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ACKNOWLEDGEMENTS

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DISCLAIMER

The State of Queensland makes no statements, representations or warranties regarding the accuracy or usefulness of the information contained in this report. Any party using the information for any purpose does so at their risk, and releases and indemnifies the State of Queensland against all responsibility and liability (including negligence, negligent misstatement and pure economic loss) for all expenses, losses, damages and costs incurred as a consequence of such use.
Sustainable growth of the Capricornia Integrated Regional Transport Plan (CapIRTP) area is paramount to the Central Queensland region and to the state. Past population growth was mainly along the Capricorn Coast. This growth trend is expected to continue. Provision of adequate transport infrastructure and services is critical to achieve employment, commercial, industrial and tourism outcomes for the area.

The Queensland government, Rockhampton City Council, Livingstone Shire Council, Fitzroy Shire Council and Mount Morgan Shire Council are committed to generating prosperity in the area. The development of the CapIRTP supports this commitment to regional development. The plan supports government’s priority towards building Queensland’s regions. It also supports the partner councils’ visions for their respective areas.

The CapIRTP adopted a partnership approach to ensure commitment to agreed outcomes. Extensive consultation with key interest groups, organisations, business, industry, government agencies and the local communities contributed towards the formulation of transport outcomes for the CapIRTP area.

The CapIRTP provides a comprehensive framework for future development of the transport network and services until 2030. The plan provides for a responsive transport system that can address current and future transport and related challenges in the area.

The CapIRTP is a living document. It will evolve with changing conditions. Some actions are already underway, while some have not yet been progressed to a detailed planning stage and may require further assessment and public consultation before stakeholders can make any final decisions. Funding of actions in the CapIRTP will need to compete with other priorities in the area, as well as other priorities in other parts of Queensland.
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INTRODUCTION

- Context
- CapIRTP Development Process
- Consultation
- Components of CapIRTP
Integrated regional transport planning is a process for planning the future of transport in a region. It considers all transport modes (including road, rail, port and air) and aims to balance the need for general motor traffic, freight movements (by road, rail, air and sea), public transport and non-motorised transport (such as bicycle travel and walking). It involves considering a region’s transport system as a whole. The transport system is also considered alongside broader land use development needs and the lifestyle choices of residents, with the better integration of transport and land use as a key goal.

Queensland Transport, Queensland Department of Main Roads, Rockhampton City Council, Livingstone Shire Council, Fitzroy Shire Council and Mount Morgan Shire Council developed the Capricornia Integrated Regional Transport Plan (CapIRTP). The area covers the local government areas of Rockhampton, Livingstone, Fitzroy and Mount Morgan. The plan has been prepared in consultation with interested individuals and organisations. The Department of State Development and Innovation, Department of Natural Resources, Mines and Energy, Central Queensland Ports Authority, Department of Defence, Queensland Rail, Environmental Protection Agency and Department of Local Government and Planning also provided input in the development of the plan.

The CapIRTP is the first comprehensive integrated transport plan for the area which considers all modes of transport. The plan provides a strategic framework for the development of a high quality, safe, efficient and sustainable transport system for the area. It considers the needs of the residential population and the economic requirements of major industry in a sustainable manner until 2030.

The plan provides guiding principles, key planning assumptions and issues associated with each mode of transport. It provides strategies, action plans and recommended capital programs for the various modes of transport considered in the CapIRTP.
The CapIRTP area has a diversified economy with a well-established beef industry, coal industry services sector, and ample tourist accommodation and attractions. The local economy is supported by quality transport infrastructure and services.

The area is expected to experience significant growth until 2030. An effective plan for transport in the CapIRTP area will ensure that the required infrastructure and services are identified and provided for in the planning processes associated with economic growth.

The Minister for Transport and Minister for Main Roads announced in 1999 that the CapIRTP would proceed and that it would build on and update the Rockhampton Transport Study (1991), the Livingstone Shire Land Use Transportation Study (1993) and other recently completed studies in the area.

**Rockhampton Transport Study 1991**

The study area included all of the City of Rockhampton as well as the Gracemere area (part of Fitzroy Shire) and part of Livingstone Shire adjacent to the Bruce Highway just north of Rockhampton. The study, conducted by Queensland Transport in association with Rockhampton City Council, made a detailed examination of existing travel patterns, traffic volumes, and public transport passenger movements, and took account of the growth expected to take place in Rockhampton during the period to 2015. Growth patterns assumed in the study are now out of date.

**Livingstone Shire Land Use Transportation Study 1993**

This study considered road requirements in the shire according to three possible growth scenarios. The timing of the CapIRTP is particularly relevant given some recent and future studies and planning processes. Consultants conducted the study for Livingstone Shire Council.

**Central Queensland A New Millennium (CQ ANM)**

This study includes a broad consultative process, with the principal objective of producing a comprehensive regional plan that addresses the economic, social, environmental and community development objectives for the region. The CQ ANM planning process identified the need for an integrated study to examine the issues associated with transport in the CapIRTP area.

**Planning Schemes**

Councils should complete their planning schemes in a format that is compatible with the *Integrated Planning Act (IPA)(1997)* by the end of 2004. Within the schemes the broad long-term vision provides a framework for growth that ensures that short-term planning strategies do not limit longer term planning opportunities. The schemes’ desired environmental outcomes and associated mapping present the broad land use structure and major infrastructure provisions for the local authorities by way of a statutory framework for growth and sustainable development. The CapIRTP will address transport issues raised in the schemes’ review process.
CapiRTP Study Area

Data Sources: DLGSR, NRM&E, QT
Prepared by CQ ANM GIS Unit: May 2004

DLGSR ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ANY INFORMATION PRESENTED ON THIS MAP

CAPRICORNIA INTEGRATED REGIONAL TRANSPORT PLAN
Queensland Transport, Queensland Department of Main Roads, Rockhampton City Council, Livingston, Fitzroy and Mount Morgan Shire Councils commenced development of the CapIRTP in 2000 in consultation with key stakeholders and community representatives.

The objectives of the CapIRTP are to:
- identify critical land use and transport trends for the CapIRTP area using growth and development scenarios proposed by the CQ A New Millennium regional framework and key stakeholders
- identify transport issues which relate to the quality of life, the economy and possible impacts on the social and physical environment
- incorporate actions from previous studies which are still applicable
- model the network and incorporate appropriate findings
- consult with interested individuals
- identify and confirm the infrastructure requirements and prioritise these requirements until 2030 with respect to realistic funding constraints and requirements
- develop a socially equitable and economically efficient transport system that will support long-term community viability in the region
- include proposed integrated transport policies, objectives, strategies and actions guiding the development of transport infrastructure and services in the CapIRTP area until 2030
- provide an action plan for identified CapIRTP actions
- be compatible and integrated with the CQ ANM process.
### Consultation

<table>
<thead>
<tr>
<th>Activities to date</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Reference Groups (CRG) meetings</td>
<td>Three CRG meetings were held 1-3 July 2002 in Yeppoon, Gracemere and Rockhampton. Each CRG involved representatives from local interest groups, and promoted discussion about the Background Report. Information provided at these meetings was incorporated in the Background Report.</td>
</tr>
<tr>
<td>Inter Divisional Consultative Committee (IDCC)</td>
<td>Established an Inter Divisional Consultative Committee in Queensland Transport that provided input to the Background Report.</td>
</tr>
<tr>
<td>Background Report</td>
<td>Distributed copies of the Draft Background Report to steering and technical group members, Rockhampton City Council, Livingstone Shire Council, Fitzroy Shire Council, Mount Morgan Shire Council and key government agencies for comments. Incorporated the comments into the Background Report. Publicly released the Background Report for consultation on 4 April 2003. Consultation closed on 23 May 2003. Incorporated comments received from the public in the final CapIRTP.</td>
</tr>
<tr>
<td>Media</td>
<td><em>The Morning Bulletin</em> published, at various stages, articles about the project. <em>Channel 9 News</em> also reported on the project.</td>
</tr>
<tr>
<td>Advertisements</td>
<td>Placed advertisements in <em>The Morning Bulletin, Capricorn Coast Mirror</em> and <em>Rural Weekly</em> announcing the project and inviting participation through the CRGs. Placed advertisements in the same papers to announce the public consultation process.</td>
</tr>
<tr>
<td>Project Team Contact</td>
<td>Project Team members were available to discuss aspects of the project with stakeholders and members of the community.</td>
</tr>
<tr>
<td>Road Freight Industry Workshop</td>
<td>Held a workshop on 8 May 2002 to establish road freight issues and the existing and future transport task for the CapIRTP area.</td>
</tr>
<tr>
<td>Public Transport Workshop</td>
<td>Held a workshop on 24 April 2002 to establish public transport issues and to identify the existing and future public transport task for the area.</td>
</tr>
<tr>
<td>Scenario Planning Workshop</td>
<td>Held a workshop on 30 October 2001 to determine the use of scenario planning in the CapIRTP process. Presented scenario planning concept to Steering and Technical Committees on 4 June 2002. Held a workshop on 29 October 2002 to develop scenarios against which the CapIRTP transport system are tested.</td>
</tr>
<tr>
<td>Web Page</td>
<td>Information about the project is available on Queensland Transport’s website: <a href="http://www.transport.qld.gov.au/capirtp">www.transport.qld.gov.au/capirtp</a>.</td>
</tr>
</tbody>
</table>
Components of CapIRTP

Vision
The vision for the CapIRTP is a short statement describing the desired future transport system for the CapIRTP area.

Guiding Principles
The CapIRTP will focus on achievable outcomes required to deliver sustainable transport for the CapIRTP area. The plan will consider principles to guide future transport and all major influences on the transport system. Guiding principles for the development of actions contained in the CapIRTP fall into the following categories:

- integrated transport
- economic efficiency and growth
- environmental sustainability
- equity, employment and social justice.

Planning Assumptions
The CapIRTP is based upon planning assumptions for:

- population distribution and growth
- economic development
- employment
- land use development and
- transport (providers, regulatory environment, funding and financial environment).

One of the key elements of the CapIRTP is the use of scenarios to evaluate the responsiveness of the proposed transport network.

Action Plans
The CapIRTP study aims to address issues that directly or indirectly influence the transport system of the CapIRTP area or that the transport system affects. The CapIRTP considers a diverse range of issues, including a wide variety of transport modes, freight movement, the environment, industrial development and land use.

The actions contained in the action plans of the CapIRTP provide for the delivery of new or upgraded infrastructure and services, as well as a new approach to planning urban and industrial development that is mindful of current and future transport demands at the earliest stages. The action plans also outline opportunities for community input that will contribute to the development of a better transport system for the CapIRTP area.

A target timeframe is specified for the implementation of each action outlined in the action plans. Key agencies would implement some actions on an ongoing basis.

The CapIRTP contains seven action plans aimed at improving the transport system of the CapIRTP area. Each of the action plans relates to a specific mode of transport:

- Roads
- Rail
- Public Transport
- Cycling
- Walking
- Aviation
- Water Transport

For each action plan the relevant issues are identified, objectives are set and actions and associated capital programs are recommended.

The following timeframes and population thresholds apply to each of the action plans:

- Short Term: 2004 – 2005
  - or 102,000 people in the area
- Medium Term: 2006 – 2015
  - or 114,000 people in the area
- Long Term: 2016 – 2030
  - or 130,000 people in the area.

The CapIRTP outlines a recommended program of expenditure on transport-related infrastructure. The intent of the programs is to assist in implementing the actions in the CapIRTP.

Funding of the CapIRTP recommended capital programs will require ongoing financial support from all levels of government (federal, state and local) as well as the private sector.
GUIDING PRINCIPLES

- INTEGRATED TRANSPORT
- ECONOMIC EFFICIENCY AND GROWTH
- ENVIRONMENTAL SUSTAINABILITY
- EQUITY AND SOCIAL JUSTICE
Key stakeholders developed a set of principles to guide future transport provision in the CapIRTP area. These include:
- integrated transport
- economic efficiency and growth
- environmental sustainability
- equity, employment and social justice.

**Integrated Transport**
The CapIRTP recognises the need to integrate regional transport networks and land use to facilitate the movement of freight and people.
This will require:
- integrating road, rail, port, aviation, public and passenger transport and miscellaneous transport infrastructure where appropriate
- integrating land use and transport planning
- promoting appropriate transport modes and making full use of emerging technology
- efficient use of existing transport infrastructure
- ensuring the implementation of CapIRTP is considered in the context of the development of the new regional plan for Central Queensland, CQ A New Millennium
- promoting safety in all transport modes
- transport solutions that are flexible and affordable.

**Environmental Sustainability**
The CapIRTP recognises the need for the development of an ecologically sustainable transport system for the area that meets the needs of industry and business, as well as the needs of residents and the community, without doing permanent harm to the global and local environments. This is consistent with the national strategy for ecologically sustainable development and aims to minimise adverse impacts on natural resources and the environment.

Four broad ecological principles were derived for sustainable development, (OECD Environmentally Sustainable Transport Guidelines, 2000):
- public health and the environmental quality should be preserved
- non-renewable and renewable resources should be used sustainably
- critical limit values for health and ecosystems should be respected
- global irreversible effects should be avoided.

A sustainable transport system should provide access to people, places, goods, and services in an environmentally responsible, safe, socially acceptable, and economically viable manner. The outcomes of the integrated transport plan from an environmental perspective should aim to achieve:
- efficient use of resources, particularly operating resources, for reduced emissions and energy use
- protection of and, where possible, improvement of the existing environmental values including soils, water, air, native vegetation and the acoustic environment by minimising the impacts on these environments
- protection of sensitive ecosystems (i.e native vegetation) resulting from location, construction and operation of transport infrastructure by minimizing its impact
- protection of cultural heritage values by minimizing transport infrastructure impacts
- protection of and improvement where possible of residential amenity by minimizing impacts.

Appropriate environmental assessment and consultation are needed at all stages of planning and implementation of transport infrastructure development, particularly when considering options for future transport corridors. Consultation should involve all key stakeholders such as key government department and agencies, other agencies and organisations, industry and the community. The level of assessment and community consultation at each stage should be sufficient to give certainty to planning while minimising costs.

**EQUITY AND SOCIAL JUSTICE**

The CapIRTP recognises the need to plan and provide transport infrastructure and systems in a manner that achieves state and local government social justice objectives and provides a socially just transport system for the area and community.

A socially just transport system should ensure that all members of the community are able to move around to fulfil basic needs. It should be secure, safe and affordable; have minimal intrusion on people’s lives; involve the community in the development and management of the system; and ensure that the costs of providing transport are shared equitably.

This will require:

- providing a network that:
  - offers mobility and accessibility for the regional communities
  - fully assesses social and community impacts
  - contributes to meeting gaps and unmet transport needs and achieving social equity objectives
  - considers safety and accessibility, especially for older people and people with a disability
- complying with appropriate legislation contributing to social justice objectives
- ensuring suitable consideration of cultural heritage matters, including sites of heritage significance (eg aboriginal sites, historic buildings and landscapes)
- ensuring that native title matters are appropriately considered
- enabling people to provide comments on transport issues that affect them and ensuring that the requirements of state and local government consultation policies and procedures are met
- promoting best practice design for urban transport vehicles and infrastructure to meet the needs of people with disabilities or mobility difficulties.
PLANNING ASSUMPTIONS

■ Population Distribution and Growth
■ Economic Development
■ Employment
■ Land Use Development
■ Transport
Key influences that will affect and determine the need for transport in the CapIRTP area in the future are:

- population distribution and growth
- economic development
- employment
- land use densities and distribution
- transport trends.

**Population distribution and growth**

Population distribution will directly affect the origins and destinations of trips undertaken in the area. According to the 2001 Census data the preliminary estimated population in the area was 97,800. Rockhampton City is regarded as the business centre for the Central Region and is the most populous of the four local government areas within the CapIRTP area.

The total population for the CapIRTP area is expected to increase at an average annual growth rate of 1.7% (medium series projection). Most of this increase will be in Livingstone Shire, with lesser growth rates expected for Fitzroy Shire. Overall growth in the City of Rockhampton is expected to be minimal. Mount Morgan's population is expected to continue its decline. However, some population growth may occur if proposed mining, tourism and feed lot developments in the area proceed.

