

Moving Freight

A strategy for more efficient freight movement



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Foreword

Queensland's freight network is fundamental to our economy. The State's future economic growth and prosperity will be built on the safe, efficient and effective movement of goods created and supported by the resources, agriculture, construction and tourism industries.

There are many challenges confronting the freight task across the state. The cost of infrastructure, geographical distances, transport hub bottlenecks, and managing the impact of extreme weather events all affect our freight network.

Freight volumes are estimated to increase from 871mt in 2010–11 to 1643–1741mt by 2026. Therefore, it is critical the Queensland Government provides a clear freight direction and proactively works with industry to overcome current and future constraints. This strategy will inform and deliver better freight outcomes for Queensland.

Moving Freight outlines the Queensland Government's 10 year strategy to develop a multi-modal freight network that is sustainable and productive. It will support the Queensland Plan and the Queensland Government's *Governing for Growth* framework by providing direction to business and industry for managing freight. It will also contribute to the Government's broader commitment to developing a four pillar economy.

The strategy will inform and complement a range of state government initiatives such as:

- the Queensland Ports Strategy
- statutory regional plans
- Queensland's Agriculture Strategy
- the Bruce Highway Action Plan
- future rail and road developments.

Importantly, *Moving Freight* identifies a broad range of freight, supply chain and logistics issues confronting the industry. The strategy outlines short, medium and long-term actions to move freight onto rail and improve the efficiency of road freight. This will ensure Queensland's freight system is receptive and responsive to customer needs and the changing requirements of a growing economy.

The strategy acknowledges the importance of freight in Queensland to the national economy and will ensure that Queensland's freight system needs are well positioned to respond to emerging national and international markets and opportunities.



A handwritten signature in blue ink that reads "Scott Emerson". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Honourable Scott Emerson MP
Minister for Transport and Main Roads



Holmview livestock facility, Brisbane

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Executive summary

Queensland's future economic growth will be built on the ability to move freight to support the resources, agriculture, construction and tourism sectors. An efficient freight system will provide the backbone for facilitating this growth.

With freight volumes estimated to increase from 871 million tonnes (mt) in 2010–11 to 1643–1741mt by 2026, clear direction is necessary to develop a more integrated multi-modal freight system. *Moving Freight* provides this direction by outlining actions to move freight onto rail and support the agricultural sector whilst improving the efficiency of the road freight task.

Priority one: expand the use of rail freight

Summary of key actions

- Develop the North Coast Line, Western and South Western rail systems and Mount Isa to Townsville rail corridor.
- Provide appropriate priority for rail freight.
- Improve regional rail for agricultural and general freight.

Priority two: increase road freight network access

Summary of key actions

- Deliver improved heavy vehicle access for industry.
- Promote strategic road freight routes for higher productivity vehicle access.
- Provide an oversize overmass (OSOM) network.
- Expand heavy vehicle access for the agricultural sector.

Priority three: facilitate greater freight infrastructure investment

Summary of key actions

- Enable greater industry investment in the freight network.
- Promote multi-modal investment needs.
- Release upgrade strategies for the Flinders and Barkly, Peak Downs and Capricorn highways.
- Deliver a heavy vehicle action plan to improve access.

Priority four: support future freight growth

Summary of key actions

- Support an inland rail freight strategy.
- Enable better industry coastal shipping services.
- Map freight network flood immunity.

Priority five: better freight policy and information

Summary of key actions

- Support National Land Freight Strategy.
- Support National Heavy Vehicle Regulator and national law.
- Develop better freight data and information systems.
- Employ technology to manage heavy vehicles.

Priority six: engage industry for better and safer freight outcomes

Summary of key actions

- Support freight research and development.
- Deliver heavy vehicle rest areas with industry.
- Work with freight industry councils.

Introduction

Moving Freight outlines Queensland's 10 year overarching strategy and policy direction for the freight system. Its objective is, 'to facilitate the efficient movement of freight.'

Its four main functions are to:

1. provide clear direction about government's policy for the freight system.
2. deliver actions to target freight investment and the safe and efficient movement of freight over the short term (1–2 years), medium term (3–5 years), and long term (6–10 years).
3. facilitate development of key transport infrastructure to support seamless modal integration.
4. inform the safe movement of freight on the transport system.

Vision

Efficient freight movement contributes positively to improving the competitiveness of Queensland industry in the national and world economy.

Queensland's vision for freight is, 'to ensure the freight system is continually receptive and responsive to customers needs, changing industry requirements and growing economic activity.'

Transport and Main Roads Strategic Framework

Queensland's transport system is a large and complex mix of users, infrastructure, regulation, services and network operations, that requires multiple strategies and plans. Transport and Main Roads Strategic Framework (refer **Figure 1, Page 7**) is a clear structure for these strategies and plans, and focuses on decision making for consistency with government priorities and integration across modes, users and regions.

The Transport Coordination and Delivery Plan (TCDP) is at the apex of the framework with its vision of 'Connecting Queensland – delivering transport for prosperity'.

Supporting this vision are the TCDP goals of:

- an efficient and reliable transport system
- an integrated transport system
- a safe and secure transport system.

Moving Freight is one of five core strategies which translate the TCDP goals into strategic priorities and actions. Each of the five core strategies focuses on a different system component. They inform each other and together reflect the key strategic directions for the transport system for the next 10 years.

Moving Freight focuses on the efficient movement of freight while *Moving People* focuses on how people access and use different modes of transport. Together *Moving Freight* and *Moving People* seek to balance the transport needs of freight and people. The Road System, Rail and Maritime System strategies will provide the strategic direction for the planning, management and operation of their respective modes.

Action Plans provide more detail on how specific priorities and actions will be pursued. They might be for a particular region, purpose (for example the *Bruce Highway Action Plan*) or mode.

The core strategies and action plans inform the program priorities and ultimately the delivery of infrastructure, services, regulation and compliance projects to achieve the three TCDP goals.

Investment principles and policy choices

In order to deliver the vision for the freight system, policy decisions and investment in infrastructure and services are prioritised to ensure delivery of the right project at the right time, and reflect the investment principles set out in the TCDP to:

1. run the system – sufficient funding will be provided to operate infrastructure and services to ensure an appropriate level of access and safety.
2. maintain the system – maintain existing assets, focusing on repair or rehabilitation of networks, rather than replacement, where this reduces the whole-of-life costs of transport infrastructure.
3. build and expand the system – after sufficient funding has been allocated to run and maintain the system, investments to expand the system and improve services will be balanced to meet growing demand.

In addition to these investment principles, there are a number of policy choices specific to the freight system, which will give better direction to decision makers when making trade-offs in relation to the delivery of freight priorities and actions. These include:

- Freight movement will be afforded appropriate priority on the rail network outside peak commuter periods.
- Rail is the preferred mode for freight movement, particularly for commodities in bulk (such as coal) and most long haul freight tasks.
- Higher productivity road vehicles are supported where road is the only viable freight mode.

Transport and Main Roads Strategic Plan

The Transport and Main Roads Strategic Plan 2013–2017 outlines the priorities and business objectives of the department over the next four years. It is designed to support the vision and goals in the TCDP. It therefore enables the direction, priorities and actions outlined in Moving Freight.

Figure 1: TCDP Strategic Framework



Government policy

State government

Queensland Plan

Moving Freight will have an important role in supporting the direction of the *Queensland Plan*. The efficient movement of freight will be critical to economic growth and realising opportunities in Queensland's long-term future. This will be achieved through the development of a more efficient and responsive freight system that supports industry productivity and economic performance.

Governing for Growth: enabling a stronger Queensland

Governing for Growth sets out the Queensland Government's commitment to provide pro-growth policies and tackle barriers to business opportunities. *Moving Freight* has a vital role in contributing to this commitment by supporting freight movement that enhances business and industry opportunity, productivity and development. It also supports key aspects of the Governing for Growth framework, such as Infrastructure for Economic Development (IfED), by encouraging better utilisation of existing transport infrastructure, greater supply chain integration and more consistent and transparent transport asset management.

Queensland Ports Strategy

Moving Freight has a significant relationship with the *Queensland Ports Strategy*. Ports have a key role in facilitating the movement of freight and provide a critical gateway to domestic and international freight markets. As such, *Moving Freight* depicts the supply chains connecting to Queensland's ports as well as emerging freight growth areas and corridors essential to port growth. It will therefore support the direction of the *Queensland Port Strategy* in relation to future port planning and strategic management.

Broader government policy and strategy

Moving Freight will inform, and complement, a range of broader state government frameworks and initiatives that inform freight movement such as:

- statutory regional plans
- government strategy (for example *Queensland's Agriculture Strategy 2040*)
- supply chain planning (for example *Central Queensland Transport Supply Chain Study*)
- economic development plans (for example *Galilee Basin Coal Infrastructure Framework* and North Queensland and Central Queensland Resources Supply Chain projects)
- strategic infrastructure programs
- economic development direction statements (for example *Queensland Airports 2013–2023*).

Other levels of government

National agenda

Moving Freight responds to, and supports the objectives of, the National Land Freight Strategy (NLFS). It achieves this by providing a state context for NLFS objectives. It also respects the Australian Government's role in managing and developing the national transport system for:

- regulating shipping and air transport
- national competition policy
- national transport pricing and charging regimes
- coordinating national transport reforms (for road and rail) across jurisdictions.

Local networks

Often the local government transport network provides a crucial role in connecting industrial areas to strategic state and national freight networks. *Moving Freight* will inform the management and development of local transport networks, inform local planning activities and assist in supporting road access issues.



Cargo handling, Port of Brisbane

Snapshot of the freight system

The current freight system

The freight system includes a number of separate but inter-dependent components comprising:

- The freight network – includes transport infrastructure (for example key roads, rail lines, ports, airports and terminals) that support freight movement (refer **Map 1, page 11**).
- Transport services – includes freight operators, freight forwarders, terminal operators and related businesses that facilitate freight movement.
- Government policy, regulation and legislation – includes the guidelines and controls that inform the development, use and management of the freight system.
- ‘Enabling’ systems – includes communication systems, information technology, utilities and other systems that support freight movement.

Freight system users

Industry and consumers (comprising households, businesses and government) are the primary generators of freight and hence major users or beneficiaries of the freight system.

Government is also an important freight system user as it provides critical and/or emergency services. For example, the Australian Defence Force must have access to major roads, railway, ports and airports, sometimes at short notice, to ensure the protection of national interests. This includes the provision of disaster assistance and humanitarian relief, training and defence operations.

Therefore, it is important that the development of Queensland’s freight system is responsive to a broad range of user needs.

Overview of freight network

Queensland’s freight network fulfils a critical role linking communities and local industry, regions and the state to the rest of Australia and overseas (see **Map 1, page 11**).

The network comprises public and privately owned road, rail, port, airport and terminal infrastructure.

Responsibility for managing, maintaining and/or developing the network is increasingly a shared responsibility between infrastructure owners, regulators, transport operators, and freight consumers.

Quick Facts

The primary freight network comprises:

- 13,600km of road (which is supported by the broader state controlled, local and franchised road networks)
- 9,550km of rail line (including a combination of publicly and privately managed narrow, standard and dual gauge lines)
- 15 trading ports
- three international airports and multiple domestic airports
- three key intermodal rail freight terminals (located at Acacia Ridge, Moolabin and the Port of Brisbane) and multiple smaller freight terminals and rail sidings



Loading a C-130J Hercules, destined for flood-stricken Central Queensland 2011

Map 1: Queensland freight network



Source: Department of Transport and Main Roads (2013)

Freight in Queensland

Queensland has an extensive freight task driven inter alia by mining, agriculture, building and construction, hospitality and retail, household consumption (food and beverages), accommodation and business services. These types of industries, combined with Queensland's dispersed settlement pattern, result in various competing freight movement needs and challenges across the state.

In 2010–11, Queensland's total freight volume, comprising export, import and domestic freight movement, was 871mt.¹

Export and import freight

Export and import freight activity is extensive across the state, supported by multiple trading ports (as outlined in **Figure 2**) which connect industry to international markets.

Generally, Queensland's production related industries have a strong export focus. In 2012–13, state exports were valued at approximately \$46.3 billion; since 2000, exports have, on average, represented 23% of estimated total freight volumes.²

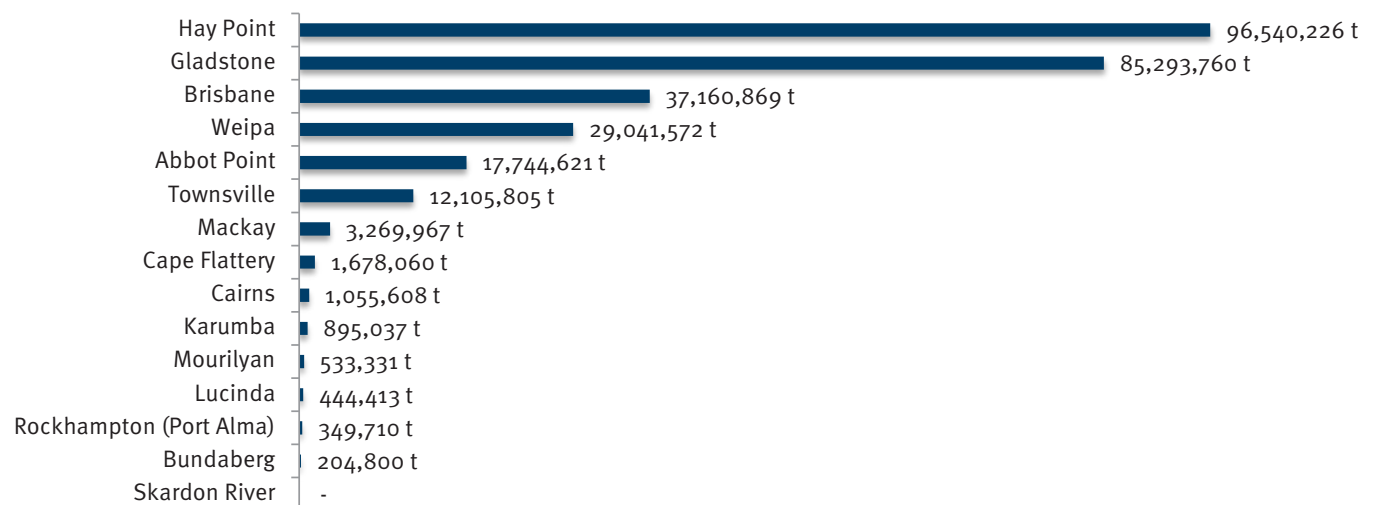
Coal is the most significant export commodity by volume; exports have increased by more than 50% since 2001 and account for more than 80% of all Queensland exports³ (see **Table 1**).

Table 1 – Queensland international exports 2012–13

Commodity group	Tonnes	Share %
Coal	179,901,014	84.2
Metalliferous ores and metal scrap	16,327,916	7.6
Food, beverages, tobacco, live animals	3,222,747	1.5
Crude materials - inedible except fuels	1,885,060	0.9
Grains, cereals, and cereal preparations	2,691,308	1.3
Manufactured goods including metals, machinery	1,481,325	0.7
Chemicals and related products	590,642	0.3
Animal and vegetable oils, fats and waxes	253,311	0.1
Commodities not classified elsewhere	7,389,235	3.5
Total	213,742,558	100

Source: OESR: *Overseas exports by commodity, volume, Queensland Ports* Department of Transport and Main Roads: *Trade Statistics for Queensland Ports*

Figure 2: Total throughput of trading ports 2012-13



Source: *Trade Statistics for Queensland Ports*

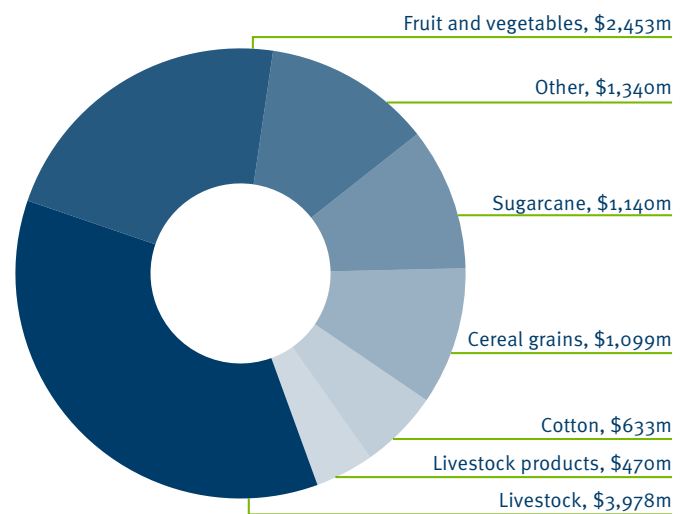
Agricultural commodities and their derivatives, including livestock, are a further important state export. While comprising only 3% of export volumes in 2012–13 they were valued over \$8 billion, which is second only in terms of value to coal exports.⁴ Despite the volume of agricultural exports being considerably less than minerals, the value of these commodities is significant and is expected to continue to be an important economic driver for regional and rural communities.

