivers that are key to unlocking the region's desired future.



Drivers for the region and the plan



Address systemic issues

The region is at a critical turning point for addressing systemic issues around workforce participation and inclusion, education/skills attainment, living standards and youth exodus.



Attract population

In using strong lifestyle attributes to attract new population, the region must be more targeted on its offering for working age families and skilled workers.



Facilitate new economic opportunities

The region needs to provide the infrastructure and land use policy settings to support new economic opportunities in key sectors and along regional value chains.



Focus on people

People are the critical factor for future regional success, with a need to retain youth and attract new residents in order to strengthen existing communities and labour force. This includes a focus on housing, liveability, accessibility, services and amenities.



Build and sell a regional identity

The region needs to project a clear regional and economic identity and sense of purpose to build positivity and momentum for investment and population attraction.



Succeed in emerging industries

It is essential to position the region to capitalise on emerging opportunities in agricultural diversification, advanced manufacturing, renewable energy, low carbon industries and a scalable circular economy.



Central Station, Fraser Island (Fraser Coast Regional Council)



Prioritise critical infrastructure

Critical infrastructure (i.e. water, waste, roads, digital connection) is at the core of future development and is a critical enabler for the region.



Enable action on the ground

The region needs strategic direction to translate into tangible projects, investment and decisions across government, creating clear lines of sight for future project funding and initiatives.



Strengthen regional coordination

There is a need to work better as a region to take advantage of common strengths, as a lack of coordination is holding the region back.



Remain responsive to future changes

A new plan for the region should be able to adapt and respond to changing circumstances and priorities over time, ensuring unintended barriers to opportunities are avoided.

Stakeholders have made it clear that these drivers are crucial to development of the region and need to be at the centre of a purposeful, influential and tailored plan for WBB. For this reason, the draft WBB Regional Plan has intentionally been built around responding to and facilitating these drivers.

Unlike previous regional plans, the drivers have meant that the draft WBB Regional Plan proposes more of a focus on people. The plan puts people at the forefront and recognises that the region must first address social drivers (e.g. education, skills attainment, youth retention, population attraction) and labour force potential to inspire positive change before it can fully realise economic and liveability aspirations for the future.



Urangan Pier, Hervey Bay (Fraser Coast Regional Council)

Purpose

The purpose of the draft WBB Regional Plan is to provide clear direction for the region’s future by firstly addressing the drivers as a priority and identifying these as the steps to creating ongoing and meaningful change into the future. Importantly, the intent of the plan is not to provide a comprehensive plan for every issue in the region but to provide only responses that focus on supporting the drivers of the region where value can be added.

Structure

The plan has been structured in a way that identifies the necessary steps to address the regional drivers and achieve the region’s preferred future (see Figure 1).

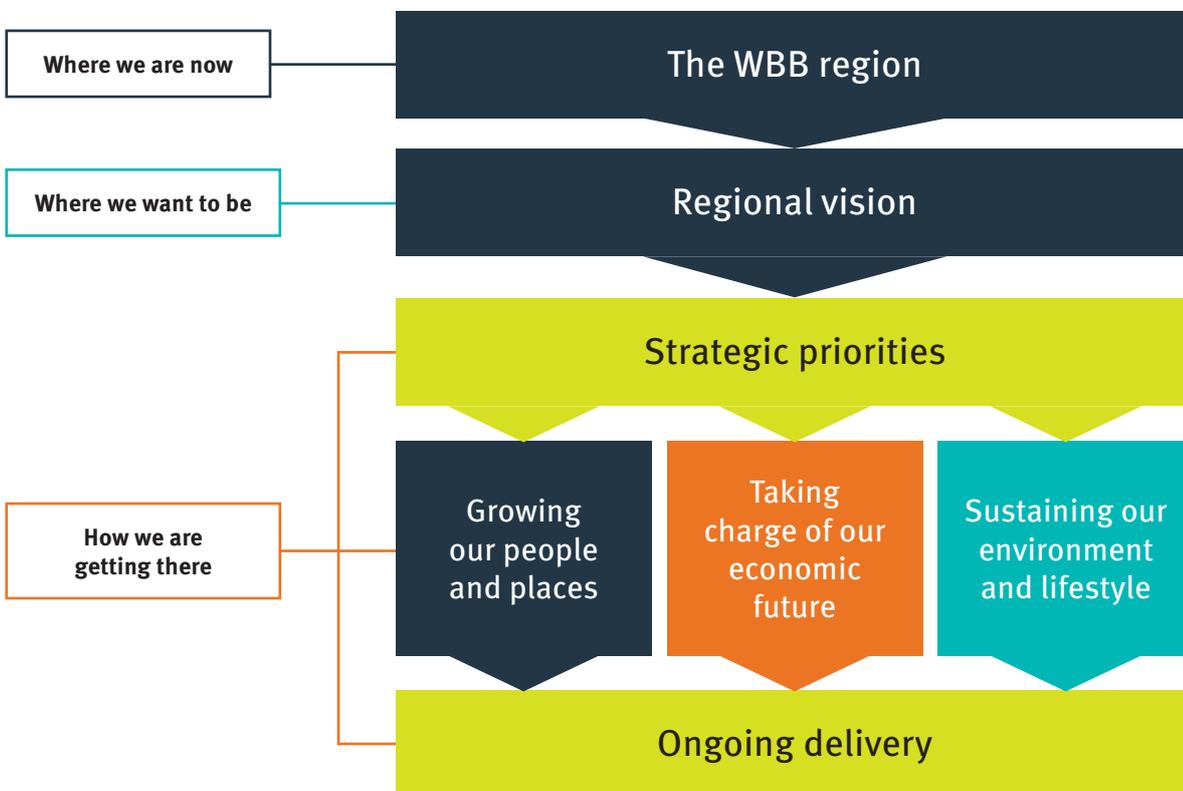


Figure 1. Structure of the draft WBB Regional Plan



Firstly, the plan sets out the context for the region by identifying how it is currently performing, and what influences, opportunities and challenges are expected into the future. Considering this together with the key drivers, the plan then establishes a shared vision for the region, outlining its preferred future and aspirations.

The three strategic priorities further reflect the key drivers by providing the high-level guidance, or steps, for how to achieve the overarching vision. Each strategic priority is underpinned by one or more regional objectives which provides more targeted direction. Regional responses, including critical enabling infrastructure, policies and implementation actions, are then identified to guide decision making in the region and across government.

The plan is additionally supported by a clear delivery program that translates regional responses into tangible outcomes. Key parts of the delivery program include detailed actions and an ongoing monitoring and reporting mechanism to ensure the plan is delivered over the short, medium and long term.

How does the plan integrate infrastructure priorities?

- Integrating infrastructure provision with land use planning is fundamental to the success of a region challenged by distance. The plan therefore integrates infrastructure priorities by identifying those that are critical to future economic and social prosperity of the region. In doing so, state agencies, local government and industry are able to easily identify regional infrastructure, to inform respective planning, prioritisation, sequencing and funding.
- The delivery section of this plan further details how these infrastructure priorities align with state and regional infrastructure plans.



SplashSide Water Play Park, Maryborough (Fraser Coast Regional Council)



Supplied by Cherbourg Aboriginal Shire Council

The Wide Bay Burnett region

First Nations Peoples

Almost five per cent of the WBB population identify as First Nations Peoples, all of which are a part of different and distinct groups, each with their own culture, customs, languages, and laws.

The First Nations Peoples of WBB include (Figure 2):

- › Auburn Hawkwood
- › Butchulla (Batjala, Badtjala, Badjela, Badjala)
- › Gureng Gureng (Gooreng Gooreng, Goreng Goreng, Goeng, Gurang, Goorang Goorang, Korenggoreng)
- › Kabi Kabi (Gubbi Gubbi, Cabbee, Carbi, Gabi Gabi)
- › Taribelang (Arribelum, Daribelum, Goreng Goreng, Gureng, Taribulum)
- › Wakka Wakka (Waka Waka, Wocca Wocca, Wakawaka)
- › Wuli Wuli (Wulli Wulli, Wuli Wuili, Wulili, Wuliwuli)

Through traditional laws and customs, these groups continue to hold vital knowledge about the land and seascapes of the WBB, passed down through generations. This knowledge holds important lessons for ongoing land and natural resource management.

While Native Title recognition and determination by Australian law continues in the WBB region it is/ will not be affected or influenced by the regional planning process. The regional planning process however can assist in addressing matters more broadly across the region.



In culture, sport, arts, education and health, First Nations Peoples of WBB make significant contributions as part of the WBB society and are central to the region’s identity. Many, however, still seek equitable access to places of wellbeing, community services, facilities, housing, education and employment.

Key regional issues identified by First Nations People to date include societal issues relevant to the entire WBB community with many being magnified compared to other parts of the community. Access to health services, employment opportunities and support for local businesses, for example, continue to be areas where First Nation Peoples are disadvantaged. It is also recognised that there are opportunities to improve awareness, enhance broader community understandings and enrich the future development of the region (for example, through cultural sites, values, practices and responsibilities).

Conversations with First Nations Peoples on how to address these challenges and opportunities through the regional planning process are continuing.

Advancing Indigenous interests

The Planning Act in its purpose explicitly acknowledges the importance of valuing, protecting, and promoting Aboriginal and Torres Strait Islander knowledge, culture, and tradition.

In order to put this into effect, decision makers need to know what comprises ‘Aboriginal and Torres Strait Islanders knowledge, culture and tradition’, who holds that information and how First Nations Peoples can be involved meaningfully in planning and development.

To appropriately—culturally and societally—do this requires ongoing discussions and involvement by governments, First Nations Peoples, and the broader community.

Conversations with First Nations Peoples on how to do this has commenced and will continue, not just through the regional planning process but also through the life of the plan.

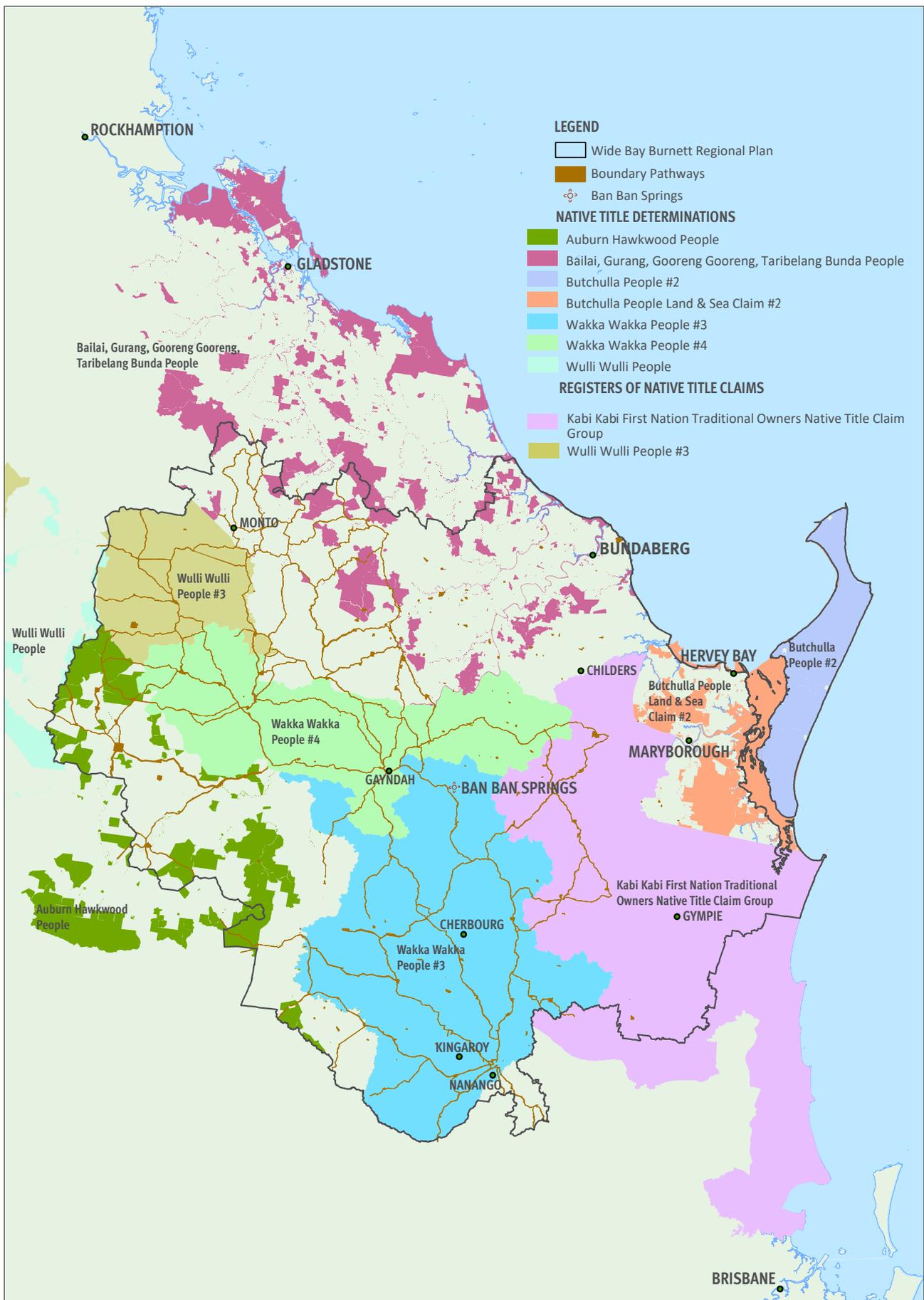


Figure 2. Status of Native Title claims and determinations under the Commonwealth Native Title Act 1993 as at August 2020.



Supplied by Cherbourg Aboriginal Shire Council

State of the region

Stretching from the fertile soils of the Burnett area to the beautiful waters of the southern Great Barrier Reef, the WBB region is truly unique.

Covering an area of more than 48,502 square kilometres and being home to more than 302,000 people, WBB has a widely dispersed population and settlement pattern made up of distinctive communities with diverse character. Its coastal and inland towns including Bundaberg, Gympie, Hervey Bay, Kingaroy and Maryborough are complimented by its smaller rural, seaside and historical settlements including Cherbourg, Childers, Gayndah, Kilkivan and Tin Can Bay.



Supplied by Bundaberg Regional Council



Maheno wreck, Fraser Island (Fraser Coast Regional Council)

Bundaberg

Population | 100,281 (2021) 119,730 (2041)

Bundaberg prides itself on being Queensland's lifestyle capital, where residents experience an affordable and high-quality lifestyle set amongst a diverse natural environment. It offers the region many essential and higher order services as well as critical regional infrastructure.

Fraser Coast

Population | 107,817 (2021) 130,630 (2041)

Fraser Coast is the geographic centre of the region, offering access to a variety of services, unique environmental assets and lifestyle values. The natural landscapes and heritage attributes of the Fraser Coast reflect the diversity of places within it, attracting a range of residents from all stages of life.



Supplied by Cherbourg Aboriginal Shire Council



Cherbourg

Population | 1,322 (2021) 1,403 (2041)

Cherbourg (formerly Barambah) is one of the oldest Aboriginal communities in Queensland and was established in 1900s as an Aboriginal mission. Its unique history and identity, cultural and natural assets, and community spirit, makes Cherbourg and its residents a highly valued and significant part of the region.

Gympie

Population | 52,257 (2021) 60,088 (2041)

Gympie is characterised by its diverse rural, coastal and hinterland settings that retain historic features established during early goldmining and timber milling ventures. Gympie provides a diverse range of commercial, industrial and social services for the region, while also acting as a gateway to SEQ.



North Burnett

Population | 10,737 (2021) 10,562 (2041)

North Burnett is built on a rich history of rural production that benefits from fertile farmland and an abundance of natural resources and assets. Its picturesque environment and diverse agricultural base contribute to WBB's country, community and tourism offerings.



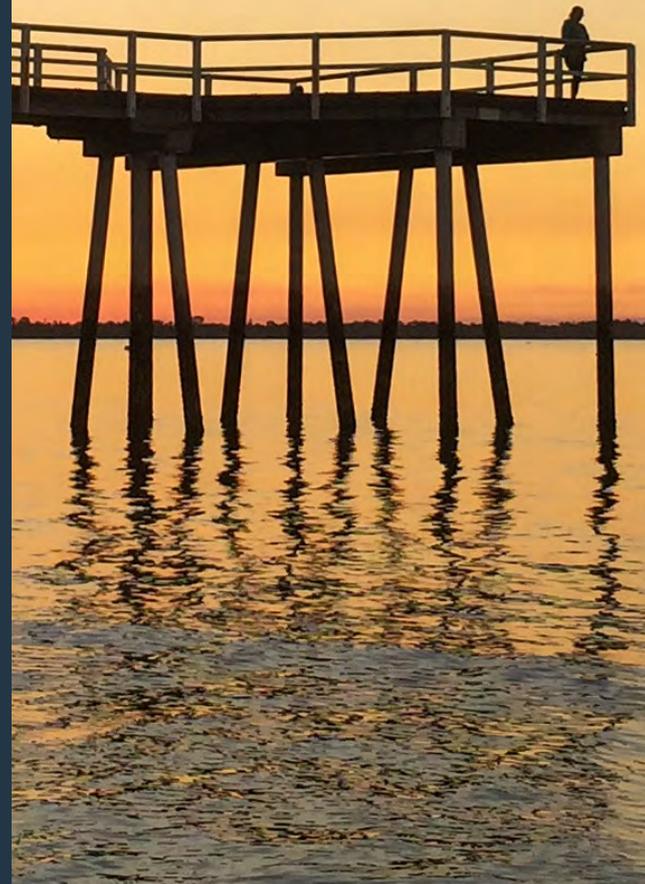
South Burnett

Population | 33,017 (2021) 37,107 (2041)

South Burnett possesses vibrant and productive country qualities, which are reflected in its strong rural identity, community wellbeing and distinctive places. While still embracing its agricultural roots, South Burnett motivates the growth of niche value-adding industries and sector-based innovations across the region.

WBB is friendly with a strong sense of community, distinctive natural beauty and lifestyle proposition of its own that is waiting to be discovered.

WBB stakeholders



Torquay Jetty, Fraser Coast (Fraser Coast Regional Council)

Inter-regional linkages

South East Queensland (SEQ)

- > Access to national and international markets and supply chains through air and sea ports
- > Connections to growing population and industrial expansion, with opportunities to accommodate overflow
- > Link to skilled workforce and diversified employment market

Darling Downs

- > Access to expanding mineral and energy development of the Surat Basin
- > High-quality agricultural production with access to growing global food markets
- > Shared employment and service delivery opportunities

Central Queensland

- > Access to the priority Port of Gladstone and enabling infrastructure corridors
- > Mutual benefit from domestic and international tourism with both regions' being the gateway to Southern GBR
- > Shared employment and economic opportunities through supply chain networks in the agriculture and minerals sector linked with advanced manufacturing opportunities



Population

305,430

(2021) - largest population of a Qld region outside of SEQ

359,520
(2041)

Median age

47.6 years

(WBB)

37.8 years
(QLD)



Population over 65 years of age

25.9%

(WBB)

16.1%
(Qld)

Annual growth rate from past decade

0.9%



Workforce participation rate

49%

(Lowest in Qld)

Unemployment rate

7%

(WBB)

5.3%
(Qld)



Population with tertiary qualifications

52.4%

Gross Regional Product

\$14.09 billion

Contribution to the Gross State Product

3.77%

Socio-economic disadvantaged population

54.1%



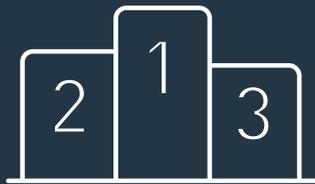
Median total family income

\$58,930

per year

Key strengths

- > Attractive character and lifestyle attributes.
- > Prominent natural resources which support the region's prosperity (i.e. productive agricultural lands, hard and softwood forests, new economy minerals).
- > Competitive advantages and specialist knowledge in agriculture and forestry and advanced manufacturing.
- > Environments of national and international significance and attraction, including the World Heritage-listed K'gari (Fraser Island) and Ramsar-listed wetland in the Great Sandy Strait.
- > Proximity to the SEQ region has potential to enable direct access to national and international markets.
- > Significant and increasing renewable energy generation, providing alternative energy opportunities into the future.



Top employing industries

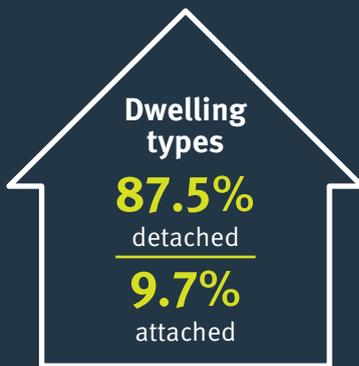
15.3%
Healthcare and social assistance

11.4%
Retail trade

9.2%
Education and training

New houses approved during 2020-21

2,479



Key vulnerabilities

- > High median age and out migration of young people.
- > Entrenched socio-economic disadvantage related to lower levels of education and skills attainment, high unemployment, lower than average household income and an ageing population.
- > Misalignment between housing supply and housing need, contributing to stock shortages.
- > Lack of regional coordination, identity and direction.
- > Reduced access to key infrastructure and services, including digital, public transport, health and education services, in some areas of the region due to the dispersed settlement pattern.
- > Vulnerabilities to climate change and climate extremes.

Protected areas

10,653.3km²

21% of the region is protected





Influences on the region

The future for WBB holds both opportunities and challenges, some unique to the region and others the result of national and global trends. Understanding these helps to identify the missing gaps and opportunities in existing regional responses, enabling the region to best prepare and adapt to the influences of tomorrow. The following highlights these influences and identifies the implications for WBB.



Ageing population



Urbanisation



Competition for people and skills



Global marketplace



Advanced technology



Climate change



Energy transition and decarbonisation



Fiscal efficiencies



The global marketplace is becoming ever more interconnected and accessible with a shift towards less labour-intensive industries and more sustainable technologies, accelerated even more so by the COVID-19 pandemic.

Ageing population

By 2041, over one third of the WBB population will be over 65 years old, with the median age expected to increase to 51 years, ten years higher than the state average. Contributing to this trend is the number of younger people moving away from the region seeking education, job and lifestyles opportunities.

An ageing population will have significant implications on workforce capacity and community structure, placing broader pressures on the regions housing stock availability, revenue bases and health services. For the agricultural industry, as an example, this will mean an entire generation of farmers and primary producers will need to be replaced over the life of the plan. Similar challenges may also occur across manufacturing, waste, health, and education sectors.

Urbanisation

Globally, the world's population has been experiencing a shift from rural to urban centres, as people seek greater access to employment opportunities, education and healthcare. Despite the disruption of the COVID-19 pandemic which saw a focus on suburban centres and the movement of people away from metropolitan locations, the trend towards urbanisation is anticipated to continue.

The WBB region is not immune to this trend with gradual population drift being experienced from rural communities to coastal centres. This is creating workforce and skills shortages, restraining the region's economy and threatening the sustainability of the region's business and industries' now and into the future.

Competition for people and skills

As workforce mobility increases and infrastructure better connects regions with metropolitan centres, people across regional Australian can be more selective about where they live. Demand for younger skilled and professional workers is increasing and regional areas will find themselves in stronger direct competition for limited talent. This will impact on how workplaces, cities and regions are planned and designed.

The WBB region will need to be responsive to this transition to attract and retain, younger workforces who are generally underrepresented in the region's traditional industries of agriculture and manufacturing. Regional businesses will also need to consider shifts in consumer preferences, with opportunities for both existing and emerging industries to tap into this.

Global marketplace

The global marketplace is becoming ever more interconnected and accessible with a shift towards less labour-intensive industries and more sustainable technologies, accelerated even more so by the COVID-19 pandemic. It will also lead to an increased concentration in services-oriented industries and the emergence of new industries including those leveraging off technological advancements and the state's natural assets.

The region will therefore need to become more outward focused. With the competitive edge when it comes to agricultural and manufacturing, the WBB region is well positioned to navigate these changes, taking advantage of technological innovation to attract new talent and drive a new era of niche agricultural (including agri-business), value enhanced products and advanced manufacturing businesses.

Advanced technology

The rapid evolution and adoption of new technologies around the world is not only reimagining how and where work is done, but also the type of products and services consumers are demanding.

Accelerated by the COVID-19 pandemic, this era of digital revolution creates substantial opportunities for WBB, as market potential for product and service providers expands.

In a region characterised by extensive geography and dispersed communities, advanced technology has the potential to reduce challenges previously posed by the tyrannies of distance and provide opportunities to optimise online services (such as personalised telehealth and education) and transform the way in which we work (including intelligent automation, precision farming and working from home). Critical to this however, is the provision of digital infrastructure across the region.

Climate change

Climate change and weather-related events are increasing and posing a risk to industry and community resilience. By 2050, the WBB region is predicted to experience more disruptive climatic conditions and climate extremes with higher temperatures, frequent heatwaves, longer drought periods and more intense floods such as the flooding events that affected the region in 2022.

Timeline of key influences

2022



2025

End of 5 years of Hinkler Regional Deal

2030

Region projected to warm by 1 degree Celsius



2025

Delivery of first tranche of trains from Queensland Train Manufacturing Program commences



2030

Queensland's 50% renewable energy target



This will have both direct and indirect impacts on the region’s natural and built environment, communities and economy. Some of the key impacts will include disruption of supply chains, reduced access to water for urban and rural purposes, isolation of communities during natural disaster events, decreased quality of water flowing into the Great Barrier Reef and ongoing heat stress. Although there are numerous initiatives already underway to help the region mitigate and adapt to the impacts of climate change, the urgency of the issue is now being realised and more immediate action needs to be taken.

Energy transformation and decarbonisation

Through the life of the plan, Australia will continue to experience the global energy shift from fossil-based systems of energy production and consumption to renewable energy sources and storage systems. This will see greater adoption of electric transportation infrastructure, fuel cell technologies and energy storage, coupled with greater usage of technologies to improve energy efficiency.

WBB is in a very strong position to capitalise on this energy transformation. Already set up with large scale renewable energy generation, transmission and storage infrastructure, the region has the potential to boost its role as a net exporter and attract new energy-driven industries. The potential implications for existing freight and logistics structures must be carefully monitored, as early adaptors will be better positioned to adapt to, and capitalise on these changes.

Fiscal efficiencies

Rising delivery and maintenance costs will lead to increasingly difficult decisions around infrastructure and service provisions for all governments. Given the challenges in supporting existing infrastructure networks and pressures on operational budgets, decisions on capital expenditure into the future will need to be more strategic than ever.

The last two decades has seen the region move from 22 local governments to six. Its dispersed settlement pattern, including the size and proximity of cities and regional centres, will likely continue to challenge service efficiencies for governments and utility providers alike. Increasing regional cooperation will be required to maintain and build efficiencies and service standards to provide opportunities and attract new residents.





Supplied by Cherbourg Aboriginal Shire Council

Regional vision

Looking to the future

Wide Bay Burnett has so much to offer. It is no coincidence that it has the second largest regional populace in Queensland, with an enviable outdoor lifestyle, idyllic climate, job prospects and historically affordable housing. Accompanied by strong intangible strengths such as community spirit, low crime, heritage, history and civic pride, these qualities have long appealed to those raising families and those growing old, with the region having enjoyed strong population growth into early 2000s. As the world emerges from COVID-19 and faces new challenges, the region must now recast its offering towards new audiences (being future generations) and direct its strengths to compete with much of regional Australia for skilled labour, population and investment.

A key focus of the region's long term economic strategy must therefore be its human capital and the attraction and retention of the region's greatest asset –its people. The region has already established a great reputation for retirees, but future prosperity relies on an ability to retain and grow youth, and attract new working age talent into the region. Placemaking, targeted educational gains, clear pathways for success and broader promotion of the region's appeal will all be required. Over time and with a commitment to drive economic prosperity, the region can reduce the social and economic disparity between it and the rest of the state and reinforce its reputation for liveability, affordability and opportunity.

The focus on human capital does not take away from the ongoing importance of infrastructure delivery, targeted investment and supportive policy settings, which will also play critical roles for future economic growth and raising living standards.

The region has numerous economic opportunities in front of it, earned through long-term development and investment in primary production, manufacturing, health services, aged care and supporting industries. Through diversification, technological uptake and specialisations that respond to broader macroeconomic trends, these established industries and their supporting value chains are presented with renewed opportunities for growth over the life of this plan.

The region can approach these opportunities with a clear economic offering of being clean, green and productive – referencing its economic trajectory towards greater advanced manufacturing and industry specialisation, leading agricultural practices and innovation through AgTech and sustainable forestry, waste industries and development of scalable circular economy. Production industries will continue to further the region's reputation for making things and represent the highest value pathways for net economic output. Growth is also required in allied service and knowledge industries such as health, education and tourism, to further its offering of services and provide meaningful employment pathways that improve socio-economic indicators.

The clean, green and productive identity also necessitates more integrated consideration of environmental underpinnings such as the impacts of climate change that will significantly influence future water security, landscape and ecosystem health, and other elements that support the overall liveability of the region.

The following provides a representation of the shared vision for WBB. It outlines the key responses of the WBB Regional Plan and what these could look like in the region.



The 25-year vision for Wide Bay Burnett

A child born today will have clear pathways to a lifetime of real opportunities within Wide Bay Burnett, with access to an industrious and connected regional economy, built on clean, green and productive industries.

Competitive local businesses with an empowered and skilled workforce.

Settlements that are able to accommodate growth and provide housing which fits the needs of the community.

Vibrant and liveable communities that are connected to services and facilities.

A sustainable, advanced and diverse agricultural industry with value-add opportunities.





Conserved and celebrated environmental features that draw and keep people in the region.

A leader in Queensland's energy transformation and circular economy.

Specialised health, knowledge and service industries that create employment pathways for all.

A manufacturing powerhouse serviced by industrial land and connected by efficient freight networks.



The strategy to achieve the vision

To best achieve the economic prosperity and positive social-economic outcomes championed by the vision, the economic strategy elements of the plan have been aligned with the drivers and supply-side factors of economic growth proposed by the region. These form the backbone of the plan and include:

- developing and attracting a labour force that can support future economic needs
- focusing investment and economic growth on:
 - leveraging competitive regional strengths in agriculture, forestry and manufacturing through both specialisation and diversification – gaining more value add through secondary production and a more regional economy
 - high employing service industries that provide job creation potential and employment pathways
 - positioning the region to capitalise on emerging economic opportunities
- directing infrastructure investment to areas where greatest regional value can be gained.

These key elements are grouped under three interlinked strategic priorities, together with a program for delivery.

Coopers Gap Wind Farm, Image supplied by AGL Energy, GE and Tilt Renewables



Strategic priority 1: Growing our people and places

- › Proposes how the region can prepare its people for new opportunities through education, pathways and transforming skills.
- › Plans for how the region can cater for new populace and offer better and more affordable housing choice for current and future residents.
- › Focuses on the importance of retaining and creating liveable and enriching communities that are attractive to skilled workers and young families from outside the region.

Strategic priority 2: Taking charge of our economic future

- › Sets strategic directions to provide the focus for investment, support existing economic strengths and set the formative conditions for new economic development.
- › Identifies specific policies and infrastructure priorities for growing advanced manufacturing, agriculture, health, education, tourism, waste, renewable energy and technology mineral industries in the region under the clean, green and pristine banner.
- › Supports these policies with tangible actions that will lead to short-term outcomes and build to longer-term goals.

Strategic priority 3: Sustaining our environment and lifestyle

- › Directs responses, policies and actions to underpin economic and social growth opportunities with a sustainable environment and landscape that retains the very features that help attract people to the region.

Delivery

- › Provides a forward program of actions and potential investment with a platform for stakeholders to interrogate regional priorities with the Planning Minister into the future.



Strategic priority 1: Growing our people and places

Regional objectives



Grow our people

Growing our future workforce capacity, re-tooling our people and strengthening our businesses.



Plan for our future

Preparing our settlements for growth and providing diverse housing choices for current and future residents.



Make places we're proud of

Providing diverse and enriching places and experiences, well connected to services and facilities.

Critical regional infrastructure



Digital connectivity

Uninterrupted, affordable and high speed internet supports community services, employment, development and innovation opportunities.



Water supply

The security and management of water contributes to community wellness and economic development.

Key deliverables – Priority actions



Regional Workforce Strategy

A regional labour market forecasting model and strategy to improve the alignment between the education system and industry.



Improve NBN and Mobile Coverage

Regionally prioritising the improvement of mobile network coverage.



Future Growth Opportunities

Optimise housing diversity opportunities and investigate future growth fronts and suburban renewal areas.

Overview

WBB has historically benefitted from a strong regional workforce specialised in its traditional industries of agriculture, forestry and manufacturing. As WBB enters the mid-21st century, it is well-placed to capture new and expanding economic opportunities. This includes a move towards more sustainable agriculture and forestry practices and specialisations in advanced manufacturing, renewables, health and knowledge industries. These future workforce demands will require the region to grow and sustain a more robust and versatile labour force.

Labour challenges are already being experienced across WBB, creating a significant barrier to economic growth in the region. Exacerbated labour shortages, due to COVID-19 pandemic (resulting in restricted workforce mobility and international immigration), are not unique to the WBB. Local demographic trends are however intensifying the region's workforce gaps, particularly the generational transition of its ageing workforce, the movement of youth away from the region, and sustained levels of workforce disengagement. Despite the ability of some regional enterprises and programs to successfully manage labour shortages and cultivate regionally based workforces, WBB is likely to experience compounding workforce capacity issues into the future. This will be further heightened as the skills and talent required to support a more technologically advanced regional economy continues to grow and evolve.

If left unchecked, the gaps between labour demand and supply will continue to grow, limiting the region's productivity and capacity for economic growth and detrimentally impacting wider community health and wellbeing.

While the depth of these challenges may be disproportionate across the region, no local government area, city, town or industry will be immune from future labour force challenges, or the need to replenish the working population more broadly. Future competition for skills and talent across regional Queensland and Australia will be fierce, with regional professionals and operators more mobile and discerning about where they reside and apply their skills.

To get ahead of these workforce challenges and increased regional competitiveness, the WBB region will need to work hard to grow and upskill its working populace and attract new workforce talent. To achieve this over the next two decades, the region must work towards the following regional objectives:

Objective 1.1: Grow our people and our talent

– to retain our young people and increase the participation, skills and capabilities of the existing working age populace.

Objective 1.2: Plan for our future – to ensure the region can sufficiently cater for new workforce and future population growth and offer diverse housing choice for current and future residents.

Objective 1.3: Make places we're proud of – to provide diverse and enriching places and experiences that attract, capture and retain skilled workers and young families from outside the region.



Objective 1.1: Grow our people and our talent

Eyes to the future

The WBB's key economic sectors have great propensity for growth into the future. Over the next two decades however, structural changes associated with the transition to new service, knowledge and low-carbon economies, will force WBB industries to adapt and advance their business processes, services, efficiency and competitiveness. Increasing mechanisation and the adoption of automation, digital applications and advanced manufacturing processes will also foreshadow a shift in labour roles and the skills required, with a transition towards high-tech and less labour intensive positions.

A strong, responsive and educated workforce is essential for all businesses to become more productive, for public services to improve, and for the delivery of key infrastructure projects on which prosperity depends.

Analysis into the needs of WBB's future labour market indicates that the region is likely to experience increasing workforce and skills gaps as it expands its deep specialisation in agricultural value-add, AgTech, advanced manufacturing and other emerging industries. Despite the region's existing depth of talent across its traditional industries, specialist skill gaps will emerge in those professions not currently available in local education and training facilities. In WBB, this includes professions such as biotechnologist, geoscientists, energy system analysts, systems programmers and data communications specialists.

Meeting the labour needs of tomorrow

WBB is facing a critical window for succession and labour market planning across its businesses and industries. The region, its industries and its education system will need to enhance their alignment to cultivate and attract new workforce entrants. This includes both first time and experienced employees, from within and outside of the region.

WBB future skills gaps

Critical skills projected to be required in the region over the next two decades include:

- **Digital literacy** – to interpret, evaluate and apply data, use applications, diagnose problems, and communicate with co-workers and customers to design and deliver products and services.
- **Machinery and technology** – the operation, maintenance and design of new technologies and machines.
- **Problem solving, critical thinking and effective communication** – to 'think on your feet', assess problems, share thoughts and opinions, use good judgement, find and implement solutions.
- **Customer service and people skills** – to effectively communicate with colleagues, peers and customers and facilitate outcomes targeted to niche consumer needs.
- **Business and change management** – the capacity to quickly adapt roles, functions and processes to meet global shifts and technological changes.

Recognising that globalisation, technological change and generational transition will continue to impact on the industries and occupations that are likely to grow, the WBB education system will need to be flexible, pro-active and resilient in the long-term. This points to a regional need to prioritise the delivery of relevant higher level technical and professional skills, in turn enabling employers to compete on the basis of higher skills, improved productivity and greater innovation.

The need to align the demand and supply sides of the labour market equation in WBB has never been more pronounced.

Closing the gap between skills demand and supply will require the WBB region to promote and provide opportunities for life-long learning, knowledge exchange, workforce diversity and skilled immigration. This will be vital to building the versatility and resilience of WBB communities and cultivating the social capital required for innovation and economic growth. Three key pillars need to be considered for the region to grow its people and its talent.

Grow our future workforce capacity

The WBB region needs to focus on its ability to foster greater connectivity between educators, training providers and employers to reduce youth unemployment and improve student access to the region's labour market. To support successful transitions to higher learning and meaningful employment schools, post-secondary training systems and adult learning opportunities across region need to align with future labour needs. This will enable the region to achieve higher levels of education attainment, reducing future skills and knowledge gaps and contributing towards a more engaged regional workforce.

For many secondary school students in WBB, the decision to continue studies beyond Year 12 means making a decision about moving to a regional or capital city. To remain competitive, it is imperative that schools and post-secondary training and education institutions in the region are able to provide clear and compelling career pathways for students which are strongly aligned to anticipated skill and workforce requirements.

Young people who feel engaged through work or education and who are provided with opportunities to participate, experience a better quality of life and contribute to creating and building a better community.

