ShapingSEQ 2023 Background Paper 3: Connect Theme

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Government

Department of State Development, Infrastructure, Local Government and Planning

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Contents

List of acronyms

CBD	Central Business District
LGA	Local Government Area
MEIA	Major Enterprise and Industrial Areas
PAF	Performance Assessment Framework
PCNP	Principal Cycle Network Plans
PT	Public Transport
QGIP	Queensland Government Infrastructure Pipeline
QTRIP	Queensland Transport and Roads Investment Program
REC	Regional Economic Cluster
RSI	Region-shaping infrastructure
RTP	Regional Transport Plan
SEQ	South East Queensland
SEQIP	South East Queensland Infrastructure Plan
SEQIS	South East Queensland Infrastructure Supplement
SIS	State Infrastructure Strategy
TMR	Department of Transport and Main Roads

Introduction

The South East Queensland Regional Plan, ShapingSEQ is the strategic land use plan for South East Queensland (SEQ), providing a regional framework for growth management. ShapingSEQ 2017 identified that an update of the plan is anticipated between 2022 and 2024. On 20 October 2022, the former Premier and Minister for the Olympic and Paralympic Games, the Honourable Annastacia Palaszczuk, committed to a review of ShapingSEQ 2017 as a key outcome from the Queensland Housing Summit, and ShapingSEQ 2023 was publicly released in December 2023.

The primary purpose of the review of ShapingSEQ was to ensure its land and housing supply settings are fit for purpose and responsive to current growth, and to provide for an enhanced framework to engage with local governments to accelerate delivery of more housing.

The scope of the review of ShapingSEQ was therefore limited to four focus areas including: housing supply and diversity; economic centres and jobs; policy and infrastructure alignment; and implementation assurance. Of relevance to Connect, the scope was limited to:

» Updating infrastructure planning, services and connectivity to 2046 to deliver growth in locations with existing and planned infrastructure and public transport.

» Integrating new and emerging policy to reflect current policy position.

» Supporting current and future investment in major infrastructure, projects and initiatives (Brisbane 2032 Olympic and Paralympic Games, SEQ City Deal).

» Alignment with the SEQ Infrastructure Supplement (SEQIS).

The purpose of this paper is to identify key data, policy, legislation, trends and other changes that have occurred since ShapingSEQ 2017 as they relate to the scope of the review for the Connect theme. This paper informed, supports and provides background material for ShapingSEQ 2023, including key policy under the Connect theme.

This paper builds upon the ShapingSEQ Connect theme background paper released in 2017 to support the preparation of ShapingSEQ 2017.

The role of ShapingSEQ

Regional planning in Queensland and South East Queensland (SEQ) has been conducted since the 1990s, and originally provided non-statutory growth management policies for consideration. Statutory regional plans have since evolved to support the changing needs and aspirations of Queensland's regions and are now comprehensive statutory policy documents informed by detailed data modelling and with statutory mechanisms for policy implementation and review.

ShapingSEQ sets planning direction for sustainable growth, global economic competitiveness and high-quality living. The regional plan responds to the region's projected growth, and the opportunities and challenges associated with current and projected trends.

It guides the future of the SEQ region, encompassing the 12 local government areas (LGAs) of Brisbane, Gold Coast, Ipswich, Lockyer Valley, Logan, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and Toowoomba (urban extent).

ShapingSEQ allocates all land in SEQ into one of three regional land use categories: Urban Footprint, Rural Living Area (RLA) and the Regional Landscape and Rural Production Area (RLRPA). In doing so, it provides a framework for delivering efficient urban and rural residential growth, a more compact urban form, economic agglomeration, and the protection and sustainable use of SEQ's natural assets, landscape and productive rural areas.

ShapingSEQ provides a framework of outcomes and strategies that support effective and sustainable regional planning and growth management. These include:

» Geographically defined consolidation in relation to growth management (Urban Footprint).

» Regional integration of governance that drives the relationship between policy direction and stakeholders and identifies goals, principles and stakeholder responsibilities in addressing these.

» Infrastructure and economic development linked to the regional distribution of population and residential growth.

» Protection of broader landscape values, services and amenities of natural, rural and agricultural production landscapes.

» Prescribing ongoing monitoring and benchmarking of growth, development forms, land supply and the Urban Footprint.

A summary of the achievements from the last five years of implementing ShapingSEQ 2017 can be found in ShapingSEQ Background Paper 1: Grow.

ShapingSEQ 2023 is a part of the Queensland Government's response to the National Housing Accord and National Planning Reform Blueprint. The plan has a critical role to play in setting effective and responsive policies that facilitate the delivery of diverse and well-located homes to meet the housing needs of South East Queenslanders today and into the future.

In response to projected population growth to 2046 ShapingSEQ 2023 sets dwelling supply targets and diversity sub-targets for each LGA as well as well as a region wide social and affordable housing sub-target. The place-based allocation of dwelling targets with sub-targets for housing mix in each LGA is a nation-leading approach with the purpose of setting clear expectations around how SEQ will sustainably accommodate the projected population growth to 2046. This will assist in delivering on the State's commitment to the National Housing Accord target of 1.2 million well-located homes.

Implementing ShapingSEQ 2023 will require ongoing collaboration, commitment and coordination across all levels of government, First Nations peoples, the industry and the community. Each stakeholder has a role to play in responding to the current housing challenges experienced across SEQ and the overall achievement of the longer-term vision for SEQ. To guide this collaboration and provide greater assurance to all stakeholders and the community on the delivery of ShapingSEQ 2023, a new approach to implementation, governance, monitoring and reporting has been established (refer to the ShapingSEQ Background Paper 6: Implementation).

ShapingSEQ 2023 maintains the fundamental elements of ShapingSEQ 2017, including the five themes underpinning the 50-year vision for SEQ: Grow, Prosper, Connect, Sustain and Live.

Connect theme defined

The Connect theme focuses on the relationship between transport and land use, how it affects land use pattern, and how it affects the movement of people to access work and services, and social interactions. Key related considerations include:

» Encouraging a mode shift to passenger transport supported by a network of frequent and reliable public transport services along key corridors.

» Encouraging active transport as a preferred mode of transport for journeys to work, connecting to public transport and local trips.

» Connectivity across the network of centres in SEQ.

» The interrelationship with economically important freight movement.

» How the land use pattern is informed by the transport system and supports transport investment through integration of land use and transport planning outcomes.

The Connect theme recognises that the movement system across SEQ, including the method and ease of travel, is critical to shaping and supporting growth across the region. Recognising the importance of integrating land use and transport planning, the Connect theme addresses transport matters that have a strong inter-relationship with the land use planning policy directions of ShapingSEQ 2023. The matters identified in the Connect theme set the foundation and parameters for a transport response to the preferred land use pattern identified in the regional plan. These will be unpacked in more detail through further transport planning activities undertaken as part of the Regional Transport Plans prepared by the Department of Transport and Main Roads (TMR).

The review of the Connect theme advances the purpose of ShapingSEQ 2023 by:

» Updating the elements and strategies to reflect transport policy directions set post 2017 in areas, such as active transport and Movement and Place, as well as key TMR strategies released since 2017 – including SEQ Rail Connect.

» Ensuring the outcomes, strategies and maps reflect and complement the more detailed transport planning findings presented in the SEQ Regional Transport Plans released in 2021.

»   Utilising the Model for Urban Land Use and Transport Interaction (MULTI) Model to inform analysis of the impact of anticipated growth on the transport network to 2046.

Review of the Connect theme has been underpinned by collaborative development of all transport related components with TMR.

The Connect theme has a strong relationship with the Grow theme, which is focused on establishing the preferred land use pattern accompanied by dwelling supply targets and targeted policy directions to support housing diversity and affordability. The policy outcomes sought for the transport system and the identified strategic transport system at 2046 have been developed in direct response to changes in the land use pattern set out in the Grow theme.

There is also a strong relationship to the employment location and accessibility issues considered by the Prosper theme. The Prosper theme is focused on building on the economic strengths of SEQ to encourage more jobs close to where people live and more people where the jobs are. Critically the Prosper theme highlights the importance of improved connections between where people live and work.

Connected public transport increases the opportunity for productivity by moving people, and their skills and knowledge, within and between economic markets. In more densely populated environments where private vehicle usage is constrained by the impacts of congestion, public transport infrastructure and services can facilitate increased employment opportunities that are attractive to both employers and workers. Providing a frequent and reliable public transport network is a crucial component of achieving this vision as it provides the ability to connect population and employment nodes and offers the opportunity for geographically dispersed populations to contribute productively to the economy. The freight network also plays a key role in linking key productive areas and regional economic corridors and the role of the rail and road freight network in SEQ is reflected in both the Prosper and Connect themes.

Active transport modes such as walking and bike riding play a critical role in local trips by connecting people to services, education, and work. Providing safe, comfortable, and direct active transport infrastructure to facilitate this is important, and must be underpinned by integrated land use management planning.

The movement system in SEQ is fundamental in achieving sustainable social outcomes, including affordable living, and contributing to the liveability of the region for SEQ's communities, as addressed by the Sustain and Live themes. A key element of the sustain theme of ShapingSEQ is addressing climate change through minimising greenhouse gas emissions in which the transport system will play an important role. A key element of the Live theme is the creation of an integrated network of legible and connected streets and spaces that are comfortable for all users which is important in supporting local movement, particularly active transport modes, and micro-mobility.

Connect theme background

The integration of land use and transport planning was a focus of the Connect theme in ShapingSEQ 2017, establishing a clear policy direction aligning the land use pattern in SEQ with an efficient transport system.

Understanding how the transport system has shifted since 2017 and the relationship of these shifts to land use planning can assist in identifying trends that are important background for updates to the Connect theme. Understanding these trends helps to inform what the considerations are for the Connect theme in preparing ShapingSEQ.