Queensland is a significant producer of agricultural commodities. In 2012–13, the gross value of Queensland’s agricultural production was approximately \$11.1 billion⁵ (refer **Figure 3**).

Containerised freight movements are a notable component of Queensland’s export and import freight task (refer **Figure 4**). In 2012–13, container trade was approximately 1.14 million Twenty-foot Equivalent Units (TEU).⁶ Almost 94% (1,069,000 TEU) of import and export containers passed through the Port of Brisbane. Townsville had the next largest share with 4.3% (50,173 TEU), with the remaining 2% of container trade handled by Gladstone, Rockhampton and Cairns.⁷

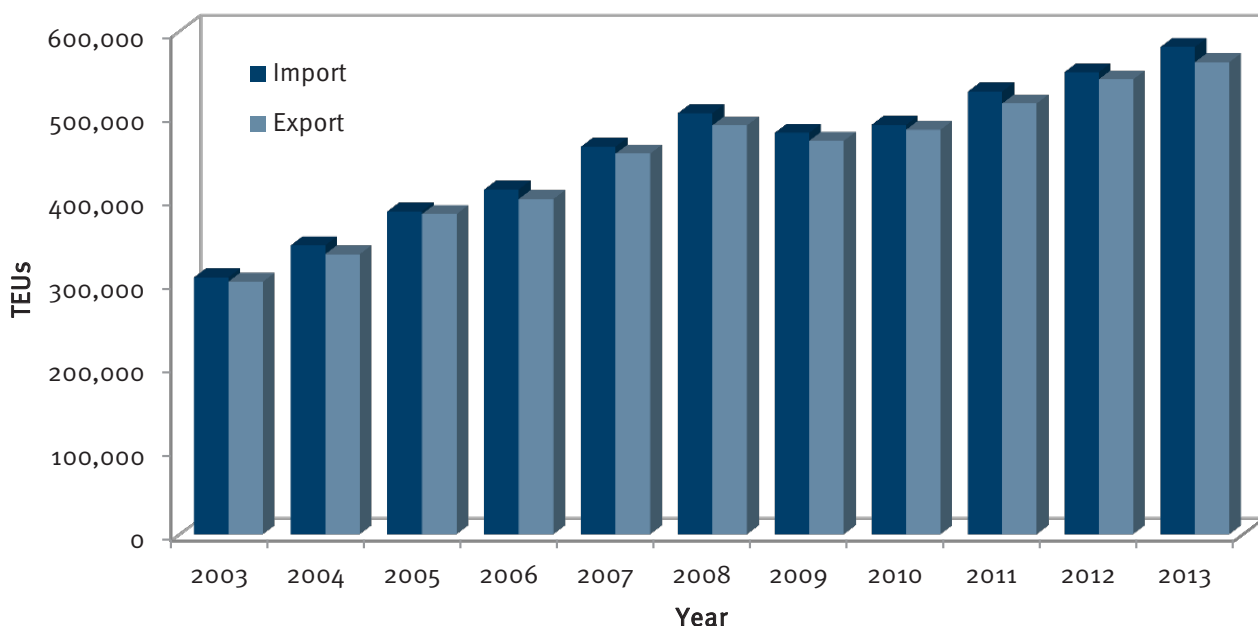
Queensland’s imports generally include containerised high value manufactured goods. The value of Queensland imports has grown ten fold over the last 25 years from \$3.7 billion to almost \$42.7 billion in 2012–13.⁸ For the same period the value of Queensland exports grew five fold from \$9 billion to approximately \$46.3 billion.⁹

Figure 3: Gross value of Queensland agricultural production 2012–13



Source: Department of Agriculture, Fisheries and Forestry: *Queensland AgTrends Update April 2013*

Figure 4: Queensland container trade



Source: *Trade Statistics for Queensland Ports*

Freight types

Based on the typical handling characteristics of commodities, the type of freight moved in Queensland can be broadly categorised as:

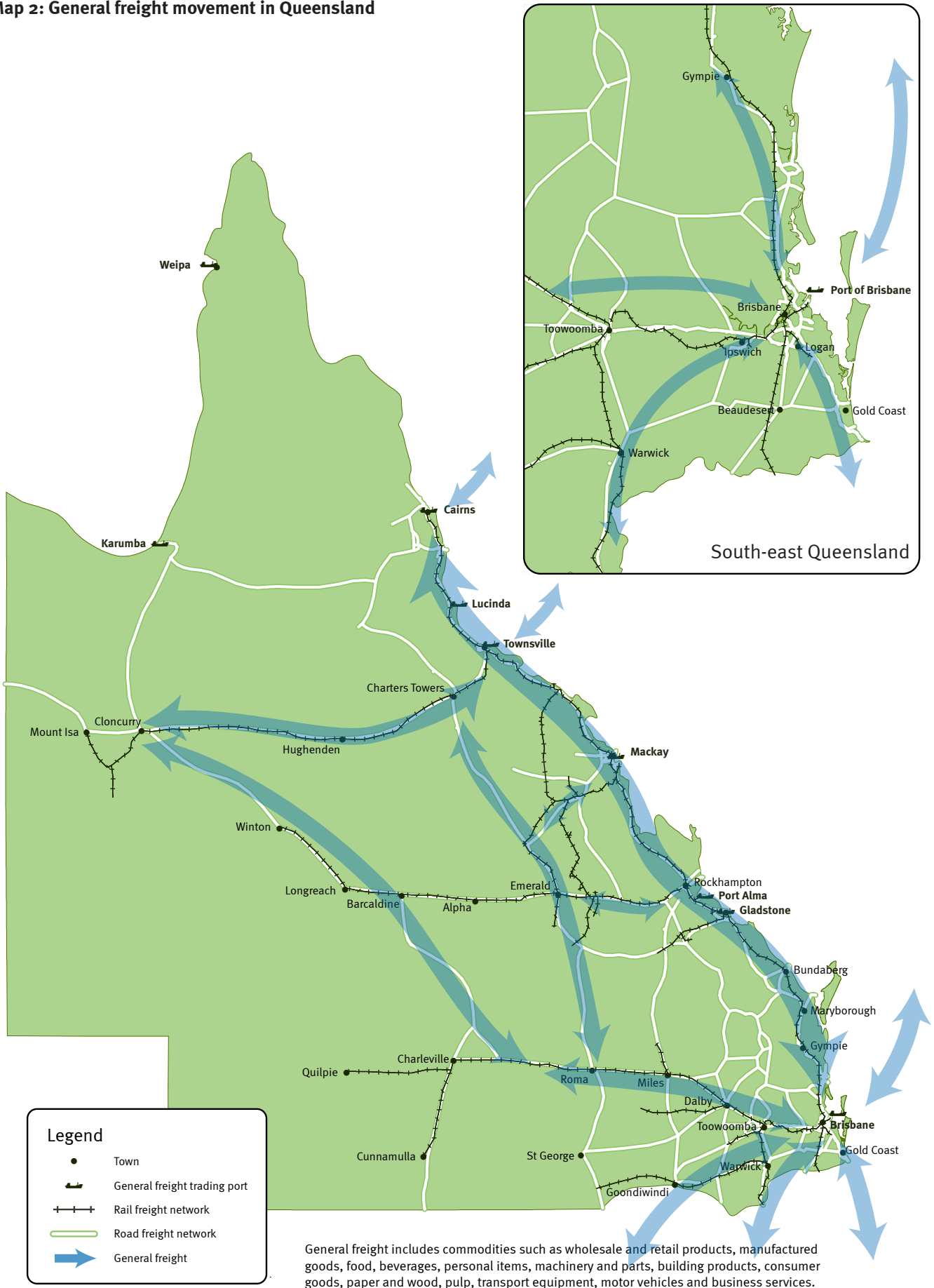
- General freight – commodities moved individually and/or in containerised, palletised and/or parcel sized configurations, such as: wholesale and retail products, manufactured goods, food, beverages, personal items, plant and machinery parts, and building products.
- Commodities moved in bulk – single commodity movements in high volume or bulk configuration such as: coal, minerals, bauxite, cement, grain, and sugar.

These categories of freight typically place diverse demands on the freight system. For instance, the movement of general freight in Queensland is outlined in **Map 2, page 15**, which illustrates:

- Movement to and from international, inter-state, intra-state markets as well as within Queensland urban freight networks.
- Strong north-south flows between the major centres along the coastline and inter-state locations, with some east-west flows supporting mining, agriculture and regional household needs.
- Concentrated movement in south-east Queensland, due to its population, economic activity, and access to processing, value-adding and port export facilities.
- Road transport supports the majority of general freight movement within Queensland.



Map 2: General freight movement in Queensland



Source: Department of Transport and Main Roads (2013)

The major movements of commodities in bulk are illustrated in **Map 3, page 17**, which shows:

- the movement of commodities to and from international, inter-state and intra-state markets.
- the majority of commodities moved in bulk comprising mining and agricultural exports.
- commodities predominantly moving in a west to east direction to Queensland’s ports.
- rail has a key role in moving commodities in bulk, with its 29% modal share of the overall freight task largely attributed to this type of freight, with coastal shipping also fulfilling a role.

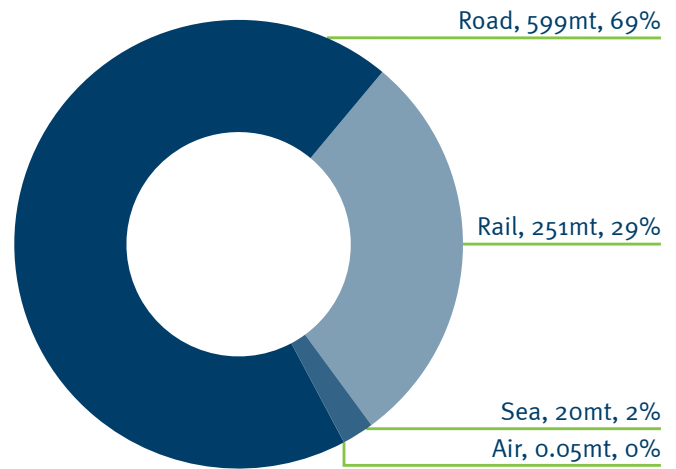
Intrastate modal share and selection

Generally, modal selection is informed by the best match between the characteristics of the freight to be moved (volume, mass and handling requirements) and transport options (cost, speed, service frequency, reliability, availability and flexibility). Existing modal share of Queensland’s total freight task by volume is outlined in **Figure 5**.

Characteristics of the existing modal share are:

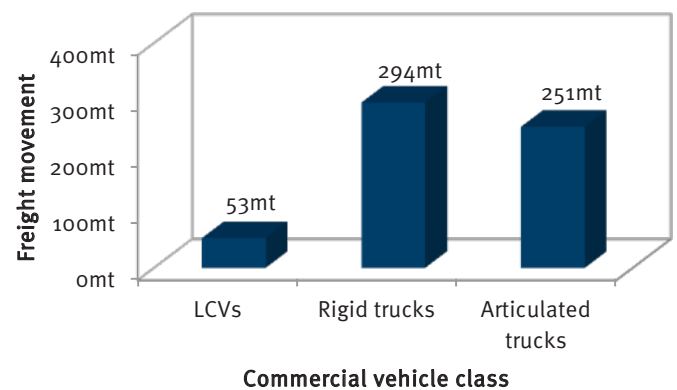
- Road freight comprises various commercial vehicle classes. **Figure 6** identifies the freight volume moved and fleet size by commercial vehicle class.
- Rail freight is predominantly attributed to coal exports.
- Coastal shipping primarily comprises inter-regional movements of bauxite, petroleum products and cement.
- Air freight is relatively small in volume. However, it has an important role supporting high value and urgent freight.

Figure 5: Freight movement by mode 2010–11



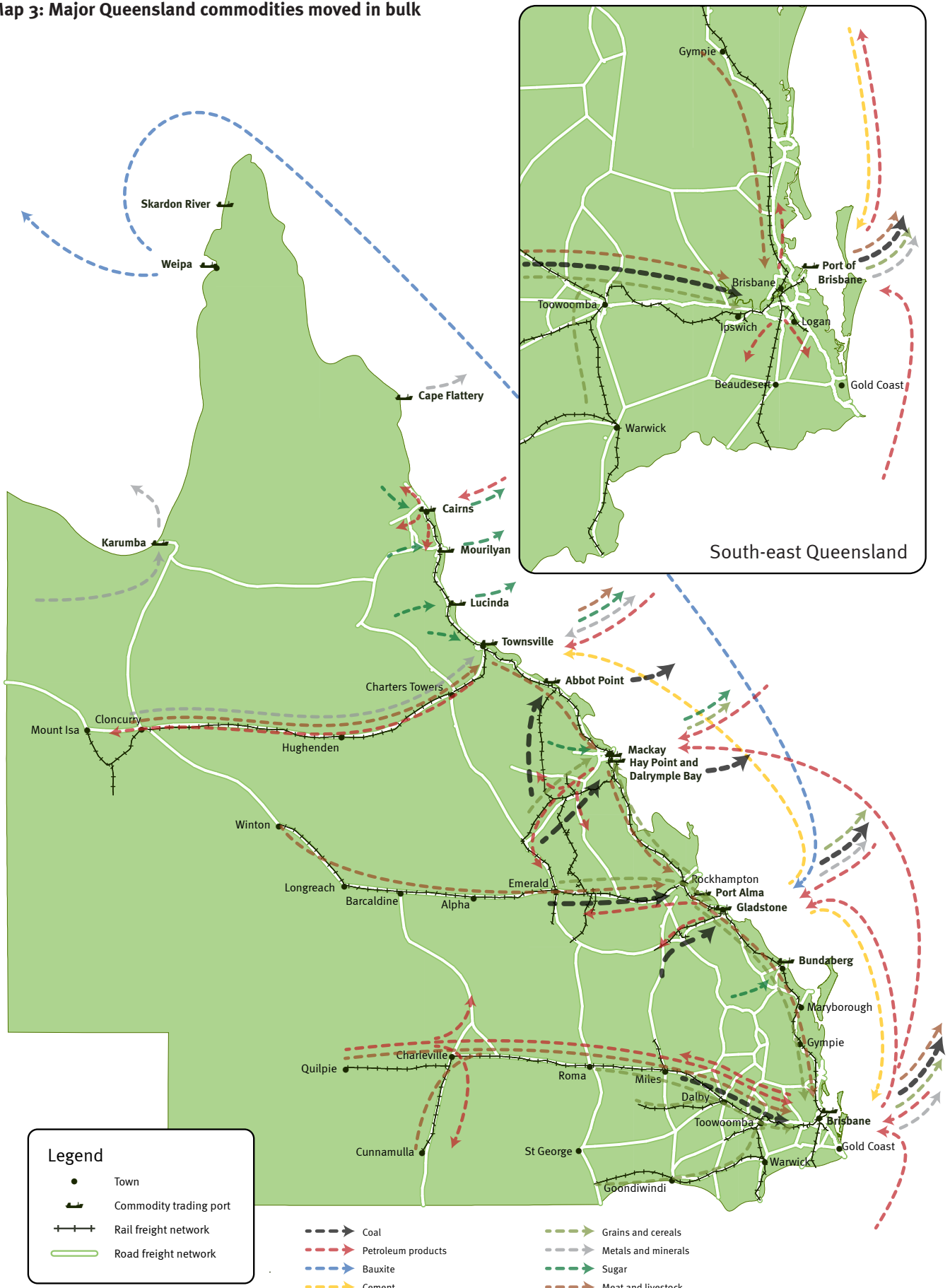
Source: Centre for Transport Energy and the Environment: *Queensland Transport Facts 2013*

Figure 6: Freight movement by road vehicles 2010–11



Source: Centre for Transport, Energy and the Environment: *Queensland Transport Facts 2013*

Map 3: Major Queensland commodities moved in bulk

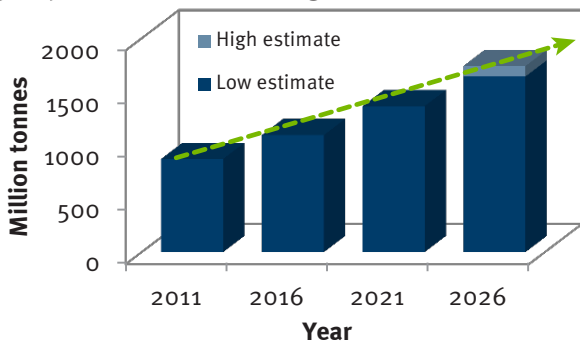


Source: Department of Transport and Main Roads

Freight growth

Queensland's future freight task is expected to be driven by strong economic activity including population growth and international trade. As a result, freight volumes are estimated to increase from 871 mt in 2010–11 to 1643–1741mt by 2026¹⁰ (see **Figure 7**). **Table 2** identifies estimated freight volumes for key commodity groups.