The region's post-secondary training institutions (including tertiary and vocational education) must continue to enhance their role as central players in the delivery of accessible and ground-breaking training, working side by side with industry and government to become innovators in the knowledge and service economies of the region. The expansion

of local industry-to-education partnerships, including apprentice and trainee schemes is also essential to ensure the delivery of training remains current and relevant to the ever-shifting economic landscape. Enhanced integration between industry and the region's education system will not only contribute to improved skill and human capital development but increase the competitiveness and self-sufficiency of the WBB's future labour force.

Retool our people

Among adults already employed or seeking work, demand continues to grow for skills that enable them to keep up with structural changes, technological advancement and shifting patterns of consumer demand. Growth of the region's existing workforce capacity will rely on the ability of local employers and the education system to actively re-engage, re-skill and empower the existing working age populace. This means providing adequate, affordable and accessible adult training pathways for all job-seekers, that respond to labour demand and the employment-related interests of all learners, enabling them to attain good quality, well-paid work.

In WBB there is already much happening at an industry and service level that focuses on workforce shortages, re-skilling and addressing disadvantage (state, local and NGO programs linked with industry). Whilst producing positive results in discreet areas, more needs to be done. Local governments and employers more broadly should continue to reduce barriers to workforce entrance (e.g. transport, digital connectivity, childcare and employment support services), provide support for the up/re-skilling of workers (e.g. remote learning, paid courses and leave to undertake training) and encourage mentor/supervisor relationships and knowledge sharing.

To facilitate business transition and take advantage of new opportunities, employers need to demonstrate their commitment to the continual upskilling, reskilling and cross skilling of existing workers. This will not only improve business competitiveness but help retain and attract workers to the region and leverage greater social and economic outcomes for WBB (e.g. higher wages, lower unemployment, improved community health etc).

Strengthen our businesses

The WBB region needs to inspire and facilitate opportunities for entrepreneurialism and investment, encouraging local business to diversify and industries to adapt. Growing and strengthening local business and industry is key to ensuring economic diversity and innovation in the region, contributing to the growth of locally owned and run businesses and creating attractive jobs and career paths for new and existing workers.

Good jobs are produced at the merger of appropriately skilled workers and expanding businesses that have a place in a future economy.

WBB has historically demonstrated strong support for the growth of local entrepreneurship, from micro-breweries and agritourism opportunities through to co-working spaces and industry innovation hubs (e.g. Bundaberg AgTech Hub). Building from this, the region has a significant opportunity to establish itself as an incubator for small and medium enterprise, particularly those being pushed out of SEQ. To secure this position the region must:

- › ensure the provision of appropriately allocated land for industrial and commercial uses, and the flexibility within planning to evolve with industry requirements
- › provide and promote entrepreneurial support services, including training initiatives for local business owners
- › enhance connectivity opportunities between industries and innovators, creating a network of local enterprises who can leverage new opportunities off one another (e.g. research and development, traineeships or value add activities)
- › encourage region-first procurement processes which prioritise regional resources to support regional growth and sustainability.

Capturing new talent and the people we need

The immigration of skilled workers into the region will continue to provide a critical source of talent across the WBB region. Economic opportunities, be that a job or an opportunity to invest, are key to the attraction or retention of people to the region, being an important consideration for people when

deciding where to live, and whether to stay in the region. Beyond the financial or economic appeal of a region however, there are a number of elements that can assist in the attraction of skilled workers to a region, namely accommodation, cultural and lifestyle attributes (Objective 1.2 and 1.3).

The importance of connectivity to the skills system

High standards of digital connectivity is required in WBB to support development and innovation opportunities in places of employment, education and training. Failure to provide the WBB region with uninterrupted, affordable high speed internet access limits the ability of regional centres to:

- › overcome accessibility barriers e.g. online service delivery of education, skills and training
- › compete, thrive and innovate in a rapidly evolving digital economy, particularly small to medium enterprises
- › attract technology-reliant businesses
- › attract and service skilled populace that live in the region but work remotely (outside of the region)
- › improve the participation of minority groups in or wanting to access the workforce (e.g. women and persons with a disability).

The nature of the Mobile Network Operator market, means that it is not commercially feasible for operators to build ubiquitous mobile networks across any region, including WBB. This has been illustrated in the GravelRoads regional connectivity study, which identified that the WBB region is split in terms of current digital connectivity. According to this work, higher density locations in the east are reasonably well served by Telstra and Optus 4G networks, while the western and less-populated areas have many mobile network blackspots.

Whilst some lower populated areas are not expected to have access to 4G networks for the foreseeable future, key locations across the region are recommended for prioritisation to improve mobile network coverage, capacity and choice.

Regional responses

Infrastructure priorities

Digital connectivity

- › Prioritise higher order education, health, industrial and employment precincts for network upgrades where economies of scale and digital efficiencies can better be met. This includes regionally significant industrial precincts (e.g. Port of Bundaberg).
- › Undertake future NBN fibre uplift for Cherbourg, Gayndah, Hervey Bay (prioritising Pinalba Town Centre), Kingaroy, Nanango and Mundubbera.
- › Establish fibre links between Tarong and Kingaroy.
- › Develop open access fibre ducts in key regional centres, through future capital works programs.

Transport connectivity

- › Investigate future public transport options linking key regional centres with greater frequency.

Policies

- 1.1.1 Facilitate the development of improved digital communications infrastructure (e.g. mobile phone towers) that will service regional communities.
- 1.1.2 Enhance connectivity and support the co-location of future active and public transport with existing communities and places of employment.
- 1.1.3 Support innovative design solutions for early learning, education and training facilities in regional centres and places of employment.

Actions

Ref.	Action and purpose	Approach
1.1.A	<p>Regional Workforce Strategy</p> <ul style="list-style-type: none"> › Ensure the youth of WBB are given every chance to successfully enter the labour market. › Identify the future technical and non-technical skills/ workforce needs over the short, medium and long term. › Improve workforce and succession planning into the future, to ensure the skills developed locally in the region align to the future workforce pipeline. › Improve linkages between industry and education and training facilities. 	<p>Work with state agencies and industry as part of a regional workforce strategy to:</p> <ul style="list-style-type: none"> › investigate the creation of a labour market forecasting model › develop a framework for industry workforce planning which aligns public education investment, vocation training and tertiary education initiatives with future workforce and industry needs › investigate the role of industry in the Employment Development Supports program › investigate the introduction of small and medium enterprise support programs › identify mechanisms to re-engage older workforce cohorts back into the workforce › investigate opportunities to enhance and promote procurement policy of local governments and industry › identify opportunities to work with the federal government for existing and future service delivery programs. <p>This strategy will need to be cognisant of the cultural shifts required in the region. As such, mechanisms will need to be investigated to ensure the strategy is able to engage and move the dial on workforce participation in a sensitive manner. Public education funding alignment to industry outcomes would require consultation between departments and stakeholders.</p>
1.1.B	<p>Digital connectivity in planning</p> <p>Coordinate opportunities to install open access ducting in key regional centres.</p>	<p>Work with local governments to:</p> <ul style="list-style-type: none"> › undertake local digital connectivity planning in order to develop a region-wide digital connectivity plan › review current design and engineering standards to ensure that appropriate telecommunications pit and pipe and associated infrastructure is correctly dimensioned and develop a commercial and facilities access framework to promote open and equitable access › create common engineering guidelines for capital works and development conditions to be applied for open access ducting in regional centres (local centres and above) › undertake targeted advocacy of regional priorities with NBN Co and telecommunication providers seeking uplift in fibre and mobile network capacity in key industry and employment precincts.

Objective 1.2: Plan for our future

Planning for sustainable growth

WBB is a diverse region, home to a unique set of urban, coastal and rural communities, each with their own identity and built around varying social, cultural, economic and environmental attributes. To support the ongoing vitality and labour force needs of these communities over the next two decades, the region will need to plan for and capture new growth, particularly of working age and family households.

By 2041 the WBB region is estimated to accommodate upwards of 350,000 people, equating to an additional 54,090 people. This population is anticipated to be predominantly drawn to the coastal communities of the region, and the existing centres of Bundaberg, Hervey Bay, Gympie, Kingaroy and Maryborough. Smaller townships and communities, such as Cherbourg, Gayndah and Mundubbera, are expected to see modest growth.

Whilst this growth has been adequately anticipated and planned for within existing urban settlement pattern and emerging community zones (particularly in Bundaberg and Fraser Coast), local governments will need to work hard to ensure new urban development reflects the needs of current and future

populace. This includes the need to provide diverse, affordable and social housing and services capable of supporting WBB's existing ageing population and vulnerable people, whilst catering to the needs of new young families and working age households looking to move to the region.

Despite the proactive approach taken by WBB local governments to promote and provide diverse housing products, the split of detached and attached housing product across the region remains low, with 90 per cent of housing being detached. Coupled with this, the price differential between detached and attached housing continues to act as deterrent to ageing households looking to downsize, essentially freezing current housing stock from the market.

Whilst the prevalence of detached dwellings is not surprising given the region's reputation for large lot lifestyle living, the lack of housing choice (particularly smaller housing products) is contributing to housing availability and affordability pressures. This has been further compounded by the COVID-19 pandemic, with unprecedented levels of internal immigration contributing to housing shortages and limited rental availability within the region.



Without strong commitments from the region to inject greater housing choice into new and existing residential areas, the WBB region is unlikely to be able to attract or retain the labour force it requires, nor service the increasing needs of its elderly population.

With regional competition for talent and population attraction intensifying, the next two decades will be critical in determining the region's long-term ability to cater for and attract new population growth. How land is planned for and developed over this period will significantly affect the region's quality of life, natural environment, infrastructure systems and economic prosperity. Getting this right will result in more diverse and affordable housing choice, enhanced community connectivity and vibrancy, and greater lifestyle opportunities, capable of appealing to new working and family households.

Settlements of tomorrow

Across the WBB region, urban form has developed from a historic pattern of low-density urban growth, resulting in discreet pockets of residential sprawl and ribbon development along the region's highways and coastlines. This scale and pattern of development, whilst servicing its purpose at the time has, in parts reduced the legibility of centres, encroached on incompatible environs and placed pressure on local infrastructure and services, requiring local governments to do more with less.

To facilitate growth and support more sustainable and resilient communities, it is important that all regional centres have land available for future development, that is appropriately located and not compromised by natural hazards (e.g. flooding or bushfire) or incompatible land uses.

Whilst residential land availability in the region is not assessed to be an issue for most WBB local governments, increasing development pressure from SEQ and the Sunshine Coast, may have long term implications on forecast development scenarios, particularly within the Gympie local government area. The state government will continue to work with Gympie and other local governments to investigate and identify new urban development opportunities.

To support the region's growth and attraction new working age population and talent, local governments must reinforce the need for more consolidated, efficient and sustainable urban patterns. This urban form will support the vitality of existing town centres, promote increased housing choice, better manage cost of living and improve the liveability of the WBB communities.

The next two decades will likely see home values continue to increase in the region, and while this is good news for homeowners, it can lock many people on low to moderate incomes out of home ownership. In the private rental market, people are having to pay more and struggling to find homes that meets their needs, which in turn is putting pressure on social housing. Homelessness is not only increasing in the region but is exacerbated by unpredictable events such as flooding. While the state has a significant role to play in the supporting social and affordable housing provision, without additional support from the region these housing pressures will continue to increase.

Consolidation in WBB

Urban consolidation in the WBB context focuses future urban development within the existing settlement pattern. This urban form is equally relevant to the region's larger population centres, as its coastal settlements, highway towns and rural communities. It provides real opportunities to re-establish the primacy of centres, increase density and servicing efficiencies through infill and brownfield re-development and contribute towards positive social cohesion and community wellbeing.

Often acting as the 'front door' for regional visitors and investors, regional commercial centres (Central Business Districts or main streets) must be prioritised for consolidation and re-invigoration. Local governments should limit the establishment of high-level services and commercial uses outside of these centres, wherever possible, instead encouraging innovative opportunities for mixed use development and the return and expansion of business and enterprise, restoring the centres sense of place.

Although the level of anticipated growth may look different across the region, the need for urban consolidation remains the same.

Improved urban consolidation outcomes in smaller towns and centres, such as Monto, contributes to the facilitation of greater critical mass within existing settlements which over time has the potential to support and facilitate the expansion of higher order commercial and administrative functions, a wider range of civic amenities and increased economic investment and industry specialisation.

A focus on urban consolidation also helps local governments to create and reinforce a defensible boundary for future urban development, providing certainty to landowners and stakeholders, reducing land use conflicts and protecting long term residential amenity.

The need for local governments to manage competing or incompatible land uses is likely to intensify over the next two decades, particularly in areas anticipated to experience high levels of residential or industrial growth. This will be particularly felt along the region's coastal communities and other expanding urban and rural fringes. In these locations, local governments must appropriately protect areas and infrastructure of economic and environmental significance (such as the established industrial areas, the Port of Bundaberg, Priority Agricultural Areas and the coastal environment) from residential encroachment by providing clear and firm direction on the extent of urban growth supported. Centres such as Kingaroy and Bundaberg, will also need to balance increasing industrial land requirements with increasing community growth and expectations.

Housing tomorrow's population

A key driver in the region's ability to successfully attract new population growth, is its capacity to provide well designed and diverse housing choice in vibrant and attractive locations, close to a variety of services and amenities. Catering for this growth in a consolidated manner will see new communities created and existing communities revitalised (Figure 3).

The COVID-19 pandemic and technological advancement have resulted in significant shifts when it comes to living requirements and lifestyle expectations. Coupled with this, the region will need to respond to other demographic trends including its ageing population, a projected decrease in median household size and an increase in the number of single households. Although these trends and anticipated levels of growth vary in degree across the WBB, they continue to underscore the need for greater housing diversity and housing choice, including social and affordable housing, tailored to specific community needs now and into the future.

To meet the need for housing choice across the WBB region, local governments need to:

- 1. provide a mixture of housing types to appeal to target populations**
- 2. maximise rural residential land use efficiencies whilst retaining 'tree change' lifestyle characteristics**
- 3. secure appropriate locations for key and industry worker accommodation.**



Supplied by Gympie Regional Council

NORTH BURNETT

Population projection to 2041

10,562 (-175)

Opportunities

- Consolidating residential development within existing urban areas
- Promoting the renewal of old housing stock to meet needs of ageing population, new residents and key workers
- Retain primacy of key centres to promote community vibrancy and investment attraction

Considerations

- Servicing efficiencies to retain levels of service
- Key worker and temporary worker accommodation
- Connectivity to larger centres



BUNDABERG

Population projection to 2041

119,730 (+19,449)

Opportunities

- Consolidating coastal growth between Bargara and Elliot Heads
- Diversity across housing types to facilitate downsizing and the renewal of old housing stock
- Reinvigoration of night-time economy
- Increasing residential density in central business areas to reinforce primacy of CBD and increase centre vibrancy

Considerations

- Coastal protections – particularly turtles and shorebirds
- Protecting the primacy of industrial and agricultural uses from urban expansion, particularly along the east coast
- Serviceability of coastal areas and the role of lower order centre uses
- Role and location of short term accommodation to meet tourist and key workers/temporary workers demand



SOUTH BURNETT

Population projection to 2041

37,107 (+4,090)

Opportunities

- Consolidating residential development around Kingaroy and within existing centres
- Encouraging housing diversity and the renewal of old housing stock to meet needs of aging population, new residents and key workers
- Retain primacy of key centres to promote community vibrancy and investment attraction
- Proactive preparation for digital connectivity opportunities

Considerations

- Servicing efficiencies to retain and enhance existing levels of service
- Key worker and temporary worker accommodation
- Managing expansion of rural industries adjacent to the urban areas and rural residential uses



GYMPIE

Population projection to 2041

60,088 (+7,831)

Opportunities

- Consolidation of existing urban area and renewal of old housing stock
- Increasing population creep from SEQ – potential to become a dormitory suburb
- Tree-change attributes within close proximity of major centres

Considerations

- Disaster resilience (flooding) and topography
- Coastal protections – particularly turtles and shorebirds
- Implications of the highway bypass on future settlement pattern and infrastructure serviceability
- Managing expansion of industrial and agricultural uses adjacent to residential and rural residential uses
- Role and location of short term accommodation to meet visitor and key/temporary worker demand



FRASER COAST

Population projection to 2041

130,630 (+22,813)

Opportunities

- Diversity across housing types to facilitate downsizing and the renewal of old housing stock
- Establish Pialba as the CBD of Hervey Bay linked to Urangan Harbour
- Reinvigoration of night-time economy
- Improve accessibility and legibility of Hervey Bay

Considerations

- Coastal protections – particularly turtles and shorebirds
- Disaster resilience – flooding in Maryborough
- Role and location of short term accommodation to meet tourist and key workers/temporary worker demand



CHERBOURG

Population projection to 2041

1,403 (+81)

Opportunities

- Town centre precinct enhancement
- Improved connectivity to places of education and employment (eg Murgon)
- Providing housing product within or adjacent existing township that meets the future needs of residents (including ageing in place)

Considerations

- Serviceability of new development



- Urban zones
- Future growth area

- Low density housing
- Gentle density housing
- Mixed density housing

- Attracting key workers
- Attracting families
- Attracting retirees

- Connectivity improvements
- Population growth
- Population decline
- Population stable

Figure 3: Existing and future settlement patterns and housing types in WBB

1. Housing choice for future populations

Housing stock in the region has historically developed to meet the needs of the regional community, providing large, detached lifestyle properties in a variety of coastal, urban and rural location. The region's emphasis on lifestyle, will continue to be a strong drawcard for the region. While detached housing product will continue to be a popular housing option, it is essential that diverse and affordable housing choice be developed in these areas to support ageing communities and attract new younger populations.

Promoting greater housing diversity in WBB does not necessitate the delivery of high-rise apartments or small lot subdivisions in all locations. The concept of consolidation instead promotes the concept of greater housing mix in appropriate locations.

In the context of WBB, opportunities for higher density development should be favourably considered around town and commercial centres, critical places of employment (such as Bundaberg Hospital) and coastal locations where high-density typologies can be sensitively located with environmental attributes. Opportunities for graduated building types from higher density locations back into lower density neighbourhoods should also be supported where they contribute positively to the character and streetscape of the area. Increased residential diversity in these locations not only facilitates easier lifestyle transitions (such as ageing in place) and frees up existing housing stock but works to activate places and increases community accessibility to employment, services and amenities.

Opportunities for improved housing diversity and intensified urban development exists across all WBB communities, including smaller settlements and rural towns. Low rise development, such as dual occupancies, terraces and row houses similarly support more varied housing products, without dramatically altering the scale or feel of the local community. Local governments need to work closely with the development industry to promote opportunities for gentle density increases around existing centres.

The WBB region has the responsibility to support approaches that increase access to and opportunities for social and affordable housing options and decrease homelessness to provide safe and secure housing. This includes ensuring state and local government owned land is appropriately considered to support the intended use of the land to deliver social and affordable housing and well-designed renewal opportunities. Retention of affordable housing choice wherever possible, such as caravan parks and manufactured home villages, is crucial to provide safety and security to vulnerable people and decreasing homelessness in the region. Local governments can also consider appropriate streamlining of approval processes and incentives to deliver social and affordable houses sooner.

Ageing in place

- › The WBB region can support the specialised needs of its growing retiree and ageing population by promoting the integration of 'ageing in place' products as part of the housing mix.
- › When considering options to downsize, ageing residents often want to remain in their local community with ongoing connections to the community, services, health centres and public transport. To facilitate this movement, it is critical that smaller housing alternatives be supported and developed in existing settlements wherever possible. Opportunities for the innovative design of accessible housing options such as granny flats, secondary dwellings and duplexes, as well as higher density vertical retirement living alternatives should be supported by local government in appropriate locations.
- › Local governments also need to play a strong supporting role in facilitating this change, providing education to older residents about housing choice and the benefits of downsizing. There is also a role for local governments and the state to foster innovation from the development industry to facilitate delivery of appropriate housing choice, which is smaller and more accessible in design.

Climate sensitive design

Housing products of all typologies should be water efficient and climate-sensitive, improving running efficiencies and resilience to climate change and natural hazards. Mechanisms to achieve this may include alternative orientation and design options that maximise low energy living by incorporating moveable elements (such as windows that capture breezes and natural light) and creating of indoor and outdoor living spaces that provide easy access to the outside.

2. Optimising opportunities for rural residential living

Rural residential living plays a key role in the housing mix of the WBB region. In line with wider lifestyle trends being experienced across the country, this is expected to continue to occur over the next two decades, with the ‘treechange’ lifestyle becoming an increasingly attractive alternative for retirees and working age households alike.

Rural residential zoned land is distributed widely across the WBB landscape. Based on the scale, extent and capacity of land currently identified for this purpose, future rural residential development can be comfortably accommodated within the existing areas currently zoned for rural residential use. Local governments should therefore direct new development to achieve greater land efficiencies, by optimising the use of existing rural residential zoned land. Taking this action will in turn reduce local infrastructure strain and land use conflicts.

Local governments will also need to manage the proliferation of new or expanding residential uses within the rural environment. In these instances, new residential uses should look to minimise their impact on rural uses (e.g. through buffering), particularly where this development is located within or adjacent to areas or uses of economic significance (such as Priority Agricultural Areas, intensive animal industry or allied rural uses).

3. Supporting key and industry worker accommodation

The provision of appropriately located key and industry workforce accommodation is and will continue to be an important consideration for local governments within the WBB region. Housing shortages and travel restrictions as a result of the COVID-19 pandemic, have demonstrated the importance of well-located rental product in the attraction and retention of key workers and highlighted new challenges associated with managed temporary workers accommodation.

Notwithstanding these short-term challenges, the region needs to anticipate and respond to the future needs of key and temporary accommodation users. Whilst flexibility may be required to quickly respond to specialist workforce shortages and global workforce shifts, local governments should predominantly seek to direct these accommodation types to locations within the existing urban settlement pattern, contributing to improved social cohesion, better service delivery outcomes and the local economy.

Regional responses

Infrastructure priorities

- › **Trunk infrastructure** - Future residential growth and industrial expansion (including regionally significant industrial precincts) should be anticipated by capital works planning for major trunk and servicing infrastructure (such as water and wastewater). Wherever possible, major investment in wastewater treatment should consider capabilities for adaptive reuse.
- › **Digital connectivity** - Land for future digital infrastructure, including for access, maintenance and easement purposes is protected from encroaching development to ensure an orderly and logical sequence of development.

Policies

Urban consolidation

- 1.2.1 Direct higher order services and commercial uses to Central Business Districts or town centres unless there is a demonstrable need to locate elsewhere.
- 1.2.2 Prioritise infill development and urban regeneration opportunities in existing regional centres and coastal communities. Future urban development should be efficiently serviced and well connected to existing higher order centres.

Housing diversity

- 1.2.3 Offer improved housing choice, mix and diversity, including mixed use and gentle density typologies in areas close to existing services, places of employment and public transport.
- 1.2.4 Facilitate diverse housing choice in low, low-medium and medium residential zones and township zones.
- 1.2.5 Ensure medium and high-density development is appropriately graduated and located in areas that have good integration with public/active transport, employment and community services.
- 1.2.6 Support innovative housing design solutions to cater for ageing in place.
- 1.2.7 Plan for the provision of diverse housing choice by applying the aspirational dwelling benchmarks for attached and detached dwelling typologies.
- 1.2.8 Investigate opportunities to use state and local government owned land in appropriately located areas to provide affordable or social housing. The renewal of social and affordable housing is supported and informed by good design.

Managing residential growth in rural areas

- 1.2.9 Future rural residential development is to be contained in existing rural residential zoned areas. Subject to planning and engineering considerations (such as wastewater codes), variation in minimum lot size may be used to support further rural residential opportunities.
- 1.2.10 Residential development in the rural zone should not compromise the use or function of areas or infrastructure of regional economic, environmental or cultural significance (e.g. industrial precincts, Priority Agricultural Areas and areas of high ecological significance).

Key and industry worker accommodation

1.2.11 Temporary and short-term accommodation is supported in areas (including in non-residential areas) that are proximate to centres, services or large employment generators.

Actions

Ref.	Action and purpose	Approach
1.2.A	Assess future regional growth opportunities	<p>Work with local governments to:</p> <ul style="list-style-type: none"> › undertake a finer grain assessment, where required, of future growth fronts and potential urban renewal areas, to determine opportunities for greater housing diversity › provide optimal development assessment provisions capable of facilitating greater housing diversity. <p>Work with Gympie Regional Council to specifically:</p> <ul style="list-style-type: none"> › identify and assess potential future growth scenarios, relative to future employment, servicing efficiencies and natural hazards.
1.2.B	<p>Best practice ageing in place</p> <ul style="list-style-type: none"> › Support the provision of climatically responsible, age friendly and accessible housing options in existing and new neighbourhoods. 	<p>Work with state agencies, local governments and industry to:</p> <ul style="list-style-type: none"> › provide excellent examples to the market of different housing typologies, including detailed costings where possible › showcase a series of ageing in place housing pilots that demonstrate new or innovative design alternatives capable of being readily adopted by market › establish a community education initiative which clearly articulates the practical aspects of downsizing and identifies ageing in place housing products available in the region.
1.2.C	Service efficiencies and common user investigation for regional townships	<p>State agencies and local governments to:</p> <ul style="list-style-type: none"> › investigate allied servicing operations between regional townships across LGA boundaries, identifying where efficiencies may be gained through resource sharing. Examples could include employment opportunities (job sharing), community and education services, as well as community assets.
1.2.D	Identify long-term infrastructure strategies to support the implementation of regional priorities.	<p>State agencies and local governments to:</p> <ul style="list-style-type: none"> › Work with key stakeholders to deliver the WBB Regional Infrastructure Plan.

Objective 1.3: Make places we're proud of

Places for the future

The WBB region has long been recognised for its ability to provide attractive and affordable lifestyles, close to unique natural attributes, community services and a variety of leisure and recreational pursuits. The region is well positioned to build on these existing lifestyle strengths, through neighbourhood planning and design, to create more diverse and sustainable communities which appeal to both existing and future populations, including families and working age households.

Greater emphasis on planning at a neighbourhood level not only enhances social cohesion but enables the establishment of more integrated infrastructure and open space networks, creating a unique sense of community which extends place making beyond the bounds of individual subdivisions.

A range of natural, physical and cultural attributes are considered by individuals, when choosing a location to live, including its ability to provide a wider 'sense of belonging'. Such elements are often difficult to measure, but are created and strengthened through urban design, including access to communal networks, friends and family, and a sense of community.



At the forefront of people's minds when considering a move is access to quality infrastructure, such as water, digital connectivity and services that are important for day to day living including health and education services, arts, and culture. Lifestyle and recreational opportunities, things to try and do, are also important to people, and these opportunities often also underpin designing for healthy and walkable places.

Examples of good place-making and neighbourhood design exist across the WBB region. More can be done however to limit insular or gated development that reduce neighbourhood connectivity. Using a more consolidated, approach to neighbourhood design, there is an opportunity to ensure new development enhances community integration and connectedness, improving accessibility and social cohesion outcomes.

Communities that connect people and places

The competition for skilled workers and talent will continue to be fierce across regional Australia. Beyond the ability of a region to provide opportunities for employment and accommodation, there are a number of elements that work to attract new population to a region, namely cultural and lifestyle attributes. The WBB region, and its communities therefore need to identify and promote their unique points of difference in order to attract the talent they require.

The WBB local governments are already aware of the need to leverage competitive advantages and promote their unique regional identity, with key centres such as Bundaberg, Hervey Bay and Kingaroy all undertaking or planning major civic revitalisation projects within their Central Business Districts. Good design and open space outcomes are key ingredients, as are designing for people, to create informal interactions and to generate a sense of vibrancy and activity in whatever shape or form that comes. This can be through design led land use outcomes but also through local government cultural programs and event planning.

In planning for design led outcomes local governments are encouraged to consider night-time economy options that boost local vibrancy and diversity. This not only appeals to younger demographics but provides new experiences for the whole community, as well as creating local economic prosperity and job creation.

A design led response can also be used to better identify and showcase elements of the region's uniqueness. This could feature First Nations and regional heritage values that fortify community spirit through revitalisation and regeneration of existing places and creation of new places at all scales within the neighbourhood spectrum.

Good design also means that communities and neighbourhoods are located close to places of employment and design ensures there is access to transport choices (such as walking, cycling and public transport), where possible, other than car travel. Care should be taken not to encourage suburbs that only contain detached housing stock, where transport, social and recreational choices are not provided and where natural and historical values of the region are not always preserved.

To ensure good community design outcomes, the region should identify the local landscape, heritage and cultural assets worth protecting and integrate them sympathetically into new development. Design should be responsive to topography, including by minimising cut and fill, retaining and enhancing landscape features and protecting significant vegetation and waterways. Exploring building materials that contribute to the character and diversity of a place should also be a consideration. Given the place and population characteristics, flexibility of uses, multi-purpose space, shade and climate protection are also important, along with incorporating native vegetation and large shade trees in public spaces and streets to not only design for the climate but also encourage walking, cycling and use of the outdoors.

The Office of the Queensland Government Architect (OQGA) provides comprehensive design thinking and strategic advice about architecture and urban design. The OQGA works with state agencies and local governments to enhance the quality of built environments across Queensland **including the application of good urban design principles detailed in *QDesign***. Led by the Government Architect, the OQGA can provide project and policy advice for significant and major projects to support best practice outcomes for Queensland communities.

Examples of urban revitalisation and good design

- › The Bundaberg CBD revitalisation strategy embraces people and place by recognising the built form and landscape heritage with design that physically revitalises and improves CBD amenity and walkability. Opportunities to further activate and leverage this significant project include establishing a vibrant evening and night time economy.
- › The Pinalba Town Centre Revitalisation Project creates a city heart including a new library and district business centre for Hervey Bay and a cultural and creative drawcard for the area. Future opportunities to leverage the town centre include investigating the location of future residential areas that provide housing choice and diversity as well as access to the services and infrastructure that the Pinalba Town Centre offers.

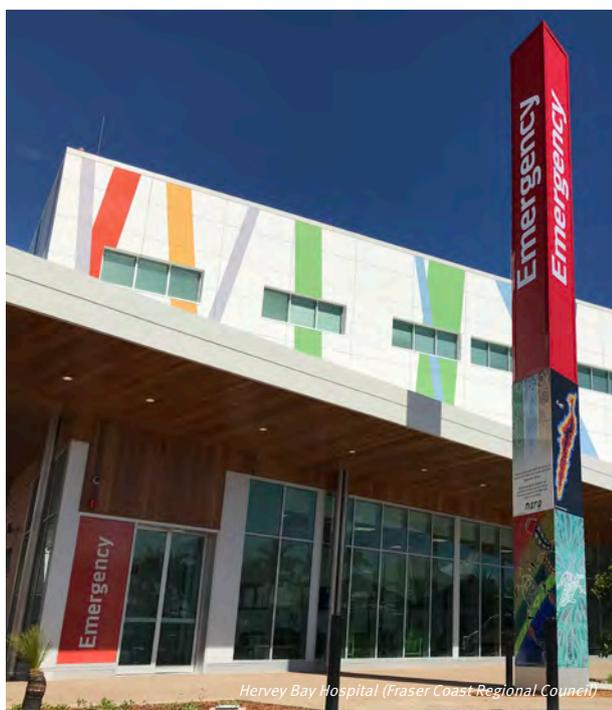
Connectedness and access to services and facilities

The geographically dispersed nature of the region, coupled with the extensive distances between services and the communities they serve, creates challenges for local governments to provide efficient and cost-effective infrastructure and services.

This challenge however will be better addressed by the plans intent to ensure future development is consolidated within the existing settlement pattern. Consolidation works hand in hand to support connectedness and accessibility and means development can be logically located where existing access opportunities and access to services and facilities are more likely. This is critical for the future, particularly the future of regional communities, where they can be supported to function and prosper in place rather than continuing to disperse the settlement pattern. This also means maximising the use of existing infrastructure, which reduces the cost of providing infrastructure and services which in turn reduces the cost of living.

Looking to the future, ensuring connectedness and access to services responds to the digital revolution changing the way the region lives, works and learns. Digital connectivity in particular is rapidly changing how people, business and government interact and deliver services. Opportunities exist for the region to be able to provide health care, education, digital connectivity and other community services that not only cut across the tyranny of distance but also attract and retain all cohorts of the future population. In terms of digital connectivity opportunities, the region could consider its ability to leverage back haul capability by use of state dark fibre network for example, the Tarong to Kingaroy transformation project. The region may also wish to consider digital and mobile infrastructure as a 'favourable' condition of new housing and industrial precinct developments.

The region can look to opportunities to diversify how public and private entities deliver their goods and services with the blending of virtual and face-to-face services capable of facilitating stronger connections and addressing social isolation, particularly in regional areas. Access to services and connectedness also reinforces the vibrancy and number of opportunities on offer allowing for a variety of activities in close proximity, which encourages walking and cycling and underpins access to public transport.



Access to urban water supply is a key issue for some centres and a key enabler of population growth and growth of communities. To ensure communities have access to water and sewerage services, the state is undertaking regional water supply security assessments and planning to support the future growth of the region. This work also ensures that the regions service providers are best placed in planning for infrastructure and understand their service needs to deliver water infrastructure and ensure urban water supply is available in the right place at the right quality. The region must also work to forward plan for challenges in ensuring trunk and servicing infrastructure such as water and sewer can best support industry development alongside residential development without compromising the communities it serves.

Examples of connectedness and access to infrastructure and services

The Kingaroy Transformation Project has been inspired by the community and industry vision to build a strong identity for regional businesses and residents and provide an environment to inspire tourists to stop and stay longer. It offers a once in a generation opportunity to transform Kingaroy's town centre and build 'smart country' capacity into all infrastructure upgrades enabling high speed data for businesses and residents to make the most of future technological advances and the Internet of Things.

The design also involves considerable replacement of ageing infrastructure including roads, footpaths, lighting, stormwater, street furniture, landscaping and water mains. The project is specifically designed on themes that represent all towns and villages in the South Burnett as well as creating a sense of pride and identity for the Kingaroy community.

Other key elements of the design will incorporate arts, culture and street features to recognise the indigenous heritage of the South Burnett along with geographical significance and major economic industries of Kingaroy.



Regional responses

Infrastructure priorities

- › **Locational signage** – Entry and wayfinding signage should be installed at key locations and designed in a manner that illustrates the pride communities have in their towns. As the ‘front door’ to many communities, entry and wayfinding signage is critical component in improving community visibility and conveying the unique identity of the region’s communities, particularly regional communities such as Cherbourg.
- › **Responding to natural values** – A network of high-quality green space, ecological areas, water systems that connect to major residential areas, town centres and transport hubs can be considered, using blue and green grids to support sustainable built environments. This can include agricultural, recreational, hydrological and ecological ‘grids.
- › **Designing for water management** – Integrated water cycle management optimises the use and management of water resources including drinking water, wastewater, surface water and groundwater. Consideration can be given to strategically reducing impervious land, preserving natural vegetation, and using drought tolerant native plants. Water Sensitive Urban Design promotes working with established topography to sustainably manage surface water run-off at the source and deliver improved biodiversity, landscape amenity and recreational facilities and water quality outcomes.

Policies

- 1.3.1 Ensure new development positively contributes to the quality and character of communities, including regional centres, townships, local neighbourhoods and streetscapes.
- 1.3.2 Ensure new and existing communities and neighbourhoods are connected places that provide access to services and open spaces, transport choices and integration and are located in proximity to places of employment.
- 1.3.3 Ensure development in new and existing places makes it easy to move around and interact by encouraging safe walking and cycling.
- 1.3.4 Integrate open space networks into existing and new urban development, incorporating the region’s natural assets to reduce heat from buildings and impervious surfaces and strengthen the region’s sense of place.
- 1.3.5 Incorporate best practice sustainable building and climate-responsive design principles into planning and development assessment benchmarks for buildings, neighbourhoods, streets and urban spaces preserving and responding to the natural landscape.
- 1.3.6 Integrate aged care and lifestyle communities into the existing urban fabric. Ensure these developments are walkable, healthy, safe (i.e.: Crime Prevention Through Environmental Design) and provide access to local health and social services and infrastructure. Insular and gated developments are avoided wherever possible.
- 1.3.7 Support the enhancement of a night-time economy in key centres to create vibrant local places. This includes after-hours trading, dining precincts, food and beverage options, temporary events, unique visitor experiences and creative and cultural expressions.

Actions

Ref.	Action and purpose	Approach
1.3.A	Enhancing the night-time economy	Work with State agencies to develop an options analysis and implementation program for regional night-time economy opportunities, including consideration of amenity impacts, liquor licencing, safety matters.
1.3.B	Create an addendum to the Regional Investment Prospectus (Action 2.1.C) showcasing the best aspects of liveability the region has to offer	Local governments to nominate and identify profiles for inclusion into the Regional Investment Prospectus addendum, showcasing the regions strengths to contribute to building a regional profile. This includes examples on: <ul style="list-style-type: none"> › uniqueness and functions that serve to differentiate communities and townships › natural beauty, lifestyle and recreational opportunities › liveability attributes, identifying housing options, affordability and access to services and amenities.



Austchilli, Bundaberg

Strategic priority 2: Taking charge of our economic future

Regional objectives



Become a manufacturing powerhouse

Transitioning into Queensland's manufacturing powerhouse with well-serviced industrial land.



Support agriculture and value-add industries

Leading primary production and promoting value-adding opportunities.



Grow health, education and tourism

Growing specialisations across knowledge and service industries to create employment pathways for all.



Emerge as a leader in renewable energy

Forging the way in Queensland's energy transition, new economy minerals and circular economy.

Critical regional infrastructure



Digital connectivity

Reliable, affordable, high-speed connections to support innovation and productivity.



Water for economic growth

Water security to provide certainty and maximise opportunities for growth.



Transport

Efficient and resilience freight and transport connections to connect producers to market- road, rail, sea and air.



Energy

Reliable and sufficient capacity to support growth and the transition to a zero-carbon economy.

Key deliverables – Priority actions



Regional Water Planning

Improving the alignment of forecasted agricultural trends and other emerging industries with regional water and infrastructure planning.