Transport planning and policy

Since 2017 further policy direction and support for integration of land use and transport planning has emerged and there are multiple areas where progress has been made in implementing policy outcomes sought in ShapingSEQ 2017.

The following policy documents and strategies released since ShapingSEQ 2017 was delivered.

- » Queensland Cycling Strategy 2017-2027 (TMR) – re-released in 2023
- » Transport Coordination Plan 2017-2027 (TMR) – released October 2017
- » Queensland Transport Strategy (TMR) – released in March 2019
- » Queensland Freight Strategy (TMR) – released in March 2019
- » Queensland Walking Strategy 2019-2029 (TMR) – released in July 2019
- » Creating Better Connection for Queenslanders (TMR) - released in August 2022
- » SEQ Rail Connect (TMR) – released in August 2022
- » Queensland's Zero Emission Vehicle Strategy 2022-2032.

These documents have been reviewed and key policy directions relating to land use planning have been considered in updates to the Elements and Strategies from the 2017 plan.

Regional Transport Plans

Queensland's suite of Regional Transport Plans (RTPs) covers the entire state and support TMR's vision of 'connected communities in a sustainable, thriving and inclusive Queensland'. The RTPs consider all modes of transport, regional demographic and industry changes, local government land use, and transport planning.

RTPs define priorities for developing Queensland's transport system and outline the planning actions that will guide future investment over a 15-year horizon in a way that supports regional goals for the community, economy, and environment.

Figure 1 - Extract from ShapingSEQ 2017- Delivery Chapter Table 21[1]

Purpose	Action	Responsibility	High priority	Medium priority
Key infrastructure initiatives that support the vision for SEQ To ensure *ShapingSEQ's* long-term aspirations are backed by leading infrastructure solutions and initiatives.	**State Infrastructure Planning/Regional Transport Plans** To ensure alignment with infrastructure needs identified in *ShapingSEQ*: ▲ DILGP's Infrastructure Portfolio Office (IPO) to work with infrastructure providers to align infrastructure planning actions and progress infrastructure priorities in line with *ShapingSEQ*. ▲ DTMR to prepare Regional Transport Plans (RTPs) for SEQ to consider strategic transport network needs and priorities to support the growth identified in *ShapingSEQ*. ▲ DTMR to undertake regular review of Principal Cycle Network Plans for SEQ to guide further planning and design of cycle facilities to support the growth identified in *ShapingSEQ*. ▲ Consistent with the State Infrastructure Plan, DILGP's IPO to oversee a program of Infrastructure Coordination Plans for the SEQ local government areas.	DILGP (IPO) (lead) DTMR SEQ local governments Infrastructure providers	✅	
Northern inter-urban break investigation To determine the extent, values and intended uses of SEQ's northern inter-urban break and ensure long-term protection.	DILGP to work with MBRC, SCC and state agencies, to determine the extent of the northern inter-urban break and identify additional means of securing it for the long-term.	DILGP (lead) MBRC SCC DEHP DNPSR DTMR DNRM DAFF	✅	

The preparation of the SEQ RTPs was an implementation action from ShapingSEQ 2017 as shown in Figure 1. TMR prepared the SEQ RTPs and released them in 2021. Additionally, since 2017 the state government has prepared and released the State Infrastructure Strategy (SIS) and announced a suite of Regional Infrastructure Plans to be developed, including SEQ (for which an interim Infrastructure Supplement was released alongside ShapingSEQ in December 2023). Both the SEQ RTPs and SIS have been considered in updates to the Connect theme in ShapingSEQ 2023. TMR continues to roll out policy and strategy documents relating to active transport including the Queensland Walking Strategy 2019-2029 and regular reviews of the Principal Cycle Network Plan for SEQ.

The RTPs define priorities for developing the transport system by outlining planning actions to guide future investment decisions.

Delivery of the SEQ RTPs provided a transport response to the policy intent of ShapingSEQ 2017 and the land use pattern set out in the plan. Delivery of the SEQ RTPs was an implementation action from ShapingSEQ 2017, providing more detailed network planning and a range of actions to guide transport planning to support growth through to 2041. The actions outlined in the SEQ RTPs span both infrastructure and non-infrastructure solutions and apply across a range of modes.

TMR will review and update the SEQ RTPs following the release of the updated ShapingSEQ 2023 and is collaboratively engaging with relevant local governments and state agencies as part of refresh to ensure currency, local input and support.

Regional planning and regional transport planning in SEQ are comparatively mature. ShapingSEQ is the third statutory regional plan developed for SEQ. These RTPs for SEQ replace the previous regional transport plan, Connecting SEQ 2031.

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[1] ShapingSEQ South East Queensland Regional Plan 2017, Department of Local Government Infrastructure and Planning, 2017

The North Coast, Metropolitan and South Coast RTPs provide a SEQ transport planning response to support the ShapingSEQ goals of Grow, Prosper, Connect, Sustain and Live. Connect – moving people and products efficiently – has been adopted as the overarching mandate for the SEQ RTPs

The alignment between ShapingSEQ and the SEQ RTPs is shown in Figure 2.

Figure 2 - Alignment of ShapingSEQ and Regional Transport Plans

Changes in mode share

Travel in SEQ is largely by private vehicle, with people using their cars to access employment, education and essential services. Getting people to take a greater proportion of their trips using active transport and public transport is an important shift that will support more sustainable and efficient movement of people across SEQ.

Since the release of ShapingSEQ 2017 there have been shifts and changes with people choosing to walk and ride bikes more, and mode share of public transport growing through to 2019[2].

Public Transport mode share has decreased for trips in SEQ from 6.5% in 2019, to 4.4% in 2021. People are choosing to walk and ride bikes more, with bicycle and pedestrian mode share increasing in SEQ. Walking mode share shifted from 8.7% in 2019 to 9.3% in 2021. Bike riding shifted from 1.5% in 2019 to 1.8% in 2021.

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[2] TMR 2023, Queensland Transport Snapshot,

Figure 3 - Public transport patronage since 2019

2019/20   2020/21   2021/22   2022/23
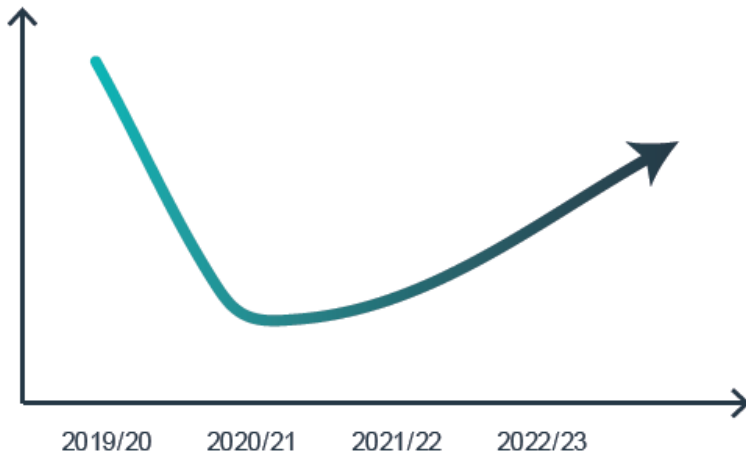
Source: TMR, 2023

The impact on public transport patronage because of changes in travel behaviour due to the COVID-19 pandemic is shown in **Figure 3**. Whilst use of public transport has declined there has been a rebound with patronage on public transport services has increased since 2020[3], heading toward pre-pandemic levels.

Access to essential services by active and public transport is an important metric in understanding how land use pattern and transport can be integrated to allow for more people to access services by more sustainable transport modes. Across SEQ there is a growing number of people who can use active and public transport to access essential services[4].

Access to Essential Services

38.3%
of the population can access essential services in less than 30 minutes using PT

proportion of population with good accessibility to a range of essential services using public transport has remained stable since 2016

Essential Services

the proportion of the population that can access essential services in less than 30 minutes via

walking is **11.6%** and

72.7% via bike riding

Efficient freight movements

There has been a reduction in travel time reliability on some freight routes across SEQ since 2018 which can impact the efficiency of freight movements[5]. Since ShapingSEQ 2017 there have been a range of projects, such as the Toowoomba Bypass, as well as continued investment in the road network throughout SEQ to sustain or improve efficiency of freight connections and promote greater accessibility to essential services and employment nodes. The travel time reliability on freight routes via Toowoomba Bypass have significantly improved in this time. There has however, been a reduction in travel time reliability on

Travel time reliability during 2021/22 period has decreased

Reduction in travel time reliability can impact freight efficiency

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[3] TMR 2023, Queensland Transport Snapshot,
[4] TMR 2023, Queensland Transport Snapshot,
[5] TMR 2023, Queensland Transport Snapshot,

some freight routes within SEQ since 2018, as congestion in SEQ gradually increases with population. Ongoing investment in the road network will either improve or will help to offset travel time reliability impacts, as the population and traffic continues to increase.

Low emission vehicles

Green house gases and carbon dioxide emissions have **decreased** for all vehicles between 2016/17 and 2020/21 – except for freight related movements

between
2,938 and 3,447 tonnes
of tailpipe emissions were saved across Queensland by using green energy in July 2023

Overall, greenhouse gases have decreased for all vehicles across Queensland. This is largely as a result of increasing electric vehicle ownership and technological advances that improve fuel efficiency as well as cultural changes in recent years around working from home.[6]

Battery electric vehicles make up about 0.5% of the vehicle fleet across SEQ, with the largest growth in ownership of of battery owned vehicles occurring in inner-city and inner northern suburbs of Brisbane, as well as Noosa Heads and Gold Coast City[7].

Data collected on electric vehicle charging stations found that between 2938 and 3447 tonnes of tailpipe emissions were saved across Queensland by using green energy in July 2023 [8]

Climate Resilience

Queensland has long experienced the impacts of extreme weather including floods, heatwaves, bushfires and tropical cyclones. Climate change is expected to worsen the frequency, intensity and impacts of these weather events. [9] In the recent years, SEQ has experienced a number of natural disasters including the bushfires of 2020 and the flooding event of 2022. It is clear following these events that that there is a need for the region to have sufficient information and resources to consider risks and be more prepared for extreme events.