Figure 7: Estimated future freight volumes



Source: Pekol Transport and Traffic 2013 and TMR aggregation

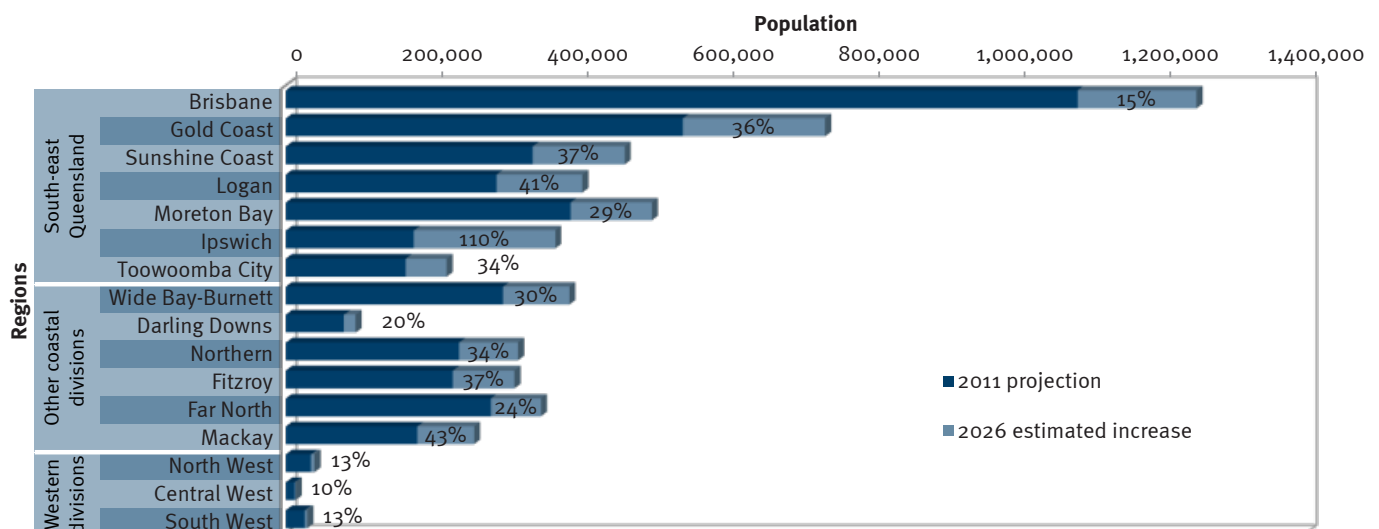
Commodity	2016	2021	2026 (Low)	2026 (High)
Export coal	216	282	378	378
Export minerals	40	57	68	76
Export agriculture	9	11	13	13
General freight	830	1016	1185	1274

Source: Pekol Transport and Traffic 2013 and TMR aggregation

Growing population

Queensland's population is estimated to grow from 4.6 million people projected in 2011, to 6.1 million people in 2026.¹¹ This growth is likely to be largely concentrated in regions along Queensland's coastline (see **Figure 8**).

Figure 8: Projected population in growth areas of Queensland



Source: OESR: *Local Government Areas by Statistical Divisions, 2011*

While this growth will result in an increase in business and household demand for general freight across the state, it will primarily drive the north to south freight movement. This will lead to an increased demand on existing road and rail links along Queensland's coastal corridor as well as the interstate corridor to southern states as illustrated in **Map 4, page 19**. It also has the potential to increase demand along the inland north to south road corridor comprising of the Gregory Developmental Road, the Gregory, Dawson and Carnarvon highways and associated connections to the coastal corridor.

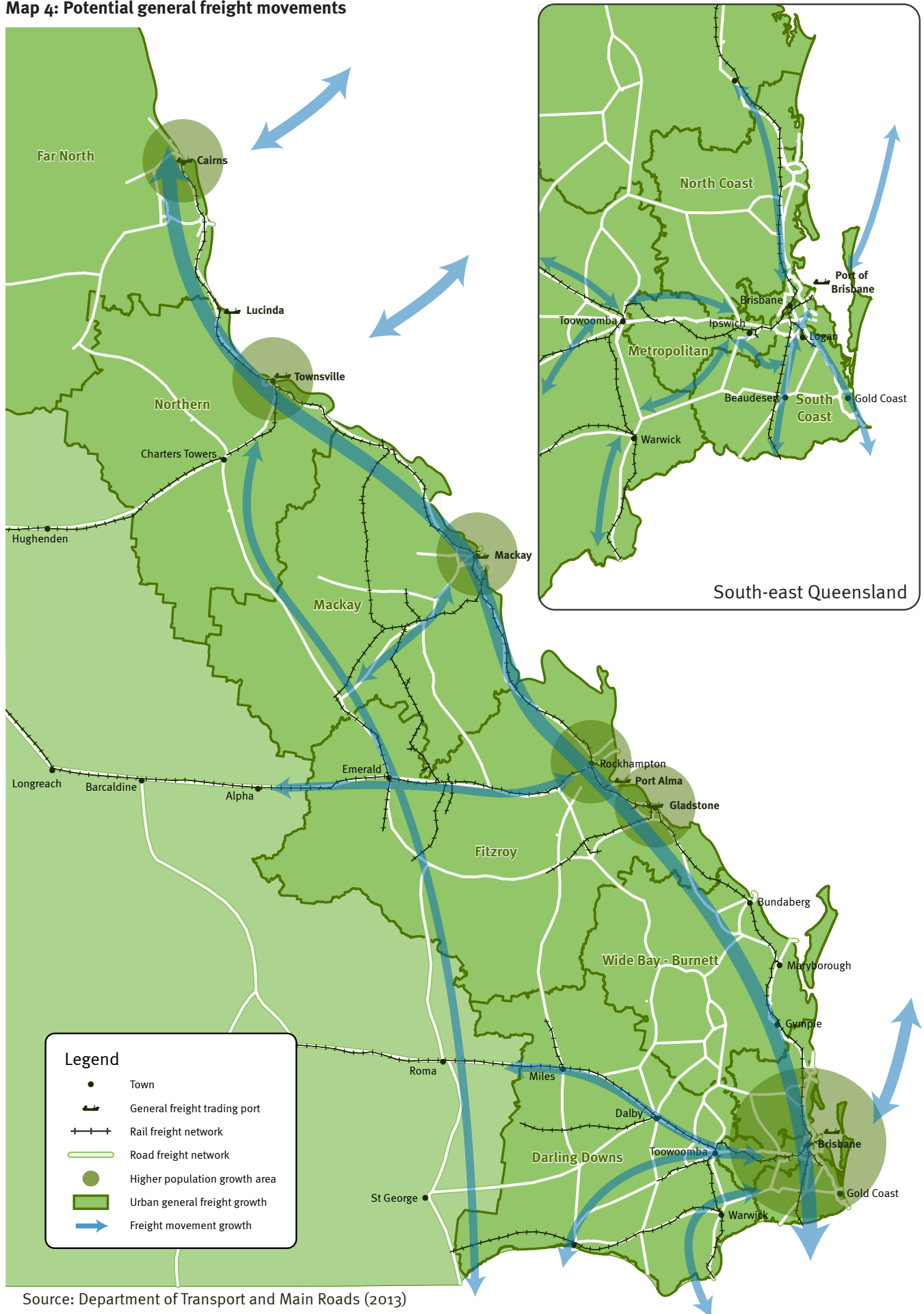
Increasing imports

Increasing demand for general freight from businesses and households, combined with the reduction of manufacturing in Australia, is continuing to drive imports. This is expected to translate into increasing general freight import growth through the Port of Brisbane, which is the state's primary import port.

Growth in general freight imports will predominately drive the Port of Brisbane's container trade which accounts for around 94% of the state throughput.¹² Over 90% of Port of Brisbane container imports have a destination in south-east Queensland. This will heighten demand on urban road and rail connections between the port and key industrial precincts in south-east Queensland as well as key freight corridors to regional Queensland.

Future import growth also has the potential to drive development opportunities for broader Queensland ports and their associated transport connections. However, these opportunities will be dependent on economic drivers and/or specific supply chain requirements.

Map 4: Potential general freight movements



Source: Department of Transport and Main Roads (2013)

Increasing mining exports

While demand for mining commodities will fluctuate according to market forces, global demand for Queensland's minerals is expected to drive export growth. This will be reflected in future exports to developing countries, such as China and India, whose economies, according to the International Monetary Fund, are anticipated to more than double from 2012 in terms of GDP by 2020.¹³

Key existing locations likely to experience expanding freight activity and demand by 2026 include:

- Surat Basin – contains large resources of thermal coal, liquid petroleum gas, natural gas, coal seam methane gas, as well as smaller scale deposits of crude oil, gold and iron ore. Demand for coal alone could increase by 25mt per annum.¹⁴
- Bowen Basin – further expansion of coal mines could generate an additional 23mt per annum.¹⁵
- North West Queensland Minerals Province – contains minerals and concentrates such as zinc, copper, lead, phosphate, silver and gold.
- North East Minerals Province – contains zinc, copper, lead, silver and gold.
- Cooper Basin – contains gas, crude oil, condensate and liquefied petroleum gas (LPG) which are primarily for domestic consumption.

Locations with potential to generate new freight activity include:

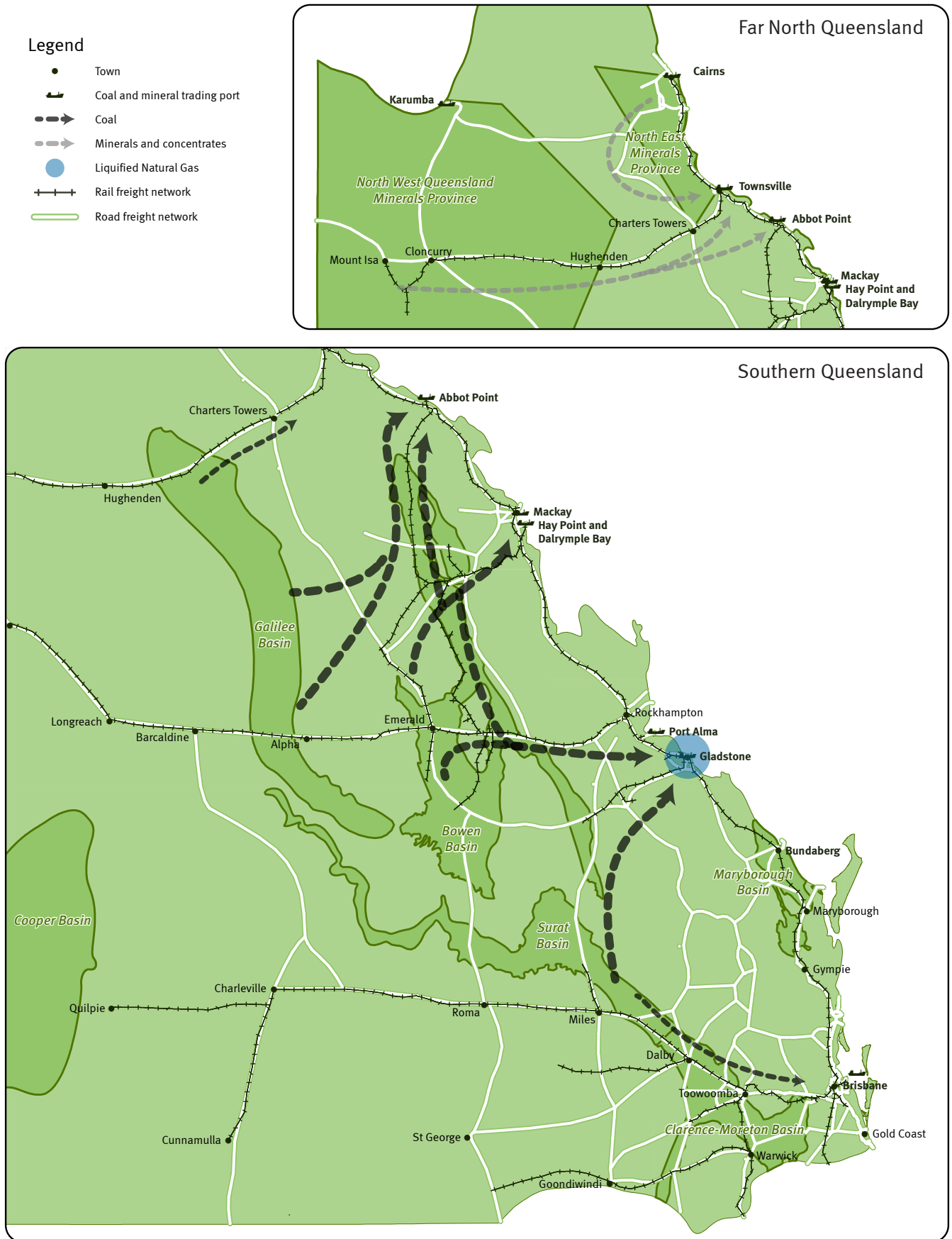
- Galilee Basin – development of this basin could potentially generate approximately 55mt of thermal coal per annum.
- Gladstone – this area is subject to the development of large-scale coal seam/liquefied natural gas (LNG) initiatives. The emerging LNG industry will involve the development of coal seam gas resources from the Bowen and Surat basins for liquefaction at facilities on Curtis Island. LNG exports could be about 25mt annually.¹⁶

Map 5, page 21 illustrates these key mineral resource regions and the critical links subject to the increased demand to support the mining export growth.

Furthermore, increasing global mineral demand could also result in the maturing of additional prospecting activity across the state. This could lead to the development of new mining areas such as the North Burnett Region and Maryborough Basin, and associated transport links to ports.



Map 5: Potential mining activity areas



Source: Department of Transport and Main Roads (2013)

Mining inputs

Mining areas drive significant demand for in-bound freight to support mining operations. This includes direct mining inputs (such as plant and machinery, petroleum products, and building and construction commodities) and broader mining community consumption.