Industrial Land and Pipeline

The co-ordinated delivery fit for purpose regionally significant industrial land to maximise certainty, productivity and growth.



Regional Freight Plan

Prioritisation of regional freight network improvements and future freight needs, investigating and enhancing connections to market.



Regional Economic Prospectus

A call out to future economic opportunities across existing supply and value chains to leverage investment and growth.

Overview

Wide Bay Burnett has a diverse regional economy with a range of well-established industries in conjunction with new and emerging industries. In particular, the region has a strong history in primary production and allied manufacturing supporting a diversity of product, high degree of specialisation and nationally and internationally recognised companies and brands. These traditional industries have more recently been supported by a rise in the service economy to support population growth attracted to the region's enviable lifestyle. WBB is favourably positioned for access to international and domestic markets and as of 2021, the region supported an employment base of approximately 109,000 jobs, with an estimated gross regional product (GRP) \$14.09 billion, representing 3.8 per cent of the Queensland's gross state product.

Over the last two years, the impact of the COVID-19 response on the Australian, Queensland and WBB economy, jobs, and migration patterns has been profound. Though the regional economy has been significantly impacted by trade disruption, there has been short-term population shift into the region, together with major projects such as the Bruce Highway upgrades and significant government investment in regional water security and railway rollingstock manufacturing. The momentum provided by major project investment provides WBB the opportunity to accelerate its concerted push to growing and diversifying its economic base. Outcomes of changes through this period also open the door to longer term prospects for better leveraging WBB's strengths and competitive advantages:

- › trade disruption and tariffs have led to a renewed push for onshore manufacturing
- › increases in local demand for construction materials (timber, quarrying materials) and agricultural product
- › transshipping, coastal shipping and other changes to historical import and logistics systems are potentially resetting some regional opportunities
- › energy transition and investment in renewable projects is occurring at a faster rate, led by industry and consumer demand
- › the great resignation and employee-friendly global labour market has seen a renewed focus on lifestyle, liveability and workforce flexibility.

Overarching economic objectives

In considering these opportunities and barriers, the regional plan also assessed the drivers of economic growth and the potential areas of intervention to stimulate the regional economy, attract new investment, and support sustainable job creation and economic participation. This included a heavy focus on clustering opportunities and analysis on the potential of further value to be gained from existing and emerging economic sectors. Under the context of the vision and the results of this assessment, the regional plan provides four key economic objectives to capture the key growth opportunities identified for the region:

Objective 2.1: Transition into Queensland's powerhouse for advanced manufacturing

Improve the region's supply and value chains, provide correct-fit and well-serviced industrial land, support research and development, and grow and attract a skilled workforce.

Objective 2.2: Lead primary production into the mid-21st Century

Safeguard the region's agricultural industries and promote opportunities for intensification and diversification, support value-adding opportunities, plan for water and environmental factors and encourage the take up of advanced agricultural technologies.

Objective 2.3: Create employment pathways for all

Increase specialisations and training, identify key areas to support clusters of employment and promote the region as a tourist destination, as well as a place to work and live.

Objective 2.4: Emerge as a leader in the energy transformation and circular economy

Increase the region's renewable energy generation and storage capacity, expand the region's sustainable waste industries, and promote sustainable new economy mineral exploration, extraction and use in value-add manufacturing.

Sitting within each of these objectives are responses to the key barriers and enablers for economic growth in the region, as well as links to more specific economic growth opportunities.



Nestlé Gympie Factory, Gympie (Gympie Regional Council)

Barriers

- › Connectivity – the region and many of its value chains are highly disjointed without a clear economic centre (contemporary regional value chains do not necessarily correspond with centres or historic supply chains).
- › Digital infrastructure – inadequate connectivity and capacity is a barrier to innovation and technology projects, education and skills.
- › Significant capital costs in infrastructure and servicing requirements – water, road and transport links.
- › Limited supply of shovel-ready sites that align with regional value chains or are available for investment attraction.
- › Regional coordination – articulation of offerings, profile and intent.
- › Labour force characteristics – participation, skills, suitability and workforce replacement rate.

Enablers

- › Structural features of and synergies between established industries capable of being leveraged for new opportunities – expertise, infrastructure, relationships and business acumen.
- › Large potential/latent labour force and untapped economic alignment between industries.
- › Proximity and access to significant national and overseas markets, through neighbouring regions (e.g. SEQ) and the Port of Bundaberg.

Factors of competitiveness and resilience

1. Improving value

- › Innovation and technical improvements of products.
- › Value-adding services that improve functions, utility and longevity.

2. Reducing costs

- › Reducing costs of inputs (materials, transport, energy etc).
- › More advanced and efficient production techniques.
- › Increasing scales of production and reducing fixed costs and overheads.

3. New market focus

- › Identify and enter new high-growth or high-value markets or product segments.
- › Identify and enter underserved geographies and global value chains.

Objective 2.1: Transition into Queensland's powerhouse for advanced manufacturing

Becoming a manufacturing powerhouse

WBB's manufacturing sector is diverse, with strong specialisations in agricultural processing, food and beverage production, rail and rollingstock, transport equipment, primary metal and metal manufacturing and timber industries. In the year to June 2020, manufacturing represented 27 per cent of the regions total exports, contributing \$4.5 billion to the region's gross regional product (GRP) (Figure 4). The largest sub-sector by output was food product manufacturing at \$1.8 billion, being 40 per cent of total manufacturing output. This reflects the region's primary production strengths and the diversity of its locally sourced products, driven by fruit and vegetable processors, beef and pork producers, oil manufacturers, and nut processors, all of whom have significant export markets and growth potential. The region has also made a name for itself in beverage manufacturing, specifically brewed soft drinks, spirits, craft beer, juice, and wine.

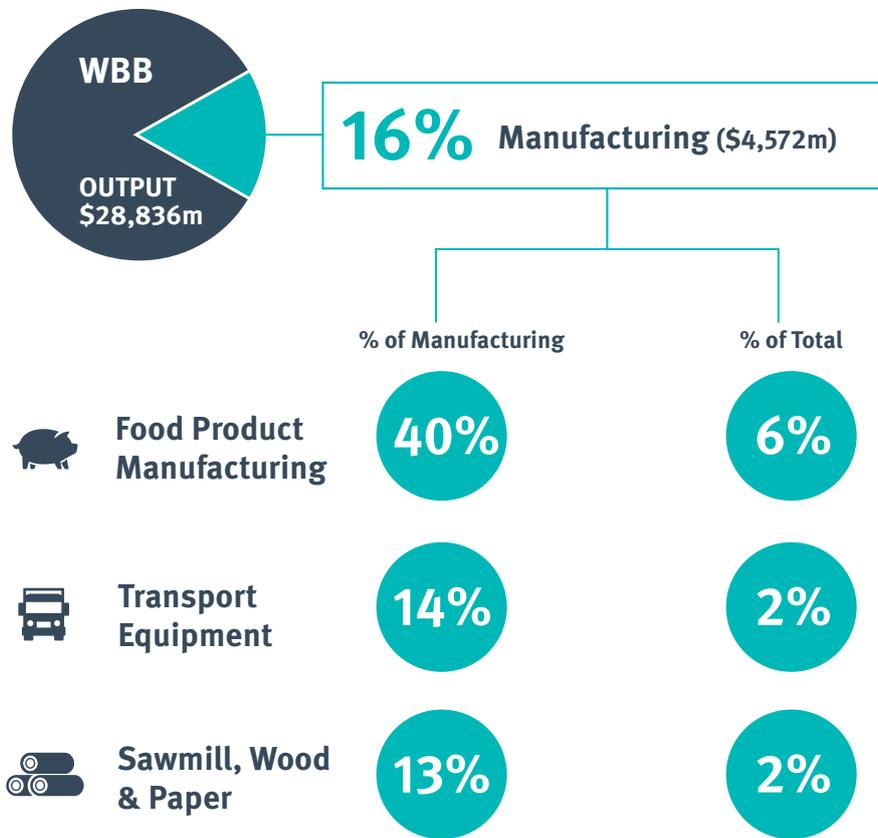


Figure 4: Manufacturing exports in WBB (REMPPLAN, 2020)

The region also supports a range of plastic and metal manufacturing and fabrication enterprises which demonstrate a high level of innovation in design, exporting products to the state's agricultural, transportation and recreational industries. Expansion is also being experienced in timber products, bioproducts, aviation, mining, and defence-related manufacturing. This is anticipated to continue as the region's manufacturing industries leverage their proximity to SEQ markets, appealing to those industries seeking large format industrial land at competitive costs that provide the space to expand existing operations or establish new operations.

Rail and rollingstock manufacturing

- › The region is a significant metal fabrication production hub for the state, and the largest rail manufacturing hub in Queensland with a reputation for quality production of rail transportation. Co-location opportunities of supporting industries, and the identification of essential infrastructure servicing requirements, will facilitate the growth of a specialised transport and metal manufacturing cluster.
- › The Queensland Government has a \$7.1 billion Queensland Train Manufacturing Program which includes funding for the construction of a new purpose-built manufacturing facility in Torbanlea and the construction of 65 six-car passenger trains. This presents an opportunity for Maryborough, as well as a supply chain development opportunity to increase small business participation and distribute benefits further across the region, and to build local business competitiveness for future interstate and national procurement opportunities. This builds on the region's existing capability, anchored by the Downer Group's 150-year history in rail manufacturing, refurbishment, repair and maintenance centre in Maryborough, which is currently the only facility in Queensland with capability to manufacture passenger train car sets.

Despite the COVID-19 pandemic and resultant supply chain disruptions, confidence in 'on-shore' manufacturing industries is increasing, with strong public sentiments on the competitiveness, resilience, and technological capacity of Australian manufacturing. Driven by improvements in competitiveness and resilience the industry is now aiming to capture a 25-35 per cent increase in value-added by 2026. Over the next twenty plus years, the fourth industrial revolution will see the continued transition to advanced manufacturing, driven by disruption, automation and artificial intelligence, innovation and the digital transformation. The adoption of advanced manufacturing practices will, in turn, shift the focus of regional businesses and put greater emphasis on value creation within global value chains. To date, the manufacturing sector in WBB has taken formative steps in this transition, but production across many sectors is not yet geared towards complex and higher value-add manufacturing activities.

The continuing transformation of manufacturing

"Manufacturing is continuing to undergo a historic transformation across the industrialised world. As traditional assembly line production activities are either automated or outsourced to developing countries, it is becoming less common for firms to mass-produce identical factory lines of finished goods. Instead, manufacturing today increasingly involves the precise tailoring of components, services, and solutions within complex and global supply chains.

Manufacturers are diversifying so they can add value at different stages of the manufacturing process – both before and after goods are produced. Work practices are also changing. Industry 4.0, the term given to the digital transformation of the manufacturing process, is ushering in exciting techniques such as 3D printing, where physical objects are created from virtual templates. Connected 'smart factory' environments allow customer feedback to loop back and inform product development in real time".

AMCG 2020

As the sector innovates and increases adoption of leading-edge technologies, a highly skilled workforce is critical to driving future industry competitiveness and expansion. The WBB manufacturing sector is competing with other regions and sectors for talent, with the region identifying a key challenge to workforce attraction being negative public perception of manufacturing. The clean, green and productive vision will be central to broader promotion of advanced manufacturing and its economic potential and will encourage investment and talent attraction.

In addition to workforce and the continued transformation of the region's manufacturers in automation and innovation, there are two factors considered key to the success of the region's manufacturing industries:

- 1. correct-fit and well-serviced industrial land – a pipeline of ready and near-ready land to support value chain opportunities, agglomeration and research and development functions**
- 2. efficient freight and logistics – investment that aligns with and builds upon the region's future supply and value chains.**

Future manufacturing opportunities in WBB

Incremental and value-adding opportunities

Railway rollingstock production

- › Capitalise on recent investment in Maryborough to attract supporting and allied industries linked to rail engineering and broader heavy transport manufacturing – noting the region already has strong specialisation in transport equipment and parts manufacturing.
 - Develop strategic partnerships and build regional capability in AI integrated systems to ensure the region is a leader in transport equipment manufacturing and competitive globally.

Aviation precincts

- › Develop aviation manufacturing and servicing clusters around the Hervey Bay aviation precinct, Bundaberg airport, and at Kingaroy airport.

Metal and non-metallic mineral product manufacturing

- › Grow the sector to supply the broader construction industry and growth in renewable energy and allied storage equipment as well as growth in transport equipment, marine service industries, aviation.
 - Develop partnerships with waste industries around adaptive manufacturing and recycling of ageing renewable energy and agricultural equipment (noting the region's ready access to energy generation).

Food and beverage manufacturing and other agricultural value add activities

- › Attract additional supply chain links for beverage and distilling manufacturing, such as glass and/or recycled bottling manufacturing plants, into the region.
- › Identify and attract additional secondary manufacturing elements for existing regional commodities such as sugar, pork, beef, avocados and citrus fruits (linked with other regional commodities).
- › Invest in technological advancements for food and beverage manufacturing.
 - Flow-through sortation technology – expanded use of automation in warehousing functions.
 - Industrial internet of things – machine communication functions that streamline operations through sensors for product quality checks.
 - 3D printing – establish expanded regional expertise in 3D printing to create and custom parts and tools across regional manufacturing lines.
- › Expand sustainable growth and secondary manufacturing for timber and wood products to service growing national demand.
 - Unlock new wood-engineered products from existing hardwood and softwood products.

Plant extractives, including vitamins and nutraceuticals

- › Leverage existing competitive advantages in the production and sale of pine chemicals, herbal supplements, and vitamins by expanding and building a critical mass of regional expertise and production potential for these industries and attract new industry players and markets.

Biofutures and waste manufacturing

- › Use existing agricultural and other waste streams to create value-added bioproducts. Bundaberg is set to become a bio-manufacturing centre with a planned biorefinery in a repurposed council wastewater treatment plant. The Bundaberg BioHub will convert organic trade and agricultural waste to produce green hydrogen and bio-products such as textiles and cosmetics.
 - Investigate further development of biofuels from waste and offcuts alongside other agricultural waste to convert into biofuels through hydrothermal liquefaction.
- › Grow research and develop partnerships with educational institutions to further manufacturing efficiencies and set up new research facilities into bioproducts and biofuels.

Boutique mineral processing

- › Increase regional processing and manufacturing capabilities to support nearby supply chains in North Burnett and Central Queensland.

More transformational opportunities

- › Link regional manufacturing functions to microgrids, closed networks or virtual power plants.
- › Crop management technology production – develop new agricultural technologies (sensors, micro-electromechanical systems etc) for export.
- › Servicing capacity for widespread application of cobots (collaborative robots) for farm activities (e.g. picking).

Fit-for purpose industrial land

To improve its overall performance and increase its profile, the region needs to keep in-step with the evolving needs of the industry, positioning itself to meet the requirements of future industrial activities. The timely identification and supply of well serviced, fit for purpose, large format industrial land will be critical to the growth of the region's manufacturing sector, providing regional-scale facilities that can process regional products. This land will need to accommodate and facilitate the growth of allied commercial and research and development functions, decreasing supply chain costs and attracting further investment and industry collaboration (innovation and partnerships).

Over the next two decades, WBB's largest centres are expected to have the highest take-up of industrial land, primarily focused on new large format industrial areas, clustered with allied commercial and research and development functions. These industrial precincts have been broadly mapped as areas of regional industrial significance (Figure 5) and should be the focus for future planning, infrastructure provision and investment attraction.

Land in these precincts should be located to take advantage of existing or planned transport and utility infrastructure (water, energy, and digital infrastructure) which is designed to accommodate cost-effective expansion, maximising the efficient use of land, reducing costs and limiting environmental impacts. Opportunities for shared common user infrastructure, closed-grid energy generation and the use of renewable energy options, such as wind and solar generation should be encouraged, where appropriate, to improve efficiencies and reduce cost barriers.

Beyond these regionally significant industry precincts, smaller centres will also need to provide land for local business and industrial activities. Opportunities in the region's south-west are anticipated to be further supported by new freight and logistics activities in Toowoomba's intermodal terminal at Wellcamp.

The strategic planning and timely delivery of suitably located and serviceable industrial land will require ongoing collaboration between state and local government. This work will bring together key agencies across the state, in partnership with local government and industry, to proactively identify fit for purpose, regionally significant industrial land that is available and able to connect into new and existing regional supply chains.



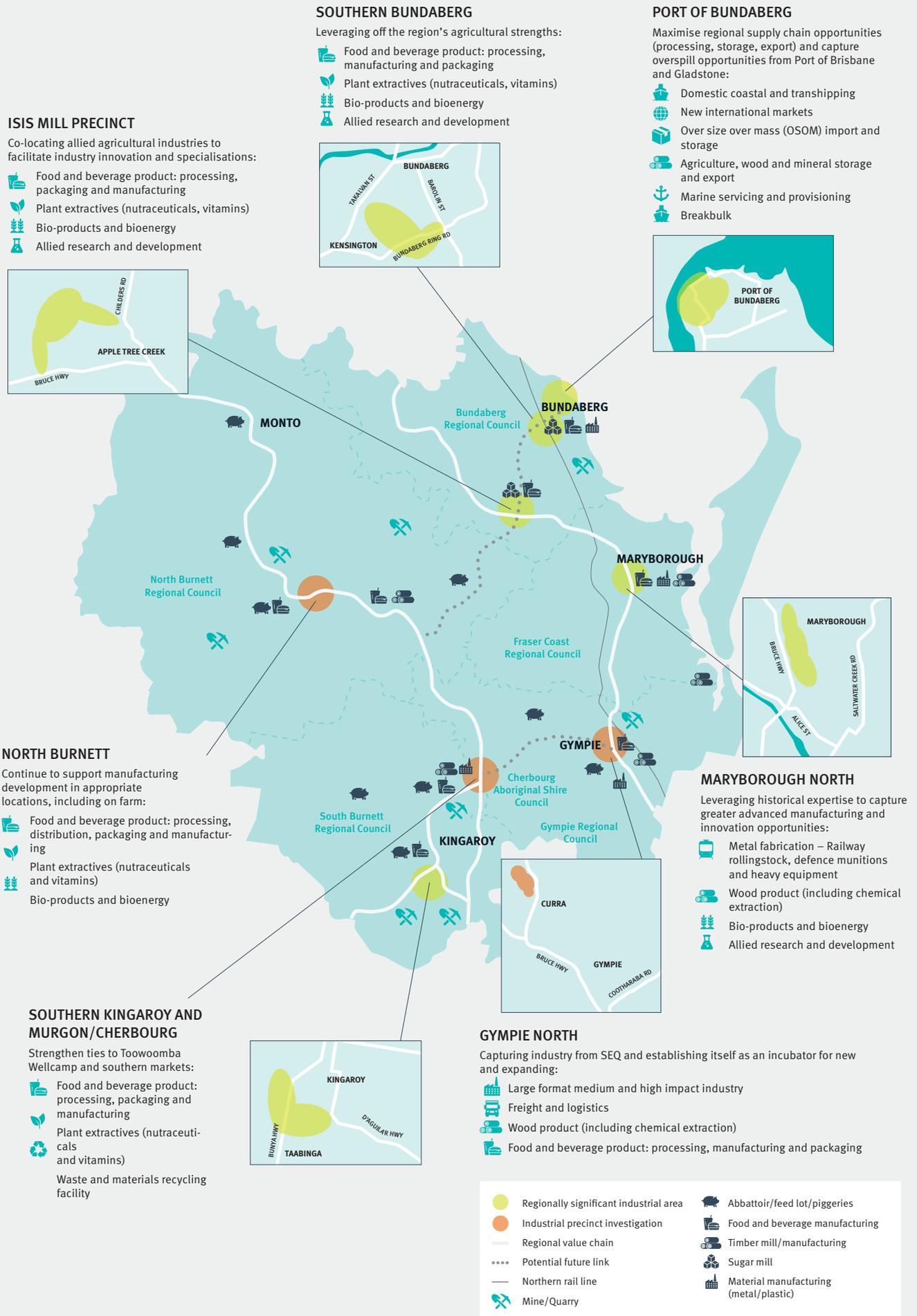


Figure 5: Industrial precincts and freight routes of regional significance.

Efficient freight and logistics

The region's manufacturing functions currently rely on an efficient and reliable road freight network. One of the greatest challenges facing WBB is the vastness of the region and the distance to major ports (sea and air) and markets. Globalisation, international competition and fast paced technological change mean that WBB cannot afford to be complacent in relation to freight and the physical and social infrastructure it relies on. Businesses and governments will need to increase focus on strategic freight planning and the adoption of new technologies to capture the opportunities and meet the challenges of the growing freight task.

In WBB, improving the capacity and efficiency of freight connections to ports and metropolitan cities will facilitate access to growing consumer markets. Total domestic freight in Australia is expected to grow by 25 per cent between 2018 and 2040, with road freight volumes projected to increase by 56 per cent over the same period¹. This presents a strong case to substantially enhance the quality, capacity and efficiency of freight, transport and utility infrastructure to facilitate freight movements through the region, connecting local producers and suppliers with better networks.

Local road connections that feed into the State and national road freight network are important for transporting primary produce and manufacturing products. Across WBB, restrictions on certain freight vehicles using local roads, unsealed roads and the cost of road maintenance, are significant impediments to the road freight network. Identifying and resolving freight and road pressure points will help to grow the region's economic activity. Whilst road freight is expected to remain the primary mechanism for regional import and export, long term opportunities exist for secondary rail-lines and coastal shipping and transhipping through the Port of Bundaberg. Future freight requirements, including a strengthened east-west linkage across the region, will be driven by industry and regional stakeholders, increasing choice and delivering more competitive freight costs for regional supply chains.

Co-ordination of investment in the transport network

- Ongoing investment to maintain and upgrade transport routes is essential to support future economic growth in the region. The State will continue to support coordinated investment in freight, priority road, rail and port infrastructure and airline services in acknowledgment of the strategic importance to the regional economy. In doing so, it will create more dynamic and resilient communities adapting to changing economic, social and environmental circumstances.
- Upgrades to transport and freight networks and streamlining access to port and landside infrastructure will facilitate economic growth and diversification by unlocking new export opportunities, strengthening the region's cities and centres and enhancing productivity of the agricultural, manufacturing and natural resources sectors.
- Potential network improvements along these freight corridors will help improve efficiency and facilitate the use of higher productivity vehicles, reducing freight costs and freight movement timeframes.

To manage an ever-increasing number of trucks and delivery vans on roads in the coming 25 years, the region will need to have greater consideration of regional freight distribution, considering future technology efficiencies such as automation. Capable of being early responders to energy transformation, freight economics and opportunities for modal shifts, industry investment and growth will be a key driver for shifts within the existing freight network. Collaborative partnerships between government and local stakeholders can facilitate major improvements to inter-regional rail, road, and port infrastructure.

1. Department of Infrastructure, Transport, Cities and Regional Development, Australian aggregate freight forecasts - 2019 update, Research Report 152



Port of Bundaberg

To best position the region, freight and logistics facilities need to be strategically located and planned to capitalise on connections to external markets, maximising the use of existing infrastructure and supporting future industrial development in the precincts identified above. Potential land use conflicts between freight and residential uses will need to be carefully managed to ensure key freight facilities' long-term viability. Planning must protect industrial land (such as that for ports, intermodal terminals and logistics uses), from the encroachment of commercial, residential and other non-compatible uses which would adversely affect industry viability, operation and long-term growth.

Port of Bundaberg

- › The Port of Bundaberg, managed by the Gladstone Ports Corporation, is the main commercial port asset in the region, providing valuable connections to domestic and international markets and commodities. Identified as a Strategic Port, the Port of Bundaberg has significant potential to increase its import and export capacity, particularly as freight congestion and competition for land at the Port of Brisbane and Gladstone Port increases.
- › It is one of three ports in Queensland identified with strategic transshipping opportunity and benefits from two other advantages relative to other Queensland ports - it faces a much lower risk of cyclone activity than ports further north, and it is the most northerly port outside the Great Barrier Reef Marine Park.
- › The port and adjacent State Development Area represent a significant opportunity for economic growth in the region. Realising the development potential of this area hinges on the continued growth of trade throughput (namely agricultural, mineral commodities and break bulk such as over-size over-mass) and on the capacity of port assets and allied infrastructure. This includes the construction of, and upgrades to, transport infrastructure enabling safe and efficient movement of trade commodities from source to port (both from in the region and from neighbouring regions), as well as multi-use port infrastructure and utilities infrastructure.
- › Common user infrastructure and other private sector investment in development at the Port of Bundaberg will also enable expansion of the range of commodities handled at the port, including mineral resources, break bulk and over size over mass project cargo, as will any potential future use of transshipping or coastal shipping practices. Attracting commercial contracts for heavy repair and maintenance can also make Bundaberg's port a more attractive proposition for businesses wanting a part of those growing industries and trade opportunities.



Port of Bundaberg

Regional responses

Infrastructure priorities

- › **Upgrades to regional freight networks** – Improving the connections of key freight/haulage routes to provide access to markets and improve the efficiency of the region’s supply chains, including east-west and north-south linkages, is key to future economic growth. Potential improvements to be considered include:
 - east to west links – Gympie to Kingaroy (and beyond to Wellcamp) and Port of Bundaberg to Biggenden (and beyond to western Queensland)
 - future B-double decoupling facilities at key centres including Bundaberg, Gympie, Hervey Bay and Maryborough
 - port of Bundaberg access road upgrade (Port of Bundaberg and Bundaberg State Development Area)
 - secondary rail lines to support regional throughput to the Port of Bundaberg.
- › **Digital connectivity** - Region-wide, high quality digital connectivity is essential to enable innovation and uptake of technology to support advanced manufacturing opportunities within regionally significant industrial precincts. Realtime transport and logistics data will also require connectivity along major routes such as the Bruce Highway and east-west links, which should be considered as roads are upgraded. Where upgrades or new pit infrastructure is proposed (e.g. where future substations are required), simultaneous installation of digital infrastructure should be considered.
- › **Water infrastructure** - Prioritise future water supply to support investment in the regionally significant industrial precincts and other existing industrial clusters.
- › **Trunk infrastructure** – Create well-serviced and resilient industrial land, with provisions (gas and power supply) that meet the expectations of industry.

Policies

Industrial land

- 2.1.1 Plan for the sufficient long-term supply of large format industrial land within identified regionally significant industrial precincts. Opportunities in these precincts should support allied commercial and research functions.
- 2.1.2 Beyond identified regionally significant industrial precincts, other industrial land in existing or planned urban areas should be well serviced and connected to high order roads. Existing and future industrial land should be protected from encroachment by incompatible land uses.

Freight

- 2.1.3 Facilitate industrial agglomeration, enhance connectivity and support the long-term strategic viability of the Port of Bundaberg and other regional transport terminals (including airports) through land use planning.
- 2.1.4 Encourage future freight and logistics nodes and facilities along key regional freight routes (including in proximity to the Port of Bundaberg) capable of further boosting connections to external markets that support future industrial development.
- 2.1.5 Protect freight and logistics facilities and key freight routes from the encroachment of incompatible land uses.

Actions

Ref.	Action and purpose	Approach
2.1.A	<p>Establish a pipeline of regionally significant industrial land that:</p> <ul style="list-style-type: none"> › supports growth in advanced manufacturing and existing industry › attracts new enterprise to the region, including allied commercial and research functions. 	<p>Work with local governments, industry, and state agencies to develop a regional program for the co-ordinated delivery of fit-for-purpose industrial land in the regionally significant industrial precincts and options for servicing these precincts.</p> <p>This program should provide the region with a reliable pipeline of suitable large format industrial land capable of being brought to market which is available, serviceable and maximises the productivity of new or existing regional supply chains. The program may consider different models for infrastructure provision.</p>
2.1.B	<p>Deliver a regional freight plan to identify and prioritise freight network improvements and future freight needs based on the industrial land pipeline and existing supply chains.</p>	<p>Work with state agencies, local governments, and industry to investigate:</p> <ul style="list-style-type: none"> › future industry demands and logistics/transport trends expected over the next 20 years › improved connections to Port of Bundaberg and Wellcamp Airport to support new regional export (or import) markets › priority first and last mile links › options and timing for an upgraded east west link through the region › role of the other regional rail, sea and airports.
2.1.C	<p>Develop a targeted Regional Investment Prospectus/strategy for WBB to promote the benefits of establishing and growing business in the region.</p>	<p>Work with state agencies, industry and local governments to develop a regional economic prospectus identifying opportunities along existing value chains and emerging industrial functions.</p> <p>The prospectus can include and be supported by specific economic development, advocacy, industry collaboration and networking and investment attraction functions and opportunities such as growing an advanced and/or automated manufacturing sector in the region – informed by industry and government on short-medium term needs.</p> <p>The prospectus can call out to future industrial opportunities across the region, including Gympie and the Bundaberg State Development Area, which can leverage off the Port of Bundaberg or maximising new or existing regional supply or value chains. The prospectus can identify incentives for investment and opportunities for public private partnership investment.</p>

Digital connectivity

Reliable, fast, and affordable digital connectivity is increasingly necessary for regional economic development. Online services and location-based digital technologies such as GPS are driving the development of new products and services around the world. Location-based technology is required to support emerging applications that require highly precise location information including automated vehicles and drones.

At present, sections of WBB have limited mobile and internet coverage ('black spot' areas) and access to digital technologies. Enhancing the region's connectivity and providing industries with the digital skills they need for the future will:

- › support innovation, industry efficiency and productivity through improved access to online business support services and systems and the use of digital technologies
- › ensure the region is well positioned to increase the global competitiveness of existing industries by increasing access to international markets, products, and trends
- › help attract and support emerging industries
- › expand remote working opportunities.

The continued roll out of the federal government's National Broadband Network (NBN) and expanded telecommunication footprint will help provide the region with more reliable internet connectivity. NBN representatives are also working with local governments to undertake LGA Digital Connectivity plans, which can then provide the groundwork for a future region-wide digital strategy.

There may also be opportunities for small cell units (compact radios and antennas attached to public infrastructure like light poles, power poles and buildings), as a stopgap measure to assist with blackspots. Queensland Government-owned QCN Fibre is also expanding its fibre network and providing access to NBN backhaul.

The digital infrastructure priorities identified through the draft regional plan will inform future government planning as well as key elements for the WBB Regional Infrastructure Plan and future updates. The draft WBB Regional Plan also proposes a regional workforce strategy which identifies the need to build digital literacy for both community and industry.



Eden Farms, Bundaberg

Objective 2.2: Lead primary production into the mid-21st Century

An economic cornerstone of Wide Bay Burnett

WBB is a state and national leader in the production of numerous agricultural commodities (Figure 6) and supplies high quality raw and manufactured agricultural products to local, national, and international markets. The diversity of these products facilitates strong sectoral synergies within the industry and supports supply chain and value-add interconnections. This is particularly evident in food and beverage manufacturing, livestock processing, plant extractives and timber manufacturing.

The dynamic nature of WBB's agricultural product and value-add activities will continue to underpin the strength of this industry, driving the region's competitiveness and technological innovation. The move towards AgTech solutions is already being experienced across the region, with developments such as the Bundaberg Agtech Hub and the Hinkler Agtech Initiative further promoting growth in the region's AgTech capabilities and supporting the growth of the AgTech industry. Continued investment will see further advancement in the industry's use of integrated technology systems and specialisations to meet new and changing consumer demands. This includes innovations in value-add food processing and manufacturing, food technology and the adoption of vertically integrated agribusinesses.

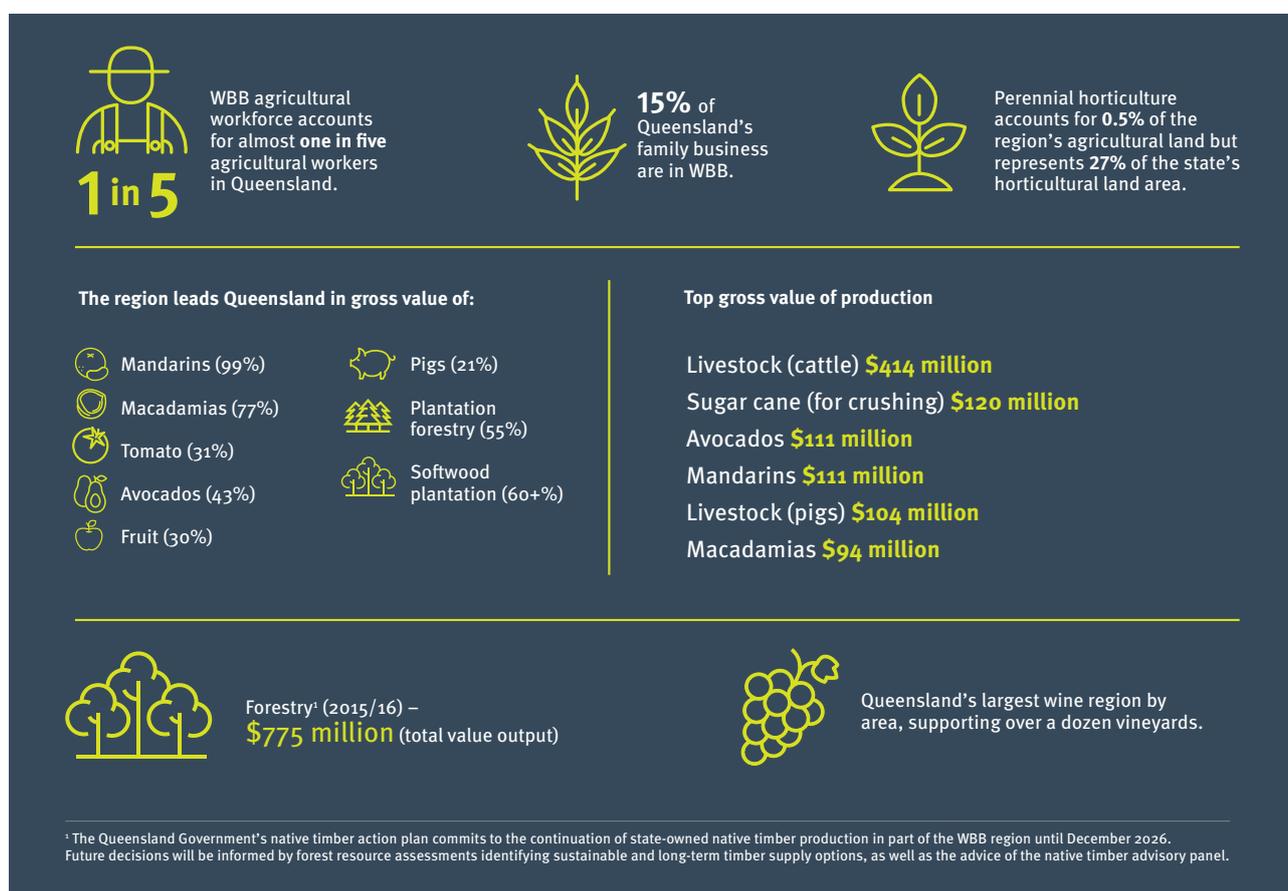


Figure 6: Significance of WBB Agricultural Production (2019/2020) - Top GVP: Department of Agriculture and Fisheries Data Farm forecasts for agricultural production

With global demand for food expected to increase by 70 per cent over the next 40 years, there will be increasing national and international demand for the region's agricultural commodities. Located on the doorstep of Queensland's largest domestic market and with an underutilised port and freight capacity, WBB is primed to build on its agricultural productivity.

Increasing productivity will require the region and its industry stakeholders to:

- 1. deliver intensification, diversification and value-adding opportunities**
- 2. safeguard future agricultural opportunities**
- 3. accelerate the take up of advanced agricultural technologies and digital applications.**

1. Deliver intensification, diversification and value-adding opportunities

Intensification and diversification of agricultural production is well underway within the region's eastern coastal plain, with localised production opportunities to continue in areas such as Bundaberg, the Mary Valley and around Gympie and Maryborough. Central and western reaches of the region are also anticipated to experience future expansion and intensification of horticulture and animal husbandry particularly around existing agricultural hubs such as Kingaroy and Gayndah. Value-adding will continue to be central to the growth of the region's capacity and productivity, with greater primary and secondary processing possible for many local crops and commodities.

Further intensification, diversification and value-adding opportunities include:

- **Controlled environment farming systems** – Farming systems that incorporate various levels of control, cover and automation, such as intensive horticulture (greenhouses, vertical farming) or protected cropping/horticulture that allow for reduced water and nutrient usage, reduce the use of pesticides, can take up less land, do not require access to high quality soils, and are less vulnerable to climate change.
- **Agritourism opportunities** – The region's proximity to the largest city in the state provides ongoing opportunities for growth in agritourism, which can provide a secondary income stream for producers and contribute to tourism expenditure in the region.
- **Potential Agricultural Expansion Areas (PAEAs)** – PAEAs are clusters of areas where new and expanded high value agricultural developments may be feasible. These areas consider the location of highly productive soils (ALC Class A and Class B Land), Strategic Cropping Land identified under the RPI Act, existing agricultural operations and their estimated economic value to the region, the proximity of existing and proposed bulk water infrastructure and other supporting infrastructure.

➤ **Initial analysis has identified 4 PAEAs in WBB (Map 1):**

1. Gympie to Bundaberg PAEA – this area could support further cropping, horticulture, as well as hardwood and softwood forestry plantations
2. Monto PAEA – this area could support further crops, horticulture, intensive animal industries, as well as hardwood and softwood forestry plantations
3. Burnett River PAEA – this area could support additional high value horticultural products
4. North Burnett PAEA – includes areas suitable for growing crops, horticulture, intensive livestock, as well as hardwood and softwood forestry.

➤ **Developing new products, including:**

- plant extractives, plant-based and novel proteins, vitamins, pharmaceuticals, and nutraceuticals – taking advantage of the region's abundance of raw materials and good quality soils
- frozen foods – increasing the region's competitive advantage in frozen vegetable and ready-meal exports
- organic produce – capitalising on growing consumer awareness and demand for high-yield, high-return organic produce free from contaminants, residues, and protective of animal welfare, soil health and adjacent ecosystems
- engineered wood products – leveraging specialisations in existing hard and soft wood products
- seaweed and micro-algae – directly inputting in the region's existing supply chain through their use in biofuels, health supplements, pharmaceuticals, animal and human consumption and cosmetics
- bioproducts – capitalising on the region's agricultural by-products to create renewable energy or new manufactured goods (such as fuel, plastics, bioenergy, and chemicals).