Natural disasters and events provide the opportunity improve resilience within communities. This means matching housing to community and environmental issues. Since the bushfire and flooding events, there has been an increase in natural disaster resilient buildings and housing initiatives to minimise these damages to the property as well as costs and inconveniences.[10]

Where existing residential areas are materially impacted by hazards this is noted and managed through local planning instruments and reflected in regional polices. Planning for future growth areas must consider known hazards.

Brisbane 2032

In 2032, Queensland will host the world's largest sporting event, the Summer Olympic and Paralympic Games (the Games). This presents a once in a lifetime opportunity for the region in terms of infrastructure investment, employment and economic growth, and sporting, social and cultural outcomes for residents.

The Games provide the opportunity for planned infrastructure projects to be scoped to support both the Games and long-term sustainable growth for the region. This event is anticipated to accelerate the delivery of key venues and infrastructure to support future population growth and increased tourism activity within SEQ.

Games venues are being purpose designed to meet local needs while providing for Olympic and Paralympic competition, which can then be repurposed for longer-term use.

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[6] TMR 2023, Queensland Transport Snapshot

[7] TMR 2023, Queensland Transport Snapshot

[8] Queensland Government 2023, "Electric vehicle snapshot July 2023" https://www.qld.gov.au/transport/projects/electricvehicles/zero-emission-strategy/electric-vehicle-snapshot-july-2023

[9] United Nations. Climate Action – at February 2022

[10] Resilient Homes Fund. Queensland Government – 19 April 2023

Both mass transport and active transport infrastructure is required to support the Games transport demands and support SEQ's growing population. This growth will generate more demand for travel and more travel options. Networks and operations will need to be enhanced through a range of infrastructure and non-infrastructure solutions, increasing capacity and expanding the reach and capacity of the public transport network. Many of the projects that will support the games time transport response are underway.

City Deal

In March 2022, the Federal Government, Queensland Government and Council of Mayors (SEQ) signed the SEQ City Deal which is a 20-year commitment to look at what investments will be needed now and in the future to ensure SEQ is a great place to live and work. The deal focuses on achieving four overarching outcomes:

- » Accelerating future jobs
- » Building a faster and more connected region
- » Creating a more liveable region
- » Creating thriving communities.

Project commitments under the City Deal which will contribute to the SEQ transport network include:

- » SEQ Rail Corridor Digital Connectivity
- » Kangaroo Point Green Bridge (commenced in late 2021, expected completion 2024)
- » Brisbane Metro – Woolloongabba Station (expected completion 2030)
- » Brisbane Metro – South Bank Transport Study
- » Loganlea-Meadowbrook Infrastructure
- » Dunwich Ferry Terminal Upgrade
- » Road Safety Mapping
- » Ipswich - Springfield Public Transport Corridor Options Analysis
- » Southern Gateway Strategic Corridor Planning
- » Brisbane Valley Highway Safety Upgrades (first phase of safety upgrades completed, further works beginning mid 2023)
- » Planning for Future Region-Shaping Infrastructure: Regional Freight Movement Study; Open Level Crossing Prioritisation.

These projects will build on existing investments including Cross River Rail, Brisbane Metro and Direct Sunshine Coast Rail Line.

Emerging challenges and opportunities

The primary challenges and opportunities for consideration in the Connect theme relate to achieving a mode shift toward more sustainable modes of transport such as active and public transport. Getting more people walking and riding bikes, as well as using public transport, will support a more consolidated land use pattern across SEQ that has strong connections between centres and more people living close to employment, education and essential services.

The key challenges and opportunities relating to this mode shift are discussed below.

COVID-19 recovery

The COVID-19 pandemic significantly disrupted our lives and greatly impacted transport networks across the globe, and SEQ was no exception. The use of public transport, and any unnecessary movement, dropped drastically due to lockdowns. In recent years, the network has since recovered with public transport patronage on government contracted services within SEQ reaching 153.25 million during 2022-23, which is over 4 million trips above the estimate of 149.18 million[11]. Rail came in under target but continues to recover. Light rail, buses, and air travel all performed better than expected, with air passenger travel 24 per cent above 2021-22 figures, and 40 per cent above 2020-21[12].

Although it may be expected that all travel will eventually return to pre-COVID levels, the challenges caused by the pandemic have resulted in shifts in how, when, and why SEQ residents travel. TMR undertook research to assess the impact of COVID-19 on traffic and public transport usage and found that remote working and studying options have greatly increased, causing changes to usual travel patterns. While it is currently unclear how these patterns will continue to evolve over coming years, TMR will continue to monitor long-term trends and invest in new and alternative data sources to ensure planning for future transport systems within SEQ remain flexible to face any unexpected challenges.

Active transport

With the release of the updated Queensland Cycling Strategy (2023) and Queensland Walking Strategy (2019) there has been a growing emphasis on active transport modes such as walking and bike riding. The shift in travel patterns during the COVID-19 pandemic saw the importance of connectivity to local centres and parks via footpaths and bikeways highlighted. Infrastructure improvements, such as the V1 (Veloway between South Brisbane and Underwood), and delivery of dedicated bike paths and pedestrian-friendly areas by local government, have been implemented to encourage people to choose these modes for short trips.

Whilst mode share of active transport has increased, the accessibility to a range of essential services via walking and bike riding has overall remained stable across SEQ. Access to services via bike riding remains fairly high with 72.66 per cent of the population travelling less than 30 minutes to access essential services in 2020[13]. This reinforces the importance of a land use pattern that encourages people to live close to services and facilities and in areas that can be well serviced by active transport infrastructure. Continued investment in infrastructure that supports active transport will be required to reduce travel times, promote greater equity and healthier lifestyles.

Public transport

A focus in ShapingSEQ 2017 was to achieve a shift toward more trips being made by public transport. Despite this focus, the mode share of public transport has declined since 2019, due to impacts of the COVID-19 pandemic. Continued strong policy direction and significant investment will likely be required to achieve the mode shift required to public transport to support population.

Over the past five years, there has been ongoing growth in the public transport network across SEQ with the introduction of new services and updates to existing services in response to transport needs of the community. This growth will be supported through infrastructure upgrades such as the Cross River Rail project, Brisbane Metro,

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[11] TMR, 2023, Annual Report 2022-23

[12] TMR, 2023, Annual Report 2022-23

[13] TMR 2023, Queensland Transport Snapshot, section2.5 (internal TMR site, looking at the graph)

extension of the South East Busway to Underwood and the Logan to Gold Coast Faster Rail, all of which will improve rail and bus capacity and connectivity across the region.

The SEQ RTPs have a strong focus on increasing the number of people using public transport. Additionally, TMR released Creating Better Connection for Queenslanders (TMR, 2022) which set out the 10-year plan to achieve more reliable, seamless and frequent services. Additionally, a major network planning exercise for the SEQ rail network came to fruition with SEQ Rail Connect (TMR, 2022) which set the blueprint for investment in the rail network to support growth.

There has been a focus on the improved integration of various modes of public transport, including buses, trains, and ferries. Initiatives such as the Smart Ticketing project are being rolled out with the intent to make it easier for commuters to use multiple modes of transportation seamlessly.

Sustainable transport initiatives

TMR has been implementing sustainable transport initiatives to reduce carbon emissions and improve air quality. This includes the promotion of hybrid and electric buses and electric vehicles (EVs), the use of renewable energy sources for public transport infrastructure, and the encouragement of carpooling and car-sharing programs. The government has supported the adoption of EVs by expanding charging infrastructure and offering incentives to encourage their use.

Policy documents such as the Zero Emission Vehicle Strategy 2022-2032 and The Future is Electric: Queensland's Electric Vehicle Strategy set a clear direction that supports the overarching Queensland Climate Action Plan.

Movement and place

Movement and Place is an internationally recognised best practice approach to transport planning, operation and evaluation which seeks to balance the transport network's function in moving people and goods with the role of transport corridors, nodes and precincts as places that are essential to social and economic activity. It helps decision makers balance the functional requirements of movement infrastructure with the needs of people and the lifestyle characteristics and distinctive qualities of places. It emphasises the role of movement infrastructure as a critical contributory element in the creation of great places.

TMR has consulted with stakeholders including the Office of Queensland Government Architect to develop a Movement and Place Policy Framework suitable for application in Queensland. The Policy and elements of the Framework including a Practitioner Guidance will be published once finalised.

Broader challenges and opportunities for the transport network across SEQ are discussed in section 2.3 of the SEQ RTPs released in 2021.

Policy Directions in ShapingSEQ 2023

The policy directions provided through the outcomes and strategies in the Connect theme reflect the focused approach of the review. Early in development of ShapingSEQ 2023 it was identified that the policy directions set in ShapingSEQ 2017 were broadly still relevant and in-line with contemporary land use and transport planning approaches. As a result, the outcomes and strategies in the Connect theme have been refined to reflect further policy development with limited new policy direction included for concepts that have emerged or changed significantly since 2017, such as movement and place.

The main focus of changes in the Connect theme relate to the series of maps illustrating key features of the transport network in 2046 to support the preferred land use pattern set under the Grow theme. These changes are discussed in the following sections, against the relevant outcome.

There are also a number of policy shifts in ShapingSEQ 2023 that influence the Connect theme, with the most significant are discussed below.

ShapingSEQ 2023 Population Projections

The ShapingSEQ 2023 Population Projections dataset was developed to capture recent trends in increased levels of migration to take account for the most recent growth pressures being faced in SEQ communities. The ShapingSEQ 2023 Population Projections use a similar method to the Queensland Government population projections, and more accurately reflect contemporary assumptions relating to interstate and overseas, as well as the inclusion of current estimated population date up to June 2022 (including one of our highest growth years between 2021 and 2022).