**Population Distribution (2001)**

- Fitzroy Shire
- Livingstone Shire
- Rockhampton City
- Mount Morgan Shire

Source: PIFU, 2002

Population growth will directly affect the number of trips undertaken in the area. It is evident from past census data that the area as a whole has shown an increase in population.

The Planning Information and Forecasting Unit (PIFU) have developed population projections for low, medium and high growth rates. The CapIRTP adopted the medium series population projections in line with the CQ A New Millennium Regional Growth Management Framework (CQ ANM).
According to PIFU the median age of the population in the area will continue to rise as a result of longer life expectancies.

<table>
<thead>
<tr>
<th>Local Government Area</th>
<th>Median Age</th>
<th>2001</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitzroy</td>
<td></td>
<td>32</td>
<td>37</td>
</tr>
<tr>
<td>Livingstone</td>
<td></td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>Mt Morgan</td>
<td></td>
<td>46</td>
<td>60</td>
</tr>
<tr>
<td>Rockhampton</td>
<td></td>
<td>33</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: PIFU, 2002

Livingstone and Fitzroy showed the highest growth in the number of children aged 14 years and younger and also for young adults aged 15 to 24. There has been a general increase in the adults aged 25 to 64 years group across all local government areas except for Mount Morgan Shire. It is expected that populations of people aged 65 years and over will increase. Within major urban areas the distribution of age groups has also shifted, for example a larger proportion of this age group is located in South Rockhampton (ABS Census Data 2001).

**Key Assumptions**

Based on the PIFU projected future populations and settlement patterns, the following assumptions are made:

- The population in Rockhampton City is likely to continue to grow at a marginal rate, with most of the growth north of the Fitzroy River.
- The population in Livingstone Shire is likely to continue experiencing high to medium population increases, with most of the growth in the Yeppoon and other coastal areas.
- Population numbers are expected to increase in Fitzroy Shire (at a less rapid rate than occurred in the past 15 years) with most of the growth in Gracemere.
- The population in Mount Morgan is expected to continue to decline over time.
- The area as a whole will experience an aging population.
Implications for transport

Based on past growth rates and population projections for the area, Livingstone Shire and Fitzroy Shire are likely to experience increases in local trips. Rockhampton City will experience a marginal change in population, and as a result, could experience a marginal increase in local trips. However, shifts in the population settlement patterns will increase trips north of the Fitzroy River. Rockhampton City is likely to continue its status as the major employment centre in the area. This will result in an increase in trips between the coastal areas of Livingstone Shire and Gracemere/Stanwell areas to Rockhampton. Mount Morgan Shire, on the other hand, is likely to experience a population decrease, and thus local trips are not likely to increase. Some increase in trips is expected between Mount Morgan Shire and the Stanwell Industrial corridor. The demand for road infrastructure improvements will be mainly in the Rockhampton to the coast and Gracemere/Stanwell corridors.

People from various age groups may have different transport requirements (resulting in different implications for trip generation and mode choice). For children aged 14 years and younger transport is predominantly parent assisted to and from schools, recreational and sport activities. Implications for trip generation are also likely to be uneven across the four local government areas, with respect to increased trip generation resulting from increasing populations of young adults aged 15 to 24. For young adults residing close to the Central Queensland University, travel to the university is likely to include alternative transport, including walking and cycling. Increased trip generation from increased populations of adults aged 25 to 64 years old could be expected for all trip types, particularly for journeys to and from work (such as commuter trips between Rockhampton and the Capricorn Coast and Rockhampton and Gracemere). Increased populations of people aged 65 years and over can be expected to influence trip generation and mode choice. Demand for alternative modes of transport such as community transport is likely to increase, particularly for those unable to continue driving independently for trips such as shopping and recreational trips.

Economic development

Future economic activities

The CapIRTP area has traditionally specialised in agriculture and associated industries, in particular beef production and processing, and electricity generation projects.

Meat production & processing

Opportunities are considered to exist for the future growth of the livestock production industry, including expansion of beef production and possible new ventures in pork and poultry. Development would likely be focused around the Lower Fitzroy River from Ridgelands to Rookwood-Riverslea, drawing on the availability of water and good quality agricultural land. Livestock products could enhance supplies to existing meat processing operations based in Rockhampton and may lead to new operations in the Stanwell Gracemere Industrial Corridor.

Forestry

Opportunities exist for the expansion of forestry industries for carbon sequestration and plantation-based harvesting in the coastal sub-regions. The government identified Byfield as warranting major expansion, some of which has already commenced. It is expected that forestry production will double within the next 15 years.
**Horticulture**

Opportunities exist to expand horticultural products (including greater sophistication in existing processing operations) throughout the region. The reaches of the Fitzroy River (to the west and northwest of Rockhampton) provide further opportunities for horticulture expansion associated with access to water resources. The proposed expansion of the pineapple industry in Livingstone Shire will have a significant impact on the region, although the potential for this market to expand is dependent on international market demand.

**Fishing**

No major expansion of this market is expected.

**Light Metals Industry**

Stanwell Corporation has established an energy park adjacent to the power station which is being marketed as a location for light metals processing. Whilst the AMC Project is not proceeding, magnesium metals production remains as an opportunity for the further economic development of the region.

**Mining**

Marlborough is one of the world’s largest laterite nickel and cobalt deposits. The demand for nickel is expected to grow.

A feasibility study to mine cobalt was completed in 1998 by Marlborough Nickel Pty Ltd (a wholly owned subsidiary of Preston Resources Limited based in Perth). The project has not proceeded past this stage.

Lodestone and Moonraker are planning mining activities in Mount Morgan. These activities are expected to start in 2004, subject to approvals by the Department of Natural Resources, Mines, and Energy. It is expected that about 50-100 people will be employed. Mining activities are also proposed at Westwood.

**Salt, silica sand and limestone extraction**

In response to potential growth in the chemical and mineral processing sectors in Gladstone and Rockhampton, expansion of salt production in the Port Alma area is a possibility.

**Explosives manufacture and storage**

The volume of ammonium nitrate imported through Port Alma has reduced over the last few years. This has mainly resulted from the construction of the ammonium nitrate plant near Moura. The Moura and Gladstone plants are currently at full capacity and it is expected that imports will return to their former levels. However, expansion of these plants may increase imports. The bulk of the plant production of ammonium nitrate (in either prill or emulsion form), produced at the Moura and Gladstone plants, is transported north or west along the Bruce and Capricorn Highways.

**Electricity generation, distribution and retail**

The establishment of a new industrial cluster centred on the Stanwell Power Station and Gracemere may attract energy-consuming industrial development opportunities. There may be opportunities for further power generation capacity to support continuing industrial growth in the region.

**Retail and wholesale trade**

Retail and wholesale trade is a secondary industry dependent on local population, disposable income and hence, growth in other industries. It is expected that retail and wholesale trade will follow future population concentrations.
Government administration, education services, health and community services

The development of leading-edge research programs at Central Queensland University, in association with other research agencies in the region, to support innovation in strategic industries (including agriculture, railway engineering and technologies, and biotechnology) and sustainable development in the region can contribute significantly to regional growth.

Defence training and logistics

There are opportunities for increased defence force exercises by Australian and foreign forces, with possible consequential increases in related supply and service contracts for local industries.

Tourism

Tourism growth for the area (2% per annum) appears to have been significantly lower than for the adjacent regions and Queensland overall (4.2% per annum). In order for tourism to grow there is a need to develop new and existing tourism products and to pursue a stronger market share in the domestic tourism market as part of a strategic and coordinated approach to tourism development. Expansion of the Rosslyn Bay Inn Resort and Great Barrier Reef International Resort and golf courses will contribute to future tourism growth.

Other industries

There are opportunities to develop transport and logistics industries including support activities such as warehousing, distribution and materials handling. There are also opportunities for new business ventures stemming from the adoption of e-commerce and electronic operating systems, supported by development of the communication and information industries throughout the region (eg call centres).

Employment

An increase in the number of employed people is likely to result in increased trips, particularly journeys to work. According to the ABS 2001 census data, there were 39,155 people employed in the area, a significant increase in the number of employed people within the area over the past 15 years.

Livingstone Shire has experienced the highest increase of employed persons in comparison with other local government areas within the area. Fitzroy Shire has also experienced an increase in the number of employed persons. Rockhampton City has experienced a small proportional change in the number of employed people within its community. In contrast to the experience of other local government areas within the area, Mount Morgan Shire has experienced a loss in employed people over the past 15 years.

Employed Persons, 1986 to 2001

Source: ABS 2001
**Key Assumptions**

Based on the analysis of economic development, the following assumptions are made:

- The industrial developments in the Gladstone area will have little long-term impact on the area according to the Gladstone Growth Management Initiative results.
- The dominant employment area will continue to be Rockhampton City.
- Potential major employment areas include the Stanwell corridor (industrial and agricultural), Fitzroy River agricultural corridor and the Capricorn Coast (tourism).

**Implications for Transport**

There are a number of challenges affecting the region’s transport network and these are likely to be exacerbated by expected future development. These challenges include:

- ensuring road transport requirements of existing and future industry in the broad corridors linking Stanwell to Rockhampton and Gladstone to Rockhampton are addressed
- resolving issues relating to safety, capacity, pricing and community sentiments
- ensuring sufficient capacity on critical rail transport routes for industry (Emerald – Rockhampton and on to the Port of Gladstone)
- ensuring that the Capricorn Highway and the main (electrified) railway can service the proposed Stanwell – Gracemere industrial corridor
- considering the feasibility of intermodal transhipment facilities in the CapIRTP area
- considering an increase in road capacity between the future residential growth areas (Capricorn Coast) and the major employment centres (Rockhampton, Stanwell)
- considering the impact of heavy vehicle traffic from growing primary production and forestry expansion areas via the tourism area along the coast and Yeppoon CBD
- there may be significant increases in the volume of traffic on roads servicing the possible future agricultural developments around the lower Fitzroy River from Ridgelands to Rockwood - Riverslea
- considering the impact that proposed mining projects in Mount Morgan Shire (i.e. proposed Lodestone and Moonraker projects) will have on traffic patterns in the area.

**Land Use Development**

Although population and economic growth influence transport provision to some extent, it is the location of land uses that determines the extent of this impact. The distribution of land uses affects the origin and destination of trips, while the density of land uses influences the viability of a particular transport mode. Land uses can broadly be categorised as those where people live (residential) and those that people visit for purposes of work (retail and industrial), entertainment and education.
Residential development

Residential land uses in the area are dominated by separate houses (76%). The bulk of residential land uses in Fitzroy and Mount Morgan Shires is located in the townships of Gracemere and Mount Morgan. According to the Dwelling Commencement Trends for Livingstone Shire (January 1998) approximately 80% of all dwellings are located along the Capricorn Coast and hinterland. Residential growth in Rockhampton is not expected to increase significantly. The effect of potential flooding and the availability of land largely influence residential growth in Rockhampton City. Residential development north of the Fitzroy River is expected to continue at its current growth rate, while residential growth south of the Fitzroy River is expected to show hardly any growth. Most of the available future urban land is located in the Norman Road and Parkhurst areas. This seems a logical progression of the existing residential development pattern in the area. The development potential of the Norman Road area (after considering environmental and other considerations) is anticipated as somewhere between 1,800 – 2,000 allotments. Development in the city is restricted by the amount of flood-prone land particularly in South Rockhampton. The new Rockhampton City planning scheme encourages medium density housing and mixed-use development in the CBD.

A benchmark development sequencing study was undertaken for Livingstone Shire (GHD, 2000) so that development would be channelled into appropriate sites. Most of the sites earmarked for future residential development are in close proximity to Yeppoon. It is expected that most of the residential development in Fitzroy Shire will be in Gracemere. Historically the shire has a high population growth rate that is reflected in the number of residential developments in Gracemere. Its proximity to the Stanwell industrial area and affordable housing will provide sufficient impetus for continued residential growth.

Almost 20% (ABS) of dwellings in Mount Morgan Shire are unoccupied, which is the consequence of “urban drift” in the shire. Although Mount Morgan provides low cost residential land, its proximity to the major employment and commercial areas suggests that sustained increase in residential development is unlikely.

Agricultural land development

Intensification of agricultural land use along the reaches of the Fitzroy River to the west and north west of Rockhampton is likely, with approximately 60,000 hectares of land in this area suitable for irrigated agriculture. The development of water resources on the Fitzroy River may support irrigated agriculture, horticulture and intensive livestock industries.

Commercial and business development

The majority of commercial and business land uses are located in Rockhampton City. This is further evident from the fact that the majority of employment opportunities in the CapIRTP area are located in Rockhampton City (64%). Regional shopping facilities at North Rockhampton (Shopping Fair, K-Mart Plaza and Northside Plaza) service the majority of the Capricornia population. There are no regional shopping facilities in any of the adjoining shires. The development and expansion of the Shopping Fair centre at North Rockhampton had had a significant impact on the vitality and function of the Rockhampton CBD. The CBD is suffering commercial vacancies and loss of higher order retailing, as well as the relocation of some government agencies from the CBD to the northern parts of the city. As a result, the role of the CBD has changed and the commercial hierarchy of the city has also shifted. Councils are currently developing their new planning schemes. In Rockhampton, the scheme recognise the importance of commercial investment opportunities in the CBD. The future potential expansion of strip shopping along Musgrave Street will also need to be considered when determining future commercial development opportunities.
Commercial and business development in Livingstone Shire should be encouraged in the proximity of Yeppoon, especially along James Street. Livingstone Shire Council is considering options for development of the land opposite the Keppel Bay Plaza (Yeppoon Railway Station), and the development of a regional shopping centre in Yeppoon.

This will require possible relocation of the Yeppoon Railway Station and upgrading of roads to accommodate increased freight movements.

It is anticipated commercial and business land uses in Gracemere will not grow significantly, due to its proximity to Rockhampton (10km).

It is not expected there will be any growth in the current commercial and business land uses in Mount Morgan. However, the successful implementation of the Mount Morgan tourist strategy may provide some demand for complementary commercial activities.

**INDUSTRIAL DEVELOPMENT**

Fitzroy Shire Council undertook the Stanwell and Environs Industrial Development Study (GHD, 1999) in 1999, and incorporated the findings into the shire’s planning scheme as a development control plan. The Stanwell – Gracemere industrial corridor has been identified as a “regional scale” industrial area, with approximately 1,900ha suitable for industry. The area adjacent to the Capricorn Highway between Gracemere and Stanwell (Western Corridor) has about 1,400ha of land potentially suitable for industry in the Western Corridor development. This area is planned to provide for service and trade industries; small scale warehousing, transport and distribution; coal associated industries; and industries with 24 hour operations. A further 500ha is located in the Stanwell Energy Park. This area provides for industries related to and which would utilise power station facilities and by-products (i.e. steam, heat, electricity, fly ash, sodium hypochlorite, industrial chemicals, demineralised water); and coal and transport associated industries. The Capricorn Highway and the main (electrified) railway service this area.

There are a number of existing and proposed major industrial projects in the region. The utilisation of the Marlborough nickel resource and magnesium metal processing are possible future projects for the region.

The Rockhampton Citywide Industrial Land Use Strategy (October 2001) indicates that Rockhampton City has sufficient capacity for additional light industrial growth. It has a number of industrial areas including Parkhurst industrial area, Kawana and Park Avenue, Lakes Creek and Lower East Street.

The Parkhurst industrial area is the largest in Rockhampton, extending from Parkhurst through to Kawana in the south. The QMAG magnesite processing plant, Pacific Lime and Joy Manufacturing along with several other manufacturing industries are located at Parkhurst. Whilst the Department of State Development & Innovation, Queensland Rail and the Rockhampton City Council own undeveloped land in this industrial area, most of it is constrained for industrial development by residential encroachment, topographical or environmental considerations. Any future industrial development at Parkhurst will be small scale and comprise only low impact types of activities.

Livingstone Shire has existing industrial estates at Yeppoon and Emu Park. The Livingstone Shire Industry/Business Scoping Study (February 1998) is not promoting any heavy or noxious industry on the coast. The study identified three sites for future light industry.