- › **Varied out-of-season crop production** – Higher value and niche market opportunities such as salad vegetables offer potential diversification opportunities in the region.
- › **Natural capital markets** – Natural capital markets, including carbon farming and agroforestry can provide secondary income opportunities for landholders while improving the region’s long-term resilience to climate change. As an example, carbon farming can provide carbon neutral branded agricultural products, supporting an economic value-add and climate action.
- › **Aquaculture Development Areas (ADAs)** – ADAs are areas have the potential for land-based marine aquaculture development. Although no ADAs are currently identified in WBB, the identification of new ADAs in coastal areas of the region could capitalise on the increasing interest in seafood products that are not reliant on wild catch.

To facilitate further intensification and diversify production, securing sufficient water will be key. High value agricultural crops such as avocados, nuts, grapes, and tree fruits are particularly impacted by rainfall volatility and require a secure, reliable water source. This will require greater investment in water security infrastructure, including alternative water sources, and water saving technologies, both on and off farm, to support increasing levels of agricultural production.

The agricultural industry will also need greater levels of flexibility to establish on-farm food processing, manufacturing, packaging facilities and workers accommodation and to allow for agritourism functions and controlled environment farming systems.

To facilitate PAEAs, consideration should be given to the prioritisation of new and improved critical infrastructure (including water, energy, freight, and supply chain logistic improvements) and opportunities for common user infrastructure solutions or other co-funded solutions.



Bird Laser Fake Hawk Remote Water Control

Carbon farming and agroforestry

Carbon Farming

- › Carbon farming refers to practices across the landscape that actively manage vegetation, fire, soil, or livestock to increase storage of carbon in our landscapes, or to avoid release of greenhouse gases (particularly methane and nitrous oxide). While carbon farming remains an immature market, it represents a realistic and effective opportunity for the WBB region, can improve environmental outcomes and help create a reliable supplementary income stream for landholders.
- › There are several schemes and approaches emerging for carbon farming, including reef water quality credits administered under the Queensland Government Reef Credit Scheme, and the Queensland Land Restoration Fund (LRF). The LRF is growing the carbon farming industry in Queensland by supporting “premium” land sector carbon farming projects that deliver Australian Carbon Credit Units (ACCUs) under the federal Emissions Reduction Fund.
- › The LRF supports research and development that helps Queensland landholders harness the state’s natural advantages to participate in the carbon market with projects that will deliver environmental, socio-economic and First Nations co-benefits. The LRF is leading Australia in the valuing and verification of co-benefits linked to carbon farming projects and has developed the LRF Co-benefit Standard.

Agroforestry

- › Agroforestry is a carbon farming initiative which could be employed across the WBB. Agroforestry is the practice of combining both forestry and agriculture, through the reforestation of cleared agricultural lands, the inclusion of tree coverage among crops, the addition of trees with grazing livestock (silvopasture), or the reduction of or selective clearing of regrowth vegetation on agricultural lands to maintain land coverage. Agroforestry can assist in rainfall and water retention, lower the surface temperature of the land in summer and help the landscape to adapt to climate change impacts.
- › Well-designed and correctly implemented agroforestry systems can be more valuable than the cleared agricultural lands, further assisting landholders to diversify their incomes.
- › The draft WBB Regional Plan identifies Agroforestry/Restoration Areas (Figure 7). These are comprised of grazing and cropping areas with lower regional biodiversity values that have, and are expected to continue to have, extended periods of drought, that if revegetated through agroforestry (or other strategic rehabilitation initiatives) could benefit from:
 - improved land condition, including the capacity of the land to retain rainfall and water
 - more sustainable use of agricultural land
 - supplemented landholder income from carbon credits (where these activities qualify under the Emissions Reduction Fund).
- › Increased land coverage and improved land condition in these areas could also provide for greater connectivity between areas of high regional biodiversity values.

Where Agroforestry Restoration Areas are identified in Priority Agricultural Areas (PAAs), agroforestry/restoration activities will need to co-exist with PALUs as to not diminish the ability for PALUs to operate.



Figure 7 – Draft agroforestry areas

Agroforestry in WBB: Goondicum Station

Goondicum Station is a grazing and regenerative agriculture farm delivered in partnership with Goondicum Pastoral Co, GreenCollar and the Burnett Mary Regional Group. The Goondicum Station owners use regenerative farming methods that produce rich soils and better-quality feed grasses for cattle on the property. Thinning processes and ‘cool fires’ are also used on the property to maintain a balance of trees and pasture and create an all-round healthier environment. The co-existence of grazing and regenerative agriculture has made Goondicum Station more profitable, even with less cattle per hectare compared to 25 years ago, in addition to generating income from carbon credits. Co-benefits verified under the LRF include reducing nutrient and sediment run-off into the waterways (including the Great Barrier Reef) and providing native vegetation for wildlife habitat.

2. Safeguard future agricultural opportunities

The region is home to numerous regionally significant agricultural production activities and has large areas of highly productive soils (referred to as ALC Class A and Class B Land) that support a wide range of cropping and grazing activities.

Encroachment, sterilisation and the fragmentation of ALC Class A and Class B land and existing agricultural uses from urban development, large-scale solar energy developments, and the expansion of the mining and gas industry places pressure on existing agricultural production, future agricultural industry expansion and allied infrastructure.

A generational change of farmers and growers is expected to continue in the region, with many corporate holdings expected to get bigger and smaller lifestyle or bespoke holdings becoming smaller. Although not a new trend, this will continue to have implications for the size, characteristics, and potential fragmentation of agricultural and rural land parcels, with traditional lot size prescriptions not necessarily viable for farming into the future.

An ageing workforce is also impacting on the region, instigating a generational change and a need to transfer land and business management, agriscience and farming expertise to a new generation. Initiatives that grow, attract, and retain the required skilled labour for these businesses are a critical priority for the region. Improved accommodation options with greater flexibility around short-term uses are also required to attract and retain seasonal and short-term workforces that support the agriculture industry.

Measured against this has been the increased demand for rural and rural residential parcels, as new residents look for affordable lifestyle changes and seek a tree change in a post COVID-19 world. This trend has been seen nationwide but is particularly noteworthy for WBB given the proximity of the region to the services and amenities, and the growth and affordability issues of the adjacent SEQ region.

In response to these shifts, the region needs to protect and maintain the regionally significant agricultural land and uses from fragmentation and incompatible non-agricultural development.

The draft WBB Region Plan identifies Priority Agricultural Areas (PAAs) across the region (Map 1). Agricultural value-add opportunities and allied industries will be supported in these PAAs, where directly aligned with the agriculture use of the land, providing industry with the flexibility required to adapt to changing environmental conditions and consumer demands.

The draft WBB Regional Plan supports larger farm formats and intensification of use where they result in a net overall benefit to productivity, financial viability, regional economic outcomes, and environmental impacts. The role and function of smaller holdings for intensive horticulture in the region will continue to be supported where they do not detract from the primary function of intensive agricultural production.



Priority Agricultural Areas (PAAs) and Priority Agricultural Land Uses (PALUs)

- PAAs are strategic clusters of the most regionally significant agricultural production areas that contain various priority agricultural land uses (PALUs). These uses include broadacre cropping, horticulture, intensive animal industry, plantation forestry and terrestrial aquaculture as shown on Map 1.
- Any non-agricultural use or resource activity seeking to operate in these areas will not be supported unless they can co-exist with the PALUs for mutual benefit and without compromising the PALUs current or future ability to operate, including the infrastructure essential to the operation of the PALUs.
- PAAs and PALUs are defined terms under the RPI Act. They identify geographic areas with specific values for the purposes of both the RPI Act and the Planning Act to achieve a consistent planning outcome.

3. Accelerate the take up of advanced agricultural technologies and digital applications

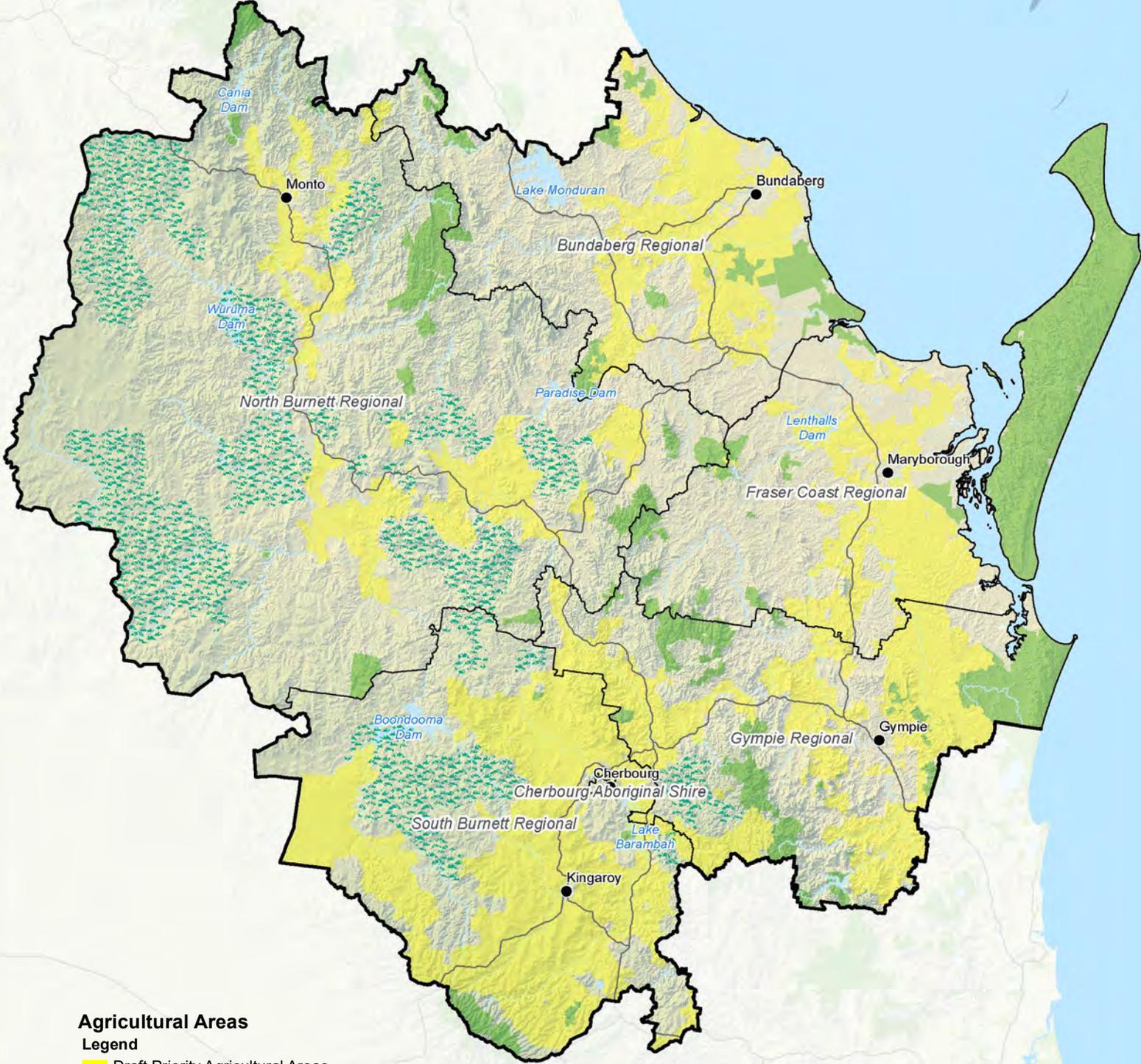
Advancements in digital innovation allow farmers to compete globally and utilise crop management technology, robotics, and wireless monitoring systems to maximise productivity, financial viability, and to minimise environmental impacts. The WBB region is well positioned to emerge as a leader in agricultural technological advancement, building off existing industry advancement and initiatives such as the Bundaberg AgTech Hub. Targeted investments in and the adoption of innovative technology will enable the WBB region to take advantage of opportunities in agriculture, food technologies and services that can substantially increase farm productivity.



Edens Farms, Bundaberg

Without improved digital connectivity, the uptake of innovative and smart farming practices that require technology such as sensors and robotics, will be hampered to the detriment of regional producers and agricultural productivity. The region therefore needs to identify where digital infrastructure is required to best support connectivity and the uptake of technology. This will enable the region to better leverage its comparative advantage in agriculture, increasing opportunities to introduce technological advancements along the region's agricultural supply chain, from improved farm efficiencies and land management practices, to enhanced sorting, processing, packaging, and tracing. The adoption of innovative practices will also support the shift towards low and net-zero carbon emissions, supporting the long-term sustainability and competitiveness of the region into the future.

Collaboration across industry will be key to building capacity to support the uptake of new agricultural technologies. Better incorporation of agricultural industry representation into strategic planning and a renewed focus on facilitating innovation through research and development hubs, can further build the skills and capacity of the sector, encourage adoption of new technologies and reduce the impact of generational change. The region is already demonstrating its capability through sophisticated food processing that utilises technology systems, and adds value (skills, knowledge, and qualifications) to the AgTech ecosystem. Building from this regional AgTech ecosystem, the region can also excel its capacity in the development and manufacturing of specialised agricultural technology products for export to domestic and international markets.



Agricultural Areas

Legend

- Draft Priority Agricultural Areas
- Draft Priority Agricultural Expansion Areas
- Protected areas (National Parks)
- Population centre
- WBB Regional Plan boundary
- Major highway
- Major river
- Major waterbody
- Local Government Area boundary

Map 1 – Draft Priority Agricultural Areas.

Regional responses

Infrastructure priorities

- › **Water infrastructure** – Available and affordable water is essential for the agriculture industry to continue producing high quality fresh produce and increase production into the future to meet rising demand. Access to a secure water supply is a factor for future growth and investment in irrigated produce, as well as aquaculture and food processing.
- › **Digital connectivity** – Improved regional connectivity is essential to enable innovation and uptake of technology (AgTech and contemporary farming practices) to support efficiencies and increase productivity.
- › **Transport connectivity** – Cost effective, safe and efficient freight is critical to the resilience of supply chains and competitiveness of products produced in the region. Whilst the operational expenditure of the region’s freight network is acknowledged, ongoing investment to upgrade key transport routes and access to port and land side infrastructure will be critical to support future economic growth in the region. Key freight upgrades should consider:
 - Port of Bundaberg upgrades – Redirection of suitable agricultural commodities currently accessing southern ports to the Port of Bundaberg could help reduce transport and logistics costs and increase volumes, also resulting in a reduction in costs. The Pacific Marine Base may enable niche/small scale containerised shipping of some commodities to domestic and pacific region markets, subject to the export value of the commodity
 - the transport of agricultural products from North Burnett to the Port of Bundaberg and Bundaberg State Development Area via an east–west linkage should be considered for future investment.

Policies

Agriculture

- 2.2.1 Support greater flexibility for allied farming uses in PAAs, where positive overall benefits for agricultural production can be demonstrated and where development does not adversely impact local infrastructure networks. Allied uses may include processing, packing, agritourism/seasonal workforce accommodation and agricultural administrative functions.
- 2.2.2 Non-agricultural uses (uses not directly allied to agricultural functions) are not supported in PAAs, unless the proposed use demonstrates net benefits for regional agricultural production or is for public infrastructure.
- 2.2.3 Establishment of renewable energy systems for off-grid or site-specific uses may be supported within PAAs, where they directly support on-site agricultural production and processing activities.
- 2.2.4 New and expanding agricultural operations (including controlled environment farming and protected cropping/ horticulture) are supported within rural areas and other zones where appropriate.

Natural capital markets

- 2.2.5 Promote and support increased use of agroforestry practices in the Agroforestry/Reforestation Areas identified on Figure 7 to achieve a more sustainable use of less productive land in grazing and cropping areas.
- 2.2.6 Promote and support other natural capital markets and aligned activities, such as reef credits, biodiversity certificates and soil carbon.

Aquaculture

- 2.2.7 Support and facilitate future aquaculture development in suitable locations, including in ADAs.

Forestry

- 2.2.8 Support retention and expansion of sustainable forestry, including the protection of forestry product, allied industry and haulage routes.

Actions

Ref.	Action and purpose	Approach
2.2.A	Regional water planning to consider and account for emerging agricultural and other industry opportunities.	<p>Work with state agencies, local governments and industry to prioritize, develop and implement regional water infrastructure planning.</p> <p>This would include developing a common understanding, the region's future water needs for agriculture and other opportunities, collaborative, coordinated, for assessing water supply or security options, and implementing agreed actions across the region.</p>
2.2.B	Develop a Planning for Regional Agriculture study that helps to facilitate diversification and intensification of the agricultural industry through planning mechanisms.	<p>Work with state agencies, local governments and industry to investigate:</p> <ul style="list-style-type: none"> › amendments to planning schemes and other mechanisms to facilitate greater flexibility for on-site activities (storage, processing, refrigeration, agritourism etc.) and carbon farming. Planning controls could consider: <ul style="list-style-type: none"> • minimum lot size requirements in rural areas • thresholding issues, environmental constraints and code requirements. › priority regional infrastructure – digital connectivity, freight network upgrades, and water – required to support PAAs › opportunities to establish a food and beverage manufacturing and distribution centre in the region › co-location of agricultural-related uses in areas outside but in proximity to the rural zone (e.g. industrial zoned land) where appropriate infrastructure is available › co-location opportunities between the forestry industry and other commercial, recreational and community activities, including renewable energy and tourism developments › identify priority PAEAs and investigate what policies and regional infrastructure projects would be required to support them. <p>This study should position the region to best manage the impacts of climate variation and opportunities for technology adoption and new markets.</p>
2.2.C	Economic investigations to support new opportunities for increased domestic and international exports of regional primary and secondary (value-add) agricultural production.	<p>Work with state agencies, local government and industry to investigate:</p> <ul style="list-style-type: none"> › specific investment attraction requirements and marketing for agribusiness in WBB › new opportunities for increased domestic and international exports of regional primary and secondary (value-add) through the Port of Bundaberg › emerging industries/niche markets (e.g. plant extractives, nutraceuticals and microalgae) that capitalise on the regions existing production and manufacturing/processing capabilities › building capacity within regional agribusiness.
2.2.D	Increase the awareness and understanding of carbon farming mechanisms available to agricultural users.	<p>Work with local governments, and the agricultural industry to understand opportunities for carbon farming in the region, considering PAEAs and areas with potential forestry expansion areas.</p>
2.2.E	Facilitate opportunities for new ADAs within the region.	<p>Work with DAF and coastal local government areas to identify potential terrestrial ADAs, particularly at Miara/Kolan River (Bundaberg) and Beaver Rock (Fraser Coast).</p>

Water for economic growth

Water is a valuable resource and an important input to almost every industry in WBB. Securing sufficient water to support economic growth will be a key challenge for the region. Water is a critical enabler of agriculture, which accounts for most of the water used in WBB, predominantly through irrigation schemes maintained by major dams including Paradise Dam, Bjelke Petersen Dam, Boondooma Dam, and Borumba Dam. Emerging regional industries such as advanced manufacturing, bioindustries, and renewable hydrogen will also have significant water needs.

As demand for agricultural and other products and population growth increases in the region, the demand for water will increase. At the same time as demand is increasing, the region's water supply is becoming more volatile. Regional rainfall rates are projected to decrease across most of the region by 2050. The decrease of available water in the more western, arid sections of the region will increase the need for water storage or alternative water sources. Projected increases in annual mean temperature, drought duration and evaporation rates will simultaneously increase water demand and reduce supply.

To meet future demand, innovative water management, additional bulk water infrastructure and alternative water sources will be required.

Currently, the state's Department of Regional Development, Manufacturing and Water (DRDMW) is responsible for the overall governance and regulation of water across Queensland. Responsibility for the management of different water schemes and operation of different types of water infrastructure is varied across the region and includes local governments, Sunwater and Seqwater¹. The federal government also plays a role in delivering strategic policy on water reform and in bulk water infrastructure investment.

Under strategic priority 3, the regional plan also includes an action for an investigation into alternative, climate-resilient water sources and innovative water demand management solutions in the region.

1. Seqwater are the entity responsible for the Mary Valley Water Supply Scheme only. This scheme includes Borumba Dam.



Borumba Dam, Gympie

Objective 2.3: Create employment pathways for all

Key regional employers

The region's employment profile is dominated by the knowledge and services sector, which accounts for over one third of WBB's current workforce. Economic and employment opportunities of this sector are chiefly concentrated in health and aged care, education, and tourism (accommodation and food services).

As the population grows and new families and working age populace is attracted to the region, the demand for high quality health and education services and lifestyle/recreation functions will also increase, requiring proactive service delivery, infrastructure, and workforce responses.

Creating strong employment locations in all parts of WBB, with good access from residential areas, is central to achieving a more inclusive and sustainable region. Across the WBB, larger centres provide a wide range of higher-order services to surrounding communities (including those outside of the region), such as essential services at major hospitals and education campuses.

To improve the economic capacity of WBB and the living standards of many residents, the region needs to focus on increasing the diversity and resilience of high-employment sectors, capitalising on those locations with existing drawcards for residents, investors and visitors (Bundaberg, Fraser Coast and Gympie LGAs), while encouraging new economic opportunities in those areas which could better capitalise off improved service industry development (Cherbourg, North and South Burnett LGAs).

Economic priorities for the region's knowledge and service industries include:

- › **health care, aged care and social assistance** – increase health care specialisations and further raise the region's reputation as a destination for healthy, self-sufficient retirees and for functional ageing and age-friendly communities
- › **education and training** – increase home-grown talent and higher education attainment by encouraging and facilitating opportunities for education, innovation and industry collaboration and development

- › **tourism** – boost domestic and international tourism through more co-ordinated regional product and experiences that can in turn raise the region's profile and enhance perceptions of offerings and attractiveness.

Health, aged care and social assistance

The health care and social assistance industry is the largest employing industry in WBB, covering sections of three hospital and health service areas (WBB, Sunshine Coast and Darling Downs) and employing over 15,000 people or 15.3 per cent of working aged people. As an employment industry it has continued to experience the largest levels of growth over the past decade (4.1 per cent growth between 2006-2016, while the state grew by 2.7 per cent over the same period).

The sector will continue to be a key economic and employment driver and is projected to account for approximately 20 per cent of all WBB employment by 2041. WBB's growing and ageing population (accelerated by the region's retiree reputation) combined with increases in personal health care expenditure, are key drivers of future demand for accessible, specialist medical services and tailored community-based healthcare facilities such as multi-purpose health and aged care services (e.g. existing services at Childers, Biggenden, Eidsvold and Mundubbera) and digital healthcare initiatives.



While these drivers will continue to create service delivery challenges for the region, they also present significant opportunities to improve the health and wellbeing of the population and create economic benefits and employment growth. This will support the attraction of skilled workers to the region and provide employment pathways for residents, particularly within WBB regional centres.

There are substantial opportunities for the region to leverage its demographic profile and existing reputation to develop a profile in innovative health, wellbeing and aged care services and products to support positive and productive ageing. Community-based health care and the roll out of digital healthcare initiatives are examples of integrated service delivery mechanisms which have the potential to help to overcome accessibility challenges. Increasing digital connectivity and uptake of these technologies will enable people to stay in their local area as they age and help to retain and potentially grow regional populations. The region is also well placed to leverage the:

- › development of specialist aged care services or products, such as acute, hospice care or preventive care
- › delivery of services using virtual care models and digital technologies including electronic medical records, in a manner appropriate to the needs of an older clientele
- › research and development into opportunities that serve the needs of an ageing population, increasing knowledge specialisation and promoting best practice and innovation for example, through development of innovative service models and assistive technologies that leverage artificial intelligence
- › development of holistic health and wellbeing services for older people (physical, emotional, social), as well as goods and leisure services targeting the retiree/grey nomad market.



The ability of the region to specialise in health, aged care and allied services can also create long-term supplementary opportunities for other industries in the region, including education and training providers, research and development facilities, advanced manufacturing and tourism, hospitality, and retail industries.

To better capture these opportunities, the region needs to strengthen links between the health, allied health services, research and development and education sectors, driving the development of innovation and technology across the region. Leveraging planned and existing health and knowledge infrastructure and services, the region has the capacity to establish health and education clusters in central locations, creating vibrant knowledge and community hubs across the region. Maximising internal collaboration will not only serve to increase the region's medical specialisation and profile but attract new medical and research specialists to the WBB and develop niche entrepreneurial and commercial opportunities (health products, services and training etc.).



Examples of where this could be achieved within WBB include through the proposed Bundaberg Hospital, the University of Queensland's existing Rural Clinical School and the new Regional Medical Pathway program, based in Bundaberg and commencing from 2022, to enable medical students to undertake their studies regionally through CQUniversity and University of Queensland. Opportunities also exist around the Urraween Medical Precinct in Hervey Bay and the and the Lady Bjelke-Petersen Community Hospital, which is set to be the anchor tenant in a medical precinct for the South Burnett.

The region should also continue to support smaller-scale clustering opportunities in which allied health services in local service centres can respond to the needs of their local community and support local employment. Complimentary to this, regional centres should work with providers to plan for and encourage short-term accommodation options in proximity to these community facilities allowing WBB patients and their families to better access these services.

Education and training

Having experienced growth over the last decade, the education and training sector is the third largest employing sector in the region, with a workforce of 9,209 people at 2016.

Advanced economies around the world are seeing an increasing trend towards greater dependence on knowledge, information and high/technical skills, driving innovation and productivity at the industry, enterprise and business level. This shift will be experienced firsthand by the WBB region, particularly in the health, agriculture, manufacturing and renewable energy sectors, as the economic and population profile of the WBB region changes.

WBB is well serviced in terms of educational assets and services, with multiple university and TAFE campuses across the region. To facilitate continued growth in this sector, the region needs to:

- › plan for and facilitate the expansion and clustering of education facilities and industry (health, research and development - e.g. Urraween Medical Precinct) within existing regional centres to establish an environment of knowledge transfer, reinvigorate local centres and build social cohesion
- › improve coordination and integration across education and employment pathways to build on existing economic opportunities and address projected workforce shortages
- › capture new local opportunities for blended or mixed mode learning (combining online and in person instruction) to improve accessibility and sustain community wellbeing, particularly in smaller communities.

Blended or mixed mode learning

- › While remote learning is increasingly used to deliver educational services, students still require tutoring, mentoring and motivation delivered face-to-face. The blended or mixed mode learning model proposes the delivery of deep subject matter expertise (e.g. through online lectures from leading thinkers and interactive tutorials) for one-on-one and small group learning facilitation and then face-to-face tutors who can assist students to work through the material and ensure the integrity of assessments. This mode of learning could enable regional campuses to support a far greater diversity of courses than has previously been the case.
- › Supporting greater educational opportunities within the region not only helps students avoid the costs and disruption of relocating for their studies; it can also support social cohesion, strengthening connections made in the local community and increasing the likelihood that students will remain in the region after they graduate.

Tourism

Tourism across the WBB is significant, not only to the economy, but to the growth of the region's population, providing visitors with insight into the region. To best leverage the visitor market for population growth, WBB needs to increase the region's profile (particularly within SEQ) and align its tourism offerings with the target populace it seeks to attract. Whilst the region will retain its existing reputation as a destination for retirees and 'grey nomads' it needs to strengthen its appeal to younger, working age visitors and young families.

With easy access from SEQ and boasting several established tourism destinations and 'hero' products, the WBB region has a growing tourism sector that is ripe for further development to achieve economic, employment and population growth. Key destinations include the K'gari (Fraser Island) World Heritage Area, Great Sandy Strait, the Mon Repos Turtle Centre, Cania Gorge, the Bunya Mountains, Bundaberg Rum Distillery, RM Williams Australian Bush Learning Centre and Cherbourg's Ration Shed Meuseum, and attractive historical towns such as Gayndah, Gympie and Maryborough. The sector, which encompasses allied industries including accommodation, hospitality, retail, arts and recreation directly and indirectly employed more than 15,000 workers in 2016, accounting for 19 per cent of WBB employment.



Central Station Boardwalk, Fraser Island (Fraser Regional Council)



Eli Creek, Fraser Island (Fraser Coast Regional Council)

Domestic visitor numbers to regional Queensland have been increasing over the last decade due to the popularity in camping/ driving holidays, the growing number of travelling retirees, improved mobility and accessibility, and growing appreciation of the landscape. Coupled with this, the COVID-19 pandemic and associated border restrictions over the 2020/21 period saw a surge in intra-state leisure travel, particularly in areas within driving distance of major population centres, including WBB. The industry is expected to recover from the COVID-19 pandemic and expand over the next five years, albeit with an increase reliance on domestic leisure travellers over the short-medium term.

Three key elements must be considered by the region to secure the future growth and resilience of the tourism industry and workforce:

- 1. improving sector cooperation/collaboration to promote the region as a world class visitor experience**
- 2. encouraging new regional tourism products and business development opportunities that contribute to the region's attractiveness as a visitor destination**
- 3. ensuring regional centres and social infrastructure meet the needs and expectations of visitors.**

1. Promote the region as a world class visitor experience

The WBB tourism sector has historically been fragmented in its governance and branding, with four regional and three local tourism organisations operating across the region. This fragmentation contributes to the region's lack of a defined and marketable identity and uncoordinated (and competing) strategies and activities. The WBB region needs to work together to achieve improved visitor growth, increased lengths of stay and improved visitor yields. Key to this is the understanding that the region's towns and businesses are not competing, but as a region, WBB is competing with other regions across Queensland and Australia for high yield visitors.

A coordinated regional approach to tourism across WBB would not only improve the region's offering of diverse, unique and enriching experiences, but assist the dispersal of tourism expenditure and improve the resilience of individual businesses and rural communities. Creating stronger connections across the region and with centres in adjoining regions, such as SEQ, will greatly assist the region to capitalise on tourism opportunities.

2. Encouraging new regional tourism products and business development opportunities

The viability of tourism across the region is dependent on providing a critical mass of diverse products that extend the length of visitor stays and encouraging greater visitor dispersal throughout the region. This requires a region-wide approach to the provision of accommodation options, experiences and destinations that are fit for the market and capable of being packaged and strongly promoted to target markets.

In particular, WBB needs to focus on the development of ‘all weather’ experiences and attractions, which help to offset relatively less convenient and more expensive access to the western reach of the region. An example of this could include the linking of mature tourism brands (such as K’gari (Fraser Island), Bunya Mountains and Bundaberg Brewed Drinks) with lesser-known attractions and accommodation offerings (such as wineries, culinary and experiential tourism products and eco-tourism accommodation) through self-drive tourism loops and routes, particularly across the western reaches of the region.



Supplied by Gympie Regional Council



Urangan Harbour

- › Urangan Harbour is a key destination for the Fraser Coast and region. Already a significant tourism, boating and fishing and marine services industry hub for the Fraser Coast, the Urangan Harbour master plan has been prepared to outline future land use intent and redevelopment opportunities to ensure the Harbour continues to play an important role in the region’s economic growth.
- › The master plan sets a 30-year vision for Urangan Harbour to develop a working harbour with the necessary facilities, infrastructure and amenities (including retail and dining experiences) to support local industries. The site will host a variety of green spaces and outdoor events and provide the focal point for the whale watching fleet, boating enthusiasts and recreational fishers.
- › Urangan Harbour has the potential to become an anchor within WBB’s tourism circuit and attract new investment in residential and commercial land uses, including a Harbour resort, super yachts, tender cruise terminals and conference/convention space. This revitalisation also seeks to facilitate investment in marine based facilities, increasing the boating capacity of the harbour.
- › Early concepts for the Urangan Harbour include a World Heritage and Marine Experience Activity Terminal. This terminal centre would be a focal point for the region’s marine experiences, connecting K’gari (Fraser Island), Butchulla history and culture, whale heritage, and intersecting the two UNESCO Biospheres and the region’s other unique natural assets.

The region is well positioned to increase the scale and diversity of industry-led high quality tourism offerings that strengthen regional identity, responding to increasing consumer preferences for more immersive, authentic, adventurous, conscious and experiential travel, with key opportunities including:

- › **ecotourism and nature-based tourism** - Leveraging the region's varied natural environment, to better position itself to capture eco-adventure expenditure. Opportunities to provide visitors with active and passive recreation experiences include fishing and boating charters, diving, climbing, fossicking and mountain bike, walking and horse trail tours
- › **culinary tourism and agritourism** - Promoting the region as a food hub and agritourism destination, connecting growers with consumers, promoting local food diversity, and educating visitors on eating local and seasonal products. This could include initiatives such as paddock-to-plate and farm-to-fork strategies (e.g. the Farm 2 Fork collective in South Burnett), seasonal events and experiences showcasing local produce, which add further stimulus to the region's western tourism route
- › **First Nations tourism** - Co-designing tourism products and experiences with local communities, including the accreditation of tour operators in select areas, which foster the development of authentic, engaging and sustainable tourism experiences that respect First Nations cultures, knowledges and connections to country
- › **cruise tourism** - Identifying a longer-term potential for niche market in cruise ships and smaller expedition class ships through the Port of Bundaberg, Burnett Heads Marina, and Urangan Harbour.

3. Ensuring regional centres and social infrastructure meet the needs and expectations of visitors

As with all industries and businesses across the region, the tourism sector will need to adapt to increasing customer expectations (e.g. by developing high-end niche products and experiences) and embrace innovation to continue to compete for increased visitor numbers. Enhancing the quality of tourism products and services is pivotal in building the region's reputation, both domestically and globally, ensuring that once tourists visit the region, they will want to return and bring others with them.

The region is currently challenged by a lack of high quality, well located short-term accommodation, with visitors and the temporary workforce competing over limited accommodation supply. The ability of the region to provide an adequate supply and variety of high-quality short-term accommodation product, co-located with or in proximity to key centres and tourism attractions will be critical in securing ongoing tourism growth and return.

The region is also experiencing an increase in 'drive tourism' and more can be done to encourage visitors to stay longer and enjoy local experiences. To address this need, local governments can ensure existing facilities (such as campgrounds) are maintained and sustainable, with consideration given to private sector investment to grow this part of the tourism market.

First Nations tourism

- › International and interstate visitors are increasingly interested in participating in authentic Indigenous cultural experiences. The region's rich Aboriginal culture and history could create opportunities for existing and new First Nations businesses and communities and support social and economic outcomes.
- › The Butchulla people, the traditional owners of K'gari (Fraser Island), are beginning to build eco-cultural tourism offerings that provide meaningful employment opportunities for their community. Further growth could be facilitated through partnerships with local tour operators and collaboration with other Aboriginal and Torres Strait Islander groups to develop a cluster of eco-tourism experiences.
- › The Cherbourg Tourist Centre and Ration Shed Museum offers visitors a range of historical and contemporary exhibitions and genuine Aboriginal arts and crafts from local artists. Linking the centre to South Burnett and the surrounding WBB region and attractions through drive tourism trails/routes/circuits could help support the centre and other local businesses to improve their visitor yields.



To enhance the region’s appeal to visitors, coordinated effort is required to:

- › showcase and promote regional uniqueness through the redevelopment and upgrading of centres (including weather protective design). A critical mass of residents and visitors within a centre precinct can improve the commercial sustainability of the region’s small businesses, build market confidence, enhance visitor perception and attracts quality private investment (e.g. Urangan Harbour, Burnett Heads)
- › cluster visitor offerings and support new all-weather attractions and activities to increase accessibility and year-round tourism
- › support appropriate facilities and accommodation, including for drive tourism and through the provision of high quality accommodation that is located in key centres and close to visitor offerings
- › support the expansion and clustering of arts, culture and night-time activities in appropriate areas where businesses can leverage off neighbouring activities and pedestrian flows
- › plan for and provide appropriate social and transport infrastructure, incorporating wayfinding and interpretive signage, accessible walkways and car parking into tourist precincts and central business districts to increase visitor interest and convenience.

Maryborough

- › Heritage conservation enhances main streets and town centres, attracts new businesses, residents and visitors. Better promotion and targeted community education initiatives will generate community support to manage and protect heritage assets. Removing barriers to the adaptive re-use of heritage places will help communities to retain physical connections to settlement history and promote the benefits of re-use, particularly in smaller communities. Any new development should to be sympathetic to this historical architecture to avoid product “sameness” with other tourism destinations.
- › There has been significant investment in Maryborough in response to the demand for more experience-oriented tourism offerings. The town centre heritage buildings are being revitalised through building transformational and restoration projects, street and recreational park renewal developments, street interactive installation projects, and external art installation projects. The region’s rich military history is also showcased through military trails.



Duncan Chapman Statue, Maryborough

Regional responses

Infrastructure priorities

- › **Digital connectivity** – Digital connectivity is required for the expansion of our digital, technological and creative sectors. It is also critical that local tourism providers across the region can connect to (and provide their customers with access to) high speed internet. High speed digital connectivity must be available in central business districts, to ensure equitable access to health, education and emergency services across the community. Coverage to local communities with expected reliance on digital services must also be improved.
- › **Road infrastructure** – Better access to tourism assets will unlock their tourism potential, this includes the consideration of signage and way finding, recreational vehicle friendly facilities, road-side facilities (including Electric Vehicle charging stations) and road quality, for example the sealing of scenic/tourism routes across the region (e.g. Monto-Mount Perry Road and Gayndah-Mount Perry Road). Improving the resilience of the higher order road network will reduce vulnerability to closure, reducing the need for lengthy detours and the isolation for remote communities. Improving strategically identified portions of the region's roads will also the efficiency of the network.
- › **Scalable public transport** – Access to affordable and convenient transport between regional centres is key to reducing social and economic isolation across regional communities, reducing barriers into education and workforce attainment and healthcare access. Public and active transport linkages must be a consideration in the delivery of new health, education and tourism-based facilities, to ensure convenient access to these community facilities.
- › **Regional aviation infrastructure** – Regional air travel is expected to increase with new operators and greater workforce mobility. Greater frequency of connection and supporting facilities that support growth in aviation and servicing industries will help promote future economic growth.
- › **Allied tourism infrastructure** – To support drive tourism and regional tourism trails, the region needs to continue to maintain facilities that meet the expectations of domestic and international visitors. Stronger links can be established between key destinations. More than just road infrastructure, this can include the maintenance and improvement of the region's trails, picnic and toilet facilities, car parks, camping and short stay sites.