In Queensland, the road freight network typically fulfils a primary role in transporting mining inputs. To date, growth in key existing mining locations in the Bowen Basin has led to the identification of various road network constraints that have impacted on the efficiency of mining inputs, particularly oversize overmass (OSOM) movements. This includes ageing structures, bridge strength, road envelope dimensions and pavement depth.

While OSOM movements occur across the state, activity is particularly concentrated in the South East, Darling Downs, Mackay and Fitzroy regions. **Map 6, page 23** indicates the key road routes supporting OSOM movements in these areas, which are likely to continue to experience future pressure as mining areas expand and develop.

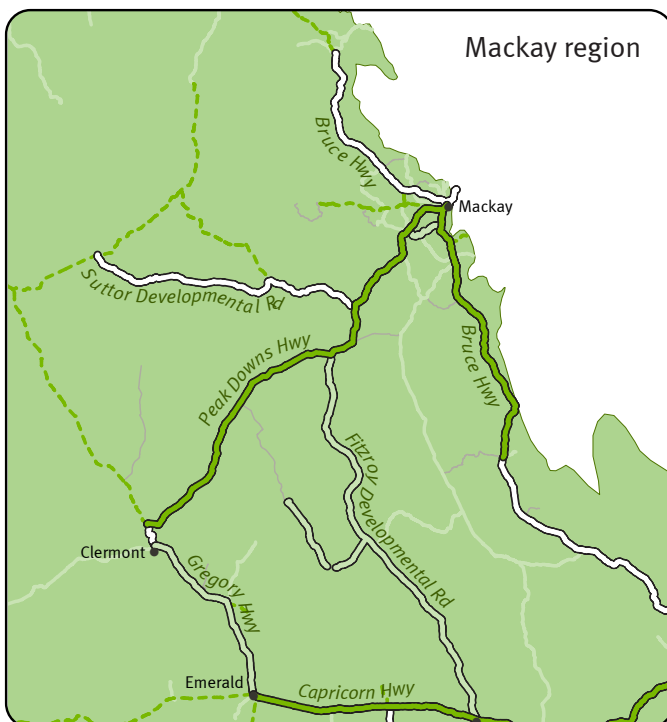
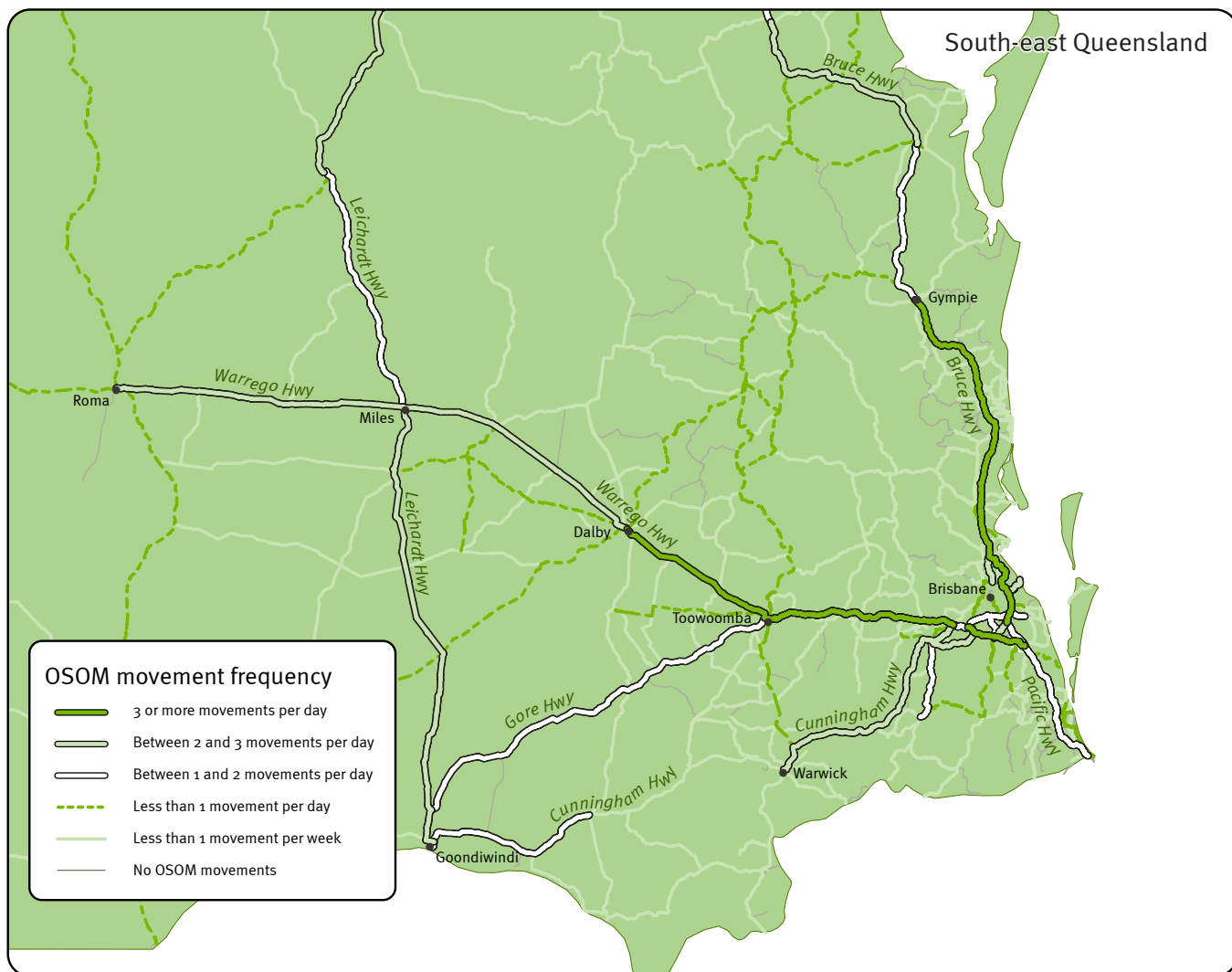
The potential development of the Galilee and Surat basins is likely to lead to further network constraints. This is due to mining inputs and OSOM movements extending to other areas of the network, such as the north-south inland road corridor comprising the Gregory Developmental Road and Gregory Highway.

In addition to road constraints, the increasing frequency of OSOM movements is placing greater demand on permit processing timeframes, route suitability assessments and traffic management.



OSOM, Eton Range

Map 6: Roads supporting oversized overmass movements (OSOM)



Source: Department of Transport and Main Roads – Permit data May 2011 to May 2012

Future agricultural production

Queensland's agricultural sector is well placed to respond to future global food demands, particularly emerging Asian markets. To support the growth of the sector, the Queensland Government has outlined an Agriculture Strategy, which aims to double the value of Queensland's food production by 2040. This will require increasing emphasis on the development of existing agricultural regions across the state, with particular focus on the north.

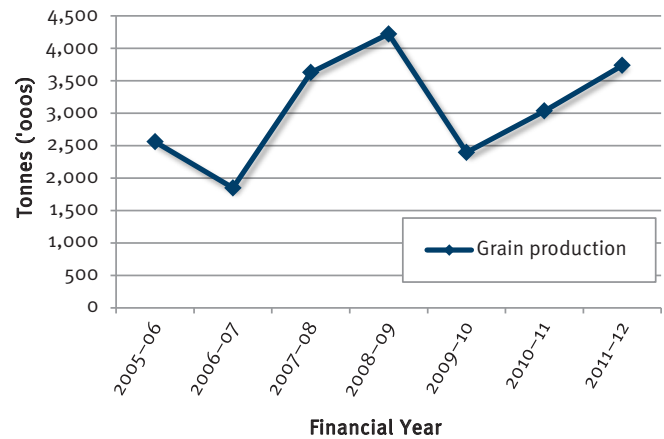
The Queensland Government's Agriculture Strategy also acknowledges the importance of improved freight access and options to support the sector's growth. **Map 7, page 25** identifies the key agricultural production areas and road/rail links critical to supporting agriculture.

Currently, agricultural production across the state is dispersed, encompassing the gulf country in the north to the south-west and along the coast from the far north of the state to the Tweed River. This dispersion, along with the seasonal nature and variation of agricultural production can make it difficult to commit to long-term freight solutions. For example, **Figure 9** demonstrates the seasonal fluctuations and variability in grain production.

In addition, international market forces can contribute to fluctuations in production volumes. As a gross exporter of agricultural commodities, the exchange rate of the Australian dollar can further impact on the state's agricultural production.

Regardless of the challenges confronting agricultural production, opportunities exist to develop more reliable, efficient and cost-effective freight solutions to satisfy future food consumption demands. This can be realised through enhancing supply chain relationships, challenging existing roles and responsibilities and better managing commercial risks.

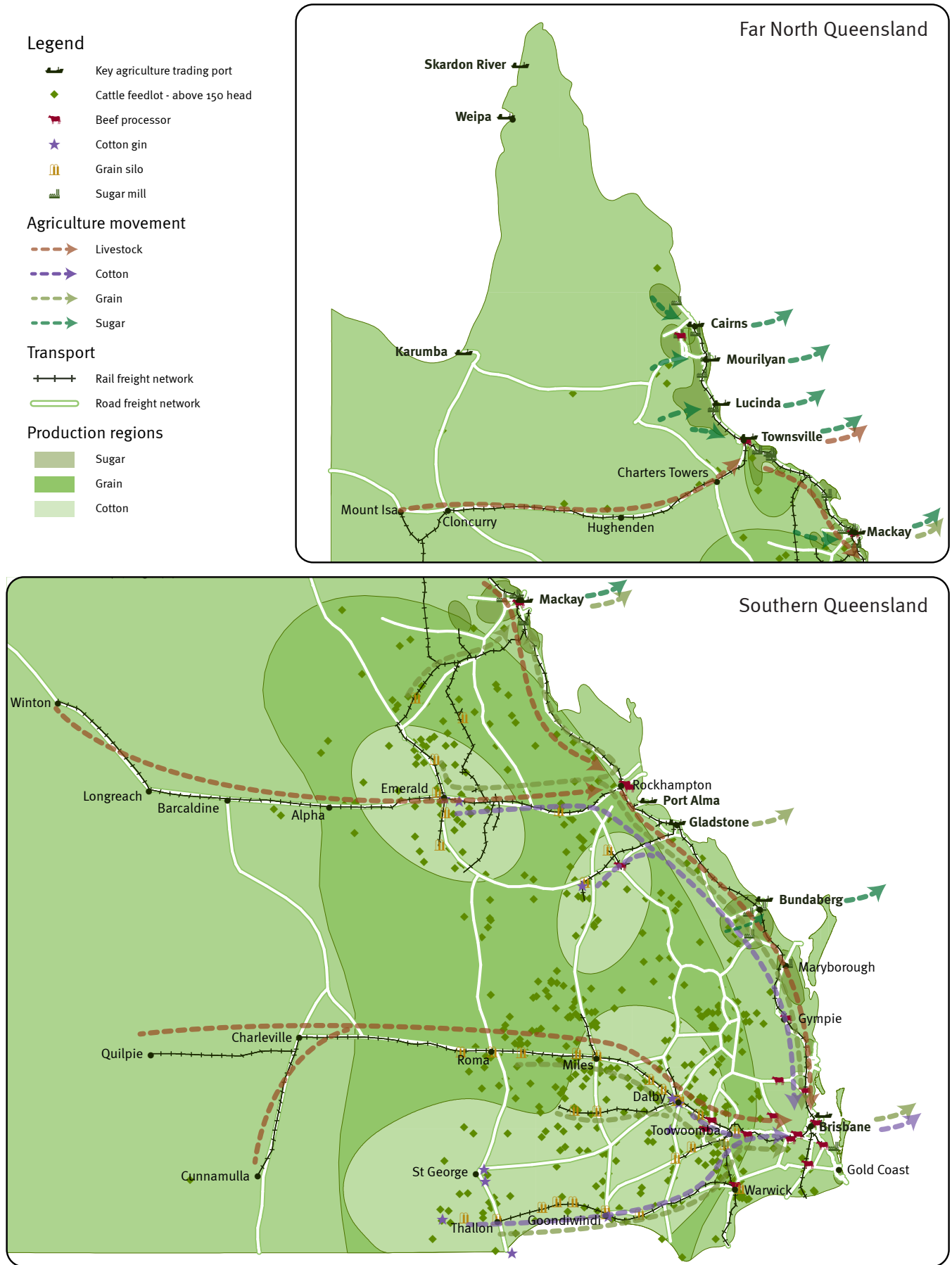
Figure 9: Queensland grain production



Source: OESR: *Agriculture: production by main crop, Queensland, 1985-86 to 2011-12*



Map 7: Key agricultural production regions



Source: Department of Transport and Main Roads (2013), Department of Agriculture, Fisheries and Forestry (2013), Cotton Australia (2013)

Opportunities and challenges

There are a number of opportunities and challenges that have the ability to inform and influence future freight movement. It is therefore critical that government, industry and broader stakeholders work together to harness opportunities and address challenges to support efficient, reliable, integrated and safe freight movement.

Operating within fiscal constraints

The 2008 global financial crisis has contributed to a constrained fiscal environment limiting public and private sector borrowings and hence investment. This will require renewed emphasis on solutions that enhance existing freight operations, services and infrastructure capacity.

Cost of infrastructure

The escalating cost of transport infrastructure is limiting the ability of the state to fund all necessary transport infrastructure requirements. Therefore, emphasis must be on enhancing the use of existing transport infrastructure, maintaining infrastructure to a 'fit for purpose' standard and exploring alternate funding options, including partnerships.

Attracting freight to rail

There is latent capacity across some sections of the rail network with the ability to support the growing freight demand. However, ensuring the rail system offers adequate access, reliability and flexibility will be essential to expanding its use. The inherent characteristics of rail make it well suited to emerging freight demands across the state. Ideally, rail is suited to freight tasks that are high volume, point-to-point pick up and delivery over long distances.

Opportunities exist to attract freight volumes to rail for agricultural and general freight tasks via alternative train operating models, enhancing contestability and promoting the use of latent infrastructure. Attracting freight to rail will also greatly benefit the road network by minimising future maintenance and development demands associated with heavy vehicles as well as provide broader safety and environmental benefits.

Higher productivity vehicles

Higher productivity heavy vehicle combinations offer important increases in productivity and efficiency for freight operators. Improving road network access for these types of vehicles offer a range of benefits such as:

- lower transport costs for the user, therefore supporting industry productivity and economic development

- minimise adverse transport impacts on the environment, community amenity and congestion
- minimise transport demand, for example reduced number of heavy vehicle movements
- enhance transport safety through safer vehicle designs
- maximise the use of existing transport infrastructure.

However, increased access for these vehicles can accelerate road damage and cause sharper maintenance issues. Therefore, access needs to be balanced with existing infrastructure capability including weight restrictions on bridges and pavements and geometric issues.

Asset management

Queensland's ageing road and rail network and its increasing maintenance demands are important considerations in how the state manages the increasing freight demand. There are also parts of the network such as bridges or road networks which were not designed to accommodate the demands associated with higher payload trains and heavy vehicles.

Future freight network investment will therefore require greater collaboration from government, stakeholder and industry in order to maintain and develop the freight system. This will be critical to maximising state, federal and private sector funding sources and ensuring that freight investment is coordinated, delivers value for money and supports future freight needs. It will also require continuous alignment and balancing of individual stakeholder priorities, issues and interests.

Opportunities:

- Improved freight system performance through heavy vehicle access systems.
- Use existing rail capacity to support freight demand.
- Greater investment in the development of the freight system.

Challenges:

- Addressing aging infrastructure and capacity limitations.
- Attracting freight volumes to rail.
- Synchronising freight stakeholder investment criteria, priorities and readiness.

Supporting a growing and diverse population

Queensland's growing population will continue to drive increases in the volume of freight to be moved. This will require a freight system that delivers improved performance levels to satisfy growing population needs.