This projection sits between Queensland Government's medium and high series projections (2023 edition). The main difference between these datasets is the ShapingSEQ 2023 Population Projections dataset includes the latest information on migration to Queensland to September 2022 and a higher migration assumption in the earlier years (first 5 years) informed by later forecasts from Commonwealth Treasury from the May 2023 Budget.

The Queensland Government medium series population projections (2023 edition) projected population growth of approximately 88,000 in the year to June 2023 for Queensland. The ShapingSEQ 2023 Population Projections indicates growth of around 136,000 persons in the year to June 2023 for Queensland. This is consistent with, and reflects, the latest ABS estimated resident population (ERP) figures at June 2023.

Further information about the ShapingSEQ 2023 Population Projections is in the ShapingSEQ 2023 Background Paper 1: Grow Theme.

Integrated land use and transport modelling

ShapingSEQ 2023 utilises an integrated modelling platform known as the Model for Urban Land Use and Transport Interaction (MULTI). The MULTI presented a number of fundamental improvements to previous modelling platforms and methodologies. These include but are not limited to:

» Data driven – drawn from known and robust datasets.

» Rule based – utilises a method and rules which are uniformly and consistently applied.

» Regionally consistent – applicable uniformly across SEQ.

» Verifiable – method and classification that is verifiable with observed datasets (Census).

» Policy aligned – typology method applied to dwelling supply targets at 2046 and presented at LGA level.

The application of MULTI provided analysis of:

» Supply and demand – capacity in planning schemes and demand factors that influence where households would choose to locate.

» Supply and realistic take-up – informed by financial feasibility to deliver development and current and planned infrastructure.

» Land use and transport integration – supply for new homes and existing and planned transport infrastructure to provide for more homes closer to transport and infrastructure investment.

» Employment accessibility – future growth in proximity to employment locations across SEQ to support shorter commutes, improved environmental outcomes and thriving businesses.

Further information on the modelling methodology, inputs and key assumptions can be found in ShapingSEQ 2023 Background Paper 1: Grow Theme.

Importantly, the MULTI dynamically integrates economics, transport modelling, demographics, and land use planning to test growth scenarios across SEQ. This ability to test scenarios link land use and transport outcomes has been integral in ensuring updates to the Connect theme, particularly the Connect maps, are responding to the land use pattern set under ShapingSEQ 2023.

Continued focus on consolidation

ShapingSEQ 2023 continues the policy of efficient use of land for urban purposes and seeks to maximise capacity in the Urban Footprint through consolidation of urban uses as a priority over expansion into rural land. This has resulted in a land use pattern at 2046 with the following features of particular relevant to the Connect theme:

» Expansion of the Urban Footprint in key areas such as Elimbah and Southern Thornlands

» Intensification of dwelling densities in high amenity areas and areas serviced by high frequency public transport

» Focus on gentle density in established urban areas across SEQ through smaller scale density increases – secondary dwellings, duplexes etc.

These shifts have been made in the context of sustained growth in both population and employment in SEQ. ShapingSEQ 2023 reflects updated population and dwelling growth assumptions to address specific areas of housing supply pressure.

Outcome 1: An efficient and sustainable movement system

The policy intent of this outcome remains largely unchanged with the exception of an increased focus on prioritising more sustainable transport modes such as walking, bike riding and mass movement of people on public transport.

Greater use of active and public transport depends on significant behaviour change. Influencing such behaviour change depends on having in place active transport infrastructure that connects people to essential services as well as reliable, high-frequency public transport services across a well-connected network. Ultimately, the growth pattern for SEQ needs to enable a shift to more sustainable transport modes where people can spend less time travelling to work, education and essential services and facilities. Moving more people by active and public transport will provide for more efficient use of existing and planned infrastructure providing benefits for freight movements along road corridors where there are currently high volumes of private vehicles. This more efficient movement of people and freight is the focus of Outcome 1.

Alignment with contemporary transport policy

The corresponding strategies for this outcome have been updated to reflect this focus on more sustainable transport modes to reflect the further policy and planning work undertaken with respect to active and public transport in the following documents.

» Queensland Cycling Strategy 2017-2027 (TMR) – re-released in 2023

» Queensland Walking Strategy 2019-2029 (TMR) – released in July 2019

» Creating Better Connection for Queenslanders (TMR) – released in August 2022

» SEQ Rail Connect (TMR) – released in August 2022

A key policy direction outcome of Creating Better Connection for Queenslanders (TMR, 2022) is the emphasis on seamless integration of journeys across the transport system which has been reflected in Strategy 1.2.

With the release of Queensland's Zero Emission Vehicle Strategy 2022-2032 in 2023 it was important to include reference to the role of transport in supporting the shift to zero emission vehicles, which wasn't strongly reflected in ShapingSEQ 2017.

Strategic public transport network

Public transport is a cornerstone to supporting communities across SEQ and requires an integrated approach which is reflected across the outcomes and strategies in the Connect theme. Moving people efficiently and sustainably is a priority for achieving the updated strategies and directions included in ShapingSEQ 2023. With a more compact urban form, focused around high amenity areas and regional activity centres, reliable and regular public transport services will play a significant role in moving people around the region. Identification of a network of corridors serviced by high-frequency public transport services (services every 10 to 15 minutes between 7am and 7pm, 7 days a week), was an important new element introduced in ShapingSEQ 2017. This element continues to be vital to the delivery of the preferred growth pattern for SEQ.

To support growth in regional activity centres, Connect gives priority to delivering a network of connected, high-frequency public transport services to encourage increased use of public transport. Map10 – Strategic public transport network 2046 show the high-frequency public transport system to 2046 and outlines the geographic distribution of high-frequency public transport services to support population growth in consolidation and expansion areas.

Strategic road and freight network

Efficient and sustainable transportation of people and goods is key to supporting growth across SEQ. The region relies heavily on an effective road and rail freight network to support the smooth daily movement of people and products around the region. Connect recognises the role of the strategic road and freight network as shown in Map 11 – Strategic road and freight network.

An efficient road and rail freight network reduces congestion on the roads, minimising travel times and enhancing productivity. By managing road space and rail capacity, it allows goods to be transported swiftly and reliably, ensuring timely delivery to businesses and consumers. This streamlined movement of products not only supports local industries but also contributes to overall economic growth by facilitating trade and commerce within the region.

The strategic road and freight network will play an important role in the shift to a more sustainable transport system in SEQ. By optimising routes and utilising cleaner technologies, such as electric or hybrid vehicles and trains, the region can significantly decrease its carbon footprint. This transition to sustainable transport options aligns with broader efforts to combat climate change and promotes a greener future for SEQ.

Moreover, an effective road and rail freight network plays a crucial role in enhancing regional connectivity and accessibility. It ensures that people have reliable transportation options, enabling them to commute efficiently and access essential services, education, and employment opportunities. This connectivity not only improves the quality of life for residents but also fosters social and economic inclusion by reducing transportation barriers and promoting equitable access to resources and amenities.

Revising the Connect maps

The Connect maps showing the Strategic public transport network and Strategic road and freight network have been updated from ShapingSEQ 2017. The updated Connect maps reflect the extended planning horizon of 2046 and identify potential future connections that are likely to be required to support the land use pattern set under ShapingSEQ 2023.

These mapping updates were informed by TMR's base and reference network assumptions, network planning activities undertaken by TMR and analysis of modelling outputs to identify any gaps in the networks resulting from land use change to 2046.

TMR's base and reference network assumptions are a range of conventions applied to identify an anticipated network beyond the existing transport network and what is committed in the Queensland Transport and Roads Investment Program (QTRIP). The base and reference network assumptions are built on input and rigorous testing across TMR business units and reflect the following elements.

   » Significant projects thar are committed and funded

   » The latest approved QTRIP

   » Local Government Infrastructure Plans

   » Significant projects that in in the process of being committed in the medium term

   » Sensible, conservative assumptions about infrastructure funding levels
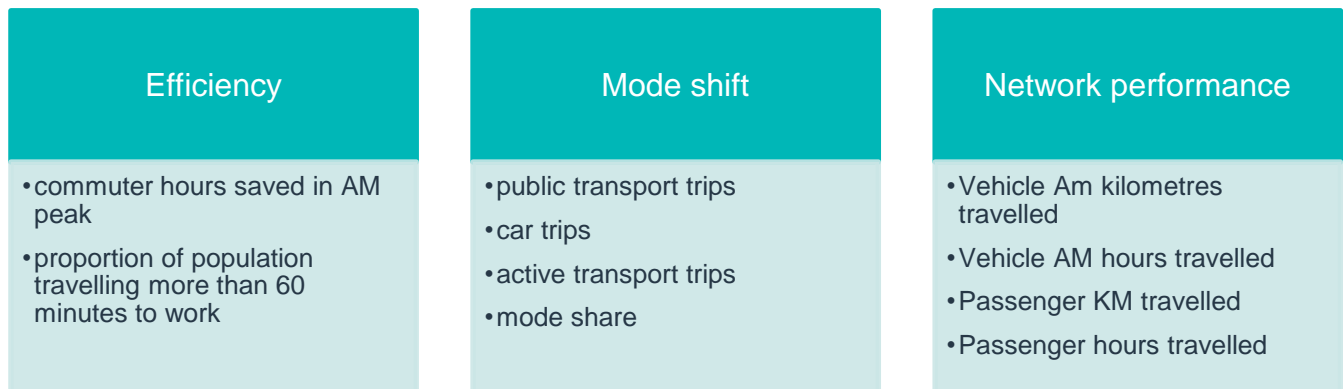
   » Projects reflected in regional plans

» Long term projects required to provide network capacity to serve population growth.