Policies

Health, aged care and social assistance

- 2.3.1 Direct allied health, commercial and higher density mixed use opportunities (including short term accommodation and housing diversity) to locations proximate to established or expanding health precincts.
- 2.3.2 Identify and plan for multipurpose, flexible and adaptable health facilities and services that respond to changing and emerging community needs.

Education and training

- 2.3.3 Direct co-location of allied knowledge industries (health, education, research and development etc.) to existing regional centres and central business districts.

Tourism

- 2.3.4 Support the clustering of high-quality mixed-use development in regional centres and in proximity to tourist attractions.
- 2.3.5 Improve active transport, wayfinding signage and interpretation boards around key destinations and regional centres. Wayfinding signage should connect new and existing tourism products and visitor attractions.

- 2.3.6 Provide opportunities for low impact and environmentally sensitive tourism uses in rural zones where the use is complimentary to and associated with the agricultural use.
- 2.3.7 Direct nature based, adventure and ecotourism development and ancillary services to incorporate environmentally sensitive design and architecture that responds to natural features and key elements of scenic amenity.
- 2.3.8 Identify and promote opportunities for Indigenous and cultural-based tourism, including on protected area estate in protected areas.

Actions

Ref.	Action and purpose	Approach
2.3.A	Leverage continued investment in the health, aged care and education sectors to support diverse employment pathways, skilled worker attraction, and business and industry innovation.	Work with Queensland Health, regional HHSs and local governments to: <ul style="list-style-type: none"> › identify precinct planning opportunities for a new future Bundaberg Hospital, including potential allied health, commercial and short-term accommodation options and education opportunities › identify future state government investment opportunities in Hervey Bay for allied health and knowledge development in the Urraween Medical Precinct and Pialba Town Centre › identify future allied health, education, commercial and short-term accommodation opportunities proximate to the redeveloped Kingaroy Hospital › investigate future opportunities in Gympie for new and expanded primary health care and age care facilities, including palliative and dementia care.
2.3.B	Coordinate a WBB regional marketing campaign to maximise the benefits of regional tourism.	Work with DTIS, local governments and Regional Tourism Organisations to undertake co-operative marketing and product development and develop whole-of-region package offerings and experiences. This should capitalise on ‘hero’ attractions across the region, creating linkages with lesser-known attractions to maximise visitor dispersal.
2.3.C	Develop a Regional Tourist Priorities Program to support the development of new tourism product and trails across the region.	Work with state agencies, local governments and industry to develop a program of new tourism product, trails and clusters across the region, to bolster linkages between tourism assets: <ul style="list-style-type: none"> › work with state agencies on actions required to resolve tenure matters and unlock future investment opportunities through the Urangan Harbour Master Plan › identify and market tourism trails through the Burnett, showcasing agritourism, heritage and lifestyle and access to the Southern Great Barrier Reef, K’Gari (Fraser Island) and Great Sandy Strait Marine Park › work with DSDSATSIP to develop business capability and capacity development for First Nations tourism businesses to generates sustainable socio-economic outcomes for First Nations individuals and communities › work with DTIS to de-risk investment adjacent to appropriate low impact tourism in protected area estates and National Parks.

Objective 2.4: Emerge as a leader in the energy transformation and circular economy

Powering the way

Global economies are continuing to move away from fossil fuel-based systems of energy production and consumption to renewable energy sources and storage systems. The adoption of electric transportation infrastructure, fuel cell technologies and energy storage, coupled with greater usage of technologies to improve energy efficiency, is responding to this movement. These and other emerging technologies require critical new economy minerals as inputs, resulting in a growing demand for these minerals. Industries and communities are increasingly looking to recover greater value from waste resources, creating a more circular economy, and ensuring traditional industries such as mining employ more sustainable practices.

Over the next two decades and beyond, the region will help power the way for Queensland's energy transformation and progress towards a circular economy by growing the renewable energy sector, expanding sustainable waste industries and establishing a new economy minerals sector.

Decarbonising the economy in Queensland

- The Queensland Government is committed to strong action on climate change as one way to drive economic recovery for the State. A prosperous and resilient economy for Queensland will be one that manages the risks and harnesses the opportunities associated with the transition to a zero emissions global economy.
- The Queensland Government has released the Queensland Climate Action Plan 2020-2030 to bring the Queensland economy closer to decarbonisation in line with the existing zero net emissions by 2050 target. This will also ensure Queensland's industries, workers and communities, including rural, regional and First Nations people, see economic benefits from new technologies and growing markets for low carbon products.

Growing the renewable energy sector

WBB has seen strong uptake in renewable energy development and significant investment in commercial-scale solar and wind operations and numerous bioenergy projects. The region is already a net exporter of power, being home to Queensland's largest wind farm (the 453 Megawatt (MW) Coopers Gap Wind Farm), numerous solar and bagasse generators and the Tarong and Tarong North baseload coal-fired power stations. Numerous large scale renewable projects are also on the horizon, including the 1,200MW Forest Wind proposal and a potential pumped hydro energy storage scheme at Lake Borumba. While investment in the region has historically favoured solar (both large scale and behind the meter rooftop), there is an increasing focus on bioenergy and wind energy, and the emerging renewable hydrogen industry.

Further growth in the region's renewable energy sector – including in the manufacturing and distribution of renewable energy technologies and their inputs – will continue to provide economic growth and employment opportunities for local communities and help position the region as a leader in clean, green and productive industries. Future growth in renewables in the region will also contribute towards the State Government's commitment to 50 per cent renewable energy by 2030.

Despite the region's favourable conditions for additional renewable energy development, continued growth in these energy generation systems is restricted by transmission and distribution network limitations, which also impact on surplus energy use. In the long term, transmission upgrades will need to be implemented to support the increase in renewable energy. To overcome challenges in the short-term, the draft WBB Regional Plan acknowledges the need to continue promoting increased innovation in and development of battery and energy storage facilities and the co-location of energy storage and microgrids with existing renewable energy facilities. Queensland Government initiatives, such as the delivery of Queensland Renewable Energy Zones (QREZ) will also help overcome challenges and improve the coordination of electricity generation and transmission infrastructure investment.



Renewable energy storage and microgrids

- › Increasing energy storage capacity in the grid is key to supporting existing and future renewable energy development in the region. The costs associated with constructing or upgrading network infrastructure across large regional areas are substantial.
- › One mechanism already being trialled across Queensland is the use of battery storage, either co-located with existing energy generation facilities or developed as standalone facilities. Batteries housed in shipping containers or purpose-built pods are currently the most prevalent storage type, due to their modular design, relative low cost and the ability to easily increase storage capacity. Mechanical flywheels that harness rotational energy, compressed air energy, thermal energy storage, hydrogen storage, and hydropower are other forms of energy storage.
- › Renewable energy microgrids also provide another relatively lower cost option for ensuring network stability and providing affordable energy in the region. In a microgrid, community power needs are largely met by local renewable energy generation. They generally operate while connected to the network, however, can also operate independently 'off grid' assisting areas where the network infrastructure is inadequate or near end-of-life.

Childers Solar Farm, courtesy Elliot Green Power



Coopers Gap Wind Farm, Image supplied by AGL Energy, GE and Tilt Renewables

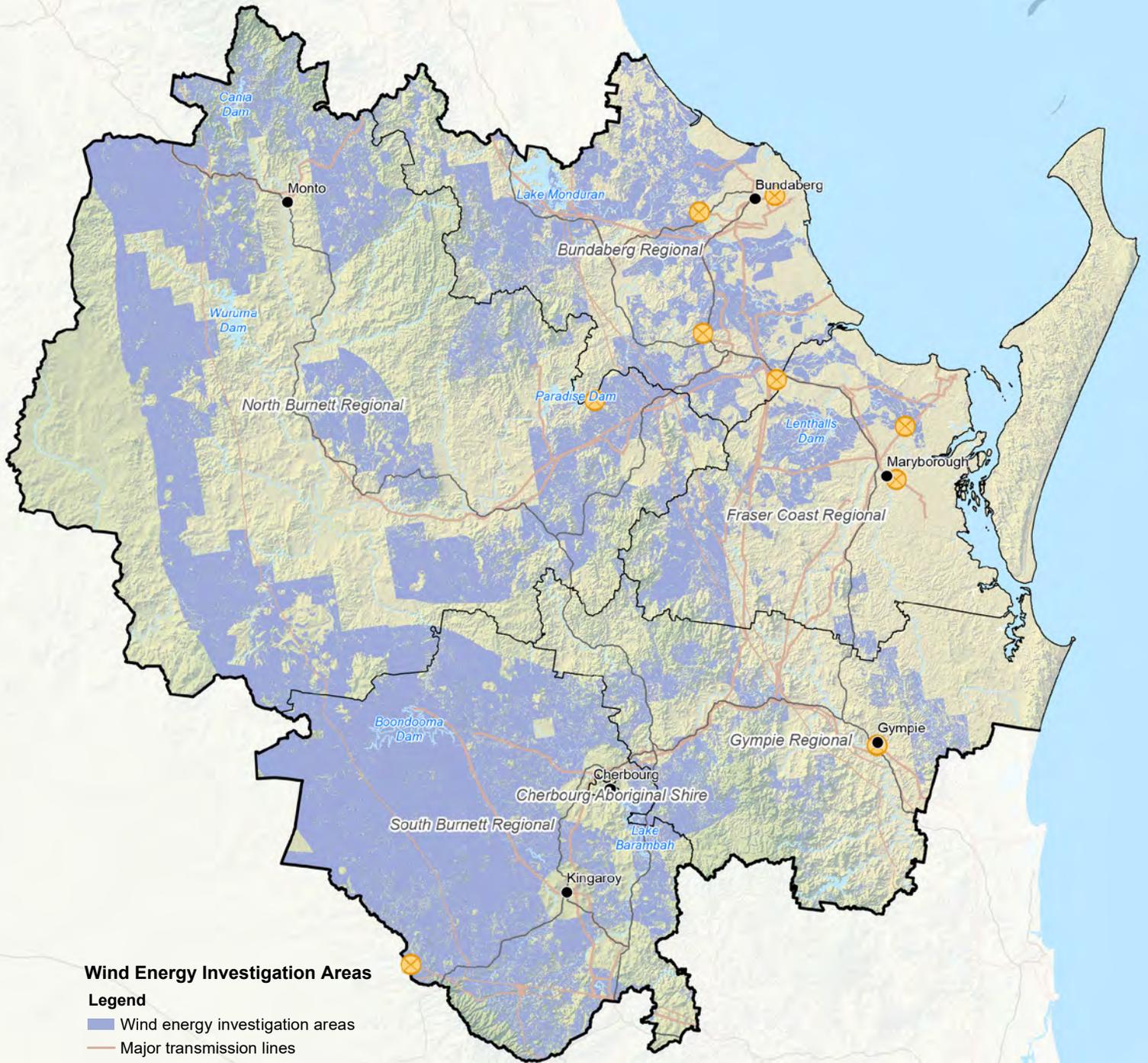
Solar and Wind energy

The WBB has recognised potential to capitalise on solar and wind energy generation. Falling within the Central and Southern QREZ the region already encompasses locations with attributes most suited to the establishment of new commercial-scale solar and wind facilities. To further facilitate wind based renewable energy generation across the WBB, Wind Energy Investigation Areas (WEIAs) have been identified (Map 2). These areas provide support to both local governments and industry on where future commercial-scale wind farms may be appropriate.



Wind Energy Investigation Areas

- › WEIAs are identified based on their high resource potential (average wind speeds at 100 metres and 150 metres of equal to and greater than seven metres a second), proximity to major electricity infrastructure (within 10 – 25km), and lower gradient slopes to allow for the haulage of large components.
- › The areas exclude Priority Living Areas/ PLAs, and areas mapped as containing Matters of State Environmental Significance (MSES), acknowledging these are significant constraints to wind farms.
- › As wind farms do not generally restrict farming operations and only take up a relatively small portion of the productive land for operation, co-located with agricultural activities can be supported where wind farm operations do not compromise the regional agricultural production.
- › Constraints not considered by the WEIAs include flood hazard areas, bushfire prone areas, areas with native title determinations, and cultural heritage considerations. These will need to be considered on a case-by-case basis, by project proponents.



Wind Energy Investigation Areas

Legend

- Wind energy investigation areas
- Major transmission lines
- X Existing operating renewable energy developments
- Population centre
- WBB Regional Plan boundary
- Major highway
- Major river
- Major waterbody
- Local Government Area boundary

Map 2 – Draft Wind Energy Investigations Areas.



Bioenergy

Bioenergy is a form of renewable energy that uses organic renewable materials (known as biomass) to produce heat, electricity, biogas, and liquid fuels. Bioenergy presents a growing opportunity for the WBB, with the region’s existing supply chains producing some of the most cost effective and environmentally beneficial sources of biomass (wastewater, municipal waste, and waste streams from the agricultural and industrial activities).

The use of bioenergy in the region will be particularly beneficial where it provides energy for, and is co-located with, agricultural, forestry and municipal waste facilities and where it can be captured through energy storage. The region’s agricultural industry, including the forestry sector, provides a wealth of waste that can be used as feedstocks for bioenergy (e.g. cane, manure, wood pulp etc). Similarly, the region’s municipal waste can also be used for bioenergy production, where the organic components of the waste are separated out and converted to biogas via anaerobic digestion, or where landfill gas is captured and repurposed.

To further support bioenergy development, the region needs to continue to supply appropriately located industrial land for new or expanded facilities, and encourage on-site co-location, particularly for closed-system energy generation. Strategic priority 1 proposes a regional program for the co-ordinated delivery of fit-for-purpose regionally significant industrial land in key precincts.

Bioenergy in WBB: Suncoast Gold Macadamias

- › Suncoast Gold Macadamias is the world’s first ever plant to produce electricity from waste macadamia nut shells. The plant is located adjacent to Suncoast’s macadamia nut processing facility in Gympie.
- › Processing of macadamia nuts produces the rock-hard outer shell as a by-product. As the demand for macadamia nuts increased, the volume of waste nut shells as by-products was also increasing, producing 5,000 tonnes of waste nut shells annually.
- › The burning quality of macadamia nut shells are like that of black coal and brown coal. The 1.5MW plant produces enough energy to power 1,200 households. Of the electricity generated, Suncoast consumes 20 per cent and the remaining 80 per cent is exported to the grid. The plant helps in reducing 9,500 tonnes of greenhouse gas emissions annually, which is equivalent to keeping 2,000 cars off the road.

Renewable hydrogen

Renewable or 'green' hydrogen is carbon-neutral hydrogen generally produced using solar or wind energy. It can also be produced from bioenergy sources. Hydrogen is a versatile energy carrier with a diverse range of applications, including residential and commercial heating, energy storage, transportation fuel, and the manufacture of commodities such as steel and ammonia through industrial processes.

The WBB region has the capacity to support the development of the renewable hydrogen industry, particularly given the region's abundant solar and wind resources. The region also has significant bioenergy potential, arising from the abundant biomass from forestry, agricultural and agricultural waste products.

Capitalising on the existing gas infrastructure connecting the region to the deep-water port of Gladstone, opportunities exist for WBB to connect to Gladstone's renewable hydrogen export market in the longer term. However, the manufacture and use of renewable hydrogen in the domestic market – for instance, for localised transportation – may provide for more realistic short-term opportunities.

Sustainable waste industries

In Queensland, organic waste, construction and demolition waste, plastic waste and e-waste is being prioritised for resource recovery given their large contributions to landfill and environmental impacts.

Within WBB, mature markets exist for many recyclable items such as steel, plastic, cardboard, and paper. These commodities are generally valued and traded in a global market which can be affected by economic conditions but remain reasonably constant. Such recyclable items can be simple to segregate and manage at collection locations providing the site activities are properly supervised.

Cherbourg Material Recovery Facility

The Cherbourg MRF offers the only recycling centre within a 150km radius of the site and services Cherbourg, the North and South Burnett, Gympie, and the Fraser Coast.

The facility is a leading light in the region's waste and recycling industry, using Artificial Intelligence (AI) technology to sort and identify waste streams.

Leveraging off the region's strong agricultural and food processing sector, WBB is well positioned to build a strong organics recovery sector. The region's sugar and timber industries already divert waste into various resource recovery activities including bioenergy, Medium Density Fibreboard (MDF), wood pellets production and plant extractives such as pine chemicals. Several innovative waste projects are also underway in the region, including the Bundaberg BioHub, which is engaging with large organic waste producers to develop energy-from-waste (EfW) systems and turn organic waste into other products such as textiles and cosmetics in a decommissioned wastewater treatment plant.

Medium to long term opportunities to develop organic waste industries include:

- › expanding the existing bioproducts industry, particularly those able to use the region's agricultural waste products
- › growing industry innovation and specialisation, collaborating with universities to set up research facilities into bioproducts and bioenergy and attract associated skilled workers
- › supporting the production of high value products using underutilised organic waste material such as livestock manure and other agricultural waste, organics from municipal and industrial solid waste, and effluent processed in sewage treatment plants.

The region does not currently have any construction and demolition (C&D) recycling capacity, providing only basic concrete crushing at local landfills. With C&D waste forecast to grow to 32,000 tonnes per annum by 2030 and 35,000 tonnes by 2050, there is an opportunity for the region to take advantage of this emerging market.

To successfully expand the region's capture of sustainable waste industries, the region will need to work with industry to investigate and consider if it has (or how it could achieve) the critical mass required to sustainably process waste (versus sending waste to landfill) and where associated resource recovery facilities could be appropriately located. It is important that development of new resource recovery facilities is integrated with land-use planning and industrial land development. By planning for this future opportunity, the region can support the growth of a sustainable waste recovery and recycling industry and minimise potential adverse impacts on local communities.

New economy minerals

New economy minerals are metals and minerals used in emerging technologies, including electric vehicles, renewable energy products, consumer devices, and products for the medical, defence and scientific research sectors. The global demand for new economy minerals is rapidly increasing given their key role in the development of technologies that reduce emissions, with demand expected to triple by 2050. The new economy minerals sector is expected to generate several opportunities for bespoke operations, drawing on geoscience data and new and innovative technologies to drive value creation from existing mines, as well as provide for new exploration locations.

The WBB region currently produces a range of minerals and resources including gold, thermal coal, silica sand, limestone, and bentonite, and has prospects for several new economy minerals. New economy mineral deposits identified in the region include bauxite, cobalt, copper, kaolin, manganese, molybdenum, nickel, silver, and zinc. The Wide Bay Burnett Minerals Region Investment Prospectus identifies new economy mineral and other potential exploration and development projects that are 'investment ready' (pending relevant approvals).

Supporting the growth of the new economy minerals sector in WBB will help diversify the region's economy, attract population, increase high skilled employment, and contribute to higher wages.

This industry can also lend support to regional supply chain and community service delivery improvements, such as digital connectivity, common user infrastructure, and allied service opportunities, including advanced manufacturing, renewable energy, and the mining equipment, technology, and services (METS). Additional to this, opportunities exist for the WBB region to increase its support role for mining and extractive resource activities in the adjacent Bowen and Surat Basins.

To develop a new economy minerals sector in the region, a priority will be the development of 'clusters' of new economy mineral developments and collaboration between these clusters and other sectors who stand to benefit from the development of common-user infrastructure. Collaboration should focus on shared transport infrastructure to transport commodities to market, as well as potential shared water, digital connectivity, and energy requirements.

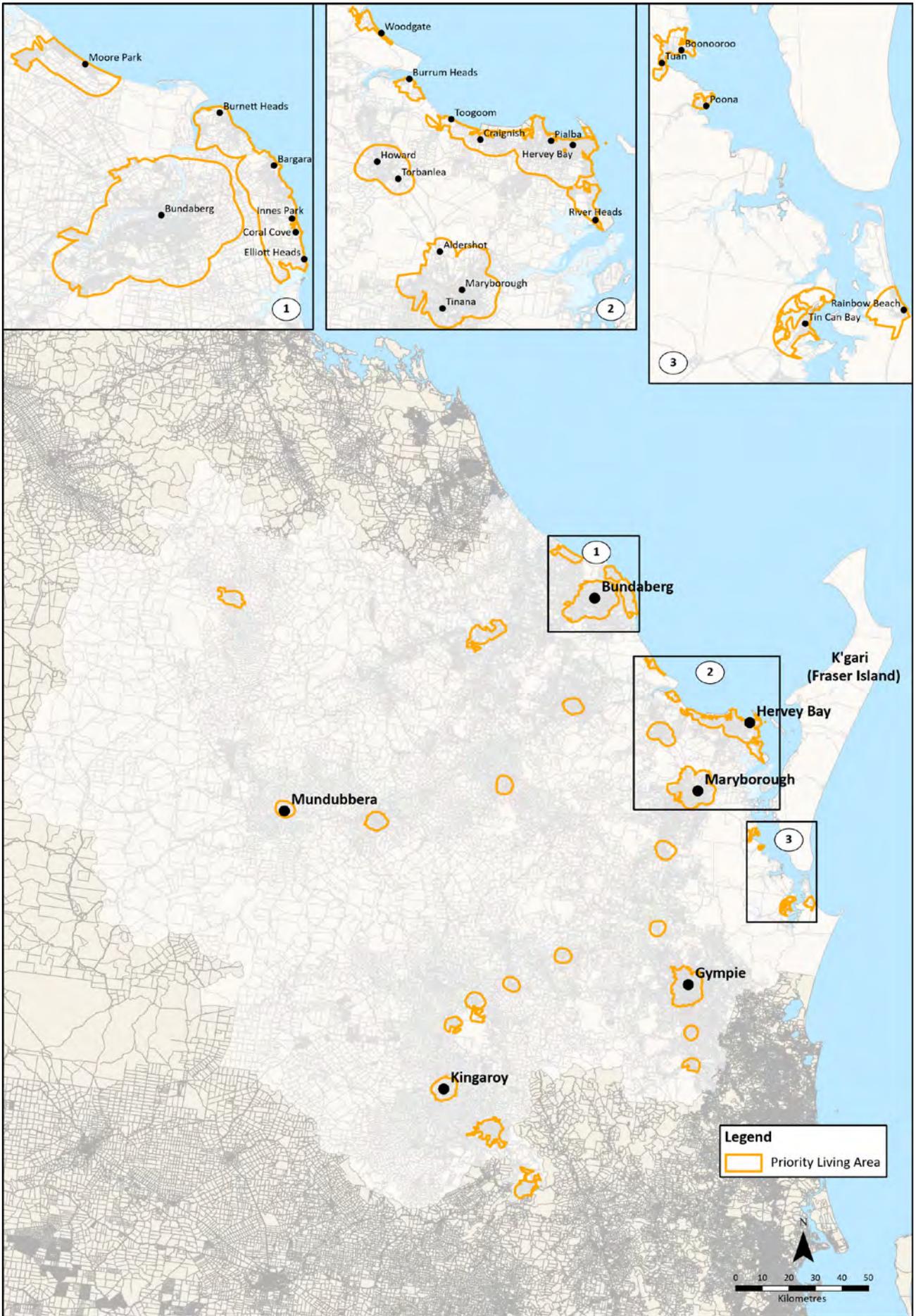
Future resource operations in the region will need to ensure they do not adversely impact on communities, the environment and agricultural land operations. The draft WBB Regional Plan includes Priority Agricultural Areas (PAAs), Strategic Environmental Areas (SEAs) and Priority Living Areas (PLAs) and supporting land use policies to ensure that proposed mining operations within these areas demonstrate they are compatible with the intent of these areas.

Priority Living Areas (PLAs)

Priority Living Areas have effect through the RPI Act which considers land use policies in relation to regulated activities such as mining and petroleum that generally occur outside the Planning Act and local government planning schemes and give communities, via their local government, a say on resource activities that may impact on a town's amenity and wellbeing. Proposed PLAs within the region are shown in Map 3 and Schedule A. PLAs include key settlement areas with populations equal to or greater than 200 people that are likely to experience growth over the next 25 years, with a two-kilometre buffer applied around the settlement area.

Any proposed resource activity within the PLA must demonstrate that the location, nature and conduct of the activity is compatible with the planned future for the area. This is completed through an application process established under the RPI Act. Importantly, all resource activity proposals within a PLA must be publicly notified.

The draft WBB Regional Plan proposes to replace existing restricted areas (urban), as gazetted under the *Mineral Resources Act 1989* in 2011 (RA384), with PLAs, where deemed necessary or appropriate.



Map 3 – Priority Living Areas (detailed maps in Schedule A).

Regional responses

Infrastructure priorities

- › **Energy infrastructure** – Increased energy storage capacity is essential to support existing and future renewable energy development in the region and support regional manufacturing and waste opportunities. Major electricity infrastructure will be required to facilitate further development in regional significant industrial precincts and strengthen network resilience across the Wide Bay Burnett region. Opportunities for establishing microgrids in new housing developments such as large-scale residential developments/sub-divisions should be investigated. Microgrids can also assist in remote areas where the network infrastructure may not support energy intensive industries. Investigations are also needed to determine what gas infrastructure (including what opportunities exist to use existing infrastructure) is required to support the manufacture and distribution of renewable hydrogen.
- › **Waste infrastructure** – Greater regional collaboration and new external suppliers will be required to build a critical mass of waste feedstock to support the expansion in material recovery facilities (MRFS) and larger-scale projects, such as aerobic digesters for biogas production. Specific infrastructure requirements are likely to include:
 - bulking transfer facilities to support regional disposal and waste processing
 - construction and demolition recycling capacity.
- › **Regional freight infrastructure** – the lack of a reliable east-west connection currently inhibits the ability of primary producers in North Burnett (including agricultural producers and the mining sector) to move their products. Improving connections to key freight routes (the Bruce Highway and North Coast Rail Line) and to the Port of Bundaberg would provide efficient access to markets and improve the efficiency of the region’s supply chains.

Policies

Renewable Energy

- 2.4.1 Support opportunities for total energy planning, such as closed generation networks, microgrids and energy storage, for regionally significant industrial land and new residential development.
- 2.4.2 Encourage future commercial-scale wind projects to establish in Wind Energy Investigation Areas.
- 2.4.3 Support the establishment and on-going operation of renewable energy developments, allied technologies (such as battery storage projects) and necessary infrastructure (such as transmission lines) in suitable locations.
- 2.4.4 Support the establishment of new bioenergy facilities in industrial locations and adjacent to existing processing facilities that support feedstock sources (e.g. municipal waste facilities) or are co-located with agricultural production areas where feedstocks are to be produced.

Waste

- 2.4.5 Support the development of future waste recovery and recycling industries, primarily in industrial areas, or co-located with complimentary industrial activities to facilitate on-site small-scale energy-from-waste or product creation.

Minerals

- 2.4.6 Identified new economy mineral areas within the region and connecting infrastructure corridors are protected from incompatible land uses that might prevent or severely constrain current or future extraction.
- 2.4.7 PLAs (Schedule A) are safeguarded from resource activities unless it is demonstrated that the location, nature and conduct of the proposed activities meet the communities’ expectations, as determined by the relevant local government.

Actions

Ref.	Action and purpose	Approach
2.4.A	Implementation of projects and initiatives to support an adaptive and resilient energy sector to provide a sustainable and affordable energy future for the region.	<p>Work with industry, local government and community to achieve the Queensland Government’s renewable energy target and deliver regionally significant renewable energy infrastructure. This will include:</p> <ul style="list-style-type: none"> ➤ investigation of the potential pumped hydro energy storage facility at Borumba Dam ➤ development of the Southern and Central Queensland Renewable Energy Zones.
2.4.B	Energy development and infrastructure is prioritised to support identified regionally significant industrial land.	<p>Work with DEPW, industry and local governments to determine requirements for renewable energy development (including renewable hydrogen) and allied technologies in appropriate locations, such as the Bundaberg SDA. This should include consideration of the potential to locate renewable hydrogen development and/or hydrogen-based industries in proximity to the Bundaberg Gas Pipeline, and potential opportunities for end-of-life upcycling/manufacturing facilities.</p> <p>Work with electricity network service providers to identify infrastructure requirements and planning of resources required to implement delivery of infrastructure.</p>
2.4.C	Develop sustainable waste industries with opportunities for regional waste and recycling and the circular economy.	Work with state agencies, local governments and industry to identify key priorities for regional waste management and opportunities to adopt new technologies, including the investigation of energy-from-waste (EfW) options, such as Biohubs. Work should build from the WBB Regional Waste Strategy, expected to be released in 2022 by the Queensland Government.
2.4.D	Identify and prioritise regional infrastructure projects that will support the establishment of a new economy minerals sector.	<p>Work with state agencies to progress key short-term actions within the Wide Bay Burnett Resource Group 2-year activation plan (2022).</p> <p>Advise on future regional infrastructure needs, including potential common user infrastructure projects that would facilitate clusters of resource activity for new economy minerals.</p>



South Burnett, Nancy Jayde Photography

Strategic priority 3: Sustaining our environment and lifestyle

Regional objective



Conserve and celebrate the culture and environmental features in the region

Protecting the region's biodiversity values and ensuring the impacts of climate change are minimised.

Key deliverables – Priority actions



Enhance strategic rehabilitation areas

Prioritise areas for environmental improvement initiatives, including carbon farming.



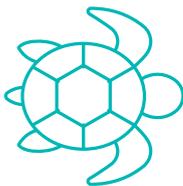
Reduce the loss of koala habitat

Develop supporting assessment criteria for development within koala habitat areas.



First Nation co-management

Work with First Nations representatives to manage features in the Regional Biodiversity Network.



Reduce urban light glow

Reduce artificial lighting to minimise the impact on turtle and shorebird populations.



Implement regional resilience strategies

Identify alignment actions between regional resilience strategies and the regional plan.



Investigate climate-resilient water solutions

Coordinate an investigation into water security solutions.



Overview

The WBB region is rich in biodiversity and landscape values, appealing to and attracting visitors and residents alike. Spanning two biogeographic regions, WBB comprises the Great Sandy biosphere reserve, important nesting sites for sea turtles, and the gullies and rainforests of the Bunya Mountains surrounded by the undulating plains of fertile alluvial and volcanic soils. The region also hosts the southern extent of the Great Barrier Reef, the Great Sandy Strait, K'gari (Fraser Island) and the Cooloola Coast. Beyond the coastline, the region provides a wide variety of native vegetation communities from closed rainforest through open woodland eucalypt forest, brigalow forests, banksia woodlands, heathlands, grasslands and mangrove forests.

The diversity of freshwater and terrestrial habitats of the WBB region provides the backbone of its ecosystems. Areas of known high regional biodiversity values include the K'gari (Fraser Island) and Cooloola Coast, Cania Gorge, Mt Walsh, Bunya Mountains, Kinkuna/Woodgate and the Burrum-Cherwell catchments. These areas have large tracts of relatively intact remnant vegetation and diverse ecosystems, providing important habitat for numerous threatened species.

A key determinant in the historic success of the region's economic diversity, WBB also benefits from an abundance of natural resources, including grazing and horticultural farmland, mineral deposits, large productive forestry areas, ground and water resources and national parks.

WBB's environmental and landscape values, however, continue to be impacted by threatening processes, including climate change. Historical and preferential clearing in the region has resulted in the fragmentation of natural ecosystems, reducing their extent and resulting in a variety of environmental concerns such as reduced species-richness and declining water quality. The environmental condition across many areas of WBB is considered to be poor, with weed and pest species, altered aquatic flow regimes and land-use practices often leading to soil salinity, acid sulphate soils, erosion, contamination and reduced fertility and organic matter. Most of the region's remnant vegetation consequently exists on public lands with a large proportion identified in state forest areas.

The health of WBB's ecosystems and region's ability to adapt to and mitigate the impacts of climate change is critical to its ongoing economic and social prosperity and to fulfilling Australia's international environmental responsibilities.

Objective 3.1: Conserve and celebrate the culture and environmental features that draw and keep people in the region

The regional biodiversity network

Residents and visitors to WBB value the region's diverse range of environmentally, culturally, and socially significant landscapes. These landscapes and associated biodiversity and scenic attributes are significant draw cards for the region and contribute to the region's reputation as a lifestyle destination.

The regional landscape is made up of many layers, each with its own specific value and significance:

- › core landscape areas – containing multiple landscape values such as Coomanglah state forest, Mon Repos, Ramsar-listed wetland in the Great Sandy Strait, K'gari (Fraser Island), the Cooloola Coast and the Bunya Mountains
- › coastal waters and foreshores – which provide a significant service and contribute towards the environmental, social and economic integrity of the region
- › biodiversity networks – habitats and associated connecting corridors that are managed to maintain regional biodiversity values
- › natural economic resource areas – areas used to support agricultural production, extractive/resource industry, forestry, fisheries, recreation and rural industries
- › rural settlements – scenic amenity of rural towns and villages in rural and natural environs.



Supplied by Department of Environment and Science

The regional landscapes of WBB support numerous threatened animal species, including several endemic species such as the Mary River turtle, white throated snapping turtle and the silver-headed antechinus, as well as key iconic species such as koalas, quolls, dugongs, humpback whales, and loggerhead turtles.

Biodiversity and landscape values in the region have been impacted by threatening processes, such as habitat loss from vegetation clearing, the fragmentation of wildlife habitats from urban development and agricultural expansion, the spread of pest species, and the alteration of aquatic flow regimes and declining water quality. In addition to this climate change is seeing a shift in species ranges and habitat as a result of increased temperatures, altered rainfall patterns and sea level rise.

Fragmentation is a key issue for WBB's biodiversity and landscape values. Across the region, the challenge is to reconnect and conserve habitat networks and corridors (and their flora and fauna populations) at both regional and local levels, to repair or improve regional biodiversity values of the fragmented landscapes. Without proper management of the region's natural environment, WBB's biodiversity network will continue to degrade, with the survival of impacted species dependent on their natural capacity to adapt to ever changing climatic conditions.

Maintaining and improving the health of the region's ecosystems is also critical to supporting the social and economic wellbeing of the region, supporting key regional industries (such as agriculture, forestry and tourism) and enhancing the region's appeal to new families and working age households. To remain a competitive, functional, and attractive place, the natural environment of WBB must be maintained. Biodiversity and landscape values are also closely linked to culture, especially for First Nations People. Caring for country is central to maintaining the connection of First Nations People to knowledge, stories, songs, and traditions.

While existing policy interventions such as protections for matters of national environmental significance (MNES) and matters of state environmental significance (MSES) assist in reducing the impacts of threatening processes, further targeted interventions need to be employed.

The draft WBB Regional Plan identifies a regional biodiversity network that comprises existing national parks, proposed strategic environmental areas and regional biodiversity corridors (Map 4). This identified network is supported by relevant policies which seek to reconnect the region's highly fragmented landscape, using the principles of avoid, mitigate and offset to stabilise and improve biodiversity and landscape values. The active management and enhancement of the regional biodiversity network will reconnect the region's landscapes, improve outcomes for key threatened wildlife species and promote partnerships with First Nations Peoples in protecting and caring for country.

Strategic Environmental Areas (SEAs)

Strategic Environmental Areas (SEAs) identified in the draft WBB Regional Plan will assist in protecting and managing impacts on regional biodiversity. Outside of the SEAs, the appropriate consideration of biodiversity and landscape values remains necessary for the sustainable use of the region's natural resources, for economic or community activities without significantly affecting the broader ecological values. Areas outside of the identified SEAs also contain regional biodiversity values that need to be considered during planning and development assessment. In these areas, the broader consideration and application of the biodiversity state interest of the SPP (with the principles of avoidance, mitigation and offsetting of development impacts) must still be integrated with other state interests.

While SEAs are defined under the RPI Act, their use in the draft WBB Regional Plan is to identify a geographic area with specific values applies for the purposes of both the RPI Act and the Planning Act, to achieve a consistent planning outcome for the region.

The mapped SEAs contain large areas of active native forestry that are sustainably managed. The draft WBB Regional Plan acknowledges the on-going sustainable use of these areas and is not intended to impact on current sustainable forestry practices.