Freight planning

Future freight planning must therefore endeavour to enhance freight capacity and network flexibility. Implicit in this type of planning is the need to identify and enhance connectivity between existing and future multimodal freight corridors and terminal locations. Improving the connectivity between modes can enhance the capacity and performance of the freight network, assist in minimising freight costs and improve network resilience against outages and adverse weather events.

Dispersed population

The dispersed nature of the state's population and the vast geographical distances between centres will require freight system planning and investment decisions to be subject to greater level of prioritisation.

Freight data

Up-to-date and reliable freight data is critical in the development of freight policy, planning and investment strategies that guide the decisions to maintain, run and develop the system. While freight data is available from various sources, its completeness in describing comparative modal freight demands is limited. Generally, commercial-in-confidence and intellectual property issues have limited the sharing of this type of information. Developing a cooperative approach that respects the interests of government and industry will be necessary to making better informed freight system decisions that deliver mutual benefits.

Opportunity:

- Improved freight system performance.

Challenges:

- Balancing the competing freight needs of a vast state.
- Supporting emerging and changing supply chain demands.
- Identifying holistic and reliable freight information.



Container train

Keeping the economy moving in a growing region

Queensland has a diverse economic base, which places significant pressure and demands on the freight network to support a broad range of freight movements. Providing a cost effective and affordable freight system that supports future freight demands will be critical to growing the economy.

Freight growth

As indicated, existing freight volumes throughout Queensland are expected to grow to 1643–1741mt by 2026.¹⁷ This growth in freight volumes will place increased demand on the system and therefore require greater emphasis on:

- using the existing system to its capacity
- planning for the future
- working with stakeholders
- balancing competing freight investment decisions
- delivering a more competitive freight environment.

Changing consumption and production

A modern economy will also lead to changing production (off-shore manufacturing) and consumption (use of e-commerce and technology) trends. This is likely to influence existing supply chains and/or lead to the development of more innovative freight solutions.

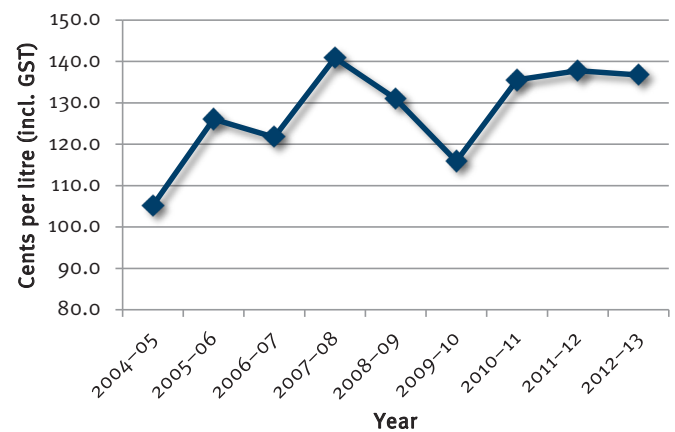
Oil vulnerability

Oil vulnerability will drive the need for the freight system to adapt to alternate sources of energy, explore more efficient supply chain models and exploit the use of technology.

Australia is a net importer of crude oil and currently imports 30% of its refinery feedstock. Furthermore, Australian refineries produce around 62% of locally consumed diesel fuel, the remainder is imported.¹⁸

Freight transport and primary industry in Queensland is heavily dependent on diesel fuel and therefore transport and production costs are sensitive to international oil prices. There is continuing debate about when global oil will reach peak production. If this occurs sooner than predicted, the most likely result will be a steady increase in oil prices. The long-term sustainability of the freight transport sector will depend on its ability to manage the impact of international oil price volatility through increased operational and energy efficiencies. **Figure 10** indicates recent fluctuations in wholesale diesel prices. Fluctuations in diesel prices will also require industry to pursue more efficient supply chain operations, which exploit the benefits of economies of scale, industry collaboration and alternate delivery practices and models.

Figure 10: Brisbane average wholesale diesel price*



*Excludes Queensland Government fuel subsidy removed in 2009.
Source: Australian Institute of Petroleum: AIP Annual Terminal Gate Prices (TGP) Data

Opportunity:

- Supporting the competitiveness and development of Queensland industry.

Challenges:

- Managing freight growth.
- Facilitating the development of more efficient supply chain models and systems.

Managing the system

All levels of government fulfil a role in relation to managing and funding the freight system. However, increasing private sector ownership of road, rail, port and airport infrastructure is adding a further dynamic to funding, coordinating and managing system requirements and priorities. Coordinating associated responsibilities and competing priorities is critical to the effective and seamless management of the system.

While the freight system in Queensland needs to be managed and developed to support industry, it also needs to be responsive to national reforms as well as broader environmental, safety and community amenity impacts.

National reforms

The movement of freight often extends beyond jurisdictional boundaries and therefore needs to be viewed in a national context. To enhance freight efficiency and productivity further simplification of policy, strategy, planning and regulation between jurisdictions is necessary to support a seamless freight network. Currently, there are a number of national initiatives underway, such as the development of the National Land Freight Strategy, designed to streamline the broader freight environment.

Adverse weather events

The reliability of Queensland's freight system is regularly impacted by extreme weather events and harsh environmental conditions which affect the ability to move freight. For example, the 2011 floods had a significant impact on the freight network resulting in outages and major damage to, and loss of, infrastructure. Repeated flood events during 2013 have impacted on 2011 reconstruction efforts adding further reconstruction requirements resulting in significant costs to the state. Queensland spends a significant amount repairing damaged transport infrastructure as a consequence of adverse weather events. The cost of infrastructure combined with constrained fiscal environment will require greater infrastructure reconstruction prioritisation and betterment to provide a more resilient freight network.

Safety

Providing a freight system that is safe for operators, users and the community is important and implicit in all aspects of transport system planning and management. The state is also working with stakeholders in relation to the development and/or implementation of various jurisdictional and national safety reforms, regulations and programs. A key example is the release of the *Queensland Road Safety Action Plan 2013–2015*.

Queensland is committed to the safe movement of dangerous goods across the state, which is regulated by state legislation. It has legislative responsibility for the transportation of radioactive substances in conjunction with the Australian Radiation Protection and Nuclear Safety Agency. The transportation of radioactive material is further informed by the *Code of Practice for the Safe Transport of Radioactive Substances 1990*, which provides uniform requirements across Australia.

With increases in freight activity likely to compound any adverse community perceptions on safety, Queensland is also taking further action to enhance the safety of heavy freight vehicles across the transport network. This includes a range of initiatives such as managing heavy vehicle driver fatigue, providing access for safer innovative heavy vehicles and employing technology to monitor compliance of heavy vehicle options (for example speed and fatigue).



2011 floods, Yaamba

Community

Freight movements may affect a community’s sense of wellbeing. As Queensland’s freight task continues to grow, managing the associated impacts on community amenity will be critical in responding to the impacts of economic growth. In Queensland, community amenity and freight activity is managed with regard to the framework in **Figure 11**.

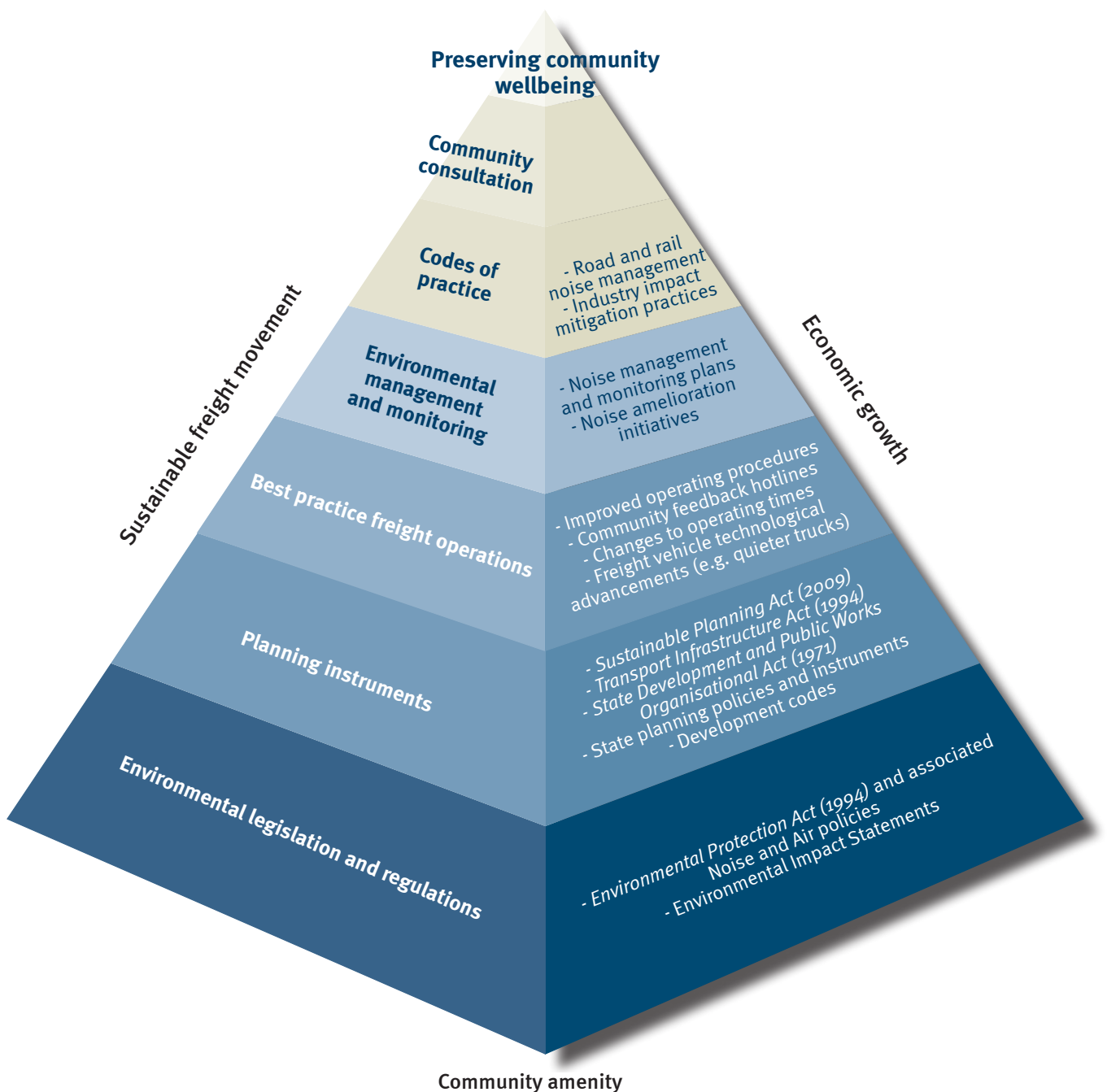
Opportunity:

- **Developing a more resilient freight system.**

Challenges:

- **Aligning diverse freight system regulatory requirements.**
- **Balancing environmental, community and safety impacts.**

Figure 11: Framework for managing community wellbeing and freight activity



Embracing new technologies

Technology is critical to freight system performance. Its application allows the ability to better manage and align transport demand and operations in relation to existing network capacity.

Intelligent Transport Systems

From a road perspective, Queensland has developed a heavy vehicle management system to target compliance for mass, safety, fatigue and dangerous goods activities. The system uses fibre-optic cabling that links weigh-in-motion detectors, remotely controlled changeable message signs, closed-circuit television cameras, transport inspectors control centres and traffic management centres. Further potential system developments include enforcement grade digital cameras and a fully automated system using high-speed weigh-in-motion detectors.

In addition, Queensland also provides real-time road traffic information (through calling 13 19 40 and visiting the website www.131940.qld.gov.au), and is actively pursuing other forms of media such as SMS messaging and radio to better inform road users.

To support rail operations, Queensland also employs Automatic Train Protection detection and integrated signalling systems (for example European Train Signalling Systems) to enhance the performance, utilisation and safety of the rail network.

Informing compliance through technology

Growth in Queensland's freight task is expected to result in a greater number of higher risk freight operations (for example OSOM), across the road network. To effectively manage associated risks, renewed emphasis and reliance is necessary for developing technologies to monitor, guide and inform road freight network demand and compliance efforts.

Opportunity:

- Enhance freight system capacity and performance through new technologies.

Challenge:

- Encouraging the takeup of new technology.



Brisbane Metropolitan Traffic Management Centre

Working with partners

The Queensland Government has a key role in the movement of freight, primarily through managing transport infrastructure, the legislative and regulatory framework and transport planning, policy and strategies. However, on a day-to-day basis it has a relatively limited influence over how freight moves. Industry generally determines when, where and why freight moves, and the mode or modes that move it. While government and industry fulfil separate roles they are clearly interdependent. Therefore, achieving optimum freight outcomes is dependent on government and industry working in partnership to plan and deliver freight solutions.

Stronger partnerships between government and industry will also help keep freight and the broader economy moving. For instance, during the extreme weather events in 2011 and 2013 the sharing of information about freight network status and freight volumes to be moved enabled government and industry to make coordinated decisions in response to critical community freight needs.

Other levels of government

All levels of government including the federal, state and local government have an important role in informing freight movement, and therefore must work together to develop an efficient freight system.

The Australian Government, along with the support of state and local government, is responsible for providing a national approach to freight. This needs to be complemented by a state and local government approach to freight policy, investment, transport and land-use planning and initiatives to support industry attraction and development.

Freight customers and industry

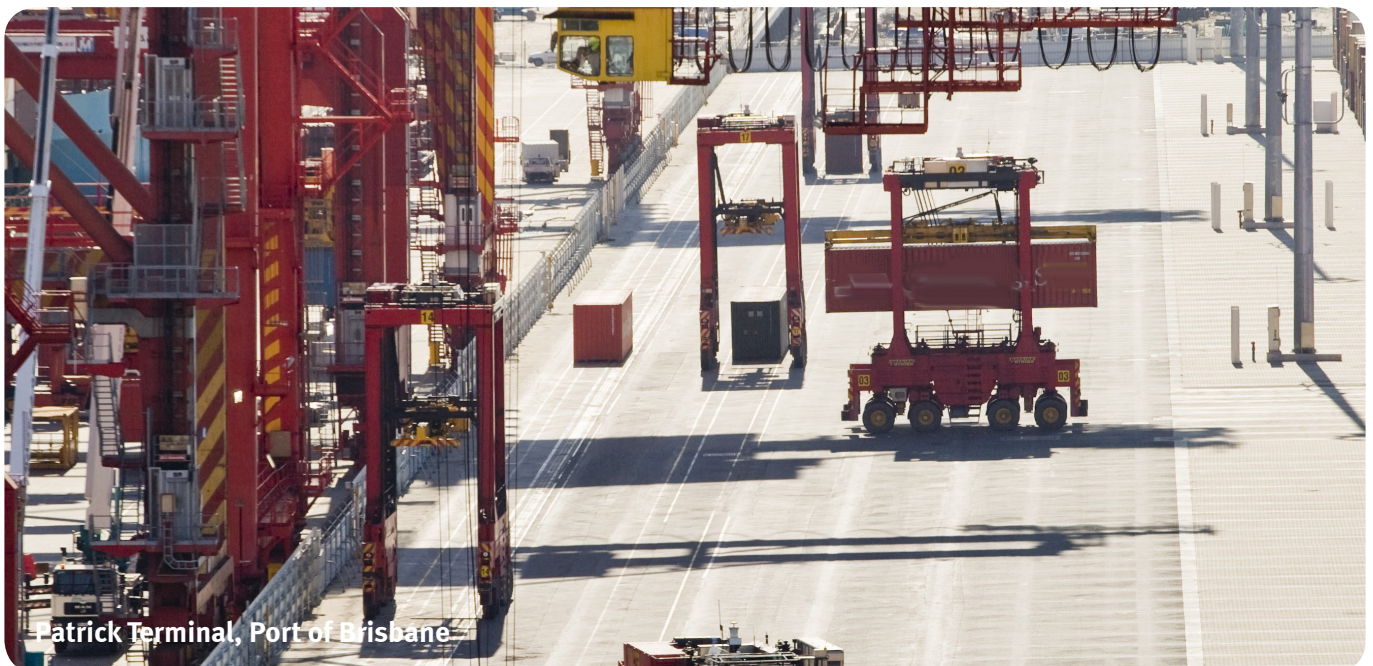
Having an effective supply chain means industry will have freight arrive in the right quantity, in the right condition, at the right place, at the right time and at the right cost. These requirements inform industry on decisions regarding location, operations, investment and business strategies.