The base and reference networks were used as a baseline to analyse the impact of the volume and distribution of growth projections in ShapingSEQ 2023 on the transport network and identify any gaps in the network or connections under stress through to 2046.

This initial analysis was supported by an examination of network planning activities for public transport and freight movements across TMR business units which were confirmed through review of external and internal documentation. Findings of this review were then incorporated into modelling activities and analysis as new or bolstered connections.

As discussed earlier in this background paper, ShapingSEQ 2023 utilises an integrated modelling platform known as the Model for Urban Land Use and Transport Interaction (MULTI). The MULTI provided the opportunity to link land use and transport outcomes in a dynamic modelling framework and understand infrastructure investment sequencing in the context of land use change through to 2046. This allowed changes to the land use pattern to be tested against metrics relating to efficiency, mode shift and network performance as outlined in **Figure 4**.

Figure 4: Key transport metrics

Efficiency	Mode shift	Network performance
• commuter hours saved in AM peak • proportion of population travelling more than 60 minutes to work	• public transport trips • car trips • active transport trips • mode share	• Vehicle Am kilometres travelled • Vehicle AM hours travelled • Passenger KM travelled • Passenger hours travelled

Analysis of these metrics guided updates to the Connect maps through testing of new transport connection to support an efficient and sustainable movement system. These new connections, such as the North Brisbane – Bruce Highway Western Alternative, Coomera Connector and Kawana Motorway, will play an important role in multi-modal movements to support areas with high growth in employment and/or population which will have an increased need for commuting and transportation.

Outputs from the MULTI model confirmed that the network illustrated on the updated Connect maps would result in the following improvements against the key metrics.

» Efficiency – significant reduction in the morning commute time across SEQ with less people experiencing long travel times to work

» Mode shift – increased travel on the public transport network and more people walking and riding bikes which corresponds with a decrease in private vehicle usage.

» Network performance – more people located close to their key destinations (work, education, essential services) resulting in less vehicle kilometres travelled and less time spent in private vehicles.

These improvements demonstrate that the networks illustrated in the updated Connect maps would support the anticipated growth to 2046.

Outcome 2: Active transport

ShapingSEQ 2023 continues to promote active transport as an effective means of connecting people with places locally, supporting healthy living, minimising impact on the environment and reducing congestion.

The policy intent of this outcome remains largely unchanged. Some refinements and updates have been made to the corresponding strategies to reflect policy work delivered since 2017, including the Queensland Cycling Strategy 2017-2027 and the Queensland Walking Strategy 2019-2029. There is a new outcome, focused on access in and around regional activity centres to reflect the policy intent of encouraging local trips to be made by walking and bike riding.

Alignment with contemporary transport policy

The Queensland Government has a clear vision for active transport, as set out in the Queensland Cycling Strategy 2017-2027 and the Queensland Walking Strategy 2019-2029.

> » Cycling: more cycling, more often, on safe, direct and connected routes
>
> » Walking: an easy choice for everyone, every day.

The sustainable transport hierarchy outlined in the Queensland Walking Strategy (refer Figure 5) reinforces the approach of putting active transport first to help create cultural change and delivery of positive outcomes for walking and bike riding. The sustainable transport hierarchy reflects the cross-agency support for active transport and the delivery of pedestrian friendly environments through work on transport, health, planning, education and recreation.

Figure 5 - Sustainable transport hierarchy
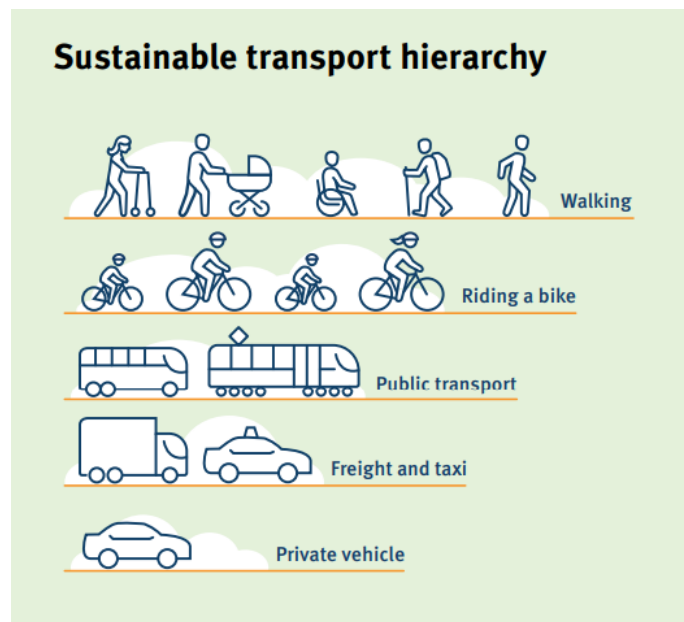
Source: TMR, 2019

Well-designed streets, paths and public spaces that provide physical separation from motorised traffic, way finding, adequate shade and amenities play an important role in encouraging people to walk and ride as an everyday activity. The layout and design of new and existing communities will be focused on providing pedestrian friendly environments that encourage people to use active transport to access employment, services and facilities.

Promoting active transport as a favoured, practical option in SEQ means prioritising connections to support walking and bike riding so as to maximise accessibility to and from employment, educational institutions such as schools and universities, public transport stops and stations and centres.

Delivering a well-connected and safe active transport network occurs at a fine-grain level. An important tool in delivering active transport networks is Principal Cycle Network Plans (PCNPs), and accompanying Priority Route Maps, developed and regularly updated by TMR. These plans show the core routes needed to get more people riding bikes, more often. ShapingSEQ 2023 directly references the PCNPs to highlight the important role they play in delivering a cohesive and connected active transport network.

The SEQ PCNP identifies the main routes that will form the basis of a connected and cohesive bicycle network across SEQ. Councils are eligible to apply for 50-50 funding of bicycle infrastructure planning and delivery on principal bike riding routes through TMR's Cycle Network Local Government Grants program.

TMR is also supporting the preparation of walking network plans around key destinations such as public transport stations and stops, regional centres, schools and tertiary education. These plans show the priority routes in an area and are accompanied by a works program to guide delivery.

Outcome 3: Accessible and connected regional activity centres

The policy intent of this outcome builds on the intent from ShapingSEQ 2017 to encourage walking, bike riding and public transport as the primary modes (in that order of priority) for access to, from and around regional activity centres. With the importance of the regional activity centres network being reinforced through the provisions in the Grow and Prosper themes, particularly through the new provisions for high amenity areas, it was necessary for the policy directions in the Connect theme to evolve and shift to support sustainable movement between, around and in regional activity centres.

Alignment with contemporary transport policy

Since 2017 there have been two key documents released to further shape the policy context for active transport - the Queensland Cycling Strategy 2017-2027 and the Queensland Walking Strategy 2019-2029. Both of these strategies seek to prioritise travel by active transport and get more people walking and cycling. As discussed below the design of centres is critical in ensuring that areas with significant residential, employment and community activity are well supported with active transport infrastructure.

Prioritising walking and riding bikes in activity centres is crucial for fostering healthier, more sustainable, and vibrant communities. Encouraging these alternative modes of transportation not only promotes physical well-being by incorporating regular exercise into daily routines, but also addresses environmental concerns associated with motorised vehicles. By creating pedestrian-friendly environments and cities, urban planners can reduce air pollution, noise, and traffic congestion, contributing to a cleaner and more enjoyable living experience for residents.

Furthermore, prioritising walking and riding bikes enhances social interactions and community engagement. Creating pedestrian-friendly spaces in activity centres encourages people to spend more time outdoors, fostering a sense of community and camaraderie. Shared public spaces for walking and bike riding promote face-to-face interactions, strengthen social bonds, and contribute to the overall well-being of individuals. This emphasis on active transportation modes also supports local businesses, as pedestrians and bike riders are more likely to explore and patronise shops and services along their routes, stimulating economic activity within activity centres.

In terms of urban planning and design, prioritising walking and bike riding helps create more inclusive and accessible environments. Footpaths, bike paths, and pedestrian-friendly infrastructure make cities and activity centres more accommodating for individuals with disabilities, elderly residents, and those who may not have access to private transportation. By prioritising these sustainable and inclusive modes of travel, cities can build a more equitable and resilient urban fabric that benefits the health and well-being of all residents.

Outcome 4: Integrated planning

The policy intent of this outcome remains largely unchanged from ShapingSEQ 2017 with minor updates to recognise the role of emerging technologies, such as Mobility as a Service (MaaS) to address transport system challenges.

Innovations in transport are rapidly evolving, with initiatives such as MaaS and connected and automated vehicles driving the transformation of urban mobility.

Innovations in the transport sector are rapidly evolving. While it is not the role of a land use planning document such as ShapingSEQ to provide policy direction in this space it is acknowledged that there is potential for land use planning benefits through embracing transport innovation and technical such as MaaS and the integration of connected and automated vehicles. MaaS platforms are reshaping how residents navigate urban areas by consolidating various transportation options into seamless, user-friendly digital interfaces. These platforms offer a one-stop solution for planning, booking, and paying for multi-modal journeys, encompassing public transit, ridesharing services, bike-sharing programs, and more. By leveraging digital technologies and fostering partnerships between public agencies and private providers, there is potential to enhance accessibility, reduce congestion, and promote sustainable travel habits through MaaS initiatives.

Connected and automated vehicles, equipped with advanced sensors and communication technologies, have the capability to navigate roads autonomously while interacting with infrastructure and other vehicles in real-time. TMR is currently engaged in research, trials, and partnerships to better understand the opportunities associated with connected and autonomous vehicles. Through collaborative efforts between government entities, research institutions, and industry stakeholders, TMR is exploring the potential for connected and automated vehicles to improve safety, efficiency, and accessibility across the transport network.