Mount Morgan Shire has ample land available for new industry. However, water supply has limited capacity and sewerage is not currently available. Mount Morgan has some further limitations due to environmental and infrastructure issues.
Planning Assumptions (continued)

**Key Assumptions**

Based on past trends it is expected that the major part of future residential development will occur along the Capricorn Coast (especially around Yeppoon), in North Rockhampton (along Norman Road) and in Gracemere. The reasons for residential development along the coast will mainly be the result of lifestyle choice, while development in Gracemere will be the result of its proximity to industrial development areas (Stanwell) and affordable housing.

Most of the future industrial development will occur in the Stanwell Corridor and Parkhurst; commercial and business land uses will continue to grow in Rockhampton.

**Implications for Transport**

Travel patterns within Rockhampton City will be largely influenced by the shift of residential development north of the Fitzroy River. Many residents of these coastal communities will commute to Rockhampton for employment and higher order convenience and retail needs. This will result in an increase in commuter and shopping traffic along the Yeppoon-Rockhampton road.

The Capricorn Highway and the main (electrified) railway service the area between the Stanwell and Western Corridor industrial areas. Capacity on the Capricorn Highway is sufficient to accommodate estimated future traffic. The area may require future intermodal transhipment facilities. Transport of industrial goods by rail (from Rockhampton and centres further south to the west) should be considered to reduce pavement impacts on the Capricorn Highway.

Traffic to any future magnesium developments at Stanwell would initially be by road. Consideration of the need for additional rail infrastructure would be made at the appropriate project planning stages.

Although there would be some pavement impacts on both the Capricorn and Bruce Highways the impact on traffic capacity of such a project would be little. Both roads have sufficient capacity to cater for expected increased traffic demand. The Stanwell Corridor may require access improvements in the future.

The outcomes of the Gladstone Growth Management Initiative indicate that future industrial development in Gladstone will have little impact on the area. The study indicates that workers will locate in the Gladstone/Calliope area and there will be little impact on ongoing commuter traffic between Rockhampton and the Gladstone/Calliope area.

The Rockhampton Citywide Industrial Land Use Study (2001) identified six precincts for industrial development: Lakes Creek, Parkhurst, Stanley Street, Kawana/Park Avenue, Port Curtis and Airport. Access for heavy vehicles to these industrial precincts needs to be considered in terms of safety and amenity in the light of adjoining land uses.

Further intensification of agricultural industries, in the form of horticulture and intensive livestock production along the Fitzroy River, may significantly increase freight and passenger traffic movement on local roads in the Rookwood – Riverslea area.
**Transport**

High levels of car ownership have the potential to increase trip generation. Increasing employment and higher levels of disposable income may also translate into an increasing number of cars being purchased. Other factors influencing car ownership are the unavailability of public transport services, dispersed land uses and employment opportunities.

Most households in the area that provided information about car ownership in the 2001 Census owned one or more cars (90%) with only a small proportion of households (10%) owning no cars. The highest level of car ownership was recorded in Fitzroy Shire (96%) while the highest level of households without cars was recorded in Mount Morgan Shire (18%). Most households owning cars had either one or two cars, with few households having more than two cars (11%).

Within the area, most people commute to work either as car drivers or as car passengers. A small number of people within the area commute to work on motorbikes, scooters, bicycles or walking. Of particular interest is the low proportion of travel by bus to work (1.2%).

**Proportional modal choice %**

- **Cars as Drivers**: 75.7%
- **Cars as Passengers**: 11.2%
- **Walking**: 4.7%
- **Cycling**: 2.3%
- **Motorbike/Scooters**: 1.7%
- **Bus**: 1.2%
- **Trucks**: 2.1%
- **Taxis**: 0.7%
- **Other**: 0.4%

Source: ABS, 2002

Fitzroy Shire had the highest proportion of workers using cars (86.6%) to travel to work while Mount Morgan Shire reported the lowest proportion (73.9%).

Walking to work is the next most popular means of commuting within the area. Within Mount Morgan Shire, 10.9% of its workers walked to work. Significantly lower proportions of workers walked to work in Rockhampton City (2.6%). The level of workers walking to work can be influenced by their proximity to their workplace and their ability to afford transport.

Relatively few workers travel to work by bus (1.2%) or bicycle (2.3%) within the area. Within Rockhampton City, 3% of all workers travelled to work by bus. The reason for this is the availability of a higher level of public transport in Rockhampton City compared to the shires.

The most significant trend from the 2001 journey to work statistics is the increase in the high proportion of journeys to work by car in the region. This proportion has increased from the 1996 Census by 2%. The most significant trend is the decline in walking to work from 1996 to 2001.
Most workers in the area used only one mode of transport to get to work (98.7%).

**Journeys to work (2001)**

<table>
<thead>
<tr>
<th>No of modes used</th>
<th>Rockhampton City</th>
<th>Livingstone Shire</th>
<th>Fitzroy Shire</th>
<th>Mount Morgan Shire</th>
</tr>
</thead>
<tbody>
<tr>
<td>One mode</td>
<td>98.7%</td>
<td>98.6%</td>
<td>98.8%</td>
<td>99.4%</td>
</tr>
<tr>
<td>Two or more modes</td>
<td>1.3%</td>
<td>1.4%</td>
<td>1.2%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

*Source: ABS, 2002*

According to the 2001 Census data, Rockhampton is the largest attractor of work trips with 61% of all work trips in Fitzroy Shire, 41% of all work trips in Livingstone Shire going to Rockhampton City. About 90% of all work trips in Rockhampton City have a local destination. More than 50% of Mount Morgan Shire work trips have a local destination.

In 2001, the census included questions whether respondents worked from home (as an employed person). This is significant for transport, as people may ‘telecommute’ and work at home by choice.

A significant number of people in the area are working from home and thus could affect the number of journeys to work within the area, particularly if numbers of people who work from home increase in the future.

About 32% of all accidents in the Central Region occur in the Capricorn area. The bulk of the accidents are car related (86%) which aligns with the high car ownership and usage in the area. The study has the lowest crash rate per hundred thousand population in the Central Region compared to other major centres such as Mackay, Gladstone and Emerald. Queensland Transport develops regional road safety action plans every two years which contain strategies to reduce accident rates in the region.

**Key assumptions**

It is assumed that:
- current car ownership and mode use trends will continue in the near future
- significant land use change and work practices may influence travel patterns over time
- only with intervention will transport patterns change over the short to medium term
- accident rates for cars will continue to dominate the overall accident statistics for the area
- strategies in the Regional Road Safety Action Plans will reduce the number accidents in the future.

**Transport providers and regulatory framework**

Assumptions about transport providers and the regulatory environment include:
- There will continue to be a need for ongoing co-ordination across state and local government transport planners and providers and other agencies to achieve an integrated regional transport system
- Increasingly, development decisions made by government will need to consider that the full range of economic, social and environmental costs is reflected in freight rates. Where costs cannot be reflected in freight rates, government may use either regulatory mechanisms or
Planning Assumptions (continued)

incentives to influence modal choice
- Freight transport operators will continue to provide services within Commonwealth and state regulatory frameworks, even where such frameworks are amended in the future
- For regional freight transport tasks where road is assessed to be the most suitable mode, government will assess and approve the most suitable routes for the movement of freight
- Land use and development in the region will be guided and controlled by local government with reference to Local Planning Schemes and in consultation with transport planning agencies within the state government
- Private bus operators within the region will be overseen through the Commercial Services Contract with Queensland Transport and through relevant legislation
- Development of future transport corridors will need to take account of mineral resource deposits. Appropriate consultation will be required with industry as well as government agencies such as Department of Natural Resources, Mines, and Energy.

Transport funding and financial environment

A key issue for transport is the ageing infrastructure and escalating maintenance demands.

The CapIRTP includes a recommended program of expenditure on transport-related infrastructure. It is the intent of the Recommended Capital Programs (Works & Assets) to assist in implementing the infrastructure-based actions listed in the Action Plans.

Funding of the CapIRTP Recommended Capital Programs (Works & Assets) will require ongoing financial support from all sectors of government (federal, state and local) as well as the private sector. The community may also participate by supporting actions involving community and public transport initiatives. The plan supports initiatives to fund alternative transport solutions (especially where the solutions provide for improved social and environmental outcomes). The plan assigns a higher priority to growth areas.

All currently unfunded or part-funded items listed in the Recommended Capital Programs (Works & Assets) will be subject to:
- future funding approvals
- studies and investigations listed in the Action Plans
- environmental assessments
- further public consultation
- each agency’s planning and assessment processes including technical, financial and other evaluations for their respective capital programs.

The CapIRTP notes where possible future potential funding sources against each item.

The plan lists lead agencies and supporting agencies for each action in the Action Plans and each item listed in the Recommended Capital Programs (Works & Assets). Lead agencies have prime responsibility for ensuring appropriate outcomes are achieved and will provide reports to the CapIRTP Implementation Group. Supporting agencies will provide advice and assistance. These agencies will be appropriately consulted.
Planning for a responsive transport system

One of the key elements of the CapIRTP is the use of scenarios to evaluate the responsiveness of the proposed transport network. Key stakeholders developed seven scenarios to test network options for the CapIRTP area.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Case</td>
<td>This scenario assumes that the current level of growth will continue and that industry projects committed will go ahead.</td>
</tr>
<tr>
<td>Urban Migration</td>
<td>This scenario assumes an increase in migration to South East Queensland.</td>
</tr>
<tr>
<td>Coastal Development</td>
<td>This scenario assumes high migration and population growth along the Capricorn Coast.</td>
</tr>
<tr>
<td>Reduced Emissions</td>
<td>This scenario assumes pressure to reduce emissions and a shift away from car use to other transport modes.</td>
</tr>
<tr>
<td>Economic Downturn</td>
<td>This scenario assumes an economic recession and the possible impacts on the CapIRTP area.</td>
</tr>
<tr>
<td>Economic Upturn (Medium Growth)</td>
<td>This scenario assumes that committed and prospective industry projects will go ahead.</td>
</tr>
<tr>
<td>Economic Upturn (High Growth)</td>
<td>This scenario assumes that the current level of growth will continue and that committed and prospective industry projects, plus those on the far horizon, will go ahead.</td>
</tr>
</tbody>
</table>

Key stakeholders developed a range of possible transport system impacts for each of the scenarios.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Resulting Transport System Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Case</td>
<td>Increase in traffic according to medium population growth with a mode split that resembles the current situation.</td>
</tr>
<tr>
<td>Urban Migration</td>
<td>Reduction in overall trips, with the biggest reductions occurring between North and South Rockhampton and between South Rockhampton and Gracemere. The mode split resembles the current situation.</td>
</tr>
<tr>
<td>Coastal Development</td>
<td>High traffic growth between Rockhampton and Yeppoon and along the coast. The mode split in the corridor adjusted to increase public transport.</td>
</tr>
<tr>
<td>Reduced Emissions</td>
<td>A reduction in car travel, with a shift towards other modes such as public transport, cycling and walking.</td>
</tr>
<tr>
<td>Economic Downturn</td>
<td>An overall decline in trips, with some reduction in car trips in favour of other modes.</td>
</tr>
<tr>
<td>Economic Upturn (Medium Growth)</td>
<td>An overall increase in all trips, especially in Stanwell to Rockhampton and Rockhampton to Yeppoon corridors. The mode split adjusted with an increase in public transport.</td>
</tr>
<tr>
<td>Economic Upturn (High Growth)</td>
<td>A high increase in all trips, especially on the Capricorn and Bruce Highways and between Yeppoon and Rockhampton. The mode split adjusted with an increase in public transport.</td>
</tr>
</tbody>
</table>
ROADS

- Background
- Planning Principles for Roads
- Road Network Issues
- Road Network Improvement Options
- Road Freight
- Actions for Roads
- Capital Program for Roads
The importance of the road network in the area is emphasized by the fact that:

- about 87% of all person trips in the region is undertaken by car (or 93% of all trips by some form of road dependant transport)
- a large proportion of all freight is transported by road.

Dispersed and low-density land uses resulted in a car dependant population in the region. The road system is generally of high quality, with sufficient capacity to accommodate existing traffic volumes.

The Bruce Highway connects Rockhampton with the cities of Mackay in the north and Gladstone in the south. It traverses through Rockhampton on the north via Yaamba and Moores Creek Road, over the Neville Hewitt Bridge (crossing the Fitzroy River) and along the city fringe via Albert and George Street. Port Alma (75km to the south), the Rockhampton airport (5km) and the Port of Gladstone, can be accessed via road links from the Bruce Highway.

The Capricorn Highway connects the major urban areas of Rockhampton and Gracemere (and Stanwell industrial precinct). The Capricorn Highway is a sealed road suitable for heavy loads (an approved type 1 road train route).

The Burnett Highway provides a link between Rockhampton and Mount Morgan.

Apart from the highway system in the area various other roads were considered in the CapIRTP

**Road sections considered in CapIRTP**

- **Bruce Highway** from northern border of CapIRTP area (Ogmore) to the border (Raglan) in the south (includes Yaamba Road, Moores Creek Road, Albert Street, George Street, Gladstone Road and Lower Dawson Road).
- **Capricorn Highway** from Rockhampton, via Gracemere to eastern border of CapIRTP area.
- **Burnett Highway** from Rockhampton via Mount Morgan to the southern border of the CapIRTP area.
- Rockhampton - Yeppoon
- Rockhampton - Emu Park Road (including Lakes Creek Road)
- Yeppoon to Emu Park (the Scenic Highway)
- Gavial - Gracemere Road (connecting Gracemere with the Bruce Highway south of Rockhampton)
- Yeppoon - Byfield Road
- Rockhampton – Ridgelands Road
- Bungundarra Road
- Queen Elizabeth Drive/Musgrave Street (Fitzroy Bridge)
- Moores Creek Road (Bruce Highway to Norman Road)
- Norman Road and Dean Street in Rockhampton
- Yeppoon – Emu Park (Tanby Road and access to Kinka Beach and Rosslyn Bay)
- Ridgelands - Rosewood - Wycarbah Roads (Fitzroy Loop)
- Keppel Sands Road
- Omore Connection Road
- Bajool - Port Alma Road
- Duaringa - Apis Creek Road
- Marlborough - Sarina Road
- Fons Drive (links Glendale to Glenlee and southward to Rockhampton via Belmont Road)
- Farnborough to Yeppoon (via Pacific Drive, Crannies Road, Adelaide Park Road and Limestone Creek Road)
**Studies**

A number of studies have been completed to access the road network requirements in the area. The most significant of these studies are the:

- Livingstone Shire Land Use/Transportation Study (1993)
- Yeppoon Transport Options Study (2002).

Other studies conducted in the area include the Alma Street proposed bypass for heavy vehicles (1999) and traffic study for Lakes Creek Road (2000). The outcomes of these studies have been considered in the development of a future road network for the area.

**Rockhampton Transport Study 1991**

A review of the Rockhampton Transport Study indicated that the study overestimated future traffic movements. The shift of development from the south side to the north of Rockhampton also altered travel patterns significantly. As a result, the identified road improvements have changed in terms of both location and time of implementation.

**Livingstone Shire Land Use/Transportation Study 1993**

A review of the Livingstone Shire Land Use/Transportation Study showed that the outcomes of the study are still largely relevant. Current traffic counts (1991) reflect the low traffic scenario. Upgrades identified in the study have largely been undertaken.

The study identifies Tanby Road, Park Street, Rockhampton-Yeppoon Road and Adelaide Park Road as those urban roads most likely to suffer from increased congestion. All these roads have a sufficiently wide reserve, with the exception of Adelaide Park Road. The study indicates the need for an alternative route to the west, bypassing the existing built-up area.

**Yeppoon Transport Options Study 2002**

The Yeppoon Transport Options Study (2002) was undertaken to identify and evaluate alternative transport requirements to support desired planning outcomes for Yeppoon to 2030. It seeks an optimum solution to reduce the impact of current transport operations.

The two issues considered in the study comprised:

- the impact on amenity and safety of logging trucks using Anzac Parade between Yeppoon CBD and the foreshore and Livingstone Shire Council’s future development intent for Yeppoon
- the impact of the current rail station in James Street and Livingstone Shire Council’s future intent for this part of the Yeppoon CBD.