Opportunity:

- **Develop a more cohesive and coordinated freight environment.**

Challenge:

- **Balancing freight system requirements and diverse stakeholder needs.**



Priorities and actions for the freight system

Moving Freight outlines a number of strategies and actions that will help to achieve the six objectives outlined in the Transport Coordination and Delivery Plan (TCDP) and to support the goals of a safe and secure, efficient and reliable and integrated freight system (refer **Figure 12**).

Figure 12: Aligning TCDP objectives to Moving Freight



Priority one: expand the use of rail freight

North Coast Line, Western and South Western rail systems

The rail system supports a significant portion of general freight movement between south-east Queensland and the northern and south-western Queensland markets. The existing capacity and performance of the North Coast Line, Western and South Western rail systems is increasingly affecting the reliability and timeliness of rail freight between these markets. This is adversely influencing existing and potential freight customer's perceptions and/or preparedness to invest in rail freight growth opportunities.

The North Coast Line is a vital north-south route supporting general rail freight movement throughout Queensland. There are however, a number of issues confronting the line, which impact on its reliability and ability to support future freight growth. These include ongoing maintenance requirements, inability to operate longer train lengths, limited path availability, potential flood risks and relative priorities of multiple line managers.

The Western and South Western rail systems are an important freight route between the Darling Downs, South West Region and the Port of Brisbane, which predominately supports the movement of exports from the agricultural and mining sectors. The single-line tunnel crossing of the Great Dividing Range is the biggest constraint to growth in freight flows to the Port of Brisbane. The rail system is also limited by poor alignment, low axle capacity and restrictive structures. Identifying the needs of industry will be critical to enhancing existing rail corridor capacity and maximising the Queensland Government's investment in additional passing loops and lowering of tunnel floors on the Toowoomba Range.

The North Coast Line, Western and South Western rail systems are similarly impacted by metropolitan and long distance regional passenger rail demands, with passenger and freight trains sharing parts of the same rail corridors and network passenger services prioritised over freight.

Competing passenger rail demand is a critical issue for freight movement, particularly in the metropolitan area. The metropolitan network provides access to key intermodal rail terminals and the Port of Brisbane is the nexus of the majority of rail freight services to and from northern and western Queensland and interstate. Currently, passenger rail demands often limit existing rail freight services to off-peak commuter time periods with increasing passenger services likely to limit freight growth opportunities.

While there is an obligation on rail network managers to ensure delayed passenger services run on time, further consideration needs to be afforded to, and balanced with, matters such as obligations in relation to allocated train paths, timetabling demands, network operations and service provisioning. Segregating passenger and freight rail networks is a further option for mitigating these respective service conflicts.

Mount Isa rail corridor

The Mount Isa rail corridor is a vital link connecting mining, agricultural and broader regional activity in Queensland's north-west to the Port of Townsville as well as key population centres along the Queensland coastline. The corridor predominantly supports mining exports (such as concentrates and refined metals), mining inputs (such as acid, sulphur, fuel and cement), intermodal and some livestock movements.

Currently, the line is subject to a number of constraints that impact on its ability to support and grow existing freight tasks. This includes short passing loop lengths, limited passing opportunities, access to the Port of Townsville, inefficient rail and terminal operations, challenging geology (black soil plains) and complex hydrology (linked drainage systems and flood plains).

The further extraction of significant mineral deposits in the northern Galilee Basin (for example coal) could place increasing demand on the rail corridor to support industry development and economic growth. This will necessitate long-term corridor planning and investment in response to quantifiable demands, and greater supply chain coordination to support the efficiency and capacity of the line.

To support the development of the rail corridor, the Queensland Government has formed the North Queensland Resources Supply Chain Steering Committee to inform the coordination of future infrastructure investment and operations. The Queensland Government is also willing to consider contestability options for the corridor, as outlined by the Queensland Commission of Audit,¹⁹ to enhance supply chain integration.

Rail terminals

The performance of rail freight services is dependent on the availability and efficiency of freight terminals. Existing terminals in key population centres such as Brisbane, Rockhampton, Mackay, Townsville and Cairns are generally duplicated, constrained by adjacent land-uses, and support single-user operations. Ideally, these terminals could be redeveloped and consolidated in a more complementary and coordinated manner consistent with rail system and industry needs. This includes greater consideration of multi-user operations, industry relationships, land-use requirements, and options to facilitate economies of scale. It is also important that potential terminal locations in regional areas are similarly developed.

Growth in rail freight demand is expected to have implications for existing freight terminal capacity in south-east Queensland. While future freight terminal locations have been identified at Bromelton and Ebenezer, further consideration needs to be given to future terminal capacity on the northside of Brisbane. Additional capacity in this location has the potential to support North Coast Line rail freight services, existing and future industry development and rail connectivity to the Port of Brisbane. Ultimately, the development of future freight terminals in south-east Queensland is likely to be influenced by the available capacity and potential of the Acacia Ridge Rail Terminal site as well as commercial interests.



The Acacia Ridge Rail Terminal is the state's largest freight terminal and handles the majority of inter-state freight and a large volume of intra-state freight. The terminal is also surrounded by rail related and dependent industry, and has the potential to increase its capacity and efficiency through redevelopment. In the short-term, the redevelopment of this site would provide significant benefits including:

- improved terminal freight handling arrangements and efficiencies
- better internal terminal linkages
- enhanced provisioning for truck queuing and stabling
- enhanced suitability for a broader range of rail freight tasks (shuttle services)
- better integration of surrounding industrial land uses within proximity of, and dependent on, the terminal.

In the longer term, opportunity exists for a terminal at Bromelton and/or Ebenezer, once the potential capacity at Acacia Ridge is exhausted. In particular, the Bromelton site is a State Development Area linked to the existing interstate rail line and the future Inland Rail alignment, with the potential to support a range of domestic and international freight tasks.

In regional Queensland, growth in mining inputs and agricultural exports provides an opportunity for further rail terminal development, and hence support a potential mode shift for these tasks from road to rail. In particular, growing demand for mining inputs to the Bowen and Galilee basins provides the opportunity to develop rail terminal handling capability between the ports of Mackay and Gladstone and areas such as Emerald and Alpha. This opportunity has the ability to deliver a range of freight system benefits such as:

- getting freight on rail
- enhancing rail investment
- providing a direct connection to sea freight markets
- increasing rail competition (by attracting new rail operators)
- developing regional distribution facilities
- reducing heavy vehicles on the road network.

However, further investigation is necessary to determine potential terminal locations that complement the logistics requirements of these types of tasks.

Rail access

Increasing mining exports and potential growth in agricultural production in western communities is placing demands on the rail system to support diverse and competing freight tasks. Typically, the certainty and high volume associated with coal has led to the long-term contracting of rail capacity. This is often perceived at the expense of agricultural commodities and general freight, which are less likely to commit to long-term access agreements due to risks associated with seasonal variation and/or demand fluctuations.

To provide certainty of rail access to the agricultural sector and the general freight requirements of regional communities, rail access is preserved by state legislation for non-coal rail traffic across the rail network. The use and/or potential reallocation of these train paths will therefore need to be considered in relation to agricultural and regional community rail freight needs.

Rail is expected to continue to have a key role in supporting the agricultural sector, particularly in relation to the transportation of livestock and grain. To support the intent of the Queensland Government's Agriculture Strategy to double the value of food production by 2040, it is important to work with the agricultural sector to identify potential rail haulage opportunities. This includes assessing the merits and level of support for proposed inland storage facilities and associated rail haulage demands.

The existing Government Transport Service Contracts provide certainty until 2015 for livestock and general rail freight services. These contracts were designed to provide equitable access to freight services and facilitate regional development and employment. However, the basis for these contracts beyond 2015 require further monitoring and review to ensure they respond to industry and community needs, deliver value for money, and reflect emerging rail developments.



Grain train

Port of Brisbane rail shuttle service

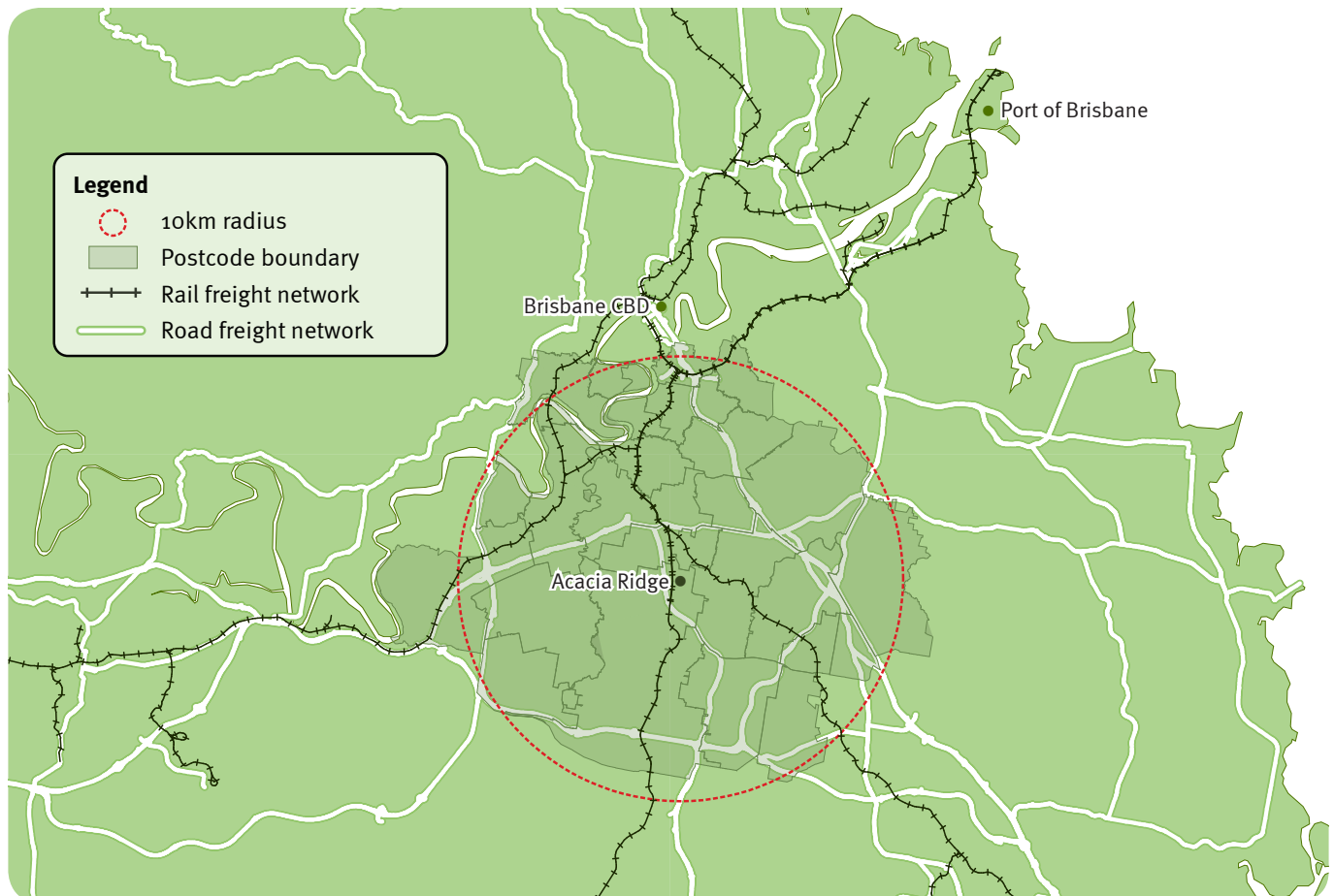
The *Port of Brisbane Import/Export Logistics Chain Study (2013)* indicates that container throughput for the Port of Brisbane is anticipated to grow significantly and with its near 94% share of the state task this presents considerable opportunities for rail.²⁰ For example, currently over 20% of Port of Brisbane container imports (full) have a destination within 10km of the Acacia Ridge Rail Terminal (refer **Map 8**).²¹

The existing freight handling facilities at Acacia Ridge could support a rail shuttle service to and from the Port of Brisbane, should it be priced competitively with trucking. It is anticipated that this type of rail shuttle service would deliver a range of freight system benefits in terms of:

- minimising truck queuing and waiting times
- congestion
- road demand
- vehicle maintenance and running costs
- managing potential driver fatigue.

The department is also exploring the ability of rail to support container movements through the port to other locations across the state. Other potential locations include the northside of Brisbane, Bromelton and Toowoomba which would also support demand for containerised agricultural exports from south-west Queensland.

Map 8: Import container destinations near Acacia Ridge



Priority one actions

Actions	1–2yrs	3–5yrs	6–10yrs
Identify with industry rail freight and broader supply chain requirements to inform rail planning and development for the North Coast Line, including the need for longer trains and supporting rail freight terminal.	✓		
Identify with industry rail freight needs for the Western and South Western rail systems to inform future rail capacity and performance investment requirements to support mining and agricultural sectors.	✓		
Identify freight requirements to inform long-term planning and development of the Mount Isa rail corridor, including contestability options to enhance supply chain integration.		✓	
Review and clarify the intent of rail passenger priority and its impacts on freight.	✓		
Undertake a pre-feasibility study for a new rail freight terminal on the northside of Brisbane.		✓	
Undertake a pre-feasibility study with industry to inform the redevelopment of the Acacia Ridge Rail Terminal.	✓	✓	
Assess opportunities to segregate the passenger and freight network in the metropolitan network.			✓

Actions	1–2yrs	3–5yrs	6–10yrs
Preserve train paths on regional rail lines for non-coal rail services in response to agricultural and broader community freight demands.	✓	✓	✓
Work with the agricultural sector and rail service providers to develop options to enhance the efficiency of rail haulage for agricultural products, particularly grain and livestock.	✓		
Review rail Transport Service Contracts supporting regional freight and livestock to ensure they align with industry and community needs and deliver value for money.	✓	✓	
Work with industry to establish a rail shuttle to support a greater portion of container movements between Acacia Ridge and the Port of Brisbane.		✓	
Identify with industry opportunities for rail to support container movements between the Toowoomba/Bromelton/northside of Brisbane and the Port of Brisbane.			✓
Identify suitable inland rail terminal sites that promote regional port throughput and development.	✓	✓	



Cattle train

Priority two: increase road freight network access

First and last mile

There are instances where local government roads generally provide a critical link between places for freight such as commercial and industrial sites, and the state's strategic freight network. However, access to these roads for higher productivity vehicles is often resisted by local government due to concerns such as:

- lower levels of road network structure capabilities
- limited communication and awareness of the performance benefits offered by these types of vehicles
- concerns about higher risk exposure to the local network without the ability to recover maintenance costs.

These concerns typically lead to 'first and last mile' access issues, which impact on industry's ability to achieve more efficient and productive freight movement. Therefore, working with local government to support and enhance the connection between local, state and national road networks will be critical to delivering a more seamless national approach to freight. This includes supporting local network assessments, communicating emerging access issues and sharing assessment knowledge and information.

Higher productivity vehicles

Over the years, Queensland has become a national leader in facilitating high productivity freight vehicle access across the road network.

The level of access afforded to these types of vehicles has resulted in a range of benefits, such as:

- lower transport costs for the user (which supports industry productivity and economic development)
- minimising adverse transport impacts on the environment, community amenity and congestion

- minimising transport demand (for example, reduction in the number of heavy vehicle movements)
- enhancing transport safety (through safer vehicle designs)
- maximising the utilisation of the existing transport infrastructure.