Outcome 5: Region-shaping infrastructure

Region-shaping Infrastructure (RSI) is an important policy component of SEQ regional planning. As established in ShapingSEQ 2017, the SEQ RTPs and in academic literature[14], a critical link in the sustainability, efficiency and prosperity of the region exists between infrastructure and growth.

Whilst the name of the outcome has been revised, the policy intent remains largely unchanged with the focus on advancing priority RSI and encouraging a mix of infrastructure and non-infrastructure approaches that support delivery of transport solutions in planned growth areas.

This outcome is supported by the list of priority RSI (refer to Table 9 in ShapingSEQ 2023) and corresponding map (Map 12).

Defining region shaping infrastructure

The concept of RSI was introduced in ShapingSEQ 2017. RSI as a concept exists within a complex and interrelated policy context as shown in Figure 6.

Figure 6 - RSI policy context
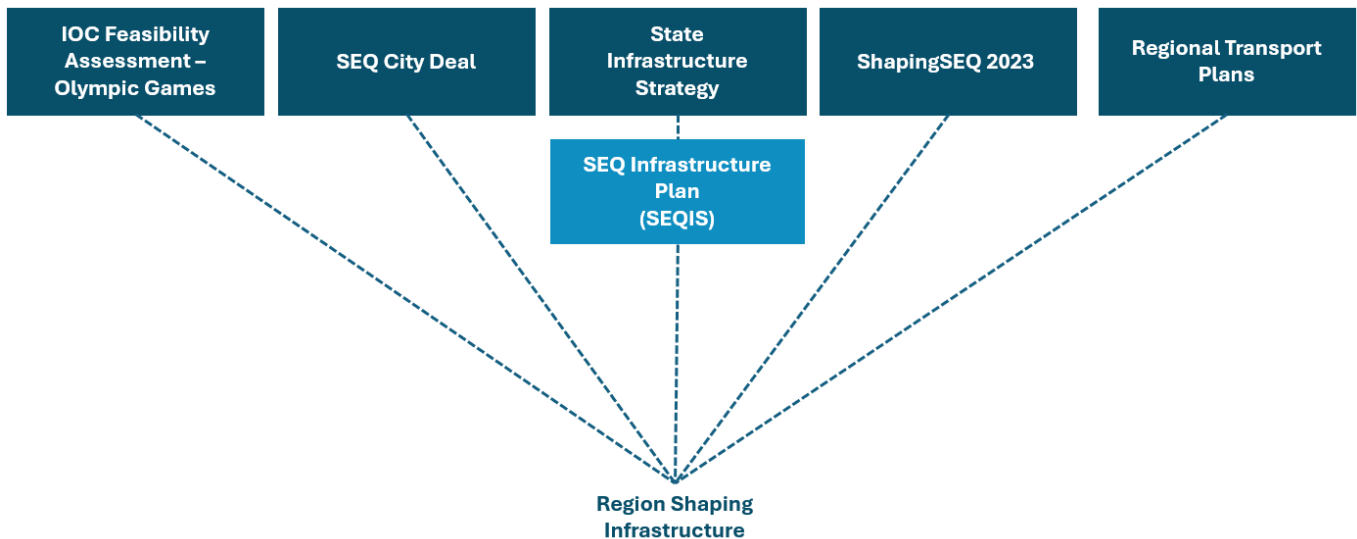
RSI is focused on strategically shaping the future trajectory of land use in SEQ. While ShapingSEQ 2017 did not establish a set definition of RSI, there are considered to be four broad criteria:

1. Fundamental to realisation of the land use pattern set in ShapingSEQ

2. Fundamental to the movement of people to access employment and essential services as well as the movement of goods

3. Has a significant funding requirement across multiple levels of government

4. Is of regional economic significance.

RSI goes beyond addressing capacity and safety challenges, which are captured under TMR and local government portfolio planning and funding activities. RSI is focused on improving connectivity between regional activity centres, RECs and MEIAs to promote economic growth, as well as supporting the establishment of new communities and encouraging better use of existing infrastructure as people shift to more sustainable transport modes.

Both ShapingSEQ 2017 and ShapingSEQ 2023 identify a list of Priority RSI. Items listed on the priority list are critical to shaping SEQ in a way sought by the regional plan's land use pattern and other policies. In total, 17 priority RSI across the region were identified in ShapingSEQ 2017. These projects were focused on supporting the necessary shift to mass transit of people by high frequency public transport and efficient movement of freight.

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[14] Cravin, J., Horan, E., & Goulding, E. (2014). Population Growth and Infrastructure Development in Melbourne
Van Onselen, L., O'Sullivan, J., & Cook, P. (2022). Population growth and Infrastructure in Australia: the catch-up illusion
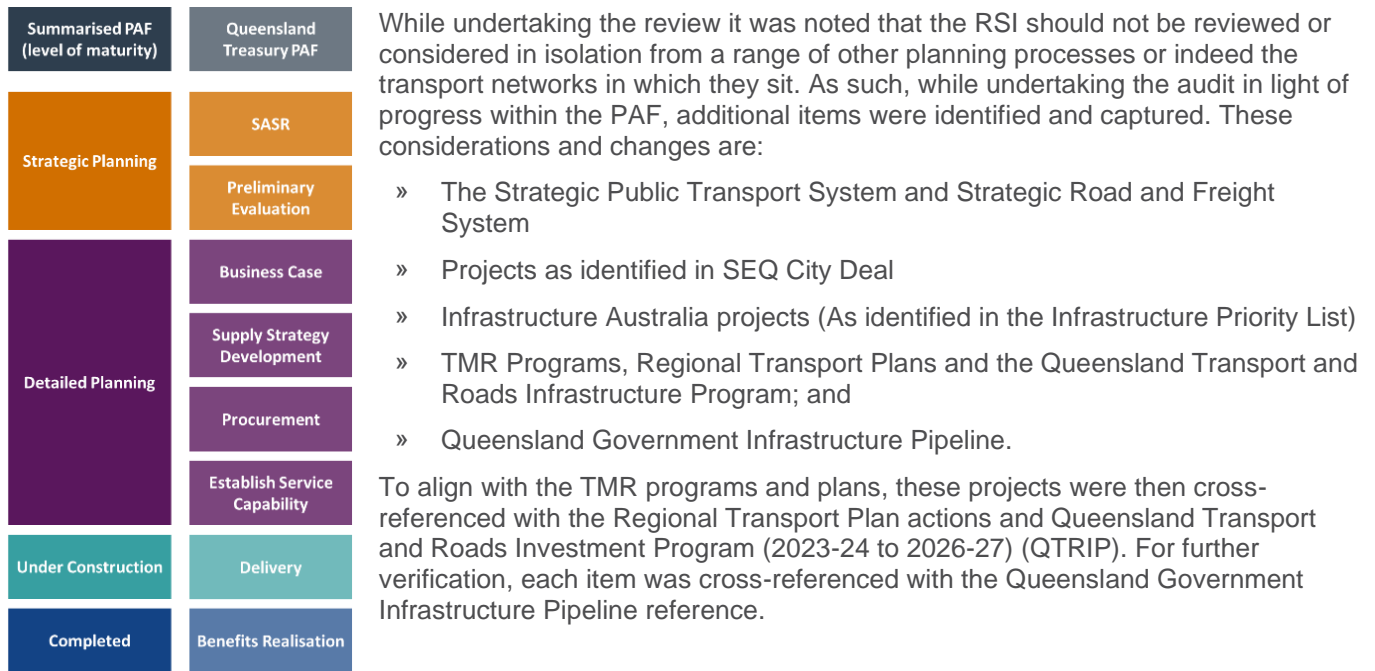
The priority RSI list does not provide a finite list of projects required to facilitate growth in the region as other infrastructure projects are required to support existing uses and growth across the region.

Review of the ShapingSEQ 2017 priority RSI list

An assessment was undertaken to confirm how the priority RSI identified in ShapingSEQ 2017 have progressed toward delivery.

The RSI projects referenced in ShapingSEQ 2017 were reviewed against a summarised Performance Assessment Framework (PAF) in 2022, recognising four different stages of project maturity. This PAF was based on Queensland Treasury's PAF which has been summarised into four categories, see Figure 7.

Figure 7 - Summarised PAF aligning to Queensland Treasury's PAF

While undertaking the review it was noted that the RSI should not be reviewed or considered in isolation from a range of other planning processes or indeed the transport networks in which they sit. As such, while undertaking the audit in light of progress within the PAF, additional items were identified and captured. These considerations and changes are:

» The Strategic Public Transport System and Strategic Road and Freight System

» Projects as identified in SEQ City Deal

» Infrastructure Australia projects (As identified in the Infrastructure Priority List)

» TMR Programs, Regional Transport Plans and the Queensland Transport and Roads Infrastructure Program; and

» Queensland Government Infrastructure Pipeline.

To align with the TMR programs and plans, these projects were then cross-referenced with the Regional Transport Plan actions and Queensland Transport and Roads Investment Program (2023-24 to 2026-27) (QTRIP). For further verification, each item was cross-referenced with the Queensland Government Infrastructure Pipeline reference.

There were 25 identified RSI related projects within the Queensland Government Infrastructure Pipeline. The corresponding RSI to each project is outlined in Table 1.

The review of RSI and related projects has identified that since priority RSI was introduced as a new concept in ShapingSEQ 2017 there has been progress in the planning and delivery of projects. All projects are identified in forward planning or funding program with a number delivered or under construction.

Figure **8** shows the project status for all the RSI projects from 2017 to 2023. The gradual progress and maturity per project can be seen from 2017 to 2023. In 2017, there were 21 out of 25 projects still with a 'Strategic Planning' status. When compared to 2023, these projects have moved on, with only five out of 25 projects with a 'Strategic Planning' status which shows significant progress since 2017.