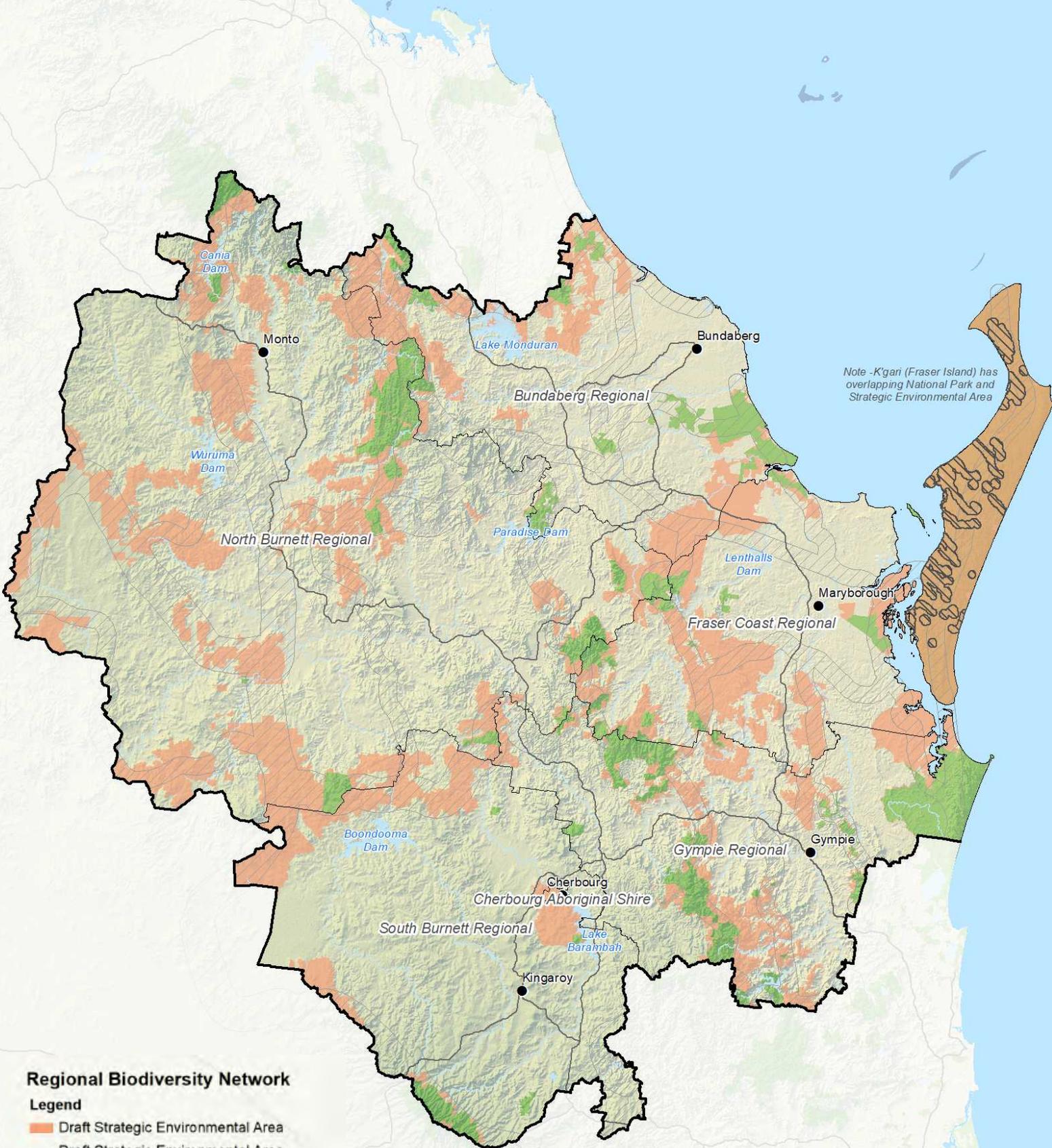
Fraser Island SEA

The Regional Planning Interests Regulation 2014 (RPI Regulation) prescribes K'gari (Fraser Island) as a SEA for the purposes of the RPI Act. The Fraser Island SEA was prescribed when the *Wild Rivers Act 2005* was repealed in 2014, as the area was a declared Wild River Area. The prescribing was to carry over protections for the area until the WBB Regional Plan 2011 was reviewed, with a reassessment to occur at that time.

The draft WBB Regional Plan proposes that the Fraser Island SEA be removed from the RPI Regulation through an amendment as it is to be sufficiently mapped through the regional plan.



Lake Mckenzie (Boorangoora), K'gari (Fraser Island) (Fraser Coast Regional Council)



Note -K'gari (Fraser Island) has overlapping National Park and Strategic Environmental Area

Regional Biodiversity Network

- Legend**
- Draft Strategic Environmental Area
 - Draft Strategic Environmental Area (Designated Precinct)
 - Draft Regional Biodiversity Corridors
 - Protected areas (National Parks)
 - Population centre
 - WBB Regional Plan boundary
 - Major highway
 - Major river
 - Major waterbody
 - Local Government Area boundary

Map 4 – Regional biodiversity network mapping



Dark Sky Area Overlay

Legend

- ⊠ Dark sky area overlay
- Protected areas (National Parks)
- ! Population centre
- WBB Regional Plan boundary
- Major highway
- Major river
- Major waterbody
- Local Government Area boundary

Map 5 – Draft Dark sky mapping



Supplied by Bundaberg Regional Council

Sea turtles and migratory shorebirds

The WBB region contains:

- › feeding grounds for six species of threatened sea turtle, namely the green, loggerhead, hawksbill, flatback, leatherback and olive ridley turtles
- › Mon Repos as a nesting ground for loggerhead, green and flatback turtles
- › wetlands along the Great Sandy Strait that regularly support in excess of 20,000 migratory shorebirds annually (with counts of up to 40,000 recorded) and 18 migratory species currently protected under international bilateral migratory bird agreements.

The conservation and ongoing management of these species is established through commonwealth, state and local government requirements and funded programs.

Artificial lighting from development can adversely impact on sea turtles and shorebirds where it disrupts their behaviour and causes physiological changes. For example, hatchling sea turtles may not be able to find the ocean when beaches are lit; and shorebirds may use less preferable roosting sites to avoid lights or be exposed to increased predation where lighting makes them visible at night.

Current planning controls provide for varying turtle protections along the Bundaberg, Fraser Coast and Gympie coastline using the Bundaberg ‘Reducing urban glow’ project actions (light monitoring, installing turtle sensitive street lighting), the Bundaberg

Planning Scheme’s sensitive sea turtle area code, and the Bargara temporary local planning instrument (TLPI) (height restrictions for coastal development).

Consideration could also be given to the timing of any works to limit disturbances, including noise and vibration, to accommodate nesting and roosting of sea turtles and shorebirds. Despite the various regulations, strategies, and programs, impacts to sea turtle and shorebird populations persists in the region. The draft WBB Regional Plan promotes a consistent and contemporary management approach, through an applied code (Schedule C), across the coastal local government areas within the Dark Sky Area (Map 5) to reduce impacts from artificial lighting on sea turtle and shorebird populations.

Climatic extremes

Drought

Drought is a recurring feature of the Australian landscape. As a result of climate change, it is expected drought will become more frequent, severe and longer lasting in many regions (including the WBB) as the climate changes. Before drought onset, mitigation actions can be implemented to build resilience on properties, in the community and in the landscape so they will be less affected when drought eventually occurs. Some mitigation actions can require relatively small changes while others may require the re-evaluation and modification of more basic elements of livelihoods and production systems.



Mary Valley, Imbil (Gympie Regional Council)

Long-term droughts exacerbate water stress for the landscape within the region, risking the productivity and functioning of agricultural sectors (particularly croplands, grazing lands, and forestry lands) as well as natural ecosystems. Coupled with the impacts of historical land management practices and the resulting depleted soil quality in extensive areas of the region, land degradation processes will continue to accelerate unless more is done to address these matters.

Land use planning of the landscape that is focused on agricultural and ecological land potential can be used together with early warning systems to help individuals and communities minimise drought impacts (including on natural systems) by helping to focus attention and activity on the least resilient areas before the drought begins.

An important drought mitigation measure is the development of farm business resilience plans that detail specific measures to be taken by primary producers to manage and respond to drought and other risks that impact on a primary production enterprise. The Queensland Government supports the development of farm business resilience plans through the Drought and Drought Preparedness Package.

Through the Farm Business Resilience Planning program of the Future Drought Fund (co-funded by Queensland and delivered through the Drought and Climate Adaptation Program), Queensland Government is partnering with industry on the delivering of workshops and structured training that assists primary producers identify risks to their property such as drought and supports them in the development of the farm business resilience plans.

Heat island effect

The effects of changing climatic conditions are driving higher temperatures in cities, towns and landscapes in the region, which are experiencing extreme heat more often, including an increasing frequency and severity of heat waves. The effects of extreme heat are intensified in cities, where the urban heat island effect increases temperatures even higher than surrounding rural and natural landscapes.

Urban centres are typically designed to be dense and compact, which prevents adequate release of heat. These areas commonly have fewer trees and green spaces and are predominantly made up of surfaces that are impervious (e.g. roads, car parking) or covered with buildings, thus leading to extreme temperatures.

Flooding in WBB

The region has been subject to multiple major flooding events in recent years and although natural hazards cannot be prevented, steps can be taken to better understand associated risks. The SPP adequately addresses the planning aspects of natural hazards such as flooding, bushfires, and storm surge events on the natural and built environments. The application of these policies in the context of local knowledge in the region can be used to implement targeted measures to effectively mitigate impacts from the occurrences of these events and safeguard communities, reduce reconstruction costs and speed up recovery. Continuing to increase the region's resilience to these natural hazards must be an ongoing process of learning, adjustment and adaptation.

Extreme heat has serious public and environmental health impacts. Cool places such as waterways, parklands and green streets, reduce surface temperatures (e.g. providing shade, tree canopy cover or cool pavements) and reduce local air temperatures, which can then be evaporated, either directly into the air (from waterbodies) or via evapotranspiration from vegetation.

Redesigning urban landscapes to capture and retain water, can help to mitigate the effect of heat island and climatic heat extreme. This involves maximising pervious surfaces, disconnecting piped stormwater systems and allowing runoff to be intercepted by vegetation to soak into soils. A focus on cooling the landscape by encouraging less runoff, more infiltration and evapotranspiration will help meet multiple goals including liveability, ecosystem services and climate change adaptation and make the region's communities and landscapes more attractive, liveable, and economically vibrant.



Climate change in Wide Bay Burnett

There are numerous initiatives already underway to help the region mitigate and adapt to the impacts of climate change. The draft WBB Regional Plan does not restate these initiatives but provides further targeted strategies to address specific aspects of climate change across several sections of the plan. Existing initiatives that the plan builds on include:

- › State Planning Policy (SPP) requirements for local government planning schemes to demonstrate that the risks associated with natural hazards, including the projected impacts of climate change, are avoided, or mitigated, to protect people and property and enhance the community's resilience to natural hazards. This includes requirements for incorporating climate change modelling
- › the QCoast2100 program, which assists local governments in identifying coastal hazards and climate change risks and planning for storm tide, coastal erosion, and rising sea levels through the preparation of Coastal Hazard Adaptation Strategies (CHAS)
- › the Queensland Climate Adaptation Strategy 2017-2030 (QCAS) which establishes partnerships between government, industry, and communities to develop programs for adapting to climate change impacts
- › the Drought and Climate Adaptation Program (DCAP) which outlines how to improve the capacity of farmers and regional communities to manage climate change and climate extremes
- › an updated Reef 2050 Long-Term Sustainability Plan that includes a greater focus on climate change in protecting the Great Barrier Reef
- › the Mary Regional Resilience Strategy and the Burnett Regional Resilience Strategy – strategies for managing natural disasters to enhance community safety and resilience
- › the Queensland Climate Resilient Councils (QCRC) Program supports local government to strengthen staff and leadership team skills and capacity to plan for and respond to the challenges and opportunities arising from climate change
- › under the QCRC Program a Climate Risk Framework and supporting Climate Risk Management Guideline for Queensland Local Government was developed to provide local governments with guidance on how to minimise the potential impact of all current and future climate risks within their LGAs.

Regional responses

Policies

- 3.1.1 Protect the biodiversity and ecological integrity of identified SEAs (Map 4) from development and activities that have the potential for widespread or irreversible impacts on the environmental attributes of the SEA (Schedule B).
- 3.1.2 Regional biodiversity corridors, identified in Map 4, are conserved, managed, and enhanced to improve the ecological functioning of the region and provide social, environmental, cultural and economic benefits.
- 3.1.3 New development in the Dark Sky Area, Map 5, is planned, constructed and operated in accordance with the Dark Sky area overlay code (Schedule C) to minimise artificial lighting impacts on sea turtle and shorebird activity to the greatest practicable extent.
- 3.1.4 Impacts of artificial lighting from existing development and activities within the Dark Sky Area on sea turtle and shorebird activity is minimised to the greatest practicable extent. This includes public space, industrial applications and recreational areas.
- 3.1.5 A targeted and coordinated approach between private and public landholders is applied to the rehabilitation and management to the regional biodiversity network and degraded areas to enhance regional biodiversity values and ecological functionality. This includes the use of environmental offsets, land care programs and/or other environmental improvement initiatives, including carbon farming.
- 3.1.6 Provide opportunities in and around the regional biodiversity network to locate commercial and community activities that are consistent with the area's ecological values.
- 3.1.7 Indigenous cultural heritage knowledge and connection to land and seascapes informs local planning and development in the sustainable management of landscapes, public space, heritage, cultural assets and values.
- 3.1.8 Local planning instruments minimise the impacts of drought and heat stress (from increasing climate extremes) on population centres and biodiversity networks, ensuring new development incorporates climate-responsive design (e.g. through the use of water efficient and climate response design).

Actions

Ref.	Action and purpose	Approach
3.1.A	Develop a management program for strategic rehabilitation areas to enhance landscape connectivity across the region.	Work with local governments, DES, NRM body BMRG and First Nations representatives to prioritise identified strategic rehabilitation areas for local environmental offsets (through matters of local environmental significance – MLES), for Landcare programs or for other environmental improvement initiatives, including carbon farming.
3.1.B	Investigate mapping and development of supporting assessment criteria for development within koala habitat areas to reduce the loss of koala habitat and mitigate the risks posed by development.	<p>Work with state agencies to identify areas that support viable koala populations in the WBB region. This will involve an initial focus on the Southeast Queensland bioregion, with consideration of the 'Spatial modelling for koalas in South East Queensland' mapping methodology recently endorsed by the CSRIO.</p> <p>Continue work with local governments and DES to determine the preferred delivery mechanism for assessment criteria to protect koala habitat (code requirements under State Development Assessment Provisions, or local development assessment criteria in planning schemes).</p> <p>Work with local governments and DES to focus management and investment programs in areas that can enhance the extent and quality of koala habitat in the region.</p>

Ref.	Action and purpose	Approach
3.1.C	Work with First Nations representatives on management of cultural attributes and key landscape features within the Regional Biodiversity Network (Map 4).	Coordinate engagement with First Nations representatives on key features, management responses and potential future development outcomes.
3.1.D	Implement local laws, planning regulations and associated management plans for the Dark Sky Overlay area (Map 5) to minimise the artificial lighting impacts on sea turtle and shorebird activity during turtle breeding and shorebird migratory seasons.	Work with local governments to prepare and implement workable approaches to reduce urban light glow in existing developed areas to reduce impacts on turtle and shorebird populations, including consideration of potential building height requirements for development located on land visible from the beach or ocean in key areas.
3.1.E	Continue implementation of the Mary Regional Resilience Strategy and the Burnett Regional Resilience Strategy.	Work with QRA and local governments to identify alignment actions between the ongoing delivery of regional resilience strategies and economic and environmental outcomes directed by the regional plan.
3.1.F	Coordinate an investigation into alternative, climate-resilient water sources and innovative water demand management solutions in the region.	DRDMW and regional water entities to consider the application of a total water cycle management approach in the region, a regional water network, evaporation mitigation strategies (including the conversion of uncovered irrigation channels to enclosed water pipelines), desalination infrastructure and other water security actions in Regional Water Assessments for the region.
3.1.G	Continue implementation of the SEQ Water Security Program (2016–2046).	Seqwater to work with local government and state agencies to provide safe, secure, and cost-effective drinking water for SEQ, noting drinking water catchment areas in the southern part of the WBB region (Gympie and South Burnett LGAs) are critical for SEQ's drinking water supply. DSDILGP and Seqwater to consider the application of mapped water resource catchments and water supply buffer areas in these drinking water catchment areas.



Mary Valley (Gympie Regional Council)

Delivering the plan

From strategy to outcomes

The earlier chapters of this plan provide the strategic direction for economic development, land use planning and infrastructure outcomes that will align the region with the proposed vision. However, setting a plan alone will not achieve this. What is required is action by the region's leaders and a commitment to immediate and ongoing implementation by working together as a region.

This section outlines how to do this and includes the following elements that translate the plan's regional policies and actions into tangible outcomes:

- › a framework for prioritising regional infrastructure and integrating infrastructure and land use planning
- › implementation actions that are specific steps to move the region closer towards its vision in the short, medium and long term
- › milestones and ongoing reporting mechanisms that help track the progress and success of the plan and the region.

Application of regional policies

As strategic policy document, the plan's land use policies are applied through Queensland's planning framework (Figure 8). Regional plans are given effect through the Planning Act which requires local governments to consider regional plans when preparing their local planning schemes. The Planning Act is further complemented by the RPI Act which considers land use policies in relation to resource activities (e.g. mining and petroleum) that generally occur outside the Planning Act and local government planning schemes. Additionally, the SPP sets out the state government's interests in planning and development. The regional plan contextualises these state interests, where required, to provide the planning and decision-making framework specific to WBB.

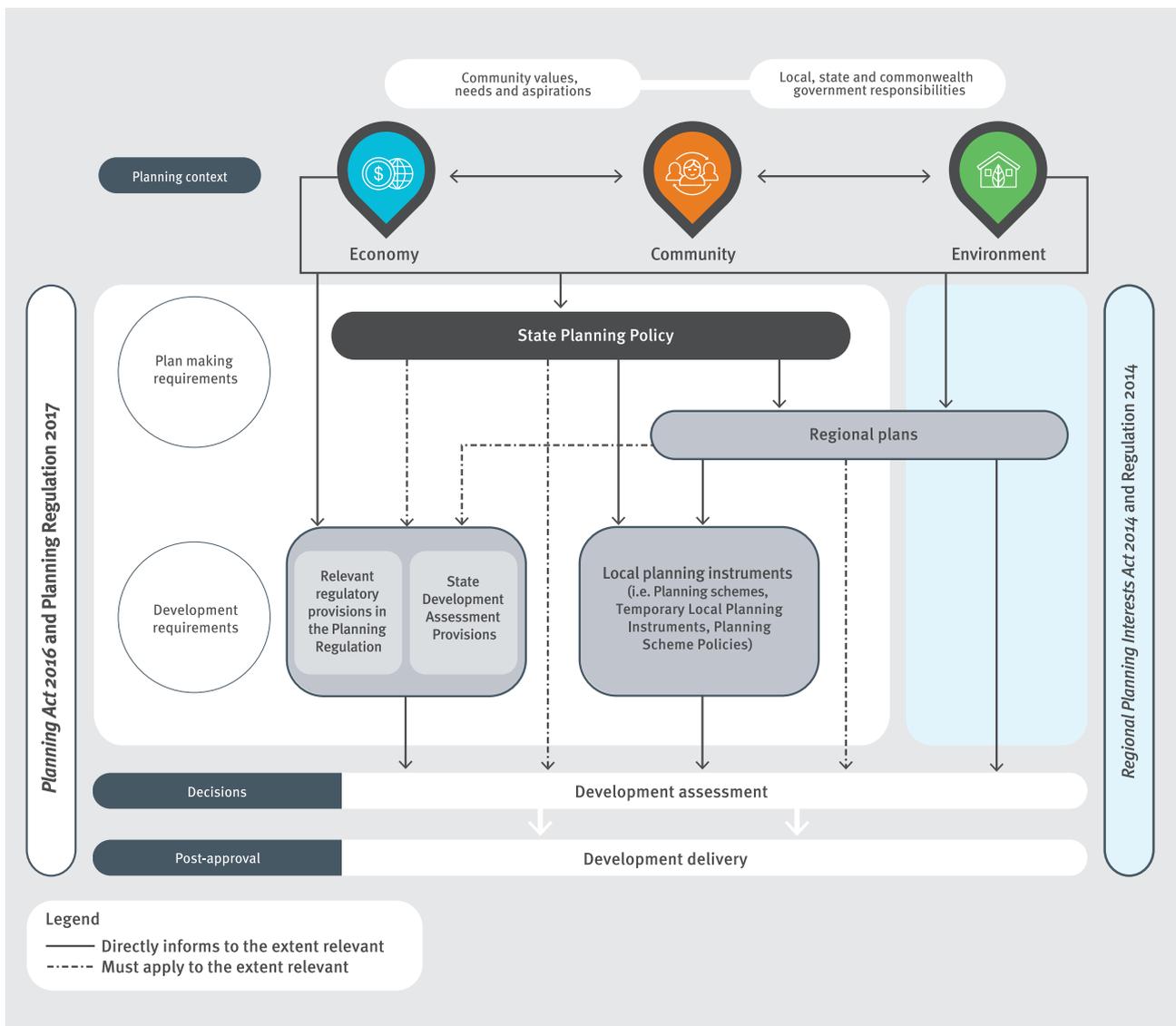


Figure 8: Queensland's planning framework

Sitting within this framework, the WBB Regional Plan guides strategic planning and decision making for all levels of government and industry across a range of sectors. In doing so, the plan is applied on the ground through (Figure 9):

- › land use planning by state and local governments, including local government planning schemes and joint planning initiatives
- › the assessment of development applications made under the Planning Act
- › infrastructure planning, prioritisation and funding decisions made by all levels of government, and other infrastructure agencies
- › the assessment of certain types of resource activities or regulated activities, as defined under the RPI Act
- › other plans and programs, including non-statutory processes, that may influence change and growth management in the WBB region, including economic development strategies, natural resource management, conservation programs and regional tourism strategies.



Figure 9: Relationship between WBB Regional Plan and other plans.

Regional Infrastructure Priorities

The regional infrastructure priorities identified throughout the plan are critical to the ongoing decision-making for the region (Figure 10). For WBB, these regional infrastructure priorities have been categorised to align with Queensland’s Draft State Infrastructure Strategy and will be reflected in the upcoming WBB Regional Infrastructure Plan (WBB RIP). The WBB RIP will identify long-term infrastructure strategies to support the implementation of agreed regional priorities.

With respect to the delivery of the WBB Regional Plan, ongoing partnerships between agencies, local governments and industry will provide for more detailed regional engagement around regional infrastructure prioritisation to inform potential investment decisions and program commitments. This includes engagement on service demands/expectations, options analysis, sequencing, costings and potential funding models/ challenges.

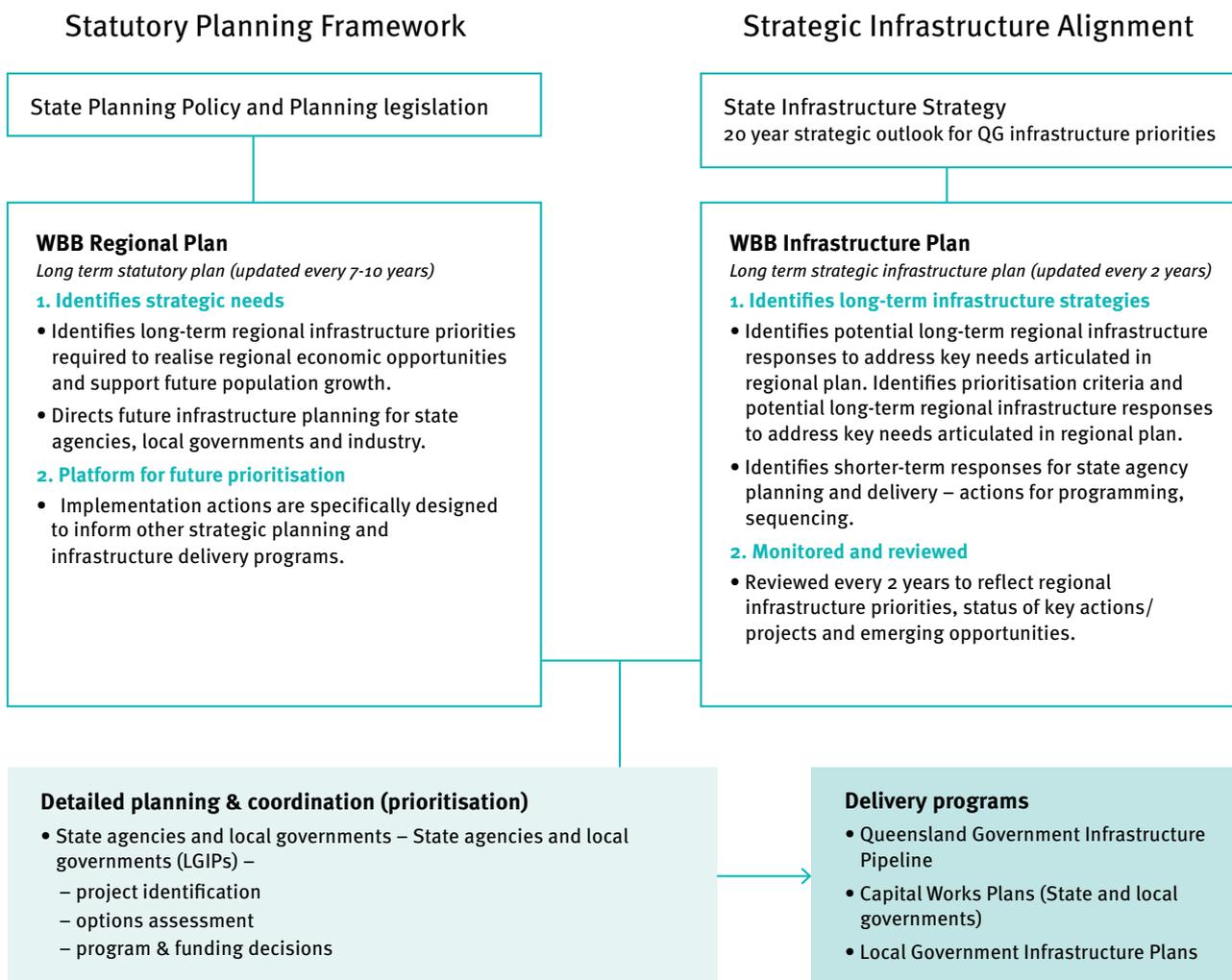


Figure 10: Indicative process for regional infrastructure planning and prioritisation.

Delivering actions

Implementation actions are a key element essential to the delivery of the plan. To deliver the strategic priorities and regional objectives, each section of the plan includes a series of implementation actions.

The table below collates those implementation actions identified throughout the plan, nominating proposed timing and responsibility for delivery.

Ref	Phase	Action and purpose	Approach	Responsibility
Objective 1.1: Grow our people and our talent				
1.1.A	Short	<p>Regional Workforce Strategy</p> <ul style="list-style-type: none"> › Ensure the youth of WBB are given every chance to successfully enter the labour market. › Identify the future technical and non-technical skills/workforce needs over the short, medium and long term. › Improve workforce and succession planning into the future, to ensure the skills developed locally in the region align to the future workforce pipeline. › Improve linkages between industry and education and training facilities. 	<p>Work with state agencies and industry as part of a regional workforce strategy to:</p> <ul style="list-style-type: none"> › investigate the creation of a labour market forecasting model › develop a framework for industry workforce planning which aligns public education investment, vocation training and tertiary education initiatives with future workforce and industry needs › investigate the role of industry in the Employment Development Supports program › investigate the introduction of small and medium enterprise support programs › identify mechanisms to re-engage older workforce cohorts back into the workforce › investigate opportunities to enhance and promote procurement policy of local governments and industry › identify opportunities to work with the federal government for existing and future service delivery programs. <p>This strategy will need to be cognisant of the cultural shifts required in the region. As such, mechanisms will need to be investigated to ensure the strategy is able to engage and move the dial on workforce participation in a sensitive manner.</p> <p>Public education funding alignment to industry outcomes would require consultation between departments and stakeholders.</p>	<p>DESBT and DSDILGP (lead)</p> <p>DoE</p> <p>DCHDE</p> <p>Industry</p>

Ref	Phase	Action and purpose	Approach	Responsibility
1.1.B	Short	<p>Digital connectivity in planning</p> <ul style="list-style-type: none"> › Coordinate on opportunities to install open access ducting in key regional centres. 	<p>Work with local governments to:</p> <ul style="list-style-type: none"> › undertake local digital connectivity planning in order to develop a region-wide digital connectivity plan › review current design and engineering standards to ensure that appropriate telecommunications pit and pipe and associated infrastructure is correctly dimensioned and develop a commercial and facilities access framework to promote open and equitable access › create common engineering guidelines for capital works and development conditions to be applied for open access ducting in regional centres (local centres and above) › undertake targeted advocacy of regional priorities with NBN Co and telecommunication providers seeking uplift in fibre and mobile network capacity in key industry and employment precincts. 	<p>WBB local governments (lead)</p> <p>DSDILGP</p> <p>RDA</p> <p>DCHDE</p> <p>Telecommunications industry</p>
Objective 1.2: Plan for our future				
1.2.A	Short	<p>Assess future regional growth opportunities.</p>	<p>Work with local governments to:</p> <ul style="list-style-type: none"> › undertake a finer grain assessment, where required, of future growth fronts and potential urban and suburban renewal areas, to determine opportunities for greater housing diversity › provide optimal development assessment provisions capable of facilitating greater housing diversity and supporting social and affordable housing. <p>Work with Gympie Regional Council to specifically:</p> <ul style="list-style-type: none"> › identify and assess potential future growth scenarios, relative to future employment, servicing efficiencies and natural hazards. 	<p>DSDILGP (lead)</p> <p>WBB local governments</p>

Ref	Phase	Action and purpose	Approach	Responsibility
1.2.B	Short	<p>Best practice ageing in place</p> <ul style="list-style-type: none"> Support the provision of climatically responsible, age friendly and accessible housing options in existing and new neighbourhoods. 	<p>Work with state agencies, local governments and industry to:</p> <ul style="list-style-type: none"> provide excellent examples to the market of different housing typologies, including detailed costings where possible showcase a series of ageing in place housing pilots that demonstrate new or innovative design alternatives capable of being readily adopted by market establish a community education initiative which clearly articulates the practical aspects of downsizing and identifies ageing in place housing products available in the region. 	<p>DSDILGP (lead)</p> <p>DCHDE</p> <p>Office of the Queensland Architect</p> <p>WBB local governments</p> <p>Development industry</p>
1.2.C	Medium	Service efficiencies and common user investigation for regional townships.	<p>State agencies and local governments to:</p> <ul style="list-style-type: none"> investigate allied servicing operations between regional townships across LGA boundaries, identifying where efficiencies may be gained through resource sharing. Examples could include employment opportunities (job sharing), planning and economic functions, community, community and education services, as well as community assets. 	<p>DSDILGP</p> <p>WBB local governments</p>
1.2.D	Short	Identify long-term infrastructure strategies to support the implementation of regional priorities	<p>State agencies and local governments to:</p> <ul style="list-style-type: none"> work with key stakeholders to deliver the WBB Regional Infrastructure Plan. 	DSDILGP
Objective 1.3: Make places we're proud of				
1.3.A	Medium	Enhancing the night-time economy.	<p>Work with State agencies to develop an options analysis and implementation program for regional night-time economy opportunities, including consideration of amenity impacts, liquor licencing, safety matters.</p>	<p>DSDILGP (lead)</p> <p>WBB local governments</p>
1.3.B	Short	Create an addendum to the Regional Investment Prospectus (Action 2.1.C) showcasing the best aspects of liveability the region has to offer.	<p>Local governments to nominate and identify profiles for inclusion into the Regional Investment Prospectus addendum, showcasing the regions strengths to contribute to building a regional profile. This includes examples on:</p> <ul style="list-style-type: none"> uniqueness and functions that serve to differentiate communities and townships natural beauty, lifestyle and recreational opportunities liveability attributes, identifying housing options, affordability and access to services and amenities. 	WBB local governments (lead)

Ref	Phase	Action and purpose	Approach	Responsibility
Objective 2.1: Transition into Queensland's powerhouse for advanced manufacturing				
2.1.A	Short	<p>Establish a pipeline of regionally significant industrial land that:</p> <ul style="list-style-type: none"> › supports growth in advanced manufacturing and existing industry › attracts new enterprise to the region, including allied commercial and research functions. 	<p>Work with local governments, industry, and state agencies to develop a regional program for the co-ordinated delivery of fit-for-purpose industrial land in the regionally significant industrial precincts and options for servicing these precincts.</p> <p>This program should provide the region with a reliable pipeline of suitable large format industrial land capable of being brought to market which is available, serviceable and maximises the productivity of new or existing regional supply chains. The program may consider different models for infrastructure provision.</p>	<p>DSDILGP (lead)</p> <p>WBB local governments</p> <p>Industry</p>
2.1.B	Short	<p>Deliver a regional freight plan to identify and prioritise freight network improvements and future freight needs based on the industrial land pipeline and existing supply chains.</p>	<p>Work with state agencies, local governments, and industry to investigate:</p> <ul style="list-style-type: none"> › future industry demands and logistics/transport trends expected over the next 25 years › improved connections to Port of Bundaberg and Wellcamp Airport to support new regional export (or import) markets › priority first and last mile links › options and timing for an upgraded east west link through the region › role of the other regional rail, sea and airports › opportunities for agglomeration of logistics facilities and nodes. 	<p>TMR (lead)</p> <p>WBB local governments</p> <p>DSDILGP</p>
2.1.C	Short	<p>Develop a targeted Regional Investment Prospectus/strategy for WBB to promote the benefits of establishing and growing business in the region.</p>	<p>Work with state agencies, industry and local governments to develop a regional economic prospectus identifying opportunities along existing value chains and emerging industrial functions.</p> <p>The prospectus can include and be supported by specific economic development, advocacy, industry collaboration and networking and investment attraction functions and opportunities such as growing an advanced and/or automated manufacturing sector in the region – informed by industry and government on short-medium term needs.</p> <p>The prospectus can call out to future industrial opportunities across the region, including Gympie and the Bundaberg State Development Area, which can leverage off the Port of Bundaberg or maximising new of existing regional supply or value chains. The prospectus can identify incentives for investment and opportunities for public private partnership investment.</p>	<p>DSDILGP (lead)</p> <p>DRDMW</p> <p>WBB local governments</p> <p>Industry</p> <p>TIQ</p>

Ref	Phase	Action and purpose	Approach	Responsibility
Objective 2.2: Lead primary production into the mid-21st Century				
2.2.A	Short	Regional water planning to consider and account for emerging agricultural and other industry opportunities.	<p>Work with state agencies, local governments and industry to prioritise, develop and implement regional water infrastructure planning.</p> <p>This would include developing a common understanding, the region's future water needs for agriculture and other opportunities, collaborative, coordinated, for assessing water supply or security options, and implementing agreed actions across the region.</p>	<p>DRDMW (lead)</p> <p>DSDILGP</p> <p>WBB local governments</p> <p>Sunwater</p> <p>Seqwater</p>

Ref	Phase	Action and purpose	Approach	Responsibility
2.2.B	Short	Develop a Planning for Regional Agriculture Study that helps to facilitate diversification and intensification of the agricultural industry through planning mechanisms.	<p>Work with state agencies, local governments and industry to investigate:</p> <ul style="list-style-type: none"> ➤ amendments to planning schemes and other mechanisms to facilitate greater flexibility for on-site activities (storage, processing, refrigeration, agritourism etc.) and carbon farming. Planning controls could consider: <ul style="list-style-type: none"> • minimum lot size requirements in rural areas • thresholding issues, environmental constraints and code requirements. ➤ priority regional infrastructure – energy, digital connectivity, freight network upgrades, and water – required to support PAAs ➤ opportunities to establish a food and beverage manufacturing distribution centre in the region ➤ co-location of agricultural-related uses in areas outside but in proximity to the rural zone (e.g. industrial zoned land) where appropriate infrastructure is available ➤ co-location opportunities between the forestry industry and other commercial, recreational and community activities, including renewable energy and tourism developments ➤ identify priority PAEAs and investigate what policies and regional infrastructure projects would be required to support them. <p>This study should position the region to best manage the impacts of climate variation and opportunities for technology adoption and new markets.</p>	<p>DSDILGP (lead)</p> <p>DAF</p> <p>WBB local governments</p> <p>Agricultural industry</p>
2.2.C	Short	Economic investigations to support new opportunities for increased domestic and international exports of regional primary and secondary (value-add) agricultural production.	<p>Work with state agencies, local government and industry to investigate:</p> <ul style="list-style-type: none"> ➤ specific investment attraction requirements and marketing for agribusiness in WBB ➤ new opportunities for increased domestic and international exports of regional primary and secondary (value-add) through the Port of Bundaberg ➤ emerging industries/niche markets (e.g. plant extractives, nutraceuticals and microalgae) that capitalise on the regions existing production and manufacturing/processing capabilities ➤ building capacity within regional agribusiness. 	<p>DSDILGP (lead)</p> <p>WBB local governments</p> <p>GPC</p> <p>Agricultural industry</p> <p>DAF</p> <p>TIQ</p>

Ref	Phase	Action and purpose	Approach	Responsibility
2.2.D	Short	Increase the awareness and understanding of carbon farming mechanisms available to agricultural users.	Work with local governments, and the agricultural industry to understand opportunities for carbon farming in the region, considering PAEAs and areas with potential forestry expansion areas.	DSDILGP (lead) DES WBB local governments Agricultural industry
2.2.E	Short	Facilitate opportunities for new ADAs within the region.	Work with DAF and coastal local government areas to identify potential terrestrial ADAs, particularly at Miara/Kolan River (Bundaberg) and Beaver Rock (Fraser Coast).	WBB local governments (lead) DAF
Objective 2.3: Create employment pathways for all				
2.3.A	Short	Leverage continued investment in the health, aged care and education sectors to support diverse employment pathways, skilled worker attraction, and business and industry innovation.	Work with Queensland Health, regional HHSs and local governments to: <ul style="list-style-type: none"> › identify precinct planning opportunities for a new future Bundaberg Hospital, including potential allied health, commercial and short-term accommodation options and education opportunities › identify future state government investment opportunities in Hervey Bay for allied health and knowledge development in the Urraween Medical Precinct and Pialba Town Centre › identify future allied health, education, commercial and short-term accommodation opportunities proximate to the redeveloped Kingaroy Hospital › investigate future opportunities in Gympie for new and expanded primary health care and age care facilities, including palliative and dementia care. 	DSDILGP and Qld health (joint lead) Regional HHS WBB local governments DoE
2.3.B	Medium	Coordinate a WBB regional marketing campaign to maximise the benefits of regional tourism.	Work with DTIS, local governments and Regional Tourism Organisations to undertake co-operative marketing and product development and develop whole-of-region package offerings and experiences. This should capitalise on 'hero' attractions across the region, creating linkages with lesser-known attractions to maximise visitor dispersal.	DTIS (lead) RTOs WBB local governments