To support the application of high productivity vehicles, Queensland is actively assessing the state's road network to support freight growth and liaising with road network owners to improve heavy vehicle access.

Since 2010, approximately 728km of strategic roads for Performance Based Standards (PBS) Level 2B access in south-east Queensland and the broader Townsville area have been approved. A further 2,360km of roads are currently under consideration.

To meet industry's growing needs and the desire for greater freight productivity and efficiency, the department is committed to identifying and assessing strategically significant road freight routes across the network. The increasing cost of assessing routes, combined with specific industry access requests are impacting on the timeliness of related route assessments for potential access for these vehicles.

To accelerate the application and route assessment process, the department is pursuing a process for applicants to undertake their own assessment of routes and any associated works to inform access decisions. The benefits of an industry driven route self-assessment approach are that it enables industry to influence the assessment process, choose their own PBS route assessor and potentially enable industry to achieve early economic and productivity advantages.



PBS level 2B vehicle

OSOM movements

Demand by industry for OSOM movements across the state road network is increasing due to the resources sector, and in particular LNG. In 2012–13 22,555 OSOM and special purposes vehicle permits were issued, an increase of 23% from the previous financial year.²² In this timeframe the department also processed and issued 1083 performance-based vehicle and non-standard freight vehicle permits and 522 multi-combination vehicle permits.²³

The timeliness of access assessments for OSOM movements as well as high productivity freight vehicles can have a significant effect on broader industry operations and productivity. With the quantum of OSOM movements alone increasing annually, a more efficient permit system is necessary to satisfy this demand.

To support the timing of OSOM and other high productivity vehicle movements, the department is improving its heavy vehicle access systems and processes. This includes the development of automated systems, streamlining assessment processes, amending work flow requirements and communicating pre-approved routes for defined vehicles. To better facilitate OSOM demands across the state, the department is also seeking to identify a strategic trunk network for OSOM movement. This will require understanding emerging load requirements, assessing the capability of routes (geometrically and structurally) and mapping the network.

Heavy vehicle options for agriculture

The department has developed a range of heavy vehicle policies and access schemes, which deliver productivity and efficiency benefits for the agricultural sector. The driver for these policies and schemes, which are expected to continue, has arisen through a collegiate and responsive approach to addressing emerging sectoral needs. Key examples include:

- high productivity vehicle access (that is Higher Mass Limits), to the state-controlled road network
- advanced fatigue management guidelines for livestock transport operators
- oversize overmass permits associated with the movement of harvest equipment
- agricultural vehicle guideline for excess dimension agricultural vehicles
- grain harvest management scheme.

Developing broader heavy vehicle access options for the sector, including agricultural vehicles such as harvesters and other farm related equipment, will be critical to sectoral growth and competitiveness. It will also be fundamental to getting produce to market and facilitating the government's aim of doubling the value of food production by 2040.



Road access to ports

Queensland ports represent key places for freight with total freight throughput valued at \$92 billion in 2011–12. While rail is an important role in transporting the majority of bulk exports, road has a critical role in facilitating the balance including niche mining and agricultural exports and general cargo imports and exports predominantly via containers.

As indicated, the majority of the state’s container trade passes through the Port of Brisbane. Currently, about 94% of total container movements to and from the Port of Brisbane are moved by road.²⁴ The significant growth forecast in container trade for the port is anticipated to place further pressure on the existing road freight network. With the majority of container imports having a destination in south-east Queensland, it is expected that road will continue to fulfil a major role in supporting this type of freight task, particularly with the inability of rail to provide a door-to-door service.

Similarly, key regional ports such as Townsville, Mackay and Gladstone have an important role facilitating increasing mining inputs (such as diesel, plant and machinery). In addition, the Port of Townsville also has role in exporting niche ores and concentrates, particularly from the North East Minerals Province. Generally, the size of these tasks and/or commodity characteristics is highly suited to road. With growth in mining activities anticipated to continue in the future, increasing road demands will heighten the need for more productive freight solutions.

To support future freight growth to and from ports, the department is continuing to work with industry and local government to identify higher productivity heavy vehicle access requirements and options between key industrial precincts and regions. This includes identifying strategic routes and facilitating adequate investment to support heavy vehicle access.

Priority two actions

Actions	1–2yrs	3–5yrs	6–10yrs
Work with local government and industry to identify and resolve first and last mile road access issues.	✓		
Develop a planned PBS Level 2B route assessment programme for strategically significant road freight routes across Queensland.	✓	✓	
Develop policy and guidelines for industry to undertake route assessments and associated works to inform road network owner access decisions for PBS Class B vehicles.	✓		
Develop and implement improved heavy vehicle access systems and processes for OSOM and high productivity vehicle movements.	✓		
Identify a strategic trunk network to support the movement of OSOM loads.	✓		
Develop options to extend permitted heavy vehicle access to existing road networks for the agricultural sector.		✓	
Work with industry to identify access requirements to support higher productivity heavy vehicle access to key places for freight such as ports and major industrial precincts and regions.		✓	

Priority three: facilitate greater freight infrastructure investment

The Queensland Government is committed to investing in affordable transport infrastructure where opportunities to maintain, or make better use of, existing infrastructure have been exhausted. However, the increasing demand for funding is exceeding the financial resources available to state as well as federal, and local governments. Clearly improved mechanisms are necessary to inform the relative contribution and responsibility of industry beneficiaries and broader stakeholders to support future freight infrastructure provision.

While industry and freight customers invest in the broader freight system, their capacity and preparedness to contribute to network infrastructure investment is generally influenced by factors such as:

- conflicting business priorities
- commercial benefits/attraction for investment
- capacity to assimilate increased costs associated with increased charges without impacting on their commercial viability and competitiveness
- confidence in regulatory environment.

Despite this, there are instances where industry has indicated to government a willingness to contribute to infrastructure investment and development, where commercial benefits can be realised.

To better support opportunities for industry to provide voluntary contributions for network enhancements, the department recognises the need for clear policy and/or guidelines. Such a policy potentially offers a range of benefits including:

- increasing overall investment in the freight network
- providing greater prioritisation of freight projects

- providing a basis for aligning the priorities of stakeholders
- accelerating investment opportunities that deliver productivity gains and economic advantages
- ensuring investment decisions reflect a ‘fit for purpose’ standard.

To facilitate broader investment in the freight network, the Queensland Government is willing to consider alternate road, rail and waterway investment opportunities that deliver greater industry supply chain productivity and efficiency returns. For road, this includes contributing to the direction of nationally led road pricing and governance initiatives such as the national Heavy Vehicle Charging and Investment Reform project.

From a rail freight perspective, this will involve assessing unsolicited project proposals, rail contestability and commercialisation arrangements that enhance corridor performance and freight system capacity to develop new freight markets. In regard to waterways, the department will work with industry in relation to investment proposals that promote freight movement opportunities that minimise network congestion, demand and environmental impacts.

The department is also interested in encouraging collaborative industry freight investment decisions with respect to provisions of the *Competition and Consumer Act 2010*. Currently, opportunities exist for freight operators to exploit greater freight benefits through the use of common user freight terminals, trains and road services. Such arrangements have the ability to increase the productivity, availability and reliability of freight services as well as the overall capacity of the freight system.



Bridge replacement works at Branch Creek, Moura

The Queensland Government has identified a number of transport investment priorities that it is pursuing, which provide freight benefits. Key areas of focus currently underway include:

- Bruce Highway Action Plan
- Warrego Highway Upgrade Strategy
- development of the Toowoomba Range second road crossing business case
- additional rail passing loops and tunnel floor lowering on the West Moreton Rail System across the Toowoomba Range
- Beerburrum to Nambour rail duplication on the North Coast Line.

Other investment priorities for the government are major transport routes for agricultural products and roads supporting resource communities. Existing highways recognised as critical to supporting regional communities and the mining and agricultural sectors include:

- Flinders/Barkly highways
- Capricorn Highway
- Peak Downs/Gregory highways.

To ensure future investment in these highways is adequately coordinated and informed, upgrade strategies will need to be developed to support freight reliability, connectivity and safety.

To better inform collaborative stakeholder freight investment, it is important that the department identifies a list of multi-modal freight supply chain investment opportunities across the state. This list will be responsive to satisfying emerging freight demands and supply chains, and inform transport infrastructure planning and programming activities. It will enable the identification of freight investment priorities subject to broader stakeholder funding contributions, including future submissions to the Australian Government under the Nation Building Program.

To inform the list of freight investment opportunities, the department is also developing a Heavy Vehicle Action Plan that will identify road infrastructure needs to improve heavy vehicle access and better support OSOM movements. The plan will inform opportunities to enhance the development and productivity of supply chains, particularly for the mining and agricultural sectors. It will also inform specific industry opportunities for investment as well as existing state programming of road investment and maintenance priorities.

Priority three actions

Actions	1–2yrs	3–5yrs	6–10yrs
Develop policy that supports and facilitates voluntary industry investment in the development of the freight network.	✓	✓	
Identify rail contestability opportunities that enhance rail freight operations and performance.	✓	✓	
Facilitate opportunities for collaborative industry investment in common user freight terminals, trains and road services with respect to <i>Competition and Consumer Act 2010</i> provisions.		✓	
Develop upgrade strategies for the Flinders/Barkly highways, Capricorn Highway and Peak Downs/Gregory highways to support freight reliability, connectivity and safety for agricultural and mining communities.	✓		
Develop a list of multi-modal freight investment opportunities across the state to inform broader stakeholder funding contributions.	✓		
Develop a heavy vehicle action plan that identifies specific road infrastructure needs to improve vehicle access and better support OSOM movements, particularly for the mining and agricultural sectors.	✓		

Priority four: support future freight growth

To effectively support increasing population and international trade demands further emphasis must also be placed on improving the freight system's ability to support freight growth, facilitate industry development and deliver positive economic outcomes.

Freight planning

Future freight planning therefore needs to deliver improved performance levels to support the growing task. This includes improving the system availability, reliability, accessibility and cost associated with system use. Key considerations in future transport planning activities for improving freight system performance include:

- integrating freight modes
- identifying and enhancing connections to/from freight generators, activity centres and nodes
- minimising and/or segregating freight and passenger conflicts (where practical)
- minimising freight impacts on the community including amenity, safety, environment and wellbeing
- reflecting national, state, regional and local freight movement requirements
- protecting the freight network from inconsistent land-use and development
- preserving new corridors to support freight growth
- coordinating with existing and future land uses.

With freight volumes expected to grow in the future, it is important that planning activities strongly focuses on future freight needs. In particular, key corridors where increasing emphasis is required include:

- North Coast Line and Bruce Highway - supporting population growth demands along the Queensland coastline.
- Warrego and Cunningham highways, Western and South Western rail systems - linking agricultural and the Clarence-Moreton and Surat Basin mining regions in southern Queensland to the Port of Brisbane.
- Coal rail systems to the ports of Brisbane, Gladstone, Hay Point and Abbot Point.
- Mount Isa rail corridor and Flinders Highway - connecting north west agricultural and mining regions to the Port of Townsville and processing centres.
- Peak Downs Highway linking Central Queensland agricultural and Bowen Basin mining regions to the port and/or industrial centres in Mackay.
- Capricorn Highway and Central Rail Line linking agricultural areas and the Bowen Basin in central Queensland to the Port of Gladstone and processing centres.
- Inter-regional road and rail connections in urban centres, particularly to ports and industrial precincts.



The development of coal reserves in the Galilee Basin will require the greater focus on new and existing transport corridors. While new dedicated rail corridors have been identified to support mining outputs, further planning and assessment of road and rail corridor opportunities associated with mining input tasks will be necessary. Road and rail corridors with the potential to support mining inputs to this basin include the Gregory Developmental Road, Peak Downs, Gregory and Capricorn highways; and the Central, North Coast and Blackwater rail lines.

Inland Rail

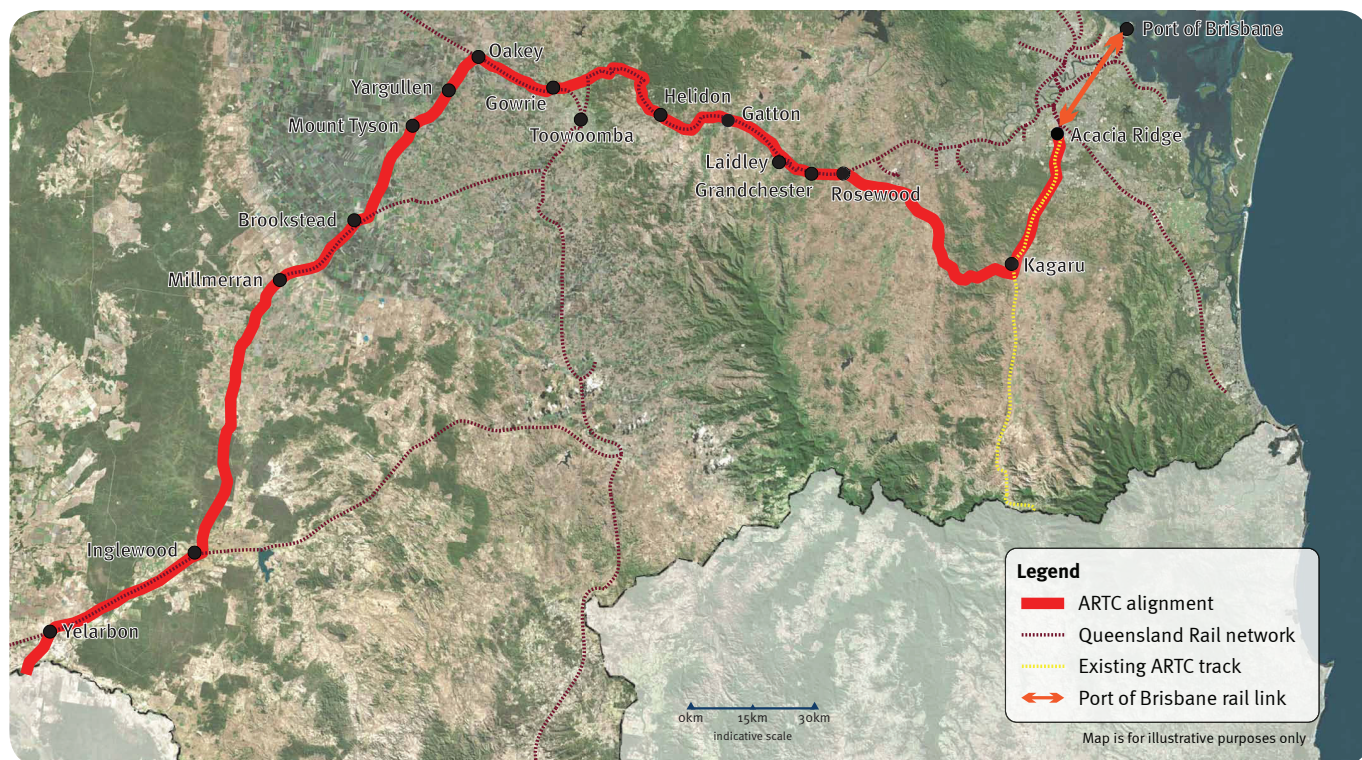
Future freight growth between Queensland and southern states will also drive increasing focus on planning for interstate connections, including a future inland railway between Melbourne and Brisbane (refer **Map 9**). The Queensland Government acknowledges the benefits of an inland railway, that also potentially connects to the Port of Brisbane, would deliver in supporting the future national freight task as well as providing a long term rail solution for exports via the West Moreton Rail System. It also recognises the concept of an inland railway as a national development project and will work with the Australian Government to progress this initiative and maximise associated benefits to the state.

The department is also willing to work with industry in the planning of unsolicited privately funded transport corridors. This includes the Port of Brisbane’s proposal for a new rail freight link between the port and the interstate rail corridor. Such proposals will be assessed in relation to economic and transport system benefits and their relative impacts on the community.