A number of rail options were investigated and it was concluded that the existing location of the railway station compromises development options for the Yeppoon CBD and creates significant traffic impacts (heavy vehicles accessing the existing packaging facilities at the railway station). The study suggests the development of a multi-modal facility at Bondoola, on the outskirts of Yeppoon, adjacent to the existing rail line and the Yeppoon-Rockhampton Road. It further suggests an alternative heavy vehicle route connecting with the Yeppoon-Rockhampton Road at Bondoola to alleviate amenity and safety issues along Anzac Parade.
Queensland Government Strategies and Initiatives

The recently released Roads Connecting Queenslanders (Main Roads) provides a strategic long-term direction for the Queensland road system and Main Roads. The document focuses on the four key outcomes for the Queensland road system that contribute to government’s priorities for the state. These are:

- safer roads to support safer communities
- efficient and effective transport to support industry competitiveness and growth
- fair access and amenity to support liveable communities
- environmental management to support environmental conservation.

The Department of Main Roads’ Road Connecting Queenslanders replaces the previous Road Network Strategy document and provides the future direction for roads in Queensland. Being the department’s leading policy document it shows how Main Roads will plan for long-term needs and make strategic choices using available funds to respond to community, industry and government expectations of Queensland’s roads.

It also recognizes that the road system is essential to connect wider transport and infrastructure development, land use, regional development and the activities of people, communities and industries.

Main Roads recently released Investment Guide for Queensland’s State Controlled Roads outlines cost-effective strategies for consistent improvement to Main Roads’ higher order roads. The guide provides a twenty-year outlook for road development across the state and is a starting point for more detailed planning activities. Its strategies are based on enhancing equity across the state and attempt to balance competing road network objectives with anticipated funding. The first release of the guide focuses only on higher order roads; the remaining district roads require additional consideration. The guide acknowledges the importance of integrated transport planning to achieve its objectives.

Projects for the department’s Road Implementation Program will align with the strategic intent outlined in the Investment Guide, but will depend upon government priorities, stakeholders’ expectations and available funds.

The statewide investment guide, along with the policies and priorities from Roads Connecting Queenslanders, is framed to contribute to the development of integrated regional transport plans.

The Main Roads and Local Government Alliance supports the principles behind the development of integrated planning. The main purpose of the alliance is for Main Roads and local government, through a combined approach to road network planning, to improve the delivery of road infrastructure for those roads deemed to be of local significance.

Integrated transport plans will provide an important input to the planning undertaken by the alliance partners. As such, there are recognised benefits for the current group of councils involved in the CapIRTP to continue working as a group of councils with Main Roads in the proposed alliance.
**Planning principles for roads**

The principles adopted for roads in the area align with those in the *Roads Connecting Queenslanders*. These include:

- safer roads to support safer communities
- efficient and effective transport to support industry competitiveness and growth
- fair access and amenity to support liveable communities
- environmental management to support environmental conservation.

**Road network issues**

Road network issues raised during consultation include:

- capacity and future requirements of roads between the Capricorn Coast (Yeppoon and Emu Park) and Rockhampton; Rockhampton and Gracemere; and north-south along the Capricorn Coast
- intersection capacity at McLauglan Street and Capricorn Highway (Gracemere), along Lakes Creek Road and Boundary Road, the Bruce Highway, High Street to Moores Creek Road and various intersections at Musgrave Street and the area around Aquatic Place
- impact of through traffic volume on Rockhampton (via Albert Street and George Street and through traffic use of Norman Road and Dean Street in preference to the Bruce Highway)
- impact of land use on road infrastructure requirements and service levels such as major new developments and industry expansions (forestry expansion in the Byfield area and the intensification of agriculture along the reaches of the Fitzroy River at Riverslea and Rookwood) on the road system
- impact of traffic growth on cross-river access in Rockhampton (Stanley Street alternative crossing)
- impact of flooding on road infrastructure provision and performance
- access to the Shoalwater Bay Military Training area (along with existing military facilities that may be able to be used in emergency situations), to Port Alma and to the Bruce Highway at Glenlee and The Caves (when future expansion occurs)
- there may be significant increases in the volume of traffic on roads servicing agricultural developments around the Lower Fitzroy River from Ridgelands to Rookwood-Riverslea
- rail/road conflicts at all intersections along Denison Street
- heavy vehicle traffic on various roads such as the Scenic Highway, Anzac Parade, Bolsover Street and Alexandra Street
- need for an alternative southern access to Rockhampton City for use in emergencies
- preferred routes for the movement of over-dimensional vehicles through Rockhampton
- possible impact in road network (access) in Mount Morgan if proposed mining, tourism and feed lot developments eventuate
- impact of potential increase in tourist traffic along the Scenic Highway.

**Road network improvement options**

Generally, the road network is operating at a high level of service with low levels of congestion and short travel times. Results of the road network model indicate that, in general, the road system is capable of accommodating traffic growth until 2015 with only minor capacity improvements needed at key intersections and along major arterials. The 2030 analysis showed that demand would exceed capacity of existing arterial roads causing congestion.

The CapIRTP road network was modelled to assess its responsiveness.
against a range of possible growth scenarios. The results of the analysis indicate that network improvements along the Yeppoon-Rockhampton Road, Tanby Road, the Capricorn Highway (between Rockhampton and Stanwell) and the Bruce Highway (through Rockhampton) will need to be considered.

The Yeppoon to Rockhampton Road and Capricorn Highway (between Rockhampton and Stanwell) may require more passing lanes in the short to medium term, with duplication in the long term.

Tanby Road requires upgrading to relieve the pressure of future traffic increases along the Scenic Highway from Yeppoon to Emu Park. The Scenic Highway carries a considerable proportion of local traffic and holiday traffic and has a low speed profile. The upgrading of Tanby Road will improve access and travel times between Yeppoon and Emu Park.

The CapIRTP investigated options to reduce through traffic (especially heavy vehicles) in Rockhampton. A cursory analysis of alternative through route options has been undertaken for Rockhampton City. The options for alternative through-routes investigated, included two options each on the western and eastern side of Rockhampton City. The results of the analysis indicated that:

- the capacity of the existing road network is adequate to accommodate traffic growth beyond 2030
- the cost to provide the alternative through-route options outweighs the benefits derived from the estimate number of users beyond 2030
- the construction of the alternative through-route options will have a detrimental impact on road traffic reliant businesses
- the western through-route options have the potential to exacerbate the impact of flooding.

The construction of an alternative through route around Rockhampton City may be a requirement beyond 2030. However, a process should be put in place to ensure retention of a possible future corridor once the alignment has been established. Options to improve traffic flow along Albert Street and George Street should be investigated in the short term.

Results from public consultation indicated that logging trucks travelling via Yeppoon are causing conflict with pedestrians along Anzac Parade. Current safety and amenity issues need to be addressed. The increase in the logging traffic has been a catalyst for the upgrading to a sealed standard of the existing road (Yeppoon – Byfield Road). The Yeppoon Transport Options Study (2002) suggested an alternative heavy vehicle route connecting with the Yeppoon-Rockhampton Road. The Yeppoon Western Bypass Road and the upgrading of Tanby Road are now funded projects.

Road capacity improvements could induce an increase in car travel. Options to reduce car travel should be considered (such as car pooling, incentives and disincentives, alternative land use development and so on). For example Central Queensland University is a major attractor with access from the Bruce Highway and Norman Road. Adjacent development could reduce trips via the Bruce Highway and Norman Road by providing direct linkages. The CapIRTP supports alternative transport solutions to car travel that will improve economic, social and environmental outcomes.

The need for future road development should occur in conjunction with road safety and management strategies.
Road Freight

Road freight needs to be considered in the development of existing and future road options. The road system is maintained in a good state of repair and the pavement and alignment on most roads are generally suitable for heavy commercial traffic. The introduction of significant additional commercial traffic as a result of industrial development in the corridor would nonetheless significantly affect the remaining life of existing infrastructure and may require pavement strengthening.

The highest daily heavy vehicle traffic volumes (about 1,000 heavy vehicles per day north and south of Rockhampton in 2000) occur along the Bruce Highway. A large proportion of this heavy vehicle traffic is through traffic. The highest heavy vehicle movements occur on the Bruce Highway road through the city along Moores Creek Road (1,320 heavy vehicles per day in 2001), George Street (1,580 heavy vehicles per day in 2001) and Lower Dawson Road (1,620 heavy vehicles per day in 2001). A large proportion of local freight movements within the CapIRTP area consist of cattle transport from the hinterland (Gracemere environs) to the abattoirs along Lakes Creek Road. The road sections between Gracemere and Rockhampton carried about 800 heavy vehicles per day (2000), while about 770 heavy vehicles per day (2000) travelled along Lakes Creek Road. Another main heavy vehicle route includes the Rockhampton to Yeppoon Road (450 heavy vehicles per day in 2001, that includes a proportion of logging trucks from the Byfield forestry area).

Road freight routes

The Guideline for Multi-combination Vehicles in Queensland (Queensland Transport Version 4 July 2001) provides the conditions under which road trains (including B-triples, AB-triples and prime mover/semi-trailer combinations towing one converter dolly) and B-doubles may be used on roads in the CapIRTP area. B-doubles are currently trialled on the Byfield Road. Appropriate routes have been determined, based on the load capacity of the route and access.

Road freight issues

A number of road freight issues have been identified from previous studies as well as from workshops with the road freight industry such as:
- the capacity of existing road infrastructure to support future freight requirements
- the appropriate allocation or shifts between modes such as road and rail
- the economic efficiency of road freight movement
- the negative impacts such as heavy vehicle noise (i.e. noisy vehicles on steep grades towards Rockhampton airport) and safety
- heavy vehicles (in particular dangerous goods) travelling via inappropriate land uses (residential areas, school zones and shopping nodes) and their impact on amenity and safety
- parking of heavy vehicles (on roads in residential areas)
- the movement of freight to and from the Rockhampton Railway Station creating heavy vehicle issues in Bolsover Street and the CBD environs
- insufficient areas to break up long vehicles and inadequate break-up and rest area facilities (safety is a primary concern)
- existing road conditions such as steep grades (with loose gravel), rail and road intersections (long vehicles can obstruct rail operations if not allowed sufficient space to stop at close road intersections), need for more passing lanes (mainly at hills) and roundabouts
- insufficient access to industries
- access to current information on routes (road and bridges)
- need for clear signage, placed at an appropriate distance to allow sufficient time to react.
Road freight improvement options
There are a number of options for reducing the impact of road freight. These include:
- establishment of break-up and service areas (i.e. west of Gracemere)
- transfer road freight to other modes such as rail
- redirection of heavy vehicles along safer routes
- construction of alternative heavy vehicle routes
- construction of intermodal facilities on the north and south side of Rockhampton and Yeppoon.

Actions for roads (freight & passenger)

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<tr>
<td>Rd9</td>
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### Description of Works

| CRd1 | Rockhampton-Yeppoon Road (Mackays Road to Hidden Valley Road section) widening and sealing. | $1.39M | DMR | Completed | Funded |
| CRd2 | Capricorn Highway (Rockhampton-Duaringa) Neerkol-Spring Creek rehabilitation and widening | $1.75M | DMR | Completed | Funded |
| CRd3 | Capricorn Highway (Rockhampton-Duaringa) Stanwell-Stuart Creek widening. | $1.70M | DMR | Completed | Funded |
| CRd4 | Yeppoon-Emu Park Road Mulambin and Rosslyn Bay Roads intersection improvements. | $0.75M | DMR | Medium Term | Unfunded |
| CRd5 | Rockhampton-Emu Park Road (West of Pattison Street section) widening. | $0.8M | DMR | Short Term | Funded |
| CRd6 | Rockhampton-Emu Park Road (Cooper Street Intersection) intersection improvements | $0.3M | DMR | Completed | Funded |
| CRd7 | Rockhampton-Emu Park Road (Berserker/Dean Street Intersections) install traffic lights - Dean Street. | $0.7M | DMR | Short Term | Funded |
| CRd8 | Rockhampton-Emu Park Road (Berserker/Thozet Road intersections) installing traffic signals. | $0.8M | DMR | Medium Term | Funded |
| CRd9 | Yeppoon-Tanby Road (Taranganba Road intersection) widening and sealing. | $0.67M | DMR | Medium Term | Funded |
| CRd10 | Gavial-Gracemere Road (Bruce Highway-Gavial Creek section) upgrade. | $0.9M | DMR | Short Term | Funded |
| CRd11 | Gavial-Gracemere Road (Washpool Creek-Breakspear Street section) upgrade. | $0.94M | DMR | Medium Term | Unfunded |
| CRd12 | Burnett Highway (Mt Morgan-Rockhampton) Dee River area at-grade intersection improvement. | $0.85M | DMR | Short Term | Funded |
| CRd13 | Burnett Highway (Mt. Morgan-Rockhampton) Poison Creek bridge widening. | $0.42M | DMR | Short Term | Funded |
| CRd14 | Rockhampton-Yeppoon Road (Median Access 3 – Median Access 9 section) rehabilitation and widening. | $2.93M | DMR | Short Term | Funded |
| CRd15 | New Yeppoon Western Bypass Road and Yeppoon - Tanby Road widening and sealing | $26M | DMR | Short Term | Funded |
| CRd16 | Yeppoon-Byfield Road Byfield Creek, bridge replacement. | $0.4M | DMR | Medium Term | Funded |
| CRd17 | Yeppoon multi modal facility construction. | $2.5M | LSC | Medium Term | Unfunded |
| CRd18 | Tanby Road to Rosslyn Bay link construction. | $6M | LSC | Medium Term | Unfunded |
| CRd19 | Farnborough Road to Adelaide Park Road link construction. | $10M | LSC | Medium Term | Unfunded |
| CRd20 | Taranganba Road upgrade to dual carriageway. | $2.5M | LSC | Medium Term | Unfunded |
| CRd21 | Artillery Road and Coowonga Road upgrades. | $6M | LSC | Medium Term | Unfunded |
PROGRAM OF ROAD PROJECTS

Legend
- National Highway
- State Strategic Road
- Regional Roads
- District Roads
- LGA Roads

DLGPSR ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ANY INFORMATION PRESENTED ON THIS MAP.

Data Source: DLGPSR, QT, NRM&E
Prepared by CQAMM GIS Unit: May 2004

Queensland Government 2004
**Background**

The North Coast Line, Blackwater System, including the (Central West Line) and Yeppoon Line serve the area with mainly freight transport, along with some long distance passenger train services.

**Network Description**

The North Coast Line north of Rockhampton is a single track. It is the primary freight system in the network, and is also used for long distance passenger services.

South of Rockhampton the line from Rocklands to Gladstone is overlapped with coal traffic from the Blackwater System.

The Yeppoon Line connects Yeppoon and Rockhampton via a spur line through Cawarral and Mt Chalmers. It is a single line between Glenmore and Yeppoon. Trains no longer operate along this line beyond Field’s Siding.

**Rail Freight**

The North Coast Line services the Central Queensland coalfields and rural industries such as cattle, wheat, cotton and sheep. The rail line has substantial capacity for short haul freight movements from Kunwarara to Stanwell, and from the Stanwell industrial area to Rockhampton and the Port of Gladstone and all east coast destinations connected by the North Coast Corridor.

The Blackwater System and Central West Line primarily services Central Queensland coalmines. Trains carry product (about 3.5 million net tonnes) through to Stanwell Power Station, Gladstone Power Station and the Port of Gladstone via the North Coast Line. A balloon loop services the Stanwell Power Station, designed principally to deliver coal from the Central Queensland coalfields. The system carries about 39 million net tonne of coal to the Port of Gladstone per year. This Blackwater System and the duplicated section of the North Coast Line (between Rocklands and Parana) does not receive any operating subsidy from the Queensland government and generally, any network extensions and capacity increases required for new traffic are either funded by Queensland Rail and the developer, or recovered through access charges. The remainder of the rail network in the study area does receive funding support via Queensland Transport’s transport service contract with QR.

The Yeppoon Line was used to carry seasonal pineapple traffic. The first section of the Yeppoon Line is used for cattle trains to the meatworks and quarry products from CSR’s Nerimbera quarry.

**Passenger Services**

There is no commuter rail service in the area. The Tilt Train Services (between Rockhampton and Brisbane, and Cairns to Brisbane) and Tourist Train Services (on the North Coast Line and between Rockhampton and Longreach) provide long haul passenger services.