Ref	Phase	Action and purpose	Approach	Responsibility
2.3.C	Short	Develop a Regional Tourist Priorities Program to support the development of new tourism product and trails across the region.	<p>Work with state agencies, local governments and industry to develop a program of new tourism product, trails and clusters across the region, to bolster linkages between tourism assets:</p> <ul style="list-style-type: none"> › work with state agencies on actions required to resolve tenure matters and unlock future investment opportunities through the Urangan Harbour Master Plan › identify and market tourism trails through the Burnett, showcasing agritourism, heritage and lifestyle and access to the Southern Great Barrier Reef, K’Gari (Fraser Island) and Great Sandy Strait Marine Park › work with DSDSATSIP to develop business capability and capacity development for First Nations tourism businesses to generates sustainable socio-economic outcomes for First Nations individuals and communities › work with DTIS to de-risk investment in appropriate low impact tourism adjacent to protected area estates and National Parks. 	<p>DTIS and DSDILGP (joint lead)</p> <p>WBB local governments</p> <p>RTOs</p> <p>TEQ</p> <p>Tourism industry</p> <p>DSDSATSIP</p> <p>DES</p>
Objective 2.4: Emerge as a leader in the energy transformation and circular economy				
2.4.A	Short	Implementation of projects and initiatives to support an adaptive and resilient energy sector to provide a sustainable and affordable energy future for the region.	<p>Work with industry, local government and community to achieve the Queensland Government’s renewable energy target and deliver regionally significant renewable energy infrastructure. This will include:</p> <ul style="list-style-type: none"> › investigation of the potential pumped hydro energy storage facility at Borumba Dam › development of the Southern and Central Queensland Renewable Energy Zones. 	<p>DEPW (lead)</p> <p>WBB local governments</p>
2.4.B	Short	Energy development and infrastructure is prioritised to support identified regionally significant industrial land.	<p>Work with DEPW, industry and local governments to determine requirements for renewable energy development (including renewable hydrogen) and allied technologies in appropriate locations, such as the Bundaberg SDA. This should include consideration of the potential to locate renewable hydrogen development and/or hydrogen-based industries in proximity to the Bundaberg Gas Pipeline, and potential opportunities for end-of-life upcycling/ manufacturing facilities.</p> <p>Work with electricity network service providers to identify infrastructure requirements and planning of resources required to implement delivery of infrastructure.</p>	<p>DSDILGP (lead)</p> <p>DEPW</p> <p>WBB local governments</p> <p>Energy providers</p>

Ref	Phase	Action and purpose	Approach	Responsibility
2.4.C	Short	Develop sustainable waste industries with opportunities for regional waste and recycling and the circular economy.	Work with state agencies, local governments and industry to identify key priorities for regional waste management and opportunities to adopt new technologies, including the investigation of energy-from-waste (EfW) options, such as Biohubs. Work should build from the WBB Regional Waste Strategy, expected to be released in 2022 by the Queensland Government.	DSDILGP (lead) WBB local governments
2.4.D	Short	Identify and prioritise regional infrastructure projects that will support the establishment of a new economy minerals sector.	Work with state agencies to progress key short-term actions within the Wide Bay Burnett Resource Group 2-year activation plan (2022). Advise on future regional infrastructure needs, including potential common user infrastructure projects that would facilitate clusters of resource activity for new economy minerals.	DSDILGP (lead) WBB local governments Industry
Objective 3.1: Conserve and celebrate the culture and environmental features that draw and keep people in the region				
3.1.A	Short	Develop a management program for strategic rehabilitation areas to enhance landscape connectivity across the region.	Work with local local governments, DES, NRM body BMRG and First Nations representatives to prioritise identified strategic rehabilitation areas for local environmental offsets (through matters of local environmental significance – MLES), for Landcare programs or for other environmental improvement initiatives, including carbon farming.	DSDILGP (lead) DES WBB local governments BMRG First Nations representatives DSDSATSIP
3.1.B	Short	Investigate mapping and development of supporting assessment criteria for development within koala habitat areas to reduce the loss of koala habitat and mitigate the risks posed by development.	Work with state agencies to identify areas that support viable koala populations in the WBB region. This will involve an initial focus on the Southeast Queensland bioregion, with consideration of the ‘Spatial modelling for koalas in South East Queensland’ mapping methodology recently endorsed by the CSRIO. Continue work with local local governments and DES to determine the preferred delivery mechanism for assessment criteria to protect koala habitat (code requirements under State Development Assessment Provisions, or local development assessment criteria in planning schemes). Work with local governments and DES to focus management and investment programs in areas that can enhance the extent and quality of koala habitat in the region.	DES (lead) DSDILGP WBB local governments

Ref	Phase	Action and purpose	Approach	Responsibility
3.1.C	Short	Work with First Nations representatives on management of cultural attributes and key landscape features within the Regional Biodiversity Network (Map 4).	Coordinate engagement with First Nations representatives on key features, management responses and potential future development outcomes.	DSDILGP (lead) First Nations representatives DSDSATSIP DES (Cultural Heritage + Environmental Policy and Planning teams) BMRG
3.1.D	Short	Implement local laws, planning regulations and associated management plans for the Dark Sky Overlay area (Map 5) to minimise the artificial lighting impacts on sea turtle and shorebird activity during turtle breeding and shorebird migratory seasons.	Work with local local governments to prepare and implement workable approaches to reduce urban light glow in existing developed areas to reduce impacts on turtle and shorebird populations, including consideration of potential building height requirements for development located on land visible from the beach or ocean in key areas.	DSDILGP (Local Government) (lead) WBB local governments DES Gladstone Ports Corporation DTMR
3.1.E	Short	Continue implementation of the Mary Regional Resilience Strategy and the Burnett Regional Resilience Strategy.	Work with QRA and local governments to identify alignment actions between the ongoing delivery of regional resilience strategies and economic and environmental outcomes directed by the regional plan.	Queensland Reconstruction Authority (QRA) (lead) WBB local governments Local Disaster Management groups
3.1.F	Medium	Coordinate an investigation into alternative, climate-resilient water sources and innovative water demand management solutions in the region.	DRDMW and regional water entities to consider the application of a total water cycle management approach in the region, a regional water network, evaporation mitigation strategies (including the conversion of uncovered irrigation channels to enclosed water pipelines), desalination infrastructure and other water security actions in Regional Water Assessments for the region.	DRDMW (lead) Sunwater Seqwater
3.1.G	Medium	Continue implementation of the SEQ Water Security Program (2016–2046).	Seqwater to work with local government and state agencies to provide safe, secure, and cost-effective drinking water for SEQ, noting drinking water catchment areas in the southern part of the WBB region (Gympie and South Burnett LGAs) are critical for SEQ's drinking water supply. DSDILGP and Seqwater to consider the application of mapped water resource catchments and water supply buffer areas in these drinking water catchment areas.	Seqwater (lead) Gympie and South Burnett local governments DSDILGP

Tracking progress and reporting

To track WBB’s progress, the WBB Regional Plan incorporates monitoring and reporting mechanisms. These mechanisms are integrated into the plan’s delivery to ensure it remains relevant, accountable and capable of responding to change.

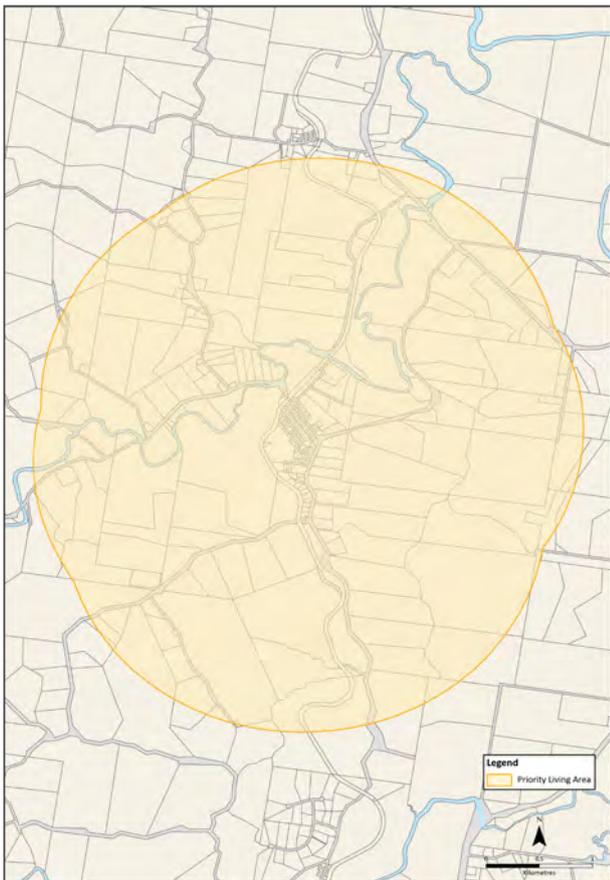
Regional milestones and check points are proposed to identify the next steps for the region and hold the plan accountable. In this way, the plan is able to remain live and relevant as it’s progress continues to be assessed.

The table below introduces these regional milestones for the plan’s delivery.

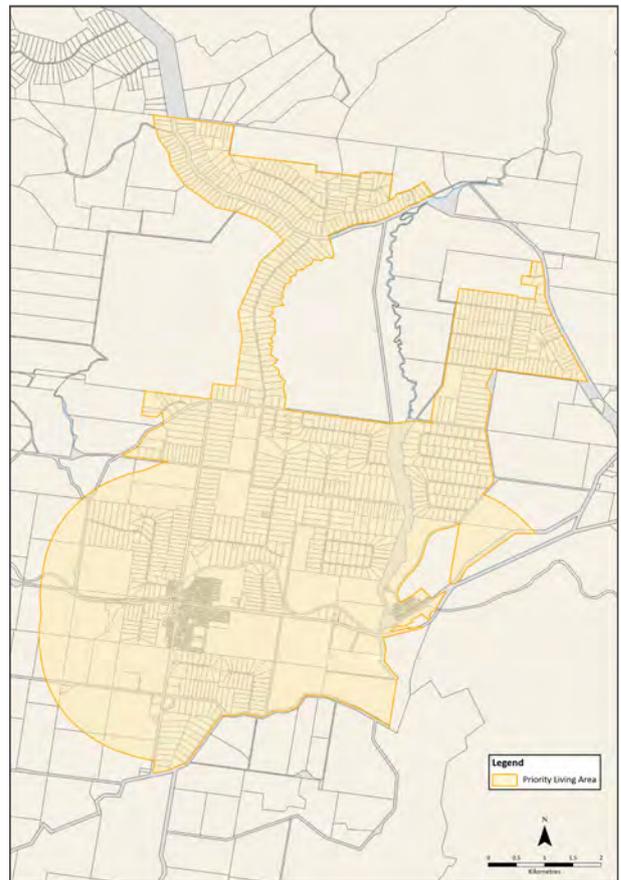
Timeframe	Regional milestone
Short	<ul style="list-style-type: none"> › Key priority implementation actions are being progressed. › Other short-term implementation actions are underway. › Regional infrastructure priorities are incorporated into the WBB RIP. › Local Governments are working towards integrating the plan into local planning schemes and LGIPs. <p>Check points</p> <ul style="list-style-type: none"> › Report on the progress and status of actions and priorities.
Medium	<ul style="list-style-type: none"> › New local and state policy documents incorporate regional planning policy positions, including infrastructure decisions. › Short and medium-term implementation actions are being progressed. › Local Governments are regulating high quality diverse housing and communities and advancing the protection of the natural environment. › The region can start to see key outcomes from the plan including: <ul style="list-style-type: none"> • increase in workforce participation • stronger linkages and improvements to freight network • greater diversity of housing in new developments • clear line of sight to leverage of emerging industry opportunities • coordinated effort from across the region to enable economic diversification and prosperity, including from key infrastructure decisions • protections for turtles and shorebirds. <p>Check points</p> <ul style="list-style-type: none"> › Report on the progress and status of actions and priorities and circulate to stakeholders. › Assess the application and effectiveness of key actions and responses in the plan. › Review regional infrastructure priorities for consideration. › Re-evaluate and where appropriate update the approach for the regional workforce strategy. › Update the regional investment prospectus.

Timeframe	Regional milestone
Long	<ul style="list-style-type: none"> ➤ Longer-term implementation actions are being progressed. ➤ The region has a strong regional identity and is recognised as ‘clean, green and productive’ and a region of choice for investment, lifestyle and industry. ➤ There is a growing working age population with necessary talent in the region. ➤ Established industries in the region are leveraging off new opportunities including diversification and technological uptake. ➤ The region has access to greater employment pathways including in health, education and tourism. ➤ Infrastructure, freight routes and co-ordinated locations of industry and employment strengthen regional supply chains and value-add opportunities. <p>Check points</p> <ul style="list-style-type: none"> ➤ Undertake assessments of broad regional trends and how they are/will impact the region. ➤ Assess the need for an updated regional plan.

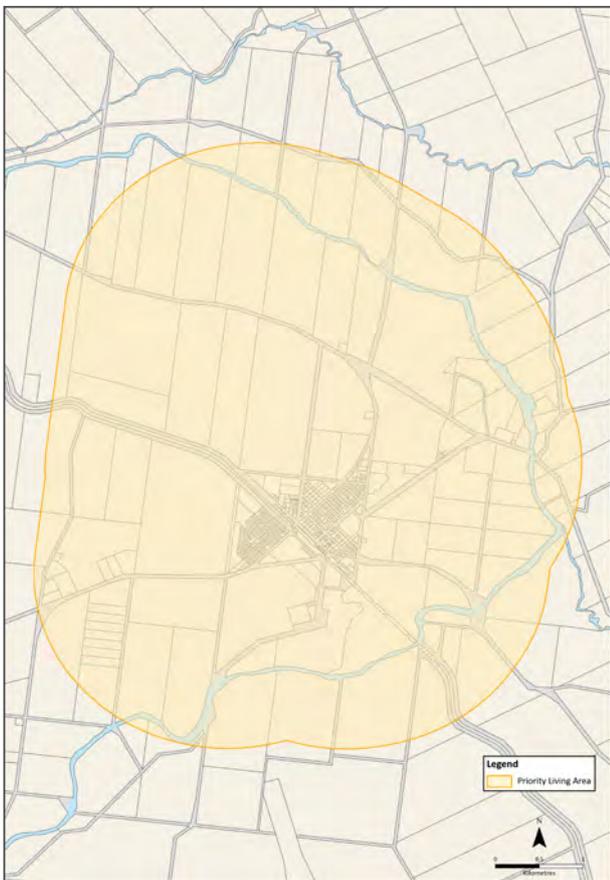
Schedule A – Priority Living Areas



Amamoor



Blackbutt



Biggenden



Boonooroo-Tuan



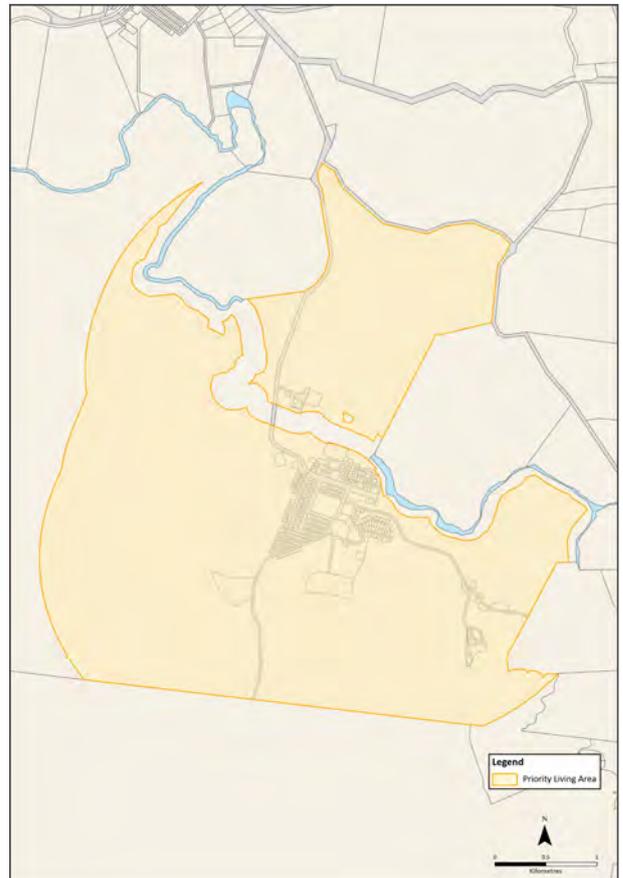
Bundaberg



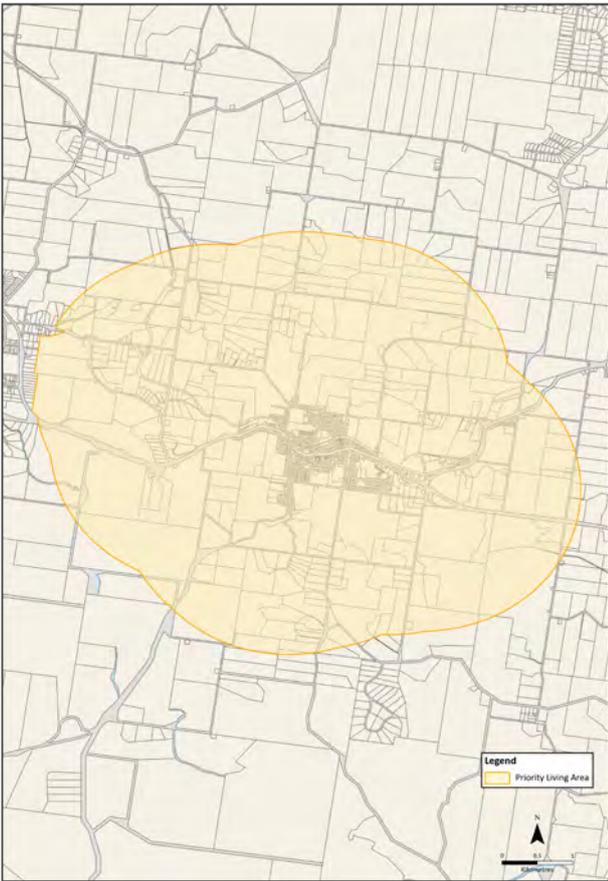
Burrum Heads



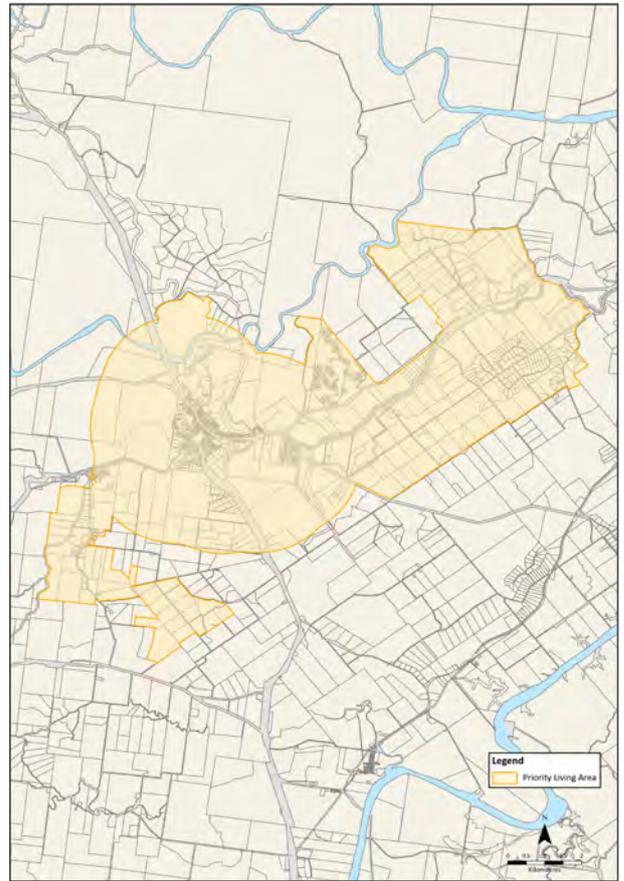
Burnett Heads / Elliot Heads



Cherbourg



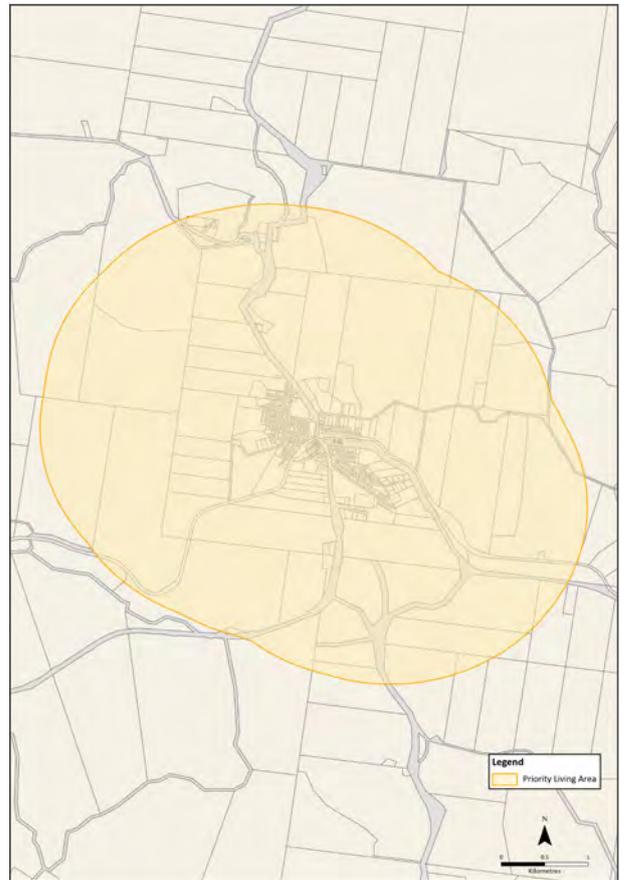
Childers



Gin Gin



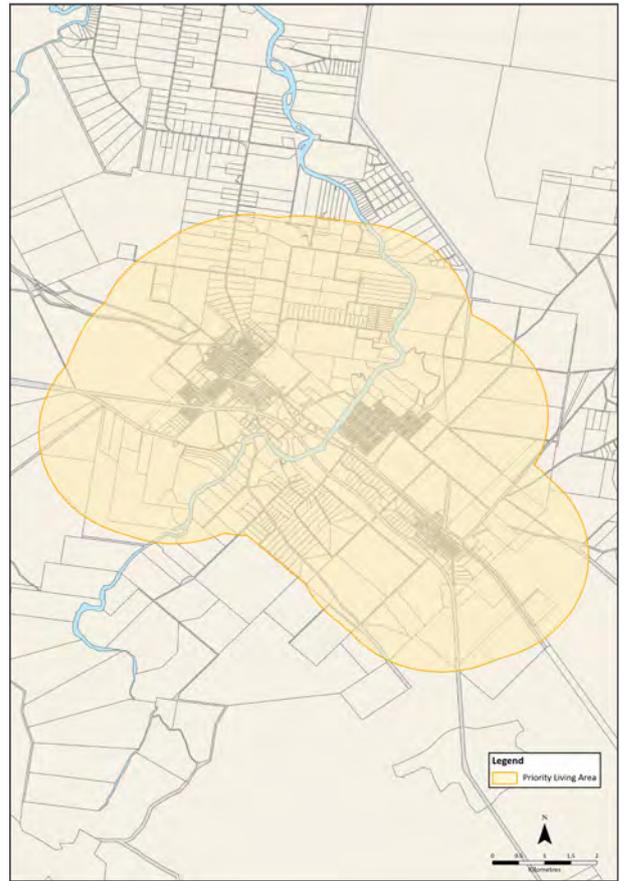
Gayndah



Goomeri



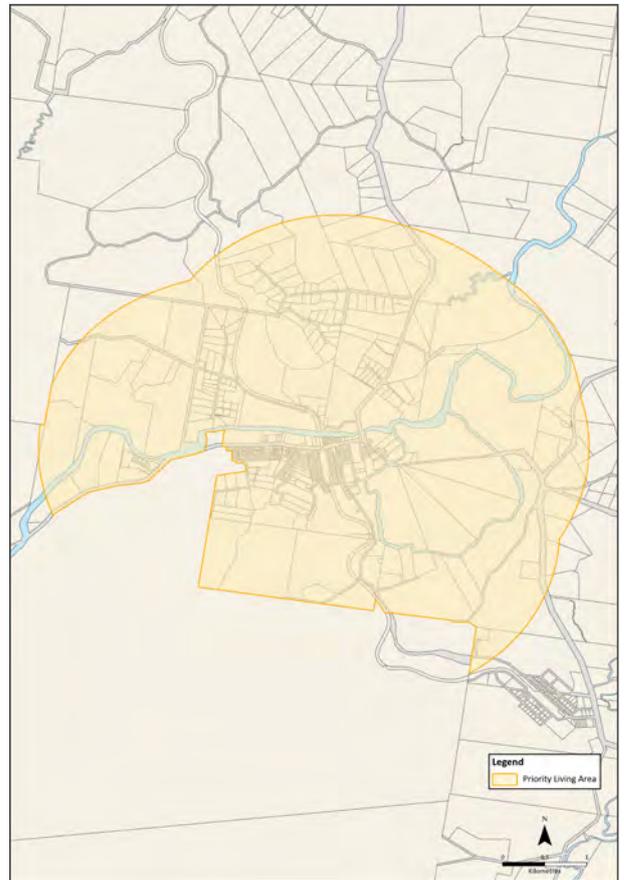
Gunalda



Howard/Torbanlea



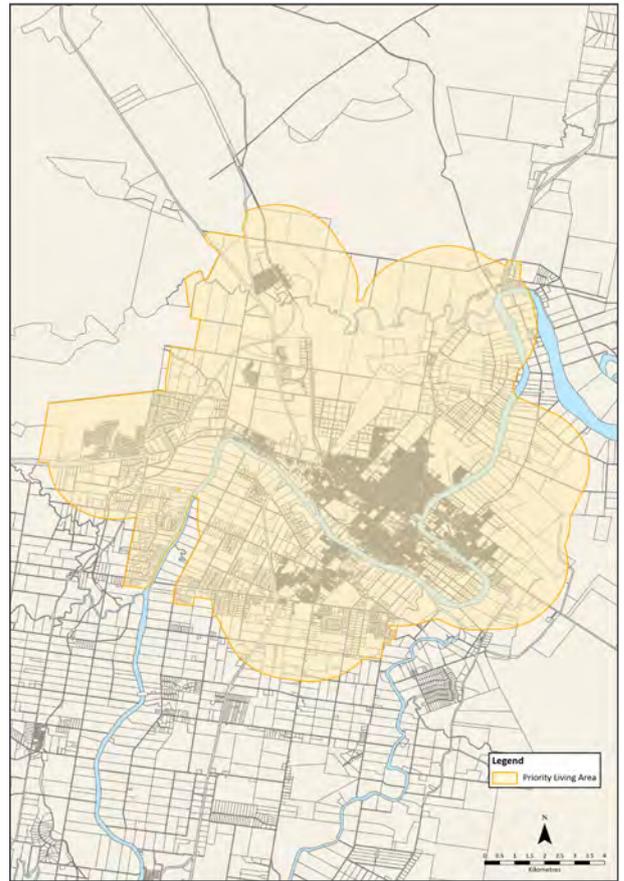
Gympie



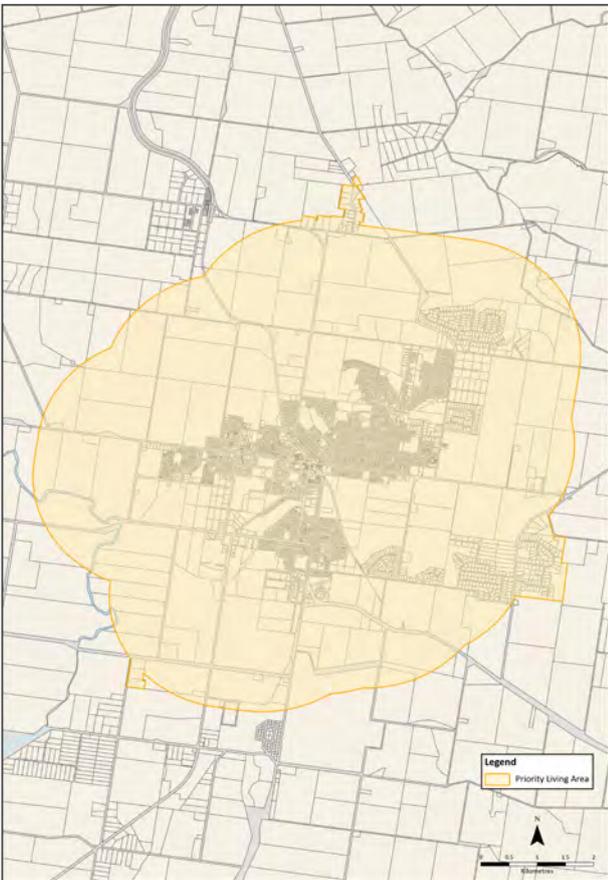
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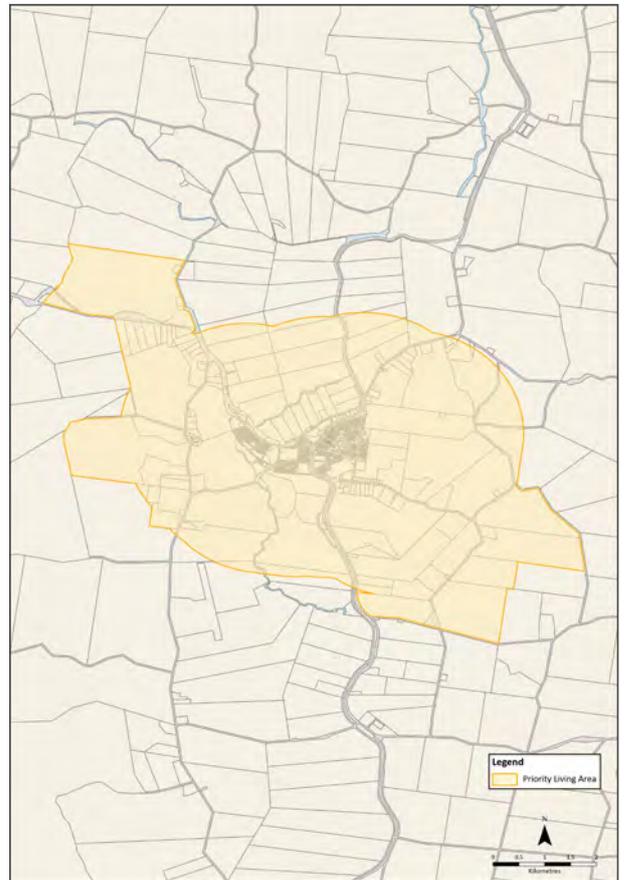
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Maryborough



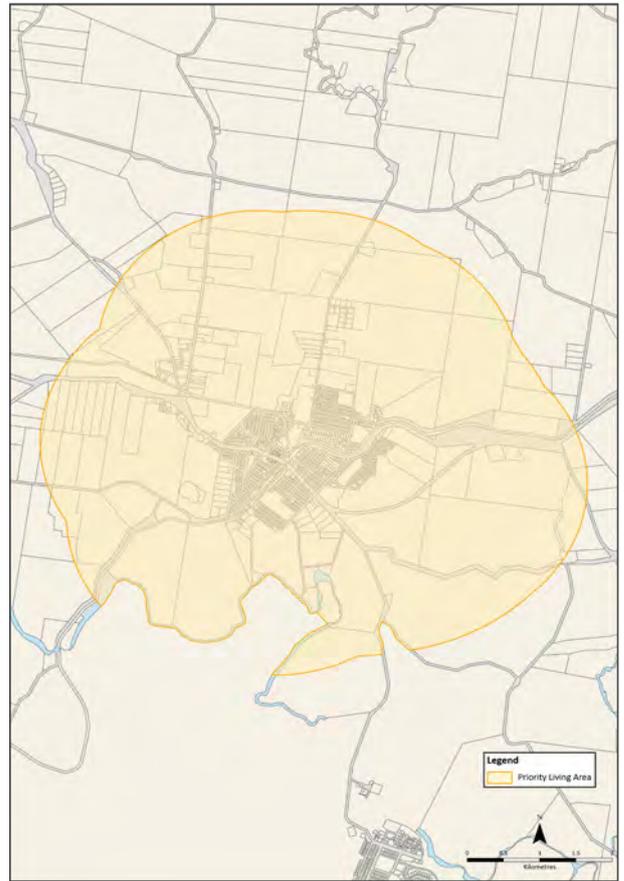
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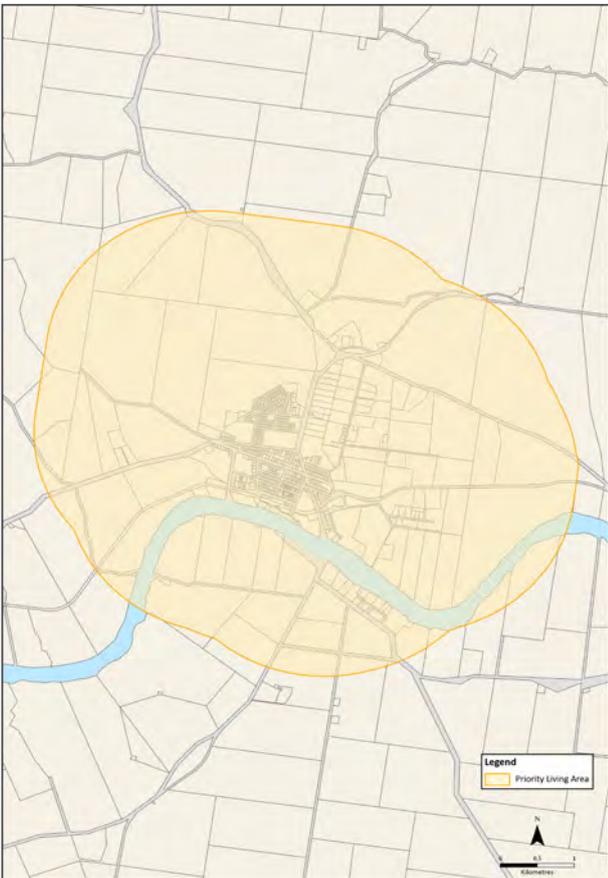
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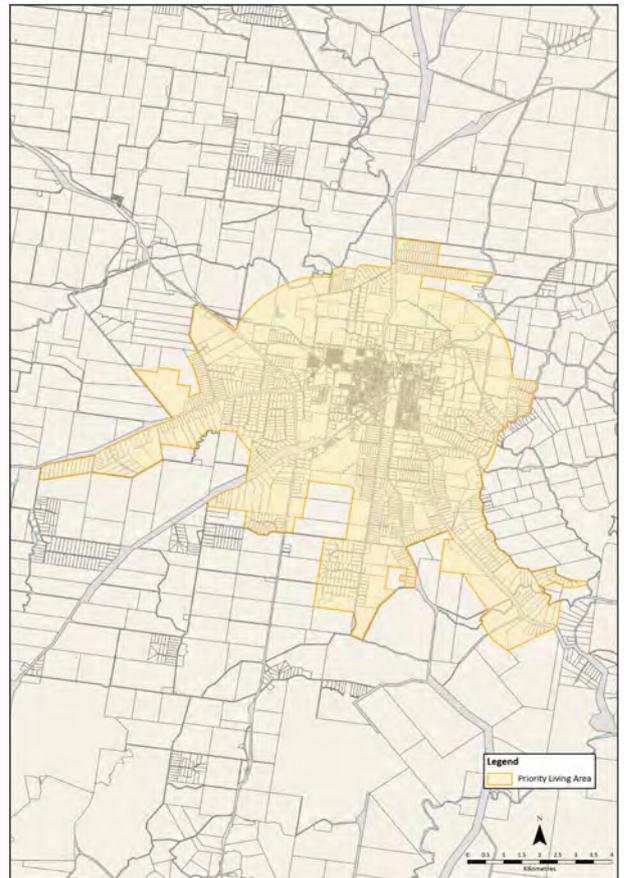
Moore Park



Murgon



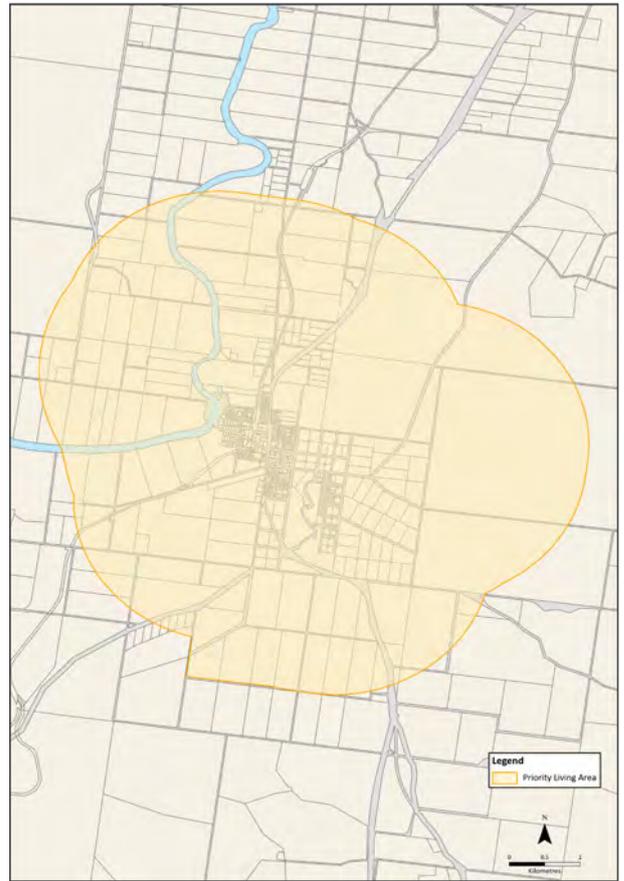
Mundubbera



Nanango



Poona



Tiaro



Rainbow Beach



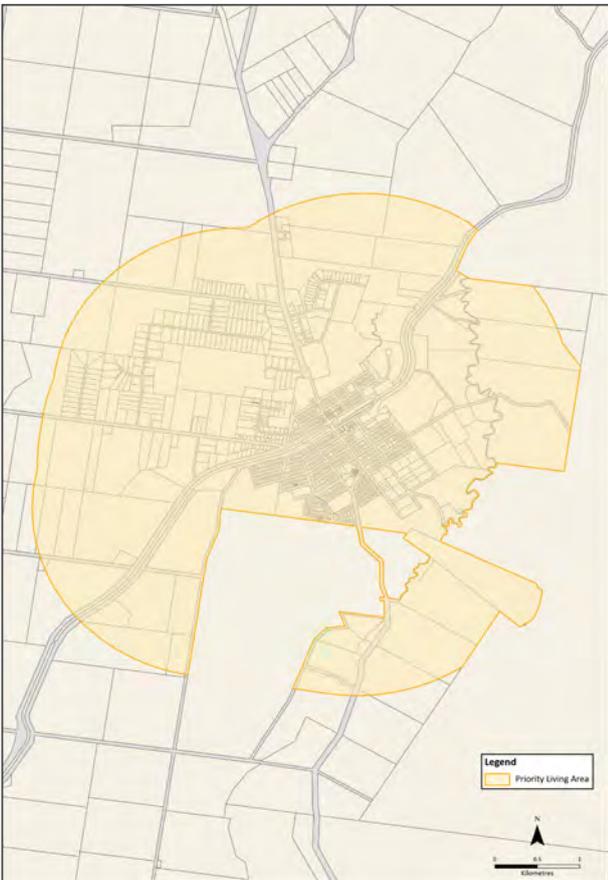
Tin Can Bay



Toogoom/River Heads



Woodgate



Wondai

Schedule B – Environmental attributes of the Strategic Environmental Area

Strategic Environmental Areas contain (SEAs) regionally significant attributes for biodiversity, water catchments, and ecological function and connection. Management of these areas is to maintain the natural ecosystem functionality of their environmental attributes to ensure the region's significant biodiversity and ecological integrity is upheld.