The major flood events that occurred across the state in 2011 and 2013 have further emphasised the importance of planning a freight system that is reasonably resistant to, and can recover from adverse weather. Understanding the potential flood impacts across the network will inform future freight system development to ensure ongoing functionality during such events.

There are parts of Queensland’s freight network that are regularly affected by annual flooding, particularly northern sections of the North Coast Line and Bruce Highway, limiting its ability to support critical freight movement. With future freight demand also likely to increase along Queensland’s coastline longer-term potential exists for coastal shipping as an option to enhance network resilience and broader system capacity.

Map 9: Indicative Inland Rail alignment



Corridor preservation and land use planning

Preserving future freight alignments will be critical to facilitating freight movement to and from growing markets and promoting broader economic development opportunities. The Queensland Government is proactively preserving, or seeking to preserve, a number of future transport corridors, many of which provide future capacity to ports. Key examples include:

- Gowrie to Grandchester and Southern Freight Rail corridors – linking south-western Queensland to the Port of Brisbane
- Townsville Eastern Access Rail Corridor – linking the North West Queensland Minerals Province to the Port of Townsville
- Mackay Ring Road – linking to Port of Mackay to Bowen Basin and Bruce Highway
- Townsville Ring Road Stage 4 – linking to Port of Townsville and Bruce Highway
- Walkerston Road Bypass – linking to Bowen Basin
- Rockhampton Ring Road (Yeppen North and Yeppen South).

Efforts in the past to accommodate population growth and residential demand has led to planning decisions that are now creating conflicts for the existing network. This manifests in the form of residential encroachment on freight routes and precincts limiting freight operations and future growth. Protecting existing and future freight corridors and precincts from urban encroachment and broader commuter impacts will be essential to realising the potential of the freight system.

To mitigate future network and residential conflicts, existing and future transport corridors and nodes are proactively preserved via the *Sustainable Planning Act 2009*. Through this Act, the state has set out the requirements (the state's interests) for local planning schemes and development assessments. It also initiates assessments of development applications, which may impact on state interests.

To facilitate the future growth of freight movement, increasing attention will be necessary to ensure adequate protection of the following types of places for freight:

- trading ports
- airports
- intermodal rail terminals
- industrial precincts
- State Development Areas.

Land-use planning activities are critical to maintaining the existing freight network as well as identifying future industrial land opportunities with effective road, rail and port links. To date, these types of activities have assisted the alignment of future industrial land with road, rail and port links. Key examples include the identification of State Development Areas at Gladstone, Townsville, Abbot Point and Bromelton due to the strategic significance to supporting future domestic and international trade.

Priority four actions

Actions	1–2yrs	3–5yrs	6–10yrs
Ensure transport planning reflects future freight requirements.	✓	✓	✓
Work with the Australian Government to develop an inland railway that maximises the benefits to Queensland.	✓	✓	✓
Identify system integration requirements to support the viability of coastal shipping.		✓	
Map flood immunity of the freight network to inform freight system development and resilience requirements.	✓		
Identify and preserve future corridors and places for freight growth.	✓	✓	✓

Priority five: better freight policy and information

Policy and regulation

The continuous movement of freight across jurisdictional boundaries highlights the need for better coordinated government freight policy and regulation supported by greater collaboration with stakeholders.

Various inter-governmental mechanisms such as Council of Australian Governments, Standing Council on Transport and Infrastructure, and Transport and Infrastructure Senior Officials Committee, have been used to streamline national freight policy and regulation.

The Queensland Government is committed to supporting existing inter-government mechanisms as well as working with broader advisory groups, such as Infrastructure Australia and the National Transport Commission, to deliver a better coordinated national freight environment. Key initiatives for Queensland in relation to the development of national freight policy and direction include the National Land Freight Strategy (NLFS) and the National Heavy Vehicle Regulator (NHVR).

The NLFS provides direction for issues surrounding the best use of infrastructure, integration of freight and land-use planning, capacity for growth and responsiveness of infrastructure to growth in freight demand. It also provides clear direction for state-based freight strategies.

The NHVR, hosted in Queensland, is Australia's first national regulator for all vehicles in excess of 4.5 tonnes gross vehicle mass. It provides a single point of contact providing centralised services and information to heavy vehicle owners, operators, drivers, and transport agencies across the nation. A critical area of focus for the NHVR is the administration of one set of laws for heavy vehicles under the Heavy Vehicle National Law (HVNL). This will require the harmonisation of existing heavy vehicle legislation operating across all states and territories. The HVNL will reduce differing compliance and legislative requirements on heavy vehicle operators across jurisdictions.

Other important national initiatives the department is actively supporting include:

- the introduction of electronic work diaries to manage the risk of driver fatigue. Electronic work diaries provide operators with accurate driver information, enabling them to better monitor fatigue levels and regulated work and rest hours.
- broader national in-vehicle telematics strategy that provides greater safety opportunities for the road freight sector. This includes better compliance monitoring of vehicle operations (for example, speed and fatigue) and promoting the safer use of vulnerable infrastructure by matching vehicles with roads and bridges.

Freight information

Freight information and data is a critical input to the managing and monitoring the performance of the freight system. This includes maintaining the system to a 'fit for purpose' standard and building new infrastructure. While governments have broad access to information about elements of the system they lack detailed information about the level, nature and timing of freight demand across all modes to accurately inform specific system and corridor needs. This type of information is generally available to, and held by, industry as a result of commercial negotiations with freight customers.

There have been instances where industry has shared freight data and information for the benefit of freight system decision making. However, industry's willingness to share information has generally been limited due to intellectual property and commercial-in-confidence issues. Therefore, developing a renewed focus on collating freight information and data cooperatively with industry that respects intellectual property and commerciality issues is necessary to ensure the right freight priorities are identified and addressed. This will need to be complemented by the development of systems processes and models that facilitate data collection, analysis and system decision making.

System management

Technology has a key role in forming the development, management and use of the freight system. This includes informing demand, optimising network utilisation, enhancing system capacity and monitoring operations.

To support the management and safety of the freight system, the department is pursuing the development of a range of initiatives to monitor heavy vehicle operations. Examples include intelligent access program, in-vehicle technology, on-board mass monitoring, automatic number plate recognition, weigh-in-motion and static and mobile speed cameras. The application of these types of technology will support better use of the freight system. For example, the application of on-board mass technology provides a greater level of certainty to network managers on overall vehicle mass, increasing the opportunity to afford higher levels of access to freight vehicles.

The department's intent is to also utilise these technologies in both a strategic and tactical context to guide compliance efforts. This will assist in profiling high risk activities and guiding specific activities to enhance the operation of the freight system.

To assist the application of these technologies, the department is developing a framework to inform associated compliance risks, monitoring system development priorities, integration issues and overall direction.

Priority five actions

Actions	1-2yrs	3-5yrs	6-10yrs
Actively contribute to the implementation of the NLFS to ensure alignment with Queensland's freight plans and priorities.	✓		
Continue participating in the NHVR forward program including the introduction of the Heavy Vehicle National Law.	✓		
Develop systems processes and models that facilitate freight data collection, analysis and system decision making.	✓	✓	
Develop a framework that informs the use of innovative technology that enhances the use of the freight system and informs heavy vehicle safety and compliance activities.		✓	



Priority six: engage industry for better and safer freight outcomes

The inter-dependent nature of government and industry roles in relation to the movement of freight emphasises the need for greater collaboration to plan and deliver meaningful freight solutions. While there is increasing acknowledgement by government and industry to work together, further consideration needs to be afforded to:

- improving existing stakeholder communication
- maximising the effectiveness of freight advisory bodies and industry forums
- sharing freight information and data
- exploring broader mechanisms for facilitating stakeholder contact and input.

Working with partners

As previously indicated, the Queensland Government is participating in a number of inter-governmental mechanisms to deliver various national freight initiatives. It is also committed to working with research and development partners, special interest groups and industry associations to better inform freight movement solutions.

As a national leader in heavy vehicle access, the department continuously supports the Austroads freight research program aimed at improving road freight operations and modal integration issues. In particular, it is highly committed to research and development for the Performance Based Standards (PBS) scheme and expanding the network for complying vehicles. This includes reviewing the level 3 and 4 PBS criteria with a view to developing more realistic standards to attract greater industry take up.

The Queensland Government also has strong working relationships with various peak industry groups (such as the RACQ, AgForce, Queensland Farmers Federation, agricultural representative bodies, individual stakeholders and the Local Government Association of Queensland) on freight related issues and regularly engages with these parties.

Freight councils

In Queensland, there are two key freight councils designed to directly advise the government; the Road Freight Industry Council (RFIC), and the Queensland Transport and Logistics Council (QTLIC). The RFIC is an advisory body established under ministerial direction to represent the heavy vehicle industry needs. It is designed to support the development of strategic and operational road issues and regulations. It also supports communication and consultation between the Queensland Government and industry on the growing demands of the road freight task.

The QTLIC was established in 2008 to support wider contact and collaboration with industry in relation to freight policy, planning, investment and solutions. The QTLIC has a strategic multi-modal focus with a broader interest in the development and operation of supply chains, and is therefore the peak advisory body to the government on broader freight and logistics issues and challenges in Queensland.

The Queensland Government recognises the benefits that freight councils provide in informing the freight agenda and is supportive of their existence. However, existing freight councils need to continue to deliver value and meaningful contributions to industry and government. A key challenge for existing councils is to provide coordinated and effective representation of diverse member interests and issues.

To ensure the achievement of specific government priorities, the department will also give consideration to the need to establish industry specific freight advisory bodies where there are multiple competing sectoral interests. For example, this includes the development of an agricultural advisory body to support the implementation of Queensland's Agriculture Strategy.

Safety

With increases in freight activity likely to compound any adverse community perceptions on safety, the department is taking action to enhance the safety of freight movement across the network. For rail this includes conducting regular safety audits of operators, overseeing compliance with rail safety legislation, working with operators to promote opportunities to improve safety management and improving level crossings.

From a road perspective the safe movement of freight is supported by a various existing activities such as facilitating access for safer innovative heavy vehicles, providing safer roads, employing technology to monitor compliance of heavy vehicle operations and managing heavy vehicle driver fatigue. These types of activities will be coordinated through the *Queensland Road Safety Action Plan 2013-2015* by the development of an action plan with stakeholders to improve heavy vehicle safety. This will enable heavy vehicle safety issues to be managed collectively with broader road safety issues.

To address specific heavy freight vehicle driver safety and fatigue concerns, the department is also working with key road safety stakeholders to develop and deliver a program to build and/or upgrade heavy vehicle rest area sites across the state. This involves attracting adequate funding from the Australian Government, industry and/or other sources and engaging with stakeholders to ensure these sites are appropriately located, adequately signed and suited to drivers needs.

Priority six actions

Actions	1-2yrs	3-5yrs	6-10yrs
Contribute to the Austroads freight research program, projects and priorities.	✓	✓	✓
Monitor and review freight councils needs and effectiveness to deliver coordinated industry representation and interests.	✓		
Work with industry and interest groups to develop and implement a prioritised heavy vehicle rest area program.	✓		



Rest area on Carnarvon Highway, Roma

Freight system actions

Priority	Actions	1-2 years	3-5 years	6-10 years	
1	Expand the use of rail freight	Identify with industry rail freight and broader supply chain requirements to inform rail planning and development for the North Coast Line, including the need for longer trains and supporting rail freight terminal.	✓		
		Identify with industry rail freight needs for the Western and South Western rail systems to inform future rail capacity and performance investment requirements to support mining and agricultural sectors.	✓		
		Identify freight requirements to inform long-term planning and development of the Mount Isa rail corridor, including contestability options to enhance supply chain integration.		✓	
		Review and clarify the intent of rail passenger priority and its impacts on freight.	✓		
		Undertake a pre-feasibility study for a new rail freight terminal on the northside of Brisbane.		✓	
		Undertake a pre-feasibility study with industry to inform the redevelopment of the Acacia Ridge Rail Terminal.	✓	✓	
		Assess opportunities to segregate the passenger and freight network in the metropolitan network.			✓
		Preserve train paths on regional rail lines for non-coal rail services in response to agricultural and broader community freight demands.	✓	✓	✓
		Work with the agricultural sector and rail service providers to develop options to enhance the efficiency of rail haulage for agricultural products, particularly grain and livestock.	✓		
		Review rail Transport Service Contracts supporting regional freight and livestock to ensure they align with industry and community needs and deliver value for money.	✓	✓	
		Work with industry to establish a rail shuttle to support a greater portion of container movements between Acacia Ridge and the Port of Brisbane.		✓	
		Identify with industry opportunities for rail to support container movements between the Toowoomba/Bromelton/northside of Brisbane and the Port of Brisbane.			✓
2	Increase road freight network access	Identify suitable inland rail terminal sites that promote regional port throughput and development.	✓	✓	
		Work with local government and industry to identify and resolve first and last mile road access issues.	✓		
		Develop a planned PBS Level 2B route assessment programme for strategically significant road freight routes across Queensland.	✓	✓	
		Develop policy and guidelines for industry to undertake route assessments and associated works to inform road network owner access decisions for PBS Class B vehicles.	✓		
		Develop and implement improved heavy vehicle access systems and processes for OSOM and high productivity vehicle movements.	✓		
		Identify a strategic trunk network to support the movement of OSOM loads.	✓		
		Develop options to extend permitted heavy vehicle access to existing road networks for the agricultural sector.		✓	
Work with industry to identify access requirements to support higher productivity heavy vehicle access to key places for freight such as ports and major industrial precincts and regions.		✓			

Priority	Actions	1-2 years	3-5 years	6-10 years	
3	Facilitate greater freight infrastructure investment	Develop policy that supports and facilitates voluntary industry investment in the development of the freight network.	✓	✓	
		Identify rail contestability opportunities that enhance rail freight operations and performance.	✓	✓	
		Facilitate opportunities for collaborative industry investment in common user freight terminals, trains and road services with respect to <i>Competition and Consumer Act 2010</i> provisions.		✓	
		Develop upgrade strategies for the Flinders/Barkly highways, Capricorn Highway and Peak Downs/Gregory highways to support freight reliability, connectivity and safety for agricultural and mining communities.	✓		
		Develop a list of multi-modal freight investment opportunities across the state to inform broader stakeholder funding contributions.	✓		
		Develop a heavy vehicle action plan that identifies specific road infrastructure needs to improve vehicle access and better support OSOM movements, particularly for the mining and agricultural sectors.	✓		
4	Support future freight growth	Ensure transport planning reflects future freight requirements.	✓	✓	✓
		Work with the Australian Government to develop an inland railway that maximises the benefits to Queensland.	✓	✓	✓
		Identify system integration requirements to support the viability of coastal shipping.		✓	
		Map flood immunity of the freight network to inform freight system development and resilience requirements.	✓		
		Identify and preserve future corridors and places for freight growth.	✓	✓	✓
5	Better freight policy and information	Actively contribute to the implementation of the NLFS to ensure alignment with Queensland's freight plans and priorities.	✓		
		Continue participating in the NHVR forward program including the introduction of the Heavy Vehicle National Law.	✓		
		Develop systems processes and models that facilitate freight data collection, analysis and system decision making.	✓	✓	
		Develop a framework that informs the use of innovative technology that enhances the use of the freight system and informs heavy vehicle safety and compliance activities.		✓	
6	Engage industry for better and safer freight outcomes	Contribute to the Austroads freight research program, projects and priorities.	✓	✓	✓
		Monitor and review freight councils needs and effectiveness to deliver coordinated industry representation and interests.	✓		
		Work with industry and interest groups to develop and implement a prioritised heavy vehicle rest area program.	✓		

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Acknowledgements

A large number of individuals and organisations have contributed to *Moving Freight*. Although it is not possible to list all of these individually, their contributions are acknowledged and appreciated.

The contributions of the following groups are acknowledged:

- freight organisations
- freight interest groups
- state agencies
- local government
- industry representatives.