The first Cairns Tilt Train service set off from Cairns on June 15 2003. The Cairns Tilt Train takes 25 hours to travel from Brisbane to Cairns, significantly reducing travel time along the Queensland coast. The tilt train will provide three services each way per week, and has the capacity to seat 173 passengers and can travel at speeds of up to 160km/h. The service will deliver not only a new experience for people travelling to and from Cairns, but is expected to follow the trend already set by the Rockhampton Tilt Train.

The Brisbane to Rockhampton Tilt Train service commenced in November 1998, cutting travel time between these centres from some nine hours down to seven hours. This service provides a faster link with Central Queensland and has enhanced the tourism industry and created numerous new business opportunities. The Rockhampton Tilt Train provides six services weekdays with two additional services over the weekend, from Brisbane to Rockhampton and one service daily to Brisbane from Rockhampton. The train provides 290 seats and patronage is generally high.
QR runs other tourist train services that allow for Rockhampton to be used as a destination or stopover point for tourists. These services include:

- **Sunlander** - Brisbane to Cairns
- **Spirit of the Outback** - Brisbane to Longreach
- **Tilt Train** - Brisbane to Cairns

<table>
<thead>
<tr>
<th>Service</th>
<th>Destination – North</th>
<th>Frequency</th>
<th>Destination – South</th>
<th>Frequency</th>
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</table>

*Times effective from the 15 June 2003*

Rail passenger services on the circuitous line to Yeppoon was discontinued in 1978.

**Planning principles for rail**

The *Rail Network Strategy for Queensland* provides a framework for the strategic development of the state’s rail infrastructure. It includes the following actions:

- Enhance the role of the rail network in implementing government’s objectives and priorities
- Develop a reference framework for the investments made by the state in the rail network
- Encourage innovative private sector investment in the Queensland rail network
- Obtain the maximum benefit from National Competition Policy (NCP) for the state’s rail network
- Gain acceptance of and encourage joint Commonwealth-state partnerships in developing Queensland’s nationally significant rail corridors
- Develop strategic, rail-based linkages between individual regional transport plans
- Control and manage rail corridor land effectively
- Promote the concurrent use of rail corridors for both rail and non-rail purposes.

Three fundamental principles support each of the objectives:

- **Safety** - The rail network in Queensland must be safe for operators, users and the public. Legislation, together with appropriate accountability mechanisms, must require and enforce safe practices on and near the state’s rail network
- **Ecologically sustainable** - The rail network will support and promote initiatives introduced by the state to provide a transport system that provides net benefits to the environment
- **Financially responsible** - Rail investment decisions must be informed, prudent and responsible. Decision-makers must base their investment decisions on a detailed analysis of costs and benefits of all practicable infrastructure and non-infrastructure options.

**Rail Issues**

A number of rail infrastructure and service issues have been raised to date. These include:

- the impact of railway operations on residential amenity (noise/lights)
- integration with other modes of transport such as buses (future transit centre)
- improvement of transit times
- investment in rail infrastructure (for future industrial developments)
- need for a local commuter and tourist rail service
- safety (Denison Street).
While upgrading of existing infrastructure, including improved alignments and track structure, has the potential to improve transit times and support the future viability of the rail network, such upgrades often represent considerable investments and can only be considered when increased rail demand can justify the investment.

Journey times can be further improved by considerable improvements to the existing poor alignment. Level crossing protection, signalling works and fencing would also be required to control risks associated with increased speeds.

Several submissions were made to Queensland Transport to introduce a commuter/tourist train service from Rockhampton to Yeppoon, to access all rural communities adjacent to the line. It was suggested that its use by commuters travelling to work in Rockhampton would alleviate traffic congestion by road. While it may be possible in the future to reutilise this line for commuter/tourist transport, it is unlikely to be economically viable until considerable population growth and higher residential densities are achieved in the Yeppoon to Rockhampton corridor. The alignment of the corridor does not provide direct access to major commuter destinations in Rockhampton City such as Central Queensland University. Preliminary assessments by QR and Queensland Transport indicated that a commuter option is not feasible.

The existing rail line from Yeppoon to Rockhampton is no longer used to carry freight. Pineapples will in the future be transported from Yeppoon by road rather than rail. As such, future use of the Yeppoon railway station site and corridor is being investigated.

Several representations have been made to investigate the feasibility of a commuter rail line between Gladstone and Rockhampton. The outcomes of the Gladstone Growth Management Initiative indicates that the demand for travel between Gladstone and Rockhampton will be low. Preliminary investigations into a commuter rail service between Rockhampton and the Gladstone State Development areas at Aldoga and Yarwun indicated that it is not viable in the short/medium term. Further options need to be investigated.

**Rail network and service improvement options**

The primary focus for the rail system in the area, consistent with the Rail Network Strategy for Queensland, is to provide a safe, reliable, cost-effective, efficient and robust transport option and to enhance the competitiveness of rail. An action in the Rail Network Strategy is to undertake a rail corridor directions study for the North Coast line. This will be initiated by Queensland Transport to identify current capacity, future demand and options to meet that demand. The outcomes of the study will guide government investment decisions on the North Coast line, including the section within the study area. Local branch lines will be included in this study.

QR’s Network Development Plan 1999-2009 (June 1999) provides a strategy and direction for the development and management of QR’s rail network from an operator’s perspective. The plan was also developed to assist Queensland Transport to meet its obligations under the Transport Infrastructure Act 1994 to undertake strategic planning for infrastructure in Queensland. It provides global, network element and operational system strategies, but does not provide a financial commitment to implement those strategies.

QR is currently carrying out major upgrades of track and bridges to enable 20 tonne axle loads to travel over the corridor from Rockhampton to Cairns. This project is on target and, when completed, the improved alignment will enhance safety, freight capacity, speed and service standards for both passenger and freight transport to, from and through the area.

There is scope in the regions for future investment on the rail network where it can be shown that rail is a viable and attractive alternative for freight, other than the coal-carrying corridors. Although the tonnages on the North Coast Line have remained relatively constant, some constraints exist on the branch lines. The upgrading of the North Coast Line is well advanced and is sufficient for the operation of the new diesel-powered Cairns Tilt Train which commenced operation in 2003.
The Blackwater system is managed to ensure that it is able to cope with traffic that may be interchanged from the Goonyella system.

Integration with other services should be encouraged. Bus, taxi and hail-and-ride facilities are currently provided at the Rockhampton railway station. However, there is a need to upgrade these facilities.

Some of the options to improve and rationalise rail infrastructure and services in the area include:

- The capacity of the Alexandra rail bridge to accommodate trains with certain loads and heights may be a restriction in the future. An option exists to construct a rail bridge at the end of Stanley Street to improve load and height limits (this option has been identified in the Rockhampton Transport Study). The construction of such a bridge would alleviate the current train traffic through Rockhampton City (Denison Street). This is considered a long-term project.

- Public access across rail lines at several locations is considered unsafe. The Open Level Crossing (OLC) asset strategy within Queensland Transport’s Transport Services Contract (Rail Infrastructure) has promoted enhancement to OLCs. This is based on recognised safety needs and is assessed by QR according to a prioritised matrix.

- Options to improve rail services to industrial areas such as Stanwell and Parkhurst should be investigated.

- Options for intermodal facilities at locations such as the south and north side of Rockhampton City should be investigated.

- Options to improve service delivery to regional and rural areas to reduce impacts on the road system should be considered.
Actions for rail (freight & passenger)

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<th>Timing</th>
<th>Responsibility</th>
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Capital Programs for Rail

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Note: The above rail infrastructure improvement programs are demand driven and could change
PUBLIC TRANSPORT

- Background
- Planning Principles for Public Transport
- Public Transport Issues
- Public Transport Improvement Options
- Actions for Public Transport
- Capital Program for Public Transport
BACKGROUND

Regional public transport in the area consists of school and scheduled buses and taxis.

SCHEDULED BUS SERVICES

The scheduled bus services in the area are conducted under contract to Queensland Transport. These contracts offer market exclusivity to the contracted operators in exchange for minimum service levels. There are two contracted operators in the area, Young’s Bus Service and Capricorn Sunbus.

Young’s Bus Service

Contract

Young’s Bus Service is the contracted operator for services operating within the declared Capricorn Coast urban area (northern extremity of Yeppoon through to Zilzie), between Capricorn Coast and Rockhampton and between Rockhampton, Gracemere and Mt Morgan. Service frequency and coverage are comprehensive and are generally in excess of the minimum service levels demanded by the contract. In addition to weekdays, services operate across the coast on Saturdays and Sundays and to and from Gracemere and Mt Morgan on Saturdays. Hail and ride services operate in Gracemere and Yeppoon townships.

Accessibility

Young’s currently operate three wheelchair accessible buses across their network. Each of these buses has been partly funded through Queensland Transport’s accessible bus programs.

Infrastructure

Queensland Transport through the Public Transport Infrastructure Program has provided considerable funding towards improving public transport in the region. With the assistance of Livingstone and Fitzroy Shire Councils, timetable boards and signage have been installed along the bus routes. In addition, bus shelters have been placed wherever possible and a number of bus pullover areas have been improved. A new-four bay bus interchange at Yeppoon has been constructed and funded through this program. Services operating into Rockhampton interchange passengers at Kern Arcade in the CBD and Rockhampton Shopping Fair in North Rockhampton. Additional bus stops are also used at TAFE and the hospital.

Capricorn Sunbus

Contract

Capricorn Sunbus are the contracted operators for services operating within the declared urban area of Rockhampton. The company initially operated high frequency/high coverage services throughout the city, but in recent years, the service levels on some routes has been scaled down. Services operate weekdays and Saturday mornings and operate under the hail and ride concept.

Accessibility

Although no wheelchair-accessible buses operate at this stage, it is proposed to introduce them on a route-by-route basis.

Infrastructure

Considerable funding has been provided through the Public Transport Infrastructure Program and ‘hail and ride’ signage and timetable boards have been installed along the routes. With the cooperation of Rockhampton City Council, shelters have been installed wherever possible. Interim improvements to the Kern Arcade bus stop in the CBD are proposed, including bus shelters and kerbside improvements to meet short term needs. In addition interim improvements to the Rockhampton Shopping Fair bus stop are proposed. These will include the provision of overhead lighting, footpath upgrades and pedestrian management facilities.
SCHOOL BUS TRANSPORT

School bus transport in the area is conducted under contract to Queensland Transport. Young’s Bus Service is the major contractor and there are several other smaller contractors.

Government funding generally applies to students who are isolated by distance, with students more than 3.2km from their nearest primary school and 4.8km from their nearest secondary school being eligible for free transport to school.

Few students in Rockhampton are eligible for free school transport due to the geographic spread of the schools across the city.

LONG DISTANCE BUS SERVICES

There are several long distance bus services servicing the CapIRTP study area. The majority of these services are privately operated and funded except for the service along the Capricorn Highway between Rockhampton and Longreach. The major terminal for long distance bus services is located in North Rockhampton.

TAXIS

Taxi licenses exist in Capricorn Coast area, Rockhampton City area and Mount Morgan town. Queensland Transport requires that taxi services offered in “declared” areas (i.e. Capricorn Coast and Rockhampton) must be operated under contract with them. This contract stipulates minimum service levels that must be achieved (measured in customers’ waiting time).

Current taxi services include:
- Capricorn Coast - six taxis (includes three wheelchair-accessible vehicles)
- Rockhampton City - sixty one licenses (includes seven wheelchair-accessible vehicles)
- Mount Morgan - four licenses (one wheelchair-accessible vehicle).

PUBLIC TRANSPORT PATRONAGE

Existing public transport usage is low compared to other transport modes. The comparatively low population (in relation to South East Queensland), residential densities and low traffic congestion negatively affect the demand for public transport. Short travel times by private car make public transport usage relatively unattractive. Transport-disadvantaged groups (children, elderly, households without available cars etc) generally use bus services. Due to the existing road network and the terrain, bus routes are perceived to be remote from some residential areas, and walking distances to bus stops are perceived to be excessive.

Young’s has increased its patronage substantially, in the order of 25% pa over the last three years. Capricorn Sunbus in Rockhampton is experiencing slight growth, in the order of 2-4% pa over the same period.

The Rockhampton City service carries in excess of 35,000 passengers per month. Passengers comprise 34% pensioners, 25% adults, 26% secondary students and 15% children.

The growth of the region’s population to date is expected to continue, with an associated increase in the demand for public transport services, particularly for the region’s younger and older age groups.

Under the School Transport Assistance Scheme, considerable numbers of students are being moved within and across the Capricorn Coast to the district’s schools. Similarly, a considerable number of students are moved into Rockhampton, but very few are conveyed within the city itself.

STUDIES

The Rockhampton Transport Study (1991) reviewed the public transport system in terms of its impact on local traffic. The study concluded that ‘No specific traffic problems associated with public transport operations have been identified to date’ (Section 13.9). The study also refers to a separate study of possible sites for an inter-city coach terminal and concludes that none of the sites would be unacceptable from a local traffic and access perspective.

The Land Use/Transportation Study (1993) for Livingstone Shire concluded that the present bus routes within Yeppoon and along the Capricorn Coast provided a satisfactory level of access, with the majority of properties within 400 metres from a bus route. Bus services, although not frequent, were considered adequate for populations the size and composition of Yeppoon and Emu Park.
Planning principles for public transport

Passenger and public transport services in the area have an important role to play in providing a better-integrated transport system. Levels of service for public and passenger transport are defined by factors such as accessibility, safety, security, system quality (e.g. kerbside infrastructure), affordability and customer satisfaction.

The principles for improving public transport are directly related to the factors that influence the viability of public transport systems. These include a public transport system that:
- is within walking distance from residences (accessibility)
- is convenient to desired destinations (schools, shops, work)
- is direct as possible
- provides a frequent service
- provides public information about times, bus stops, shelters and costs
- provides sufficient and effective kerbside infrastructure (bus stops, shelters, information)
- has good quality buses (safe, comfortable, provides for the disabled and elderly)
- provides good quality route conditions (gradients, corner radii, surface)
- is affordable.

In order to achieve improved public transport services it is important to co-ordinate land use (higher densities, consolidation) and infrastructure provision (roads, transit centres) (See Queensland Transport’s - Shaping Up: A guide to the better practice and integration of transport, land use and urban design techniques).

Public transport issues

Issues associated with the current public transport system were sourced from community feedback and studies.

Capricorn Coast issues:
- Bus route infrastructure is often located where it will be accepted by residents and not where it will be most effective e.g. bus shelters have been placed on the ocean side of the road which will assist only those passengers wanting to travel towards Emu Park whereas the predominant direction of travel is towards Yeppoon. The reason for this is residents’ complaints to council when a shelter is proposed in front of their residence, regardless of how strategically it is placed
- Layout of developments is often not conducive to servicing by buses e.g. Club Estate and Golf Links Estate do not allow through travel, and timetabling buses is an issue
- Limited areas for bus pull-overs are of particular concern on the coast due to current traffic volumes and the danger to passengers e.g. a bus is often required to stop in the road whilst offloading/loading
- Provision for bus areas in new developments, particularly those where students are eligible for government assistance for school transport, is not always immediately apparent. A significant problem exists and will grow at the entrance to the "Haven" Estate where a bus cannot enter the estate as there is no turnaround area and there is no space on the highway for it to pull off the roadway. Similar issues exist at Pacific Heights, Strow Street, Clayton’s Road, Club Estate and Golf Links Estate
- Wheelchair access at bus stops and leading to/from bus stops is an issue. Young’s currently run three wheelchair-accessible buses and are looking to increase that number.

Rockhampton issues:
- Sunbus interchange passengers at Kern Arcade and at Shopping Fair (not only between their own buses but also with buses operated by Young’s). Passengers at Shopping Fair often have to cross four lanes of highway to catch a connecting bus or to reach their departing bus. Kern Arcade is inadequate as the major CBD bus interchange. There is insufficient room for buses, and the arcade is of inappropriate urban design (i.e. lack of distinctive interchange character, insufficient shade in the afternoon, etc.)
There is inadequate provision for parking tour and charter buses in or near the CBD.