Figure 8 - 2017 v 2023 RSI Project Status (Level of Planning)
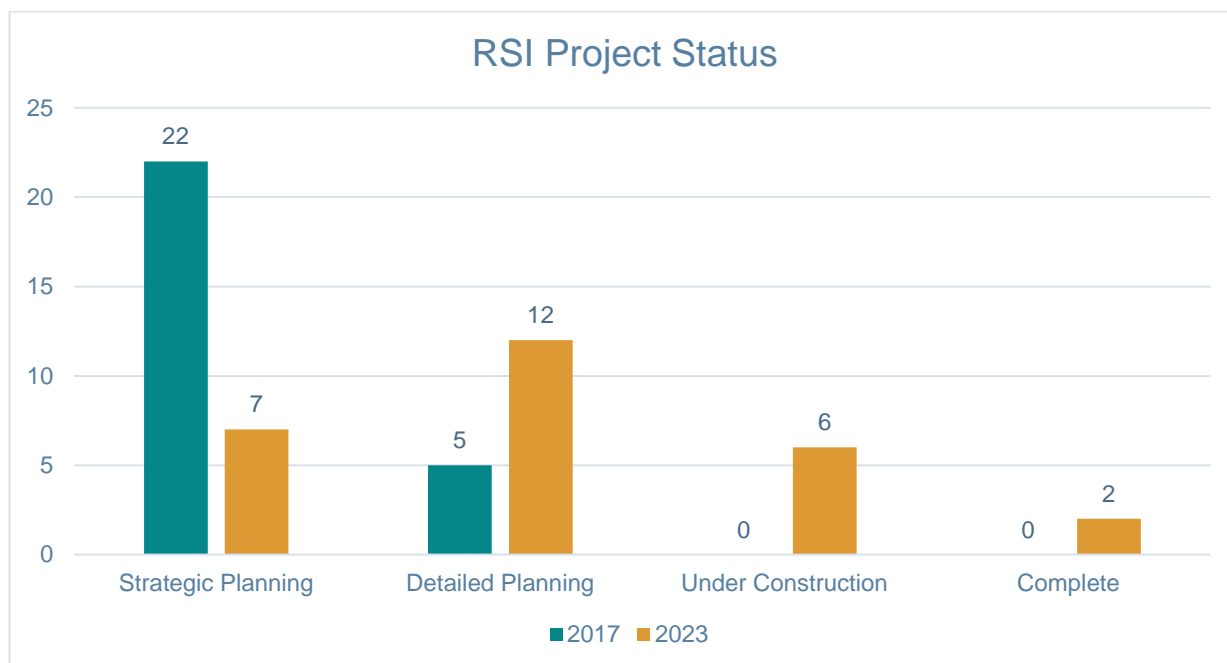
ShapingSEQ 2017 identified infrastructure priorities that had capacity to shape SEQ in a way sought by the regional plan's growth pattern and other policies. In total, 17 priority RSI across the region were identified. These projects were focused on supporting the necessary shift to mass transit of people by high-frequency public transport and efficient movement of freight.

As shown in Table 1, the priority RSI have evolved since 2017 with projects progressing through planning and funding pathways toward delivery. All projects are identified in forward planning with a number under construction and one delivered – the Toowoomba Bypass.

Table 1 - Priority region-shaping infrastructure - progress since 2017

Priority region-shaping infrastructure 2017	Related projects	Status in 2017*	Status in 2023*	Relationship to regional policy
Cross River Rail	Cross River Rail	Strategic Planning	Under Construction	Significantly increases the regional rail network's capacity. Facilitates employment growth, delivers economic agglomeration benefits for the region, and supports residential consolidation and future rail links to planned expansion areas.
Options for improved inner-city distribution (to complement Cross River Rail), including Brisbane Metro and Gabba Metro integration	Brisbane Metro – University of Queensland to Royal Brisbane Women's Hospital	Strategic Planning	Under Construction	Supports employment growth in the capital city centre, economic agglomeration benefits for the region and residential consolidation in Brisbane. Enhances growth and intensification of Capital City REC.
	Brisbane Metro – Eight Mile Plains to Roma Street	Strategic Planning	Under Construction	

Priority region-shaping infrastructure 2017	Related projects	Status in 2017*	Status in 2023*	Relationship to regional policy
South East Busway extension to Springwood (as busway or other priority corridor)	Pacific Motorway, Eight Mile Plains to Daisy Hill Upgrade	Strategic Planning	Under Construction	Supports increased dwelling densities and employment growth, e.g. around any new busway stations, centres and more accessible and efficient public transport. Busway extension to Springwood enhances growth and intensification of Pacific Motorway REC.
Eastern Busway extension to Carindale and Capalaba (as busway or other priority corridor)	Eastern Transitway Stage 1 (bus priority works Carina to Carindale)	Strategic Planning	Complete (Stage 1)	
	Eastern Transitway Future Stages	Strategic Planning	Strategic Planning	
Northern Busway extension to Bracken Ridge (as busway or other priority corridor)	Northern Transitway bus priority works	Strategic Planning	Strategic Planning	
Enhance the high-frequency public transport connection between Browns Plains and the South East Busway	N/A	Strategic Planning	Detailed Planning	
Provide frequent public transport services to planned major expansion growth areas: • **Waraba (Caboolture West)** • **Yarrabilba**	N/A	Strategic Planning	Strategic Planning	Supports increased take-up of planned expansion areas, including higher densities close to any planned stations.
Dedicated Rail Freight Corridor between Acacia Ridge and the Port of Brisbane	Port of Brisbane, planning	Strategic Planning	Strategic Planning	Supports increased capacity to manage freight through the Port of Brisbane and increased economic activity in the region generally. Enhances growth and intensification of the Australia TradeCoast REC and potentially a number of other REC including: • Western Gateway REC • South western component of the Ipswich REC

Priority region-shaping infrastructure 2017	Related projects	Status in 2017*	Status in 2023*	Relationship to regional policy
				• South West Industrial Corridor REC • Yatala–Stapylton–Beenleigh REC
Extension of light rail from Broadbeach to Coolangatta	Broadbeach to South Burleigh Heads (light rail stage 3)	Detailed Planning	Under Construction	Supports increased dwelling densities and employment growth, e.g. around any new light rail stations, and more accessible and efficient public transport.
	South Burleigh Heads to Coolangatta (light rail stage 4)	Strategic Planning	Detailed Planning	
New high-frequency public transport connection linking Broadbeach via Bond University to Robina	High frequency corridor Broadbeach to Robina	Strategic Planning	Strategic Planning	
High frequency public transport services from Maroochydore to Caloundra to Beerwah	Direct Sunshine Coast Rail (Beerwah to Caloundra and Maroochydore)	Strategic Planning	Detailed Planning	Supports increased dwelling densities and employment growth, e.g. around any new public transport stations, and more accessible and efficient public transport. Supports increased take-up of planned expansion areas, including higher densities close to any planned stations.
	Sunshine Coast Public Transport Project (Caloundra to Maroochydore CBD)	Strategic Planning	Detailed Planning	
Beerburrum to Nambour Rail Upgrade Project	Stage 1	Detailed Planning	Under Construction	Relieve pressure on the strategic road network and will improve freight efficiency.
	Future Stages	Detailed Planning	Detailed Planning	
Ipswich to Springfield Public Transport Corridor (including the extension of the public transport corridor to Ripley Valley)	Ipswich To Springfield Public Transport Corridor	Strategic Planning	Detailed Planning	Supports increased take-up of *expansion* areas, including higher densities close to any planned stations. Reduces demand on Ipswich Motorway.
Toowoomba Second Range Crossing	Toowoomba Bypass	Detailed Planning	Complete	Takes heavy freight traffic out of the centre of Toowoomba, supporting higher density, inner urban renewal and improved liveability.

Priority region-shaping infrastructure 2017	Related projects	Status in 2017*	Status in 2023*	Relationship to regional policy
				Supports greater efficiency and economic growth through a dedicated freight corridor that bypasses the Toowoomba town centre.
The Melbourne to Brisbane Inland Rail	Melbourne to Brisbane Inland Rail	Strategic Planning	Detailed Planning	Supports increased capacity to manage freight through SEQ generally and specific opportunities in major enterprise and industrial areas in Scenic Rim, Ipswich, Lockyer Valley and Toowoomba such as Toowoomba Enterprise Hub (Charlton Wellcamp). Potentially enhances existing RECs or catalyse new RECs. Allows for long-term intent for an improved passenger rail connection between Brisbane and Toowoomba.
Salisbury to Flagstone Passenger Rail (following the Salisbury to Beaudesert Corridor)	Salisbury to Beaudesert Passenger Rail	Strategic Planning	Detailed Planning	Supports increased take-up of planned expansion growth, including higher densities close to any planned stations.
Bromelton North–South Arterial Road, as part of the Mount Lindesay Highway upgrade	Mount Lindesay Highway Deviation – Bromelton North-South Arterial Road	Strategic Planning	Strategic Planning	Supports the movement of freight traffic to the Bromelton State Development Area and supports greater efficiency and economic growth through a dedicated freight route that bypasses the Beaudesert town centre.

Under a summarised Project Assurance Framework (PAF) Level of Planning

Building the priority RSI list

With the evolution of the land use pattern for SEQ through to 2046, several new priority RSI have been identified to support the preferred land use pattern in ShapingSEQ 2023. These priority RSI are not intended to present a definitive list of all transport infrastructure require to support growth to 2046 and instead represent transport projects that meet the broad criteria outlined earlier. The new priority RSI are outlined in **Table** and complement the priority RSI identified in 2017 that have not yet been completed.

The projects identified focus on the efficient and sustainable movement of people and goods, prioritising projects that enhance access to RECs, MEIAs and high amenity areas. The new priority RSI are grouped into projects that will deliver additional capacity on existing infrastructure to make the most of our existing transport system and better use our established assets as well as those that will provide new connections to support an efficient and sustainable transport system in SEQ.