Strategic Environmental Areas allow for development where uses can co-exist and do not constitute a material risk to the continuation of the area's natural ecosystem functionality. Adverse impacts on natural systems and ecological features and processes are to be avoided or minimised to the greatest extent practicable with natural features such as creeks, gullies, waterways, wetlands, vegetation habitats and bushland being retained, enhanced and buffered from the impacts of uses. Any unavoidable impacts to the attributes are minimised through location, design, operation and management requirements. Where activities have the potential to cause widespread or irreversible impacts – that is, impacts that are important, notable, or of consequence or intensity to a SEA's environmental attributes – these land uses are not acceptable uses across the entire geographic context of the SEA.

Whether or not an action is likely to have a widespread or irreversible impact depends upon the sensitivity, value and quality of the attribute(s) affected, and upon the intensity, duration and/or magnitude of the impacts on the environmental attribute.

An activity is **likely** to have a widespread or irreversible impact if it:

- › permanently modifies, destroys, fragments, isolated or disturbs any habitat or ecosystem components such that a persistent impairment results on the health, functioning or integrity of riparian processes or wildlife corridors; or
- › results in a change in water quality (including but not limited to temperature, organic chemicals, heavy metals or other potentially harmful chemicals) that may adversely impact on biodiversity, ecological health or integrity of waters; or
- › results in a permanent change to surface or groundwater hydrology for any watercourse or wetland; or

- › results in permanent impairment within the SEA to the natural transport, and the erosion and depositing of sediments along a river system to coastal landscapes (e.g. estuaries, beaches), floodplains or wetlands.

An activity is **unlikely** to have a widespread or irreversible impact if it:

- › temporarily modifies, fragments or disturbs any habitat or ecosystem components such that a short-term or local reduction in the functioning or integrity of riparian processes or wildlife corridors occurs; or
- › results in a degradation in water quality (including but not limited to temperature, organic nutrients, dissolved oxygen, salinity) that only temporarily impacts adversely on biodiversity, ecological health or integrity of waters; or
- › results in a local change to surface or groundwater hydrology including for any watercourse or wetland; or
- › results in a local disruption within the SEA to the natural transport, and the erosion and accretion of sediments within a river system to coastal landscapes (e.g. estuaries, beaches), floodplains or wetlands; and
- › is able to restore the functionality of the environmental attributes impacted to a pre-activity condition so that both the structure and the functions of the system are recreated or able to be recreated in an adequate timeframe (based on the local conditions).

The following dot points describe the environmental attributes associated with the natural ecosystem functionality of the identified areas in Map 4.

Northern reach

- › areas containing significant sites for cave-roosting microchiropteran bats as likely maternity sites, or which contain large aggregations of breeding individuals or smaller roosting aggregations for selected species such as large-eared pied bat, eastern cave bat, eastern horseshoe bat, Troughton's sheath-tail bat, and/or sites at which multiple species occur

- › Bania area - eucalypt open forest and rainforest at moderate altitude that contains bioregion endemic taxa and is a combination of ecosystem and landscape elements present across parts of the general area that provides important wildlife refugial functions and/or which facilitate adaptation zones
- › Binjour Plateau - deep lateritised soils containing *Corymbia* spp dominate open forests with pockets of semi evergreen vine thicket and dry to moist eucalypt woodlands present at the margins. Provides intact high altitudinal refugia containing conservation significant flora with endangered and locally endemic taxa, species at their limit of range and disjunct populations
- › Brigalow Belt semi evergreen vine thickets adapted to the prevailing sub-humid conditions and having a distinctive suite of species with high flora species diversity that provides habitat for endemic fauna such as land snails and insects and functions as a refugia
- › central northern ranges containing yellow carabean dominant ecosystems at high altitudes and with bioregion endemic taxa (including narrow endemics), disjunct populations of species that grow in high rainfall rainforests and a high species richness area that contains habitat for a number of threatened taxa. A combination of ecosystem and landscape elements that provides refugial functions and/or which facilitate adaptation zones
- › coastal lowlands between Burnett River and Baffle Creek
- › Coomingleh-Grevillea forests surrounds encompassing a variety of land zones including sandstone ranges, ironstone protrusions, alluvium, basalt hills, metamorphics and granitics containing high species richness with concentrations of bioregional ecosystem outliers present, narrow endemic taxa; disjunct populations and populations at their range limits. Communities range from dry to moist *Eucalyptus/ Corymbia* spp open forests and woodlands with deep gullies and protected escarpments containing dry rainforests, in addition to areas of brigalow. Fauna of particular note include the tusked frog, golden-tailed gecko, common death adder, red goshawk, powerful owl, glossy black-cockatoo, northern quoll, greater glider and koala
- › forested areas with high vertebrate diversity, particularly frog and raptor diversity and/or with high vertebrate endemism including Kroombit tinkerfrog, Kroombit Tops treefrog, silver-headed antechinus, Oakview leaf-tailed gecko, Nangur skink and various invertebrates
- › gallery rainforests - localised linear patches of complex notophyll type lowland rainforest in fragmented landscapes that provide refugia for animal and plant species more commonly associated with the higher rainfall parts of bioregion and containing concentrations of bioregion endemic taxa (especially rainforest taxa) and disjunct populations



Cane Fire, Bundaberg (Bundaberg Regional Council)



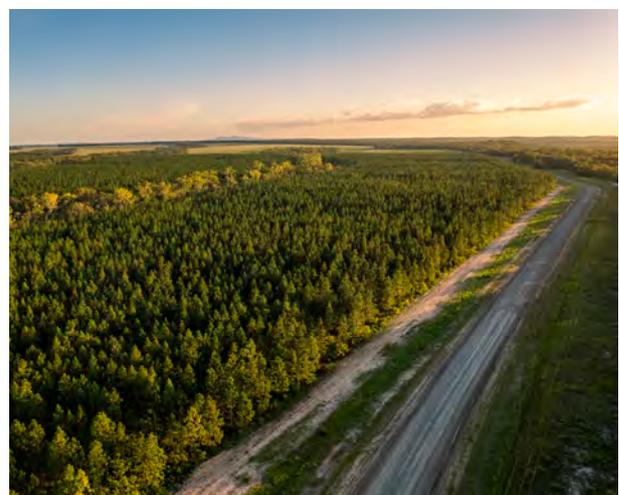
Monto building art (North Burnett Regional Council)

- › high tide roost sites for shorebirds including the threatened eastern curlew, bar-tailed godwit, red knot, curlew sandpiper, great knot, greater sand plover, lesser sand plover and/or beach stone-curlew
- › Hungry Hills – Possum Range containing complex regional ecosystem variations with concentrations of disjunct/edge populations especially species characteristic of sandstone and duricrust associated with material originally sourced from acid volcanic rocks providing important wildlife refugia
- › Kroombit surrounds - cool, moist, elevated area reflective of a complex geology, with residuals of cretaceous sandstone over volcanics across higher parts with concentrations of bioregion endemic taxa, including narrow endemic taxa and wildlife refugia associated with its function as a cool, moist topographic isolate. Containing disjunct populations and high species richness relative to other parts of the bioregion
- › large contiguous lowland mature vegetation communities dominated by *Lophostemon* spp, *Eucalyptus* spp and *Corymbia* spp that support have significant wildlife refugial and nesting value due to their tendencies to form hollows plus moderate densities of existing hollow bearing trees giving habitat complexities across remnant communities in the bioregion
- › localised linear patches of complex notophyll type lowland rainforest with these patches restricted in the landscape that provide important wildlife refugia. Contains concentrations of bioregion endemic taxa and disjunct populations of species characteristic of high rainfall rainforests from the bioregion. Provides a geographic limit for numerous of range species, especially southern limits
- › lowland rainforest and wet sclerophyll forest with a rainforest understory at elevations of < 300m and being of importance for mesic fauna and as drought/fire refugia
- › Many Peaks range containing concentrations of bioregion endemic taxa including narrow endemic taxa, disjunct populations or taxa at the southern limits or close to southern edge of range and providing important wildlife refugia
- › northern ranges containing high ecosystem variations providing important wildlife refugia with many disjunct or edge populations located on duricrust associated with material originally sourced from acid volcanic rocks
- › palustrine and lacustrine wetlands and waterbody complexes within the bioregion that act as important refugia, especially during periods of drought
- › refugia habitat for Coxen’s fig-parrot
- › remnant vegetation communities situated on serpentinite geology exhibiting distinct ecosystem variation in terms of floristics and vegetation structure in comparison to similar communities situated on other geology types, containing a number of narrow range endemics (many of which are threatened)
- › remnants of old pediplains of tertiary age between Kingaroy and Monto that have outstanding flora values due to the presence of narrow endemic, bioregional endemic and disjunct taxa, especially shrub species. The vegetation is typically grassy tall open forest on plateau remnants with powdery or “snuffy” red soils, shrubby woodland where erosion has stripped soil to expose duricrust (e.g., narrow ridgelines and tops of scarps) and dry rainforest on steep scarp slopes and lower slopes with redistributed red soils providing wildlife refugia
- › riparian corridors encompassing diverse, dynamic and complex habitats incorporating both environmental and topographic gradients tending to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer terms impacts associated with climatic change. Networks of major and minor riparian linkages providing significant elements of habitat continuity and migratory and dispersal pathways for numerous taxa (especially arboreal mammals, birds, reptiles and insects, and flora)

- › riparian lowland forest ecosystems exhibiting higher species richness and abundance than surrounding habitats and act as movement pathways along riparian systems for a number of species, especially birds and provides critical refugia and resources for many species in terms of food, shelter and nesting sites/hollows, especially in times of drought
- › sandstone ranges and gorges providing a large contiguous landscape of remnant vegetation is flora species rich, containing disjunct flora taxa or varieties at the range of their distributional limits and a centre of endemism with many of the endemic taxa also being threatened or near threatened. Has a very high fauna richness of terrestrial vertebrate taxa and high invertebrate richness. Numerous endemic species present including land snails and scorpion species and reptiles. Disjunct populations of stony creek frog and the major skink occur in the area. Other notable fauna includes large-eared pied bat, eastern long-eared bat, collared delma, Dunmall’s snake, black-breasted button-quail and northern quoll
- › semi-evergreen vine thickets
- › terrestrial bioregional corridors that maintain connectivity across a landscape, either through “continuous linkages” or via “stepping-stones” of remnant vegetation, being key connections between remaining core tracts/nodes within the bioregion
- › Beenham - Wolvi Range area of wet sclerophyll complex comprising gully systems with unusual eucalypt ecosystems (contains bioregion endemic rainforest taxa) providing a combination of ecosystem and landscape elements for refugial functions and/or which facilitate adaptation zones
- › coastal areas containing various flora and fauna assemblages on alluvium / sandy depauperate soils adjoining a RAMSAR site and the Great Sandy Strait with concentrations of bioregion endemic taxa and provide multiple wildlife refugia, especially refugia for fiddler crab species at their range limits. Notable high species richness for ground orchids
- › coastal range contains rugged elevated granites as well as other volcanic rocks of Triassic age and small occurrences of metamorphic rocks that provide a complexity of microhabitats ranging from dry, exposed areas with minimal soils to moist sheltered valleys and having substantial areas of old growth eucalypt vegetation are present, with a wide range of flora taxa including bioregion endemic taxa plus narrow endemics, disjunct populations, high faunal species richness and a heterogeneity of microhabitats as wildlife refugia, including from climate change impacts

South-eastern reach

- › areas adjacent to and including Burrum Coast containing extensive “wallum” heath/sandplain landscapes at the confluence of the Burrum, Cherwell, Isis and Gregory river systems extending northward to the Elliott River providing important wildlife refugia. The area includes landscapes important to many sandplain species that are at or near the northern limits of geographic range within the Burrum Coast and a number of bioregion endemic taxa, including narrow endemic taxa the disjunct limits of range of flora species
- › areas containing significant sites for cave-roosting microchiropteran bats as likely maternity sites, or which contain large aggregations of breeding individuals or smaller roosting aggregations for selected species such as large-eared pied bat, eastern cave bat, eastern horseshoe bat, Troughton’s sheath-tail bat, and/or sites at which multiple species occur



- › complex system associated with Grongah forest including elevated areas that contain concentrations of bioregion endemic rainforest and other taxa, taxa with disjunct populations and provides numerous wildlife refugia variations
- › Conondale Range containing a range of different flora, fauna and landscape values having a distinctive vegetation pattern of wet and dry sclerophyll forest on ridges with rainforest or wet sclerophyll forest (including remnants of old growth) on lower slopes and along watercourses with much of the area on metamorphic rocks and soils of moderate fertility. Area is a threatened species hotspot for the bioregion with endemic plant taxa, disjunct species populations and very high species richness (especially birds and frogs). Provides complex array of wildlife refugia and/or which facilitate adaptation zones reflecting the influences of altitude and micro-topographic variation and a high density of hollow bearing trees which provide habitat for hollow dependent fauna
- › Cooloola area river catchments. Notable taxa include threatened fish species, unique patterned fen habitat, endemic invertebrate assemblages associated with dune habitats ‘acid’ frog species
- › forested areas with high vertebrate diversity, particularly frog and raptor diversity and/or with high vertebrate endemism including Kroombit tinkersfrog, Kroombit Tops treefrog, silver-headed antechinus, Oakview leaf-tailed gecko, Nangur skink and various invertebrates
- › Great Sandy - extensive and mostly intact landscape of Quaternary coastal dune formation and succession, with multiple stages of dune-building evident above older sandbeds and estuarine deposits, resting on a basement of eroded Mesozoic sandstone. The area exhibits very high ecosystem diversity (both terrestrial and aquatic), with plant communities of varying structural type, namely open and closed heaths and sedgeland, scrubs and thickets, woodlands and open and closed-forests of varying height, including tall forests dominated by blackbutt, satinay/brushbox and rainforest. Extensive freshwater and estuarine wetlands including coastal creeks, rivers and lakes, swamps and patterned fens, wet heaths and melaleuca wetlands. Very high fauna species richness and diversity including many threatened and/or endemic to the region, as well as a number of distinctive groups or assemblages such as ‘acid’ frogs and bioregion endemic taxa particularly “wallum” heath bird species including narrow endemics and taxa at limits of range, especially northern mainland
- › high tide roost sites for shorebirds including the threatened eastern curlew, bar-tailed godwit, red knot, curlew sandpiper, great knot, greater sand plover, lesser sand plover and/or beach stone-curlew
- › hinterland areas providing over wintering refugia for summer migrants to the bioregion and important wintering habitat for fruit-pigeons
- › large contiguous lowland mature vegetation communities dominated by Lophostemon spp, Eucalyptus spp and Corymbia spp that support have significant wildlife refugial and nesting value due to their tendencies to form hollows plus moderate densities of existing hollow bearing trees giving habitat complexities across remnant communities in the bioregion
- › lowland rainforest and wet sclerophyll forest with a rainforest understory at elevations of < 300m and being of importance for mesic fauna and as drought/fire refugia
- › Mount Bauple to Glenwood rainforests - small mountain ranges providing a combination of ecosystem and landscape elements for refugial functions with complex rainforest flora and bioregion endemic rainforest taxa and disjunct populations
- › patterned fen wetlands along the western side of Fraser Island with acid-tolerant fauna
- › rainforest remnants between Burrum Heads and River Heads growing on transported coastal sand as well as bedrock-derived soils and have a mix of littoral, mesic and dry rainforest elements containing concentrations of bioregion endemic rainforest taxa and taxa at the southern/near-southern limits of their range and providing important wildlife refugia
- › refugia habitat for Coxen’s fig-parrot

- › riparian corridors encompassing diverse, dynamic and complex habitats incorporating both environmental and topographic gradients tending to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer terms impacts associated with climatic change. Networks of major and minor riparian linkages providing significant elements of habitat continuity and migratory and dispersal pathways for a substantial number of species (especially birds, insects and flora, but also for many arboreal mammals and reptiles)
- › significant breeding or roosting flying fox camps for black flying-fox, little red flying-fox and the grey headed flying fox
- › terrestrial bioregional corridors that maintain connectivity across a landscape, either through “continuous linkages” or via “stepping-stones” of remnant vegetation, being key connections between remaining core tracts/nodes within the bioregion
- › wallum heath/sandplain landscapes having high species richness with concentrations of species with northern and southern limits of range, bioregion endemic taxa, bioregion disjunct taxa and providing wildlife refugia. Notable faunal values include habitat for the water mouse, ground parrot and major shore bird habitats
- › Wanggoolba Creek and surrounds with rainforest valley and associated King ferns
- › Yabba Creek to Mount Mudlo serpentinite woodlands having distinctive floristics and vegetation structure associated with geology that contrast with surrounding countryside, often having a dense understorey of grass trees or shrubs. Containing bioregion endemic taxa including narrow endemic species, disjunct taxa
- › Yabba forest and surrounding area having a high species richness and providing wildlife refugia, which contain the northern range limit of various wet sclerophyll and complex notophyll vine forest species, bioregion endemic taxa including narrow endemic taxa Wildlife refugia

Western reach

- › Allies Creek area having a high diversity of Eucalyptus spp and Acacia spp, with moderate richness of terrestrial vertebrates but a significant hotspot for threatened species habitat and disjunct populations of other taxa
- › areas containing significant sites for cave-roosting microchiropteran bats as likely maternity sites, or which contain large aggregations of breeding individuals or smaller roosting aggregations for selected species such as large-eared pied bat, eastern cave bat, eastern horseshoe bat, Troughton’s sheathtail bat, and/or sites at which multiple species occur
- › Barambah Creek Gorge area containing rugged landscapes on volcanics and duricrust remnants containing the incised watercourse of Barambah Creek with shrubby open forests and Eucalyptus spp woodlands of ironbarks and bloodwoods, small patches of vine thicket and riparian vegetation with forests containing hollow trees. Contains bioregion and bioregion ecotone endemic taxa including narrow endemic taxa
- › Bunya Mountains - moist topographic isolate mesotherm archipelago landscape with high ecosystem diversity and high species richness including the western range limits and/or disjunct populations of many species including rainforest birds, frogs and other fauna. Contains bioregion endemic taxa and high diversity of habitats as wildlife refugia including areas acting as refugia from climate change
- › Burra Burri Creek containing brigalow communities providing habitat for bioregion endemic and disjunct taxa including threatened taxa
- › core areas of relatively contiguous remnant vegetation with the long-term viability regional biodiversity values that are less susceptible to ecological edge effects and likely to sustain viable populations of flora and fauna taxa as refugia
- › Corymbia spp woodlands supporting high densities of hollow bearing trees that provide important habitat for fauna situated on a granite/duricrust isolate with endemic and/or disjunct taxa (including endangered or vulnerable species) and other disjunct taxa populations occurring on coastal sandy soils

- › Diamondy forests having species richness and significant concentration of habitat types including hollow bearing trees. Notable faunae include golden-tailed gecko, yakka skink, painted honeyeater, koala greater glider, yellow-bellied glider, brown tree creeper, speckled warbler and hooded robin
- › fragmented remnant vegetation landscapes with significant declines in biodiversity.
- › gilgai wetland systems generally dominated by *Acacia* and *Casuarina* spp with *Melaleuca*, *Corymbia*, *Eucalyptus*, *Astrebla* and *Dichanthium* species containing grasslands providing habitats for a range of threatened wildlife that use inundated gilgai as a water source at some stage of their life or are closely associated with the cracking clay soil habitat and wetlands
- › large contiguous lowland mature vegetation communities dominated by *Lophostemon* spp, *Eucalyptus* spp and *Corymbia* spp that support have significant wildlife refugial and nesting value due to their tendencies to form hollows plus moderate densities of existing hollow bearing trees giving habitat complexities across remnant communities in the bioregion
- › lowland rainforest & wet sclerophyll forest with a rainforest understory at elevations of < 300m and being of importance for mesic fauna and as drought/fire refugia
- › mountain coolabah remnants containing the southern limits of mountain coolabah woodlands on basalt hills providing important habitat for several threatened flora taxa
- › palustrine and lacustrine wetlands and waterbody complexes within the bioregion that act as important refugia, especially during periods of drought
- › poplar box open woodland on alluvium providing habitat for threatened or rare flora taxa and species that occur at or close to their known limit of range, and provide high densities of hollows as faunal habitat
- › relictual (ancient or primitive) ecosystems with significant declines in biodiversity representing important refuges in fragmented landscapes
- › riparian corridors encompassing diverse, dynamic and complex habitats incorporating both environmental and topographic gradients tending to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer term impacts associated with climatic change. Networks of major and minor riparian linkages providing significant elements of habitat continuity and migratory and dispersal pathways for a substantial number of species (especially birds, insects and flora, but also for many arboreal mammals and reptiles)
- › riparian lowland forest systems (other than riparian/gallery rainforests systems) exhibiting higher species richness and abundance than surrounding habitats which act as movement pathways along riparian systems for a number of species, especially birds, providing wildlife refugia and critical resources for many species in terms of food, shelter and nesting sites (especially in times of drought). Large trees in these systems act as a source of nest hollows for many species of birds, bats and arboreal mammals
- › sandstone ranges and gorges providing a large contiguous landscape of remnant vegetation is flora species rich, containing disjunct flora taxa or varieties at the range of their distributional limits and a centre of endemism with many of the endemic taxa also being threatened or near threatened. Has a very high fauna richness of terrestrial vertebrate taxa and high invertebrate richness. Numerous endemic species present including land snails and scorpion species and reptiles. Disjunct populations of stony creek frog and the major skink occur in the area. Other notable fauna includes large-eared pied bat, eastern long-eared bat, collared delma, Dunmall's snake, black-breasted button-quail and northern quoll
- › semi-evergreen vine thicket
- › Stalworth Range area containing remnants of vine thicket and woodlands on sandstone, or old loamy sand plains with concentrations of endemic, disjunct and/or threatened and rare taxa
- › terrestrial bioregional corridors that maintain connectivity across a landscape, either through "continuous linkages" or via "stepping-stones" of remnant vegetation, being key connections between remaining core tracts/nodes within the bioregion.

Schedule C – Dark sky area (overlay) code

The Dark Sky Area Code provides local governments along the coastline of the WBB region with assessment criteria to be reflected in their local planning schemes to ensure development does not adversely impact on sea turtle and shorebird activity, including their breeding, feeding, or resting activities. These local governments can adapt the model code to suit their local area. The code is based on the Sea Turtle Sensitive Area Model Code, produced by the (then) Department of State Development, Manufacturing, Infrastructure and Planning in 2019, amended to consider shorebird activity.

Purpose statement

The purpose of this code is to ensure that development in the Dark Sky Area identified in Dark Sky Overlay Map (Map 5) does not adversely impact on sea turtle and shorebird activity.

Specifically, this code seeks to ensure:

1. development avoids artificial lighting that is visible from the beach or the ocean
2. development avoids artificial lighting that contributes to sky glow within the Dark Sky Area

Performance outcomes and acceptable outcomes

Development occurring in the Dark Sky Area should demonstrate compliance with the relevant provisions of the following table.

Performance Outcomes	Acceptable Outcomes
Where development is located on land visible from the beach or ocean	
PO1 All interior and exterior lighting avoids illumination of the beach and ocean.	No acceptable outcome is prescribed.
PO2 No new beach access points are established unless the access is designed to reduce interference on sea turtle and shorebird activities, and there is no increase in the number of beach access points, with any replaced access fenced off and revegetated.	
All development in the Dark Sky Area (sky glow provisions)	
PO3 Development minimises the use and intensity (brightness/ luminance) of outside lighting to avoid reflection from the ground, buildings and other surfaces.	No acceptable outcome is prescribed.
PO4 Development minimises reflective glare that contributes to sky glow.	
Additional criteria for building and operational work	
PO5 Effective measures are implemented during the construction and operation of development to avoid impacts from lighting, noise and vibration on sea turtles and shorebirds.	No acceptable outcome is prescribed.

Glossary

Term	Definition
Active transport	Physical activity undertaken as a means of transport, such as walking or cycling.
Ageing-in-place	Being able to continue to live independently in the community but not necessarily in the family home. It can also mean in a downsized home, rented home (whether public or privately rented) or in alternative accommodation such as a caravan park or boarding house.
Agriculture	Agriculture As defined in the State Planning Policy.
Amenity	The quality of a location or landscape, which makes it pleasant or agreeable or which contributes to a comfortable and pleasant life.
Biodiversity	As described in the State Planning Policy.
Biofuel	Liquid fuels made from organic material, such as plants and animal material. There are currently two main types of biofuels being produced in Queensland – ethanol and bio-based diesel.
Burnett Mary Regional Group (BMRG)	The Burnett Mary Regional Group for Natural Resource Management Ltd. (BMRG) is the peak body for natural resource management (NRM) within the Burnett Mary region. Established in 2001, we are one of 56 national, not-for-profit regional bodies providing an essential link between the community and various programs procured by Government and other funding sources.
Carbon farming	Farming in a way that reduces greenhouse gas emissions or captures and holds carbon in terrestrial vegetation, marine plants and soils.
Climate change	The observed increases in global temperatures due to human activities, such as the burning of fossil fuels (coal, oil and natural gas), agriculture and land clearing. Changes in the climate include increases in global average air and ocean temperature; widespread melting of snow and ice, and subsequent rising global sea level; and increases in concentration of atmospheric carbon dioxide causing ocean acidification (Australian Government, Department of Environment and Energy).
Consolidated settlement pattern	The consolidation of urban development, which maximises the use of established infrastructure and services.
Disjunct populations/taxa	Populations/taxa broken by climatic, topographic or edaphic (soil based) barriers either needing to be bridged by long distance dispersal of propagules or considered as insurmountable barriers to dispersal as a result of geological rather than an ecological/behavioural changes.
Ecological functions/ functionality	Any process or set of processes that can change (over time) an ecological system. An ecological system could be an ecosystem but can be smaller or larger. An ecosystem function is limited to the ecosystem.

Term	Definition
Ecological processes	<p>The components of an ecosystem (including plants, wildlife, water, soil and atmosphere) and how they interact with each other, both within and across ecosystems. Ecological processes include:</p> <ul style="list-style-type: none"> › hydrological processes › soil development › nutrient recycling › pollination and seed production and dispersal › predator–prey relationships › germination and recruitment of species › the carbon cycle and stability of atmospheric carbon <p>Impacts on these processes may affect the resilience of an ecosystem. Protecting these processes as part of development can assist in maintaining biodiversity.</p>
Ecosystem function	See ‘ecological functions’ definition
Ecosystem services	<p>Refers to the goods and services provided by ecosystems that benefit, sustain and support the environmental, social and economic well-being of people. These include provisioning services such as food and water, as well as goods for economic benefit (fibre, medicines, tourism income derived from cultural services), regulating services such as regulation of floods, drought, land degradation, and disease, supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious, aesthetic appreciation and other non-material benefits.</p> <p>Ecosystem services are a component of biodiversity and landscape values but are distinct in that they relate to the value/benefits provided to humans.</p>
Endemic taxa	Taxa that have at least 75% of their geographical range within one bioregion.
Environmental attributes	For the purposes of the regional plan, means an attribute of the environment identified in schedule B.
Fragmentation or fragmenting	<p>Means the loss of habitat areas that allow wildlife to move through the landscape that results in either: a patch of intact habitat being separated into one or more smaller patches of isolated habitat, corridors being disconnected or isolated from another habitat area by removal of the vegetated corridor, or</p> <p>patches of habitat that are connected via vegetation acting as steppingstone(s) (i.e., corridors that are not continuous) being disconnected or isolated from the other patch by the removal of the steppingstone(s).</p>
Infrastructure networks	Major infrastructure networks in the region including water supply, wastewater, energy, telecommunications and transport.
Knowledge industries	Trends and activities that increasingly depend on knowledge, information and highly skilled personnel and organisation, meeting an increasing need for ready access to all these by business and public sectors.
Landscape connectivity	The movement of species across the landscape that is facilitated by: large areas of habitat linear corridors that range in size from smaller corridors connecting relatively close areas of habitat to landscape corridors connecting more distant areas small patches of vegetation that provide habitat and serve as ‘stepping-stones’ to aid the movement of native species between larger habitat areas vegetation buffers that mitigate edge effects.

Term	Definition
Landscape integrity	A landscape's naturalness and capacity to continue delivering ecosystem services and landscape values, or its inverse, the level of human modification and its impact on ecosystem services and landscape values.
Landscape values / regional landscape values	Landscape values relate to the cultural ecosystem services (e.g., recreational and aesthetic appreciation of a landscape), and provisioning ecosystem services (e.g., tourism income derived from cultural services) derived from landscape features in the region. Regional landscape values are areas within the region with the highest co-location of landscape values. Landscape values are distinct from regional biodiversity values in that these values are not prioritised for their role in ecosystem function and associated ecological processes (although this role exists).
Matters of local environmental significance (MLES)	Natural values and/or areas identified by a local government in a planning instrument as MLES that are not the same, or substantially the same, as MNES or MSES.
Matters of national environmental significance (MNES)	The following matters protected under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> , chapter 2, part 3: world heritage properties national heritage places wetlands of international importance listed threatened species and communities listed migratory species Commonwealth marine areas the Great Barrier Reef Marine Park.
Matters of state environmental significance (MSES)	Matters of state environmental significance are prescribed environmental matters under the Environmental Offsets Regulation 2014 that require an offset when a prescribed activity will have a significant residual impact on the matter.
Natural economic resources	A variety of natural resources that sustain economic development and provide value or benefit to society.
<i>Planning Act 2016</i> (Planning Act)	The Planning Act provides for an efficient, effective, transparent, integrated, coordinated and accountable system of land use planning and development assessment to facilitate the achievement of ecological sustainability.
Priority Agricultural Land Use (PALU)	A land use included in the following classes under the Australian Land Use and Management Classification (Version 8, October 2016) published by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES): <ul style="list-style-type: none"> • 3.1 – Plantation forestry • 3.3 – Cropping • 3.4 – Perennial horticulture • 3.5 – Seasonal horticulture • 4.0 – Production from irrigated agriculture and plantations • 5.1 – Intensive horticulture • 5.2 – Intensive animal husbandry
Priority Living Area (PLA)	As defined in the RPI Act.
Ramsar wetland	Wetlands that are representative, rare or unique, or are important for conserving biological diversity. An area that has been designated under Article 2 of the Ramsar Convention or declared by the Minister (Commonwealth) to be a declared Ramsar wetland under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). Ramsar wetlands are recognised as a matter of national environmental significance under the EPBC Act. Consequently, an action that has, will have, or is likely to have, a significant impact on the ecological character of a Ramsar wetland must be referred to the Minister (Commonwealth) and undergo an environmental assessment and approval process.

Term	Definition
Regional Biodiversity Corridor (RBC)	Corridors that provide for landscape connectivity or could provide for landscape connectivity through targeted rehabilitation in strategic rehabilitation areas, including within areas identified in Figure 7 as potential agroforestry/reforestation areas.
Regional Biodiversity Network (RBN)	The network of national parks, strategic environmental areas (SEAs) and regional biodiversity corridors (RBCs), across the region.
Regional biodiversity values	The intrinsic values of biological diversity at the regional scale, to the living organisms and the ecosystem services derived from that biodiversity. These areas contain a high concentration of biodiversity values, and may include MNES, MSES, and MLES.
<i>Regional Planning Interests Act 2014</i> (RPI Act)	The RPI Act manages the impact of resource activities on areas of the state that contribute, or are likely to contribute, to Queensland's economic, social and environmental prosperity.
Rural residential development	Development of lots generally between 1–5 hectares used for private residence, and not primarily associated with agriculture.
Shorebirds	Shorebirds, also known as waders, inhabit the shorelines of coasts and inland water bodies for most of their lives. There are several shorebirds in the WBB region that are considered threatened wildlife, including: the curlew sandpiper (<i>Calidris ferruginea</i>) the eastern curlew (<i>Numenius madagascariensis</i>) the great knot (<i>Calidris tenuirostris</i>) the lesser sand plover (<i>Charadrius mongolus</i>) the red knot (<i>Calidris canutus</i>)
Sky glow	Is an increase in the brightness of the night sky caused by the reflected light scattered from particles in the atmosphere, sometimes referred to as 'light pollution'
Species diversity	Number of different species present and the relative abundance of each of those species.
Species richness	Measure of the variety of species based simply on a count of the number of species.
State Planning Policy	As defined in the Planning Act.
Strategic Environmental Area (SEA)	As defined in the RPI Act.
Strategic rehabilitation areas	Threatening processes are activities that directly threaten the survival of wildlife or adversely impact on landscape integrity and ecological processes. Examples of threatening processes are: climate change, dams and other waterway barriers that block the passage of aquatic species, vegetation clearing from agricultural expansion (land for crops, livestock, timber and aquaculture), human habitats and infrastructure (urban, transport and energy development), and mining and extractive resources introduced invasive species and domestic animals that compete with wildlife for resources, spread disease and parasites, prey on wildlife, and destroy nests runoff (sediment, nutrients, pesticides, accidental water pollution from chemical spills and tailings overflow etc.) that reduces water quality overexploitation of natural resources (overfishing, forest logging)
Threatened wildlife	Means native wildlife that is prescribed under the <i>Nature Conservation Act 1992</i> as:(a) extinct wildlife; or (b) extinct in the wild wildlife; or (c) critically endangered wildlife; or (d) endangered wildlife; or (e) vulnerable wildlife
Wildlife refugia	Microhabitats providing spatial and/or temporal protection from disturbances or advantages in biotic interactions (e.g., mound springs, caves, wetlands, gorges, mountain ranges and topographic isolates that act as shelters from clearing, random events (fire, flood, drought) and exotic animals).

Abbreviations

Acronyms	
BMRG	Burnett Mary Regional Group
MLES	Matters of local environmental significance
MNES	Matters of national environmental significance
MSES	Matters of state environmental significance
NRM	Natural resource management
Planning Act	Planning Act 2016
RPI Act	Regional Planning Interests Act 2014
SEA	Strategic environmental area
SEQ	South East Queensland
SPP	State Planning Policy
WBB	Wide Bay Burnett
WBBROC	Wide Bay Burnett Regional Organisation of Councils

Reference documents

The following provides an overview of key reference documents used to inform the draft WBB Regional Plan. This does not represent an exhaustive list of resources rather those that have heavily influenced and assisted in shaping the plan.

State

- › State Planning Policy 2017
- › State Infrastructure Plan
- › Reef 2050 Water Quality Improvement Plan 2017-2022
- › Queensland's Economic Recovery Plan 2020
- › Energy from Waste Policy Queensland 2020
- › Queensland Waste and Resource Recovery Report 2019
- › Queensland Biofutures 10-Year Roadmap and Action Plan 2016
- › Land Use Planning, Aboriginal and Torres Strait Islander Cultural Heritage and Native Title 2019
- › State of the Nation's Housing 2020
- › Queensland Economic Recovery Plan
- › Queensland Transport & Roads Investment program 2020-2023
- › Social housing design guideline: A Q Companion document 2021
- › Healthy Places, Healthy People Report- Creating great places to keep Queenslanders healthy- April 2021
- › latest releases of statistics and data on demographics, economy and social statistics from sources such as QGSO, the ABS Centre for Population, Economy and NIEIR.

Regional

- › Wide Bay Regional Economic Recovery Plan 2020
- › Wide Bay Burnett Economic Development Strategy 2019-2024
- › Wide Bay Burnett Regional Transport Plan 2019
- › Burnett Catchment Flood Resilience Strategy 2018
- › Mary Regional Resilience Strategy 2020
- › Wide Bay Regional Economic Recovery Plan
Wide Bay Burnett Minerals Region Investment Prospectus

Local

- › Local Government Coastal Hazard Adaptation Strategies
- › Local Economic Development Strategies (Bundaberg 2020, Fraser Coast Economic Roadmap, North Burnett Economic Development and Innovation Strategy)
- › Local Resilience Strategies
- › Local Government Community Plans
- › Local Government Planning Schemes
- › environmental and natural hazard strategies and assessments such as, Gympie Regional Water Supply Security Assessment 2016, Gympie Environmental Strategy 2018, Gympie Regional Flood Mitigation Study 2013, Bundaberg Flood Protection Study and Action Plan, GBR Region Strategic Assessment, Draft Climate Change in the Wide Bay Burnett region fact sheet and the National Land Use Planning Guidelines for Disaster Resilience
- › Bundaberg North Burnett Regional Tourism Workforce Plan 2018-2020, Gympie Region Strategy Tourism Strategy 2019-2024 and the Fraser Coast Destination Tourism Plan 2017
- › Queensland Government publications such as Toward Q2, Queensland Climate Transition Strategy 2017, the Reef 2050 Plan, QCoastal 2100, Resilient Queensland in Action 2020 and relevant SPP guidance material
- › documentation from federal organisations, such as the National Disaster Risk Reduction Framework 2018 and the Hinkler Regional Deal Implementation Plan 2020



Sprayers Drone, Eden Farms