There is limited access to some shopping centres such as Allenstown (not conducive for passengers to use a bus).

Provision for wheelchair users will be a problem (at the bus stop and leading from the bus stop).

There is inadequate provision for public transport in the development approval process e.g. new cinema complex at Shopping Fair.

The number and frequency of bus services are inadequate.

**Public transport improvement options**

Based on the issues associated with the current public transport services and infrastructure a number of public transport improvements are proposed.

- Reduce walking distances to bus stops especially for those dependent on public transport i.e. the elderly.
- Investigate the possibility of providing public transport services by modes other than bus and taxi such as a river ferry service.
- Integrate bus, rail and air services.
- Improve public transport routes especially to the university, shops and schools.
- Investigate the potential for the installation of bike racks on buses, subject to the outcomes of the Brisbane bike racks on buses trial.
- Apply travel demand management strategies such as TravelSmart initiatives, travel incentives, route dedication, to increase public transport usage.
- Provide sufficient public transport infrastructure to support increased accessibility and comfort.
- Improve passenger interchange at Kern Arcade.

Queensland Transport, local authorities and other agencies are currently considering public transport improvements.

- Queensland Transport and Rockhampton City Council are in the process of initiating some improvements at Kern Arcade such as installing shelters.
- Rockhampton Shopping Fair owners approached Queensland Transport and offered to assist with the planning for an integrated bus interchange to be included in the Shopping Fair Master Plan.
- A transit centre has been proposed for the Rockhampton CBD, with more than one location available. Such a centre would permit better co-ordination of all forms of transport including tourist coaches, rail, local buses and taxis. Stakeholder discussions suggest that redevelopment of any site to provide a transit centre should be staged to assist with funding and to allow for increased demands for future patronage from the Cairns-Brisbane Tilt Train service and long distance coach travel as required. Local public transport patronage is also increasing and will be considered in any staged development.
- Capricorn Tourism has proposed a further study to investigate the feasibility of an integrated conference and transit centre in Rockhampton.
- Livingstone Shire Council is committed to continuing with the conceptual planning for a small two to four bus terminal at Emu Park. A suggested site beside the Pine Beach Hotel medium centre strip is favoured.
- Queensland Transport is promoting increased public transport use through its TravelSmart initiative. TravelSmart aims to highlight the advantages of considering alternatives to car such as public transport, cycling and walking.
### Capital Program for Public Transport

<table>
<thead>
<tr>
<th>Description of Works</th>
<th>Lead Agency</th>
<th>Order of Cost</th>
<th>Timing</th>
<th>Funding Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPt1 Construction of bus interchange at Emu Park</td>
<td>LSC</td>
<td>$150K</td>
<td>Short Term</td>
<td>Funded</td>
</tr>
</tbody>
</table>

### Actions for Public Transport (Buses and Taxis)

<table>
<thead>
<tr>
<th>Action</th>
<th>Timing</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt1 Establish a sustainable transport working group to resolve local issues and identify opportunities to improve passenger transport in the region.</td>
<td>Short term</td>
<td>Councils, QT, Operators</td>
</tr>
<tr>
<td>Pt2 Undertake an audit of public transport routes and facilities to identify future public transport needs.</td>
<td>Short term</td>
<td>QT, Operators, Councils</td>
</tr>
<tr>
<td>Pt3 Review the current bus kerbside infrastructure to improve access to buses, bus passenger comfort and security.</td>
<td>Short term</td>
<td>QT, Councils, Operators</td>
</tr>
<tr>
<td>Pt4 Review existing scheduled bus routes.</td>
<td>Short term</td>
<td>QT, Operators</td>
</tr>
<tr>
<td>Pt5 Examine opportunities to promote &amp; distribute available information on public transport services.</td>
<td>Short term</td>
<td>QT, Councils, Operators</td>
</tr>
<tr>
<td>Pt6 Seek opportunities to implement EFTPOS, Cabcharge and internet bookings of taxis.</td>
<td>Short term</td>
<td>QT, Operators</td>
</tr>
<tr>
<td>Pt7 Identify an appropriate location to develop intermodal passenger interchanges in Rockhampton and Yeppoon.</td>
<td>Short term</td>
<td>LSC, RCC, QT, Operators</td>
</tr>
<tr>
<td>Pt8 Develop a strategy to increase bus patronage.</td>
<td>Short term</td>
<td>QT, Councils, Operators</td>
</tr>
<tr>
<td>Pt9 Investigate the potential for the installation of bike racks on buses, subject to the outcomes of the Brisbane bike racks on buses trial.</td>
<td>Short term</td>
<td>QT, Operators</td>
</tr>
<tr>
<td>Pt10 Monitor and ensure public transport patronage increases as needed according to bus operators’ contracts.</td>
<td>Medium term</td>
<td>QT, Operators</td>
</tr>
<tr>
<td>Pt11 Consider public transport access and measurability when planning new and redeveloping areas.</td>
<td>Ongoing</td>
<td>Councils</td>
</tr>
</tbody>
</table>
Young’s Regional Bus Service Network

Data Sources: DLGPSR, NRM&E, QT
Prepared by: CQ AMI GIS Unit: May 2004

DLGPSR accepts no responsibility for the accuracy of any information presented on this map
BUS SERVICE ROUTES
(SUNBUS AND YOUNGS COACHES)
ROCKHAMPTON CITY

Legend

Sunbus Routes
Young's Coaches Routes

Data Sources: DLGSPR, NRM&E, QT
Prepared by CQ ANM GIS Unit: May 2004

DLGSPR ACCEPTS NO RESPONSIBILITY
FOR THE ACCURACY OF ANY INFORMATION
PRESENTED ON THIS MAP
CYCLING

- Background
- Planning Principles for Cycling
- Cycling Issues
- Options to Improve Cycling
- Actions for Cycling
**Background**

The bicycle network in the area is largely concentrated in urban built-up areas. The area is generally flat and conducive to cycling. Bicycle facilities at shopping centres are generally limited, as are those provided at major public transport interchanges such as the Rockhampton train station, airport and other bus terminals.

In general the majority of bikeways are lanes located on-road, with some paths through open space areas. These paths are generally shared with pedestrians. On higher use paths, pedestrians and cyclists do not mix well due to the differences in speed and manoeuvrability. Ideally, in areas where high use is expected, separated paths should be considered. In low use areas, shared paths with centre lines and direction arrows at potential conflict points will usually be sufficient. Alternatively, installing wider paths can help to reduce conflicts.

Typically cyclists can be categorised as commuter, recreational and school cyclists.

Cyclists undertaking journeys for commuter purposes will use the quickest and most direct routes. They are unlikely to utilise bicycle facilities which are indirect or which restrict speed. Most are adults travelling to and from work and are generally not averse to riding on roadways as long as they offer some level of protection to the rider. The provision of on-road bicycle lanes to cater for such traffic is a practical means of improving safety for these riders.

Recreational cycling trips largely take place on weekends and during daylight outside of school/work hours and are undertaken by people in all age groups. Such trips usually follow more scenic routes through parks or along quiet streets and often end at leisure or recreation centres or shops. Travel time and route directness are normally not the most important factors in designing such routes, as the ride itself should be interesting enough to attract the rider.

A large number of school children commute to nearby schools on bicycles. Whilst travel time and route directness are of some importance to school children, it is more important that routes to schools avoid busy or dangerous sections of road or unsupervised crossings of major roads. School children generally do not possess as keen a sense of traffic behaviour or road safety as commuter cyclists. Therefore bicycle routes catering for school children must place particular emphasis on safety and simplicity of traffic manoeuvres, particularly at road crossings.

The design of routes to shops and recreational facilities needs also to consider the requirements of school age cyclists.

According to the 2001 Census relatively few people travel to work by bicycle within the area e.g. about 2.3% of all journeys to work is by bicycle. The 2001 Census provides information only for journeys to work (commuter cyclists). Little information on the use of bicycles for recreation or journeys to school within the area is available.

**Previous Studies**

The Rockhampton Strategic Cycleway Plan (February 1993) presents the findings and recommendations from a study of Rockhampton cyclists’ concerns and needs and the opportunities to meet those needs. The outcomes of this study are still relevant.

Livingstone Shire Council has reviewed its bicycle network and is currently in the process of finalising a policy and network for Livingstone Shire.

**Planning Principles for Cycling**

The Queensland Cycle Strategy was launched in October 2003. The strategy has seven key objectives:

- effective co-ordination and monitoring of strategy implementation
- policy and practice that facilitates cycling
- a quality network of bicycle routes
- improved safety and security for cyclists
- integration of cycling and public transport
- widespread provision of secure end-of-trip facilities
- effective encouragement and promotion of cycling.
This strategy gives a target for the desired level of cycling in Queensland. As the rate of cycling varies between cities and towns, increases will be measured in individual study areas. Current levels of cycling within the CapIRTP area mean that the Queensland Cycle Strategy 2008 target for the area will be 3%.

**Cycling issues**

Issues associated with bicycles were sourced from previous studies and community consultation.

- There is a lack of quality links for pedestrians and cyclists
- In spite of a cycle network that support commuter travel (on-road links), commuter cycling levels in the region are low. This could indicate that the on-road facilities are inadequate and there is a lack of end-of-trip facilities at workplaces.
  It is recognised that an appropriate network of bikeways is necessary to provide safe and direct access for cyclists to such destinations as schools, leisure centres, parks and shops as well as for commuting to and from work
- There are predominantly shared (pedestrian and cyclists) paths in open spaces. This can lead to a conflict between pedestrian and cyclists because of differences in speed and manoeuvrability
- There is an absence of data and general information on recreational and school cycle trips in the region
- There are a limited number of road accidents involving cyclists in the region, but those that do occur can be severe in nature. It is important that cyclists and motorists continue to learn to ‘share the road’ and engage in safe road use practices
- Road design (in particular roundabouts) does not fully incorporate provisions for cycling
- Cycle networks are not continuous.

**Options to improve cycling**

Cycling is becoming more popular in the area. The Rockhampton Strategic Cycleway Plan is being implemented and some routes are complete. Cycle information is available to assist safe cycling and to publicise bicycle routes. With the trend towards cycling, the cycle plan needs to be reviewed in terms of safety, extent and implementation and a strategy for future needs to be developed.

Cycle plans need to be developed for the shires of Fitzroy and Mount Morgan, while Livingstone Shire Council needs to complete its current plan. There is a need for more cycle lanes on major roads and better connecting cycle networks in the region. Appropriate cycling facilities should be implemented to suit the type of users expected. Queensland Transport, through its bicycle section is generating a series of technical and policy information sheets that provide details on cycle planning design and engineering to help local government planners, engineers and consultants.

The following actions will be implemented within the context of the Queensland Cycle Strategy, the strategic framework for the whole state:

- Separate cyclists and heavy vehicles
- Encourage cycling and public transport through safer routes to shops
- Provide secure bicycle parking options at public transport stops
- Provide safe routes to public transport stops
- Investigate funding options from other sources
- Make cycle networks continuous
- Investigate alternative options for the provision of cycle routes such as rail corridors
- Establish a cycling reference group.
## Actions for Cycling

<table>
<thead>
<tr>
<th>Action</th>
<th>Timing</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Cy1</td>
<td>Short term</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy2</td>
<td>Short term</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy3</td>
<td>Short term</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy4</td>
<td>Short term</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy5</td>
<td>Medium/Long term</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy6</td>
<td>Ongoing</td>
<td>Councils, QT</td>
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<tr>
<td>Cy7</td>
<td>Ongoing</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy8</td>
<td>Ongoing</td>
<td>Councils, QT</td>
</tr>
<tr>
<td>Cy9</td>
<td>Short term</td>
<td>Councils</td>
</tr>
<tr>
<td>Cy10</td>
<td>Ongoing</td>
<td>Councils</td>
</tr>
<tr>
<td>Cy11</td>
<td>Ongoing</td>
<td>Councils, DMR</td>
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<tr>
<td>Cy12</td>
<td>Ongoing</td>
<td>Councils</td>
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<tr>
<td>Cy13</td>
<td>Ongoing</td>
<td>Councils, DMR</td>
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<tr>
<td>Cy14</td>
<td>Ongoing</td>
<td>Councils, DMR</td>
</tr>
</tbody>
</table>

1. **Cy1**: Establish a sustainable transport working group to resolve local issues and identify opportunities to improve cycling in the region.
2. **Cy2**: Develop, update and implement bicycle plans, including a regional cycle network plan. As part of the plans, undertake research that provides meaningful data on work, recreational and school cycling trips.
3. **Cy3**: Publish a guide to local cycling trails and destinations.
4. **Cy4**: Develop a bicycle education and awareness strategy.
5. **Cy5**: Promote an increase in mode share (4% by 2015 and 5% by 2030).
6. **Cy6**: Conduct regular reviews of bicycle facilities to identify possible improvements.
7. **Cy7**: Consider bicycle access when planning new and redeveloping areas.
8. **Cy8**: Develop supporting facilities at key destinations (schools, universities, public transport interchanges, shopping centres, recreational facilities and employment centres) to encourage cycling.
9. **Cy9**: Include requirements for end of trip facilities for commercial and other major developments in Planning Schemes according to guidelines set out in Austroads Guide to Traffic Engineering Practice Part 14 – Bicycles (incentive schemes should be considered).
10. **Cy10**: If warranted consider bicycle and pedestrian interaction in the planning and design of networks.
11. **Cy11**: If warranted make provision for cycling access during construction of road and transport infrastructure.
12. **Cy12**: If warranted adopt appropriate bicycle design guidelines as provided in ‘Shaping Up’, Austroads Guide to Traffic Engineering Practice Part 14 – Bicycles, council bicycle plans and/or planning schemes and PTED crime prevention through environmental design principles.
13. **Cy13**: If warranted provide for cycling in all new road projects, road upgrades and maintenance work where these projects are on an identified cycle network.
14. **Cy14**: If warranted ensure that all new road upgrades have a continuous shoulder of 1-2m, depending on the speed environment, for road safety and cycling purposes, where shared use is suitable.
WALKING

- Background
- Planning Principles for Walking
- Walking Issues
- Options to Improve Walking
- Actions for Walking
**BACKGROUND**

According to the 2001 census, an average of 4.7% of people in the area walk to work. The number of people walking to work in the area varies according to each local government area:

- Mount Morgan: 10.9%
- Livingstone: 5.9%
- Rockhampton: 4.4%
- Fitzroy: 2.6%

Since 1996 there has been a decline in the number of people in the area that walk to work.

The number of people walking to work is predominantly influenced by their proximity to the workplace. The proximity of local facilities including shops, public transport facilities, sport and recreation facilities, entertainment venues and other major trip generators is also a contributory factor to the number of trips walked.

Walking is a popular and desirable mode for commuting and recreation and its benefits are well documented and include:

**Transport:** More people walking short trips reduce congestion and associated costs. For example, the majority of car trips to school are within walking distance and walking these trips would significantly reduce congestion around schools.

**Health:** Walking provides regular physical activity which is important in the prevention of many serious health conditions. It also improves concentration and memory.

**Economic:** Shops within walking distance ensures goods and services are purchased by local residents. It also means that land currently reserved for parking can be used more productively.

**Social:** Walking provides opportunities for spontaneous and/or organised social interaction. It also provides independent travel for people with low rates of car ownership, including teenagers and seniors.

**Environmental:** Walking is a pollution free mode of transport that uses minimal amount of fossil fuels. Walking can improve air quality and reduce noise pollution.

**QUEENSLAND GOVERNMENT INITIATIVES**

A key action of the Queensland Transport Road Use Management Strategy is to provide improved pedestrian facilities in support of an integrated road system that would allow safe and efficient pedestrian movement.

Queensland Transport’s *Action Plan for Pedestrians 2004-2006* encompasses two key issues: pedestrian safety and measures to encourage walking. Improving the safety of pedestrians and encouraging walking involves promoting safe behaviour and creating comfortable, attractive and practical routes and environments for pedestrians.

The Queensland government also supports “10,000 Steps Rockhampton”, a community-wide project to encourage walking as a form of regular physical activity in everyone’s lives.