The identified priority RSI is not intended to be an exhaustive list of all transport infrastructure required to support growth. It is acknowledged that projects such as works on the Ipswich Motorway, Brisbane Valley Highway and Warrego Highway will address safety concerns and capacity constraints to support efficient movement on the transport system, however these projects will not directly influence the land use pattern and are more appropriately carried through the SEQ RTPs and funding programs such as the QTRIP.

As with the 2017 ShapingSEQ, the priority region-shaping infrastructure captured below are fundamental to realisation of the land use pattern set in the draft ShapingSEQ 2023 Update and the movement of people and goods - they are of regional economic significance and will require considerable investment supported by funding arrangements across multiple levels of government.

Table 2 - Priority region-shaping infrastructure – ShapingSEQ 2023

Infrastructure priority	Relationship to regional policy	Status
New connections		
North Brisbane-Bruce Highway Western Alternative	Supports increased take-up of planned expansion area – Waraba (Caboolture West). Provides for multi-modal outcomes aiding in delivery of active transport and public transport outcomes.	Strategic Planning
Improved road and public transport connectivity between Inner Brisbane and Strathpine	Provides for additional connectivity in Brisbane's arterial network. Supports increased dwelling densities and employment growth and more accessible and efficient public transport.	Strategic Planning
Park Ridge Connector	Provides connection between the Park Ridge MEIA and the strategic road freight network. Supports increased take-up of land in Park Ridge MEIA.	Strategic Planning
Improved road and public transport connectivity between Yarrabilba and the Mount Lindesay Highway (including Camp Cable Road and Cusack Lane upgrades)	Supports increased take-up of planned expansion areas, including higher densities close to any planned public transport stops.	Strategic Planning
Kawana Motorway	Provides a critical connection required to relieve pressure on Nicklin Way to enable increased capacity and support delivery of high frequency public transport.	Detailed Planning
Toowoomba North-South Transport Corridor	Provides for connectivity between key growth areas and supports an orbital road network to remove pressure on Toowoomba city road network.	Strategic Planning
Coomera Connector	Provides a connection that will relieve pressure on the Pacific Motorway and facilitate improved local traffic movement, including opportunities for PT services. Supports growth in the northern Gold Coast corridor. Provides a connection that will relieve pressure on the Pacific Motorway and facilitate improved local traffic movement	Stage 1 – Under Construction Stage 2 – Strategic Planning

Infrastructure priority	Relationship to regional policy	Status*
	including opportunities for public transport services.	
Capacity improvements		
Inner Brisbane walking initiative	Provides for mass movement by walking / rolling in inner Brisbane between key entertainment precincts such as Lang Park, South Brisbane, Woolloongabba, Brisbane Arena and Fortitude Valley.	Strategic Planning
Centenary Motorway Upgrade (Toowong to Darra)	Supports increased take-up of Ripley Valley and growth areas in the western corridor. Supports more efficient movement of freight between and around the South West Industrial Corridor REC and Springfield REC.	Strategic Planning
Logan and Gold Coast Faster Rail	Provides additional capacity, station and signalling improvements to support increased train service frequency on the Beenleigh and Gold Coast rail lines.	Detailed Planning
Cunningham Highway Upgrades to support delivery of Ebenezer and Ripley	Supports increased take-up of Ripley Valley and growth areas in the western corridor. Supports more efficient movement of freight between and around the South West Industrial Corridor REC, Springfield REC and Ipswich REC – particularly the Ebenezer MEIA.	Strategic Planning
Gateway Motorway and Bruce Highway Upgrades, North Brisbane to Moreton Bay Region	Provides for additional capacity and improves safety and network efficiency. Will help to reduce peak hour congestion and overall travel time.	Detailed Planning
Mount Lindesay Highway Upgrades (Browns Plains to Woodhill) =	= An important link in the National Land Transport Network that provides for improved freight connectivity and delivery of the Bromelton SDA, as well as enabling increased take-up of planned expansion growth areas.	Detailed Planning

*Under a summarised PAF Level of Planning

Identification of the new priority RSI drew heavily on the analysis undertaken to inform preparation of the updated Connect maps – as discussed in earlier in this background paper.

As with development of the updated Connect maps which illustrate potential future connections that are likely to be required to support the land use pattern at 2046 the priority RSI list was informed by TMR's base and reference network assumptions, network planning activities undertaken by TMR and analysis of modelling outputs to identify any gaps in the networks resulting from land use change to 2046.

Outcome 6: Movement and place

The policy intent of this new Outcome is to introduce the concept of movement and place to ShapingSEQ.

Movement and place is an internationally recognised best practice approach to transport planning, operation and evaluation which seeks to balance the transport network's function in moving people and goods with the role of transport corridors, nodes and precincts as places that are essential to social and economic activity. It helps decision makers balance the functional requirements of movement infrastructure with the needs of people and the lifestyle characteristics and distinctive qualities of places. It emphasises the role of movement infrastructure as a critical contributory element in the creation of great places.

Adoption of a movement and place approach, supported by a framework, is driven by the need to give greater weight to multiple values applied to transport corridors and precincts.

The outcomes sought through movement and place link directly to the core considerations in developing or refining a road hierarchy including, reserve width, modal prioritisation, and development of cross sections. Movement and place outcomes also link to strategies in the Live and Sustain themes about best practice design outcomes and increased tree canopy cover to reduce urban heat island effect.

Implementation

ShapingSEQ 2023 creates the settings for the delivery of almost 900,000 new homes needed in the region by 2046 to accommodate 2.2 million new residents.

The government is committed to making sure that planning uncertainty or process is not one of the reasons holding up the creation of these new homes across Queensland. ShapingSEQ 2023 is underpinned by an implementation framework to consistently engage with local governments, industry and the community to accelerate delivery of more housing.

Priority actions

ShapingSEQ 2023 outlines one priority action for the Connect theme – Priority Action 6 – Integrated land use and infrastructure modelling capability. The delivery of the Connect theme will also be supported by updated SEQ RTPs with TMR currently undertaking a refresh of the RTPs to align with ShapingSEQ 2023.

Priority Action 6: Integrated land use and infrastructure modelling capability

Whist, the MULTI model presented a number of fundamental improvements to previous modelling platforms and methodologies used in regional planning, there is a significant opportunity for continuous improvement and capacity building. Priority Action 6 recognises the importance of continued collaboration and cooperation across government and prioritises analysis that integrates land use and transport considerations.

Priority Action 6 – Integrated land use and infrastructure modelling capability	
Stakeholders: State and local governments	*Ongoing*
Planning and transport agencies within the Queensland Government will continue to develop and utilise integrated land use and infrastructure modelling capability. Modelling and analytical capability will support informed decision-making of land use policy and infrastructure planning and will be a critical element in monitoring the implementation of ShapingSEQ 2023.	

SEQ Infrastructure Plan

Regional infrastructure plans are a Queensland Government initiative supporting the Queensland Government's intent for a greater focus on placed-based infrastructure planning. They are a key implementation priority of the SIS which sets policy objectives for infrastructure planning by agencies to ensure that infrastructure delivery meets the changing needs of Queensland's population, environment and economy.

Regional infrastructure plans have a long-term 20-year outlook identifying strategic economic, social and infrastructure priorities for the region to guide state infrastructure planning and investments, in partnership with other levels of government and industry where possible. Regional infrastructure plans are intended to influence Queensland Government's long-term infrastructure planning in response to land use planning considerations and changes in the state's statutory regional plans developed under the *Planning Act 2016.*

Due to the urgency of the housing challenges in Queensland, the Queensland Government revised the scope of the SEQ infrastructure plan to fast-track the delivery of this targeted SEQ Infrastructure Supplement (SEQIS) that directly supports ShapingSEQ 2023.

While not a full infrastructure plan, Part 2 of this SEQIS addresses the regional priorities for SEQ and provides initial guidance on how the Queensland Government can adjust business-as-usual practices to better address the growth forecasted in ShapingSEQ 2023. Part 2 of this SEQIS also provides initial guidance on the infrastructure priorities of the region, specifically nominating key infrastructure that will be needed to support the growth identified in ShapingSEQ 2023.

The SEQIS includes a number of priority actions that are closely related to the Connect theme.

The SEQIS is strongly focussed on whole-of-government infrastructure planning and delivery. While it may not address all complexities faced by infrastructure planning agencies, it sets the groundwork for better integration of land use planning and infrastructure planning in areas of anticipated high growth. This approach signifies the Queensland Government's commitment not only to innovation and collaboration but also to further improving the future of infrastructure planning in the region. A priority action in the SEQIS is to commence the pilot of Regional Growth Corridor Plans (RGCPs) along the proposed Eastern Corridor and along the Direct Sunshine Coast Rail corridor.

A priority action in the SEQIS is for the development of the development of the SEQ Infrastructure Plan (SEQIP) - planned for 2025 – to expand the capability of the MULTI model to continue to improve the alignment between integrated land use, transport, and infrastructure planning.

The SEQIP planned for 2025 will also support the identification of priority infrastructure required to achieve the outcomes of the industrial land framework to be developed as a priority implementation action under ShapingSEQ 2023 (refer to the ShapingSEQ 2023 Background Paper 2: Prosper Theme). The SEQIP will include, but is not limited to, the regional freight network(s) and enabling trunk infrastructure.

This SEQIS organises a range of broader government strategies under several coordinated infrastructure actions to improve infrastructure planning. The Queensland Government is committed to working with all levels of government to address current infrastructure pipeline and productivity challenges, as well as seek opportunities to improve the regions connectivity to jobs, enjoyment of lifestyles and deliver a Brisbane 2032 legacy.

Further information

To download a copy of ShapingSEQ 2023, or to access further information, go to the department's website at www.qld.gov.au/shapingseq

The website includes a range of supporting materials including:

- » A summary of the plan
- » Interactive mapping
- » PDF maps
- » ShapingSEQ 2023 Consultation Report
- » Indicator Dictionary.

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