**PLANNING PRINCIPLES FOR WALKING**

Key principles for walking include:

- effective co-ordination and monitoring of pedestrian initiatives
- policy and practice that facilitates walking
- a quality network of pedestrian routes
- improved safety and security for pedestrians
- integration of walking and public transport
- effective encouragement and promotion of walking.

**WALKING ISSUES**

Previous studies and community consultation highlighted the following issues:

- There is a lack of quality links for pedestrians
- There is a need to upgrade and supplement the existing pedestrian network. It is recognised that an appropriate pedestrian network is necessary to provide safe and direct access for pedestrians to such destinations as schools, leisure centres, pubs and hotels, parks and shops as well as for commuting to and from work.
- High quality and attractive pedestrian facilities are essential in encouraging people to visit and spend time in towns and cities.
- There are predominantly shared (pedestrian and cycle) paths in open space areas. Differences in speed and manoeuvrability can lead to conflict between pedestrian and cycle users.
- The number of accidents involving pedestrians in the CapIRTP area is not large. However, it must be emphasised that such accidents are often severe due to pedestrians’ lack of protection. It is imperative that pedestrians be protected from vehicular traffic.
- Adequate illumination of pedestrian routes and areas at night is necessary to ensure personal safety.
- Provision must be made for wheelchair and pram ramps on all footpaths.

High volume pedestrian movements occur mainly at the Yeppoon beachfront area, major retail centres (Shopping Fair) and Rockhampton CBD.

Conflict between pedestrians and vehicles are particularly evident at the Yeppoon beachfront area where high volumes of pedestrians walk during weekends and holiday periods. Through traffic and logging trucks create an unsafe environment for pedestrians wanting to access the beachfront from the Yeppoon city centre. Signage currently requests pedestrians to give way to vehicular traffic.

Pedestrian facilities in Rockhampton CBD include pedestrian malls, rest areas, signalled and marked crossings. However, these do not always provide the most direct access for pedestrians and pedestrians have to give way to vehicular traffic.

**Options to improve walking**

The provision of safe, comfortable and direct pedestrian access to key destinations allows walking to fulfil a significant proportion of short trips.

Making walking more attractive is a vital element in increasing the viability of public transport as an alternative to private vehicle use. Options to encourage walking and to improve pedestrian networks include:

- Adopt transport infrastructure design standards which ensure safe pedestrian access to and from public transport interchanges and bus stops in urban areas.
- Ensure connectivity between pedestrian networks and public transport.
- Establish trial pedestrian friendly transit precinct projects.
- Ensure that all pedestrian facilities cater for groups with special needs such as people with disabilities and parents with strollers by appropriate design of new facilities and upgrading of existing facilities.
- Ensure attractive, functional and safe pedestrian facilities are provided as part of all urban development.
- Review signage (‘Give Way’) for pedestrians in Yeppoon and Rockhampton.
- Ensure major pedestrian facilities are well lit and conducive to improved personal security via passive and active surveillance.
- Plan for pedestrian networks that reduce conflict with other modes (i.e. with rail in Denison Street).

There are no formal pedestrian networks or policies for the area. It would be desirable to undertake a study of existing walking facilities, including an environmental design of pedestrian infrastructure to help prevent crime and to enhance personal safety.

The quality of existing footpaths and the need to provide paths to all major pedestrian generators should be reviewed.
### Actions for Walking

<table>
<thead>
<tr>
<th>Action</th>
<th>Timing</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Wa1</td>
<td>Short term</td>
<td>Councils, QT</td>
</tr>
<tr>
<td></td>
<td>Establish a sustainable transport working group to resolve local issues and identify opportunities to improve pedestrian facilities in the region.</td>
<td></td>
</tr>
<tr>
<td>Wa2</td>
<td>Ongoing</td>
<td>Councils</td>
</tr>
<tr>
<td></td>
<td>Develop, update and implement pathway plans.</td>
<td></td>
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<tr>
<td>Wa3</td>
<td>Short term</td>
<td>Councils, Education Queensland, DMR</td>
</tr>
<tr>
<td></td>
<td>Review footpath widths and pedestrian facilities, including crossings at schools (including the development of pedestrian facility guidelines).</td>
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<tr>
<td>Wa4</td>
<td>Ongoing</td>
<td>Councils, DMR</td>
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<tr>
<td></td>
<td>Adopt appropriate pedestrian facilities guidelines, included in MUTCD, Austroads Part 13 and guidelines in QT's Shaping Up publication (including the new pedestrian facilities guidelines).</td>
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<tr>
<td>Wa5</td>
<td>Short term</td>
<td>Councils</td>
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<tr>
<td></td>
<td>Publish a guide to local walking trails and destinations.</td>
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<tr>
<td>Wa6</td>
<td>Short term</td>
<td>Councils, QT</td>
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<tr>
<td></td>
<td>Develop improvement, promotional and education programs for local pedestrian networks to improve safety and amenity.</td>
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<tr>
<td>Wa7</td>
<td>Ongoing</td>
<td>Councils, QT</td>
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<tr>
<td></td>
<td>Consider pedestrian access and walking distances from residences and public transport services when planning new and redeveloping areas.</td>
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<tr>
<td>Wa8</td>
<td>Ongoing</td>
<td>Councils, QT, DMR</td>
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<tr>
<td></td>
<td>Ensure ease of access for pedestrians is provided as an element of all major transport, sport and recreational, educational and commercial infrastructure.</td>
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<tr>
<td>Wa9</td>
<td>Ongoing</td>
<td>Councils</td>
</tr>
<tr>
<td></td>
<td>Map and assess existing pedestrian networks around major nodes and ensure pedestrian facilities are included in all new developments as part of planning scheme requirements. Adopt Austroads Part 13 – Pedestrians and guidelines in QT’s Shaping Up document for new work.</td>
<td></td>
</tr>
<tr>
<td>Wa10</td>
<td>Ongoing</td>
<td>Councils, QT</td>
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<tr>
<td></td>
<td>Adopt recommendations of Queensland Transport’s Cycle Note C2 to address pedestrian and cyclist conflict.</td>
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<tr>
<td>Wa11</td>
<td>Ongoing</td>
<td>Councils</td>
</tr>
<tr>
<td></td>
<td>Target an increase in walk trips to 6% of all trips to work in 2015 and to 8% in 2030.</td>
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</tr>
</tbody>
</table>
AVIATION

- Background
- Current Operations
- Planning Principles for Aviation
- Aviation Issues
- Airport Facility Improvement Options
- Actions for Aviation
- Capital Program for Aviation
Background

Rockhampton Airport is the major air transport facility servicing the area. Services are generally regional domestic, although international charter flights come in from Singapore, Japan and New Zealand. Qantas and Virgin Blue airlines currently operate flights to/from Rockhampton Airport. The airport plays a significant military role during exercises at the Shoalwater Bay military training area, acting as the base for both Australian and overseas military aircraft.

Existing Aviation Infrastructure

Rockhampton Airport is located on two adjoining parcels of council owned land, a southern parcel comprising 393 hectares and a northern parcel of 171 hectares. Facilities include the main runway, secondary runway, a regular public transport (RPT) apron, general aviation (GA) apron and associated taxiways. The movement area of the airport is complemented on the landside with a modern domestic terminal. A sealed public carpark has provision for approximately 385 vehicles.

A defence terminal with a supporting apron located at the northern end of the RPT apron is leased to the Commonwealth of Australia. A sealed public carpark area capable of accommodating 160 vehicles is located adjacent to this complex. Defence force personnel when deploying to Rockhampton Airport use this facility.

General aviation infrastructure includes hangars/offices occupied by Royal Flying Doctor Service, Rockhampton Aero Club, Horizon Airways, Rose Engineering, Capricorn Helicopter Rescue Service, Flightcraft Pty Ltd, ULG Services and the large Primary Industries (Queensland) Pty Ltd complex.

Smaller airfields are located at Hedlow Airfield and Emu Park GA.

Current Operations

Domestic Operations

Present aircraft operations comprise:
- an average of fifteen RPT jet and prop services each per day
- general aviation operations include charter flights by Rockhampton Aero Club, Horizon Airways and various external charter organisations
- Royal Flying Doctor Service and Capricorn Helicopter Rescue Service using Rockhampton Airport as a base.

Commercial International Operations

To date international operations have been centred mainly on troop movements between Singapore, Japan, USA and Rockhampton. Airlines that have provided services thus far include Qantas, Singapore Airlines, Royal Brunei, Eva Air and World Airways, using a range of aircraft that include B767-300, B747-400, MD11, A340 and B777-200 models. Previously, Kiwi Air Charter carried out a few New Zealand flights and ANA carried out annual charters to Japan.

Defence Force International Operations

The Republic of Singapore Air Force carries out annual direct Singapore to Rockhampton flights using C130 aircraft. A wide range of military aircraft have previously been deployed to Rockhampton Airport via direct operations from international locations including Okinawa, Guam, Hawaii and New Zealand.

Defence Force Local Operations

Defence force operations are associated with exercises in the Shoalwater Bay military training area. There are at least three exercises a year, usually lasting between three and four weeks. Mobilisation and withdrawal from the airport extends the period of aircraft activity. Exercise Wallaby 2002 involved deployment of approximately 3,150 troops to Rockhampton. During this exercise, the Republic of Singapore Air Force conducted an estimated 1,290 aircraft movements.

Aircraft and Passenger Movements

The annual aircraft movements, including military, for 2002/03 were 24,016. The airport recorded 304,790 passengers for the period ending 30 June 2003. This reveals a 40% increase over the twelve-month period ending June 2002.
**Aviation (continued)**

**Future demand**

The Rockhampton Airport Upgrade Feasibility Study (RAUFS) includes a demand analysis that determines the demand from a range of key drivers for an airport expansion. The demand analysis revealed that international tourism would be the most significant driver for an expansion to Rockhampton Airport over the ten-year feasibility period.

Current user passenger numbers are projected to grow at an average of 2.5% per annum, while international passenger movements are expected to increase on average by 6.4% per annum over the ten-year period. Domestic freight is expected to remain static and international freight projections were seen to be too low to be considered. Recent development works at the airport extended the main 15/33 runway beyond the 2,500m length recommended in the study. This length now provides the opportunity to fly passenger aircraft from/to international destinations such as Japan and Korea. International freight is not expected to be of significance until Rockhampton has regular scheduled international flights. Passenger and aircraft movement trends post the runway extension indicate that the projected figures contained in the RAUFS report may be overstated.

**Infrastructure Demands**

**Runways**

The Preliminary Development Assessment to the C&L Rockhampton Airport Upgrade Feasibility Study, reported on investigations of the runway length requirements for international operations at Rockhampton Airport. An analysis considered the runway length requirements for B767-300 and B747-400 aircraft to operate future international services at Rockhampton. International routes considered were Auckland, Tokyo, Hong Kong, Seoul, Singapore and Honolulu. The following operational criteria were assumed in the analysis:
- airline fuel policy and operating weights
- 85% worst month winds
- 85% average daily maximum temperatures (peak temperature 32.7°C)
- nil surface wind.

Range curves for both B767-300 and B747-400 aircraft operations were developed. Although no detailed operational performance was available for B777 and A340 aircraft, the study did give brief consideration to these aircraft. Subsequent to the study, variants of these aircraft have operated successfully between Singapore and Rockhampton.

In summary, the study found that the maximum practical length for the main 15/33 runway at Rockhampton Airport was considered to be 2,700 metres. It recommended that the first extension should provide a total runway length of 2,200 metres. The next stage would include a further extension of the runway to 2,500 metres. The third stage, which was not considered likely within the ten-year planning horizon, includes a further extension of the runway to 2,700 metres.

**Terminal**

The GHD *Preliminary Development Assessment* states that the existing terminal covers an area of 6,300 square metres, which is adequate to cater for the current and forecast domestic passenger demand. Ad hoc international charters are currently accommodated in the present terminal when there are no domestic operations. Although the processing of the international passengers has been accommodated through the existing terminal, the facilities would have to be described as being below desirable standards. It is not possible to satisfactorily process both domestic and international passengers simultaneously through the same end of the terminal.

**Access**

Vehicle access to the airport is mainly from Hunter Street, with secondary access from Canoona Road. Data from the *Rockhampton Transport Study 1991* (Department of Transport and Rockhampton City Council) indicates that Hunter Street is presently carrying in the order of 1,600 vehicles per day (vpd), while Canoona Road carries an average of about 600 vpd.

The study forecasts traffic growth to about 2,200 vpd in Hunter Street and 800 vpd in Canoona Road by the year 2015. It is also observed that the existing airport car-parking area is presently under-utilised. The carpark can be expanded (to the south-east) if future demand ever warranted increased capacity.

To the north of Lion Creek, Nine Mile Road is a rural road providing vehicle access to rural properties along both sides of the Creek and along the western edge of the airport site south to Crescent Lagoon. This road carries light, but not insignificant, volumes of traffic.

The study concluded that “…there are no sectors… where the existing road system is deficient and … existing capacity will be adequate to carry significant traffic volume increases before any major upgrading projects become necessary”.

In the study, a deficiency volume of 20,000 vpd was adopted for two-lane two-way urban roads with no median and no access control. Canoona Road and part of the access road, which include part of Hunter Street, falls into this category. Other parts of Hunter Street falls into higher road categories. Accordingly, the airport’s access roads are considered to have capacity to accommodate substantial additional traffic.

Subsequent traffic counts (Rockhampton City Council, *Canoona Road – April 1992*; Department of Transport, *Intersection Lion Creek and Canoona Roads – October 1998*) indicate that the volume of traffic in Canoona Road appears to be even lower than the 600 vpd recorded in the 1991 Study.
Planning principles for aviation

Preliminary planning principles and objectives developed for aviation in the region include:

- Promote importance of Rockhampton Airport’s role as a regional aviation hub
- Ensure that Rockhampton Airport satisfies the anticipated air transport demand for the CapIRTP area and maximise the development potential of the airport site
- Upgrade the airport on an ongoing basis to accommodate the large-scale defence exercises conducted at the Shoalwater Bay military training area
- Ensure sufficient access to the airport.

Aviation issues

The main issues identified at the Rockhampton Airport include those related to aircraft noise, airspace protection and flooding.

Aircraft noise: Aircraft noise is by far the most publicised and obvious detrimental effect of airport operations. On numerous occasions it has proved to be the single most important issue to be addressed to avoid impediments to the expansion and development of existing airports.

The best solution to the noise problem is distance and in this regard the location of Rockhampton Airport on a flood plain clearly assists in preventing incompatible residential development adjacent to the airport.

Aircraft Noise January 1999 completed by GHD contains details of the noise studies undertaken. A review of the noise study report suggests that there are no significant noise issues anticipated for Rockhampton Airport operations within the foreseeable future.

Airspace protection: Town Planning for Airports, first published by the Federal Airports Corporation in 1993, states that obstructions in the vicinity of an airport, whether they be natural features or man-made structures, may seriously limit the scope of its operations.

New structures may restrict available flight paths or the length of a runway that can be used for take-off and landing. The impacts of any one obstacle may be relatively minor, but collectively a number of obstacles may seriously limit runway utilisation, causing airspace congestion and reducing the effective handling capacity of the airport.

The fact that Rockhampton Airport is located on a flood plain makes it extremely unlikely that incompatible development will occur adjacent to the airport, or in the area covered by the approach and take-off surfaces that extend 15 km from the runway strip end.

The airport operator is also required to monitor and report on tall structures that are 30m above ground level and within a 30km radius from the Aerodrome Reference Point (ARP). In keeping with state and or local strategic planning objectives and airspace protection requirements Rockhampton City Council and Fitzroy and Livingstone Shire Councils will need to work with Rockhampton Airport in assessing the extent to which existing height zones should be extended or additional zones included.

Planning issues associated with airports and aviation facilities are being addressed by local government planning schemes through the application of State Planning Policy 1/02 - Development in the Vicinity of Certain Airports and Aviation Facilities. Under this policy, Rockhampton Airport and a VHF communication facility at Mt Archer are listed as state significant aviation facilities. This requires the relevant planning schemes to include measures to regulate development beneath the airport’s operational space, within the sensitive area of the VHF facility, within the airport’s noise affected area and within the public safety areas at the end of airport runways.

Flooding: GHD was commissioned by Rockhampton City Council in early 1998 to investigate the potential impacts of proposed works on flood levels in the vicinity of Rockhampton Airport. The works proposed at the airport were for an extension of the main 15/33 runway...
to a distance of 2,700m, with the associated diversion of Nine Mile Road to the north. The affected area contained a number of lagoons. Five design events were nominated for modelling:
- the 100 year Average Recurrence Interval (ARI) flood in the Fitzroy River
- the 50 year ARI flood – Fitzroy River
- the 100 year ARI flood – Lion Creek
- the 10 year ARI flood – Lion Creek.

The results of the modelling indicated several key findings, the most significant being regional floods from the Fitzroy River cause widespread inundation. For these events no adverse effects are attributable to either the runway extension or the diversion of Nine Mile Road.

Subject to the adoption of culvert configurations based on the modelled events and listed in the report, the construction of an extended main runway for Rockhampton Airport and the diversion of Nine Mile Road should not adversely affect any landowners with respect to flood levels.

Subsequent to the construction of the runway extension and the development of the Nine Mile Road Diversion, the airport engaged GHD to investigate the extent of the impact of the ‘as-constructed’ Nine Mile Road on regional flooding. Investigations have focused on the ‘1998 design’ road level and the ‘February 2000 as-constructed’ road level and the impact of these road levels on the 10yr and 100yr ARI Fitzroy River flood events. The ‘February 2000 as-constructed’ road level is higher than the previously modelled ‘1998 design’ road level. This report is currently under review.

**AIRPORT FACILITY IMPROVEMENT OPTIONS**

**Passenger Terminal (International and Domestic):** The airport will fund the redevelopment of the existing terminal in the 2004/05 financial year. Alteration and possible construction of new facilities are required to increase the existing passenger terminal’s capacity to match the expansion of the airside infrastructure associated with international charter operations. The three main aims of the development are:
- to improve the passenger experience by refurbishing the existing terminal
- to increase the departure lounge area to accommodate larger domestic passenger loads
- to develop a multi-purpose international passenger processing facility.

**Pavement:** The recently completed pavement works provided Rockhampton Airport with ground infrastructure capable of supporting both domestic and international operations for at least the next ten years.

The opportunity also exists to provide an additional 300m pavement extension to the southern end of the existing main runway, thus providing a longer take-off distance (TODA) of 2,928m. This will negate having landings operating adjacent to the Murray Lagoon. Such an extension will have very little or no adverse environmental impact.

Runway 04/22 pavement works have commenced. The completed works will improve the all-weather capability and pavement strength. Resealing of the general aviation apron will occur concurrently.
Aviation (continued)

**Actions for aviation (freight & passenger)**

<table>
<thead>
<tr>
<th>Action</th>
<th>Timing</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Av1</td>
<td>Short term</td>
<td>RCC</td>
</tr>
<tr>
<td>Preserve options for the maximum utilisation of the existing airport site in accordance with the Rockhampton Airport master plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Av2</td>
<td>Short term</td>
<td>RCC</td>
</tr>
<tr>
<td>Develop controls to ensure protection of airspace (i.e. radio masts).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Av3</td>
<td>Short term</td>
<td>RCC</td>
</tr>
<tr>
<td>Review all aspects of the redevelopment of the international terminal facility.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Av4</td>
<td>Short term</td>
<td>RCC</td>
</tr>
<tr>
<td>Consider issues surrounding access to the airport.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Av5</td>
<td>Ongoing</td>
<td>RCC</td>
</tr>
<tr>
<td>Ensure that future development in and around the airport is compatible with relevant planning policies (airport master plan, state planning policy and council planning schemes).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Capital Program for Aviation**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Lead Agency</th>
<th>Estimated Cost</th>
<th>Timing</th>
<th>Funding Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAv1 Terminal Redevelopment</td>
<td>RCC</td>
<td>$2.0M (Approx)</td>
<td>Medium term</td>
<td>Unfunded</td>
</tr>
<tr>
<td>CAv2 Runway 04/22 Upgrade</td>
<td>RCC</td>
<td>$1.2M</td>
<td>Medium term</td>
<td>Unfunded</td>
</tr>
<tr>
<td>CAv3 General Aviation Apron Upgrade</td>
<td>RCC</td>
<td>$0.4M</td>
<td>Medium term</td>
<td>Unfunded</td>
</tr>
</tbody>
</table>
WATER TRANSPORT

- Background
- Planning Principles for Water Transport
- Water Transport Issues
- Water Transport Improvement Options
- Actions for Water Transport
- Capital Program for Water Transport
BACKGROUND

Freight transport (Port Alma)

Port Alma, located on the southern tip of the Fitzroy River delta, close to the mouth of Raglan Creek, is the only deep-sea import and export port in the CapIRTP area.

Port Alma in the Fitzroy Shire is approximately 60km by road from Rockhampton City. The Rockhampton Port Authority (now Central Queensland Ports Authority) operates Port Alma. On 1 July 1995 the Authority constituted under the Transport Infrastructure Act 1994 became a Government Owned Corporation (GOC) under the Government Owned Corporations Act 1993. The renamed Gladstone Port Authority, Central Queensland Ports Authority (CQPA) has taken over operations of the port.

Port Alma has certain strategic advantages because of its remote location, particularly in relation to the movement of explosives and other hazardous goods. Land access to the port is available by road only. The rail line to the port was removed about 1989 but the corridor remains. Being a natural deep-water harbour, Port Alma can offer security and shelter and is able to accommodate vessels up to 180 metres in length.

Import and export facilities are provided at Port Alma. The port has three berths, comprising one general berth with a 25 tonne fixed ledge crane, one berth for general cargo and one berth that provides for the import of petroleum products and export of bulk cargo via a 1,000 tonne bulk loader. Also available at the port are a mobile ship loader, two container yards, a 3 tonne forklift and fire equipment. Storage lands totalling 140 hectares are also available away from the port at Bajool, approximately 20 km from the port towards the Bruce Highway. Berths 1 and 2 are continuous to provide 291 metres of mooring space plus mooring dolphins at each end. A facility to transfer from road to rail and vice versa is available at the QR siding near Bajool.

The port currently imports ammonium nitrate, explosives and general cargo. Exports include ammonium nitrate, salt, frozen beef and tallow, explosives, scrap metal and general cargo. Ship movements at the port decreased from 70 in 2000/01 to 61 in 2001/02 due to fewer ships for frozen beef and tallow exports. However, cargo over the wharves increased from 146,008 tonnes to 179,505 tonnes in the same period, due to increases in salt, ammonium nitrate and explosives.


Salt: Salt produced by Cheetham and Pacific Salt is exported through the port. Exports increased (RPA Annual Report, 2001/02) in 2001/02 to more than 89,000 tonnes.

Ammonium nitrate and explosives: Ammonium nitrate imports have

<table>
<thead>
<tr>
<th>Berth</th>
<th>Length of Berth (metres)</th>
<th>Nominal Depth at LAT (metres)</th>
<th>Equipment and Facilities</th>
<th>Wharf Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berth No. 1</td>
<td>169</td>
<td>9.2</td>
<td>General storage shed</td>
<td>General cargo</td>
</tr>
<tr>
<td>Berth No. 2</td>
<td>122</td>
<td>9.2</td>
<td>Fixed leg crane 25 tonne</td>
<td>General cargo</td>
</tr>
<tr>
<td>Berth No. 3</td>
<td>238</td>
<td>8.4</td>
<td>Bulk salt loading facility and a petroleum pipeline</td>
<td>Bulk salt Petroleum products</td>
</tr>
</tbody>
</table>
## Cargo

<table>
<thead>
<tr>
<th>Cargo</th>
<th>1999/00</th>
<th>2000/01</th>
<th>2001/02</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonium nitrate</td>
<td>29,374</td>
<td>168</td>
<td>22,104</td>
</tr>
<tr>
<td>Explosives</td>
<td>705</td>
<td>917</td>
<td>1,253</td>
</tr>
<tr>
<td>General</td>
<td>736</td>
<td>766</td>
<td>2,059</td>
</tr>
<tr>
<td>Calcium nitrate</td>
<td>3,765</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Imports</strong></td>
<td>34,580</td>
<td>1,851</td>
<td>25,416</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulk tallow</td>
<td>28,837</td>
<td>26,931</td>
<td>17,142</td>
</tr>
<tr>
<td>Bulk salt</td>
<td>81,227</td>
<td>48,967</td>
<td>89,074</td>
</tr>
<tr>
<td>Frozen and preserved meats</td>
<td>28,999</td>
<td>40,983</td>
<td>28,800</td>
</tr>
<tr>
<td>Explosives</td>
<td>365</td>
<td>345</td>
<td>293</td>
</tr>
<tr>
<td>Ammonium nitrate</td>
<td>6,586</td>
<td>11,169</td>
<td>3,647</td>
</tr>
<tr>
<td>Scrap metal</td>
<td>23,983</td>
<td>15,683</td>
<td>15,134</td>
</tr>
<tr>
<td>Empty containers</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>General</td>
<td>94</td>
<td>70</td>
<td>-</td>
</tr>
<tr>
<td>Calcium nitrate</td>
<td>655</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Exports</strong></td>
<td>170,746</td>
<td>144,156</td>
<td>154,090</td>
</tr>
<tr>
<td><strong>Total Imports &amp; Exports</strong></td>
<td>205,326</td>
<td>146,007</td>
<td>179,506</td>
</tr>
</tbody>
</table>

Increased and is expected to continue in the foreseeable future as the current plant near Moura reaches capacity.

Scrap Metal: Scrap metal exports reduced marginally in 2001/02.

Fuel: The port has a capacity to transport fuel.

Significant capital expenditure would be required to provide ancillary facilities, such as cargo handling equipment or major replacement. Investigations into the need for additional cargo storage indicated that there is insufficient demand for cargo storage facilities to warrant investment at this stage.

An environmental audit was completed during 2000 and although no major issues were detected, an action plan has been developed to deal with matters on a priority basis. A baseline study of introduced marine pests in the port area was initiated. The information will provide the basis for a decision-support system for ballast water risk management.

**Passenger transport and recreation (Rosslyn Bay Boat Harbour)**

Rosslyn Bay Boat Harbour is a fully developed state boat harbour, being one of the defined 15 state boat harbours developed along the Queensland coast in the 1960s and 1970s. It has been estimated that the boat harbour is responsible for “marginal” economic activity within the region amounting to 67 full-time jobs, 161 part-time jobs and around $10.3 million in annual turnover. It requires maintenance dredging on approximately four-year cycles and a major strategic issue is the identification of a dredge-material disposal location.

Construction of Rosslyn Bay Boat Harbour by the state commenced in the late 1960s and Kinka Quarry was acquired as a strategic resource of rock material for breakwater construction and maintenance.

Land within the boat harbour has been made available to the private sector for the provision of boat harbour-related commercial and industrial services below and above the high water mark. These facilities include seafood receivables, barge facilities, tourist terminal, yacht facilities, and others. While the Port of Gladstone is external to the CapIRTP area, it provides very significant infrastructure for the export of coal and other products and has a major impact on the area.
club, marina and fuelling facilities. The large marina and Queensland Transport pile moorings in the harbour are well utilised by the boating public.

The harbour is predominantly used for ferry services to the nearby Keppel Island, recreational boating and as a base for commercial fishing vessels. A number of ferry and charter services provide access between Keppel Island and the mainland for tourists, island staff and service staff. The majority of the island staff are accommodated on the island and return to the mainland for leave, business and recreation. Most services operate from Rosslyn Bay Harbour as the facilities provide a convenient all-tide sea access. Current services from Rosslyn Bay include:

- Freedom Fast Cats offer three services daily between Great Keppel Island and Rosslyn Bay
- Keppel Tourist Services offer four services daily between Great Keppel Island and Rosslyn Bay
- Island Taxi Services operate a water taxi service between Rosslyn Bay and Keppel Island.

**Boat ramps and jetties**

There are several boat ramps and jetties located in the area.

Some access issues raised in consultation include:

- access by road to water for recreational boating
- demand for increased access by Volunteer Marine Rescue.

**Planning principles for water transport**

**Port Alma**

The mission statement for Port Alma is ‘to contribute to the economic development of Queensland by developing Port Alma as a long-term commercially viable deep sea port’.

This will be achieved by:

- providing safe, efficient, competitive commercial sea port facilities to facilitate commercial shipping cargo trade through Port Alma
- recognising and preserving the long term strategic value of Port Alma to central region and the rest of Queensland.

**Rosslyn Bay Boat Harbour**

Development and use of the harbour land should provide protection of the quality of water in the boat harbour by protecting the land from erosion and preventing any unacceptable levels of sedimentation and other pollutants entering the harbour.

New development should have a clear association with boat harbour activities and be in keeping with the waterside landscape and maritime theme.

**Water transport issues**

Key issues identified for Port Alma include:

- Land access to the port is by road only. The rail line to the port was removed in 1989 (the corridor remains). Consideration needs to be given to the future of the port and possible reinstatement of rail access
- Generally, all regional ports (all ports except Brisbane) require a minimum cargo of 1,000 tonnes to warrant a ship to call in at the port. This reduces the number of cargoes to only a few. Port Alma captures all available cargoes from Rockhampton (meatworks) and most ammonium nitrate and explosives. The isolation of Port Alma does provide advantages especially for the transportation of hazardous and dangerous goods (such as explosives). Orica, which is based at Gladstone, exports some ammonium nitrate product through the Gladstone port due to its proximity, but still uses Port Alma.

Most of the issues identified for Rosslyn Bay Boat Harbour have been addressed or are in the process of being addressed.

- Inadequate car trailer parking areas for recreational boats and tourists
<table>
<thead>
<tr>
<th>Facility type</th>
<th>Facility Name</th>
<th>Facility Location</th>
<th>Lanes/Berths</th>
<th>Facility Owner</th>
<th>Facility Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rockhampton City</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Rockhampton-Ski Gardens via Huet Street</td>
<td>South bank of Fitzroy River</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Rockhampton City Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Rockhampton-Larcombe Street</td>
<td>North bank of Fitzroy River barrage</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Rockhampton City Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Rockhampton-Reaney Street</td>
<td>North bank of Fitzroy River</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Rockhampton City Council</td>
</tr>
<tr>
<td>Jetty</td>
<td>Rockhampton-Derby Street</td>
<td>South bank of Fitzroy River</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Rockhampton City Council</td>
</tr>
<tr>
<td><strong>Livingstone Shire</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amenities Blocks</td>
<td>Rosslyn Bay Boat Harbour – Vin E Jones Memorial Drive</td>
<td>Rosslyn Bay</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Queensland Transport</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Rosslyn Bay Boat Harbour-Breakwater Drive</td>
<td>Rosslyn Bay</td>
<td>4</td>
<td>Queensland Transport</td>
<td>Queensland Transport</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Nerimbera-St Christopher’s Chapel Road</td>
<td>Fitzroy River near St Christopher’s Chapel Road</td>
<td>1</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Keppel Sands-Taylor Street</td>
<td>Rosslyn Bay</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Emu Park-Coorooman Creek</td>
<td>North bank of Coorooman Creek via Zilzie Road</td>
<td>1</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Emu Park-Hill Street</td>
<td>Emu Point</td>
<td>1</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Mulambin-Causeway Lake</td>
<td>Southside off Yeppoon-Emu Park Road</td>
<td>1</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Corbetts Landing</td>
<td>Waterpark Creek-Corio Bay</td>
<td>1</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
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<tr>
<td>Boat ramp</td>
<td>Stanage Bay-Banksia Road</td>
<td>Thirsty Sound at the end of Banksia Road</td>
<td>2</td>
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<td>Livingstone Shire Council</td>
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<tr>
<td>Boat ramp</td>
<td>Keppel Sands-Limpus Avenue</td>
<td>North bank of Pumpkin Creek</td>
<td>1</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
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<td>Boat ramp</td>
<td>Rosslyn Bay Boat Harbour-Anchor Drive</td>
<td>South end of Rosslyn Bay Harbour</td>
<td>4</td>
<td>Queensland Transport</td>
<td>Livingstone Shire Council</td>
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<tr>
<td><strong>Fitzroy Shire</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boat ramp</td>
<td>Port Alma-Port Alma Road</td>
<td>North bank of Raglan Creek</td>
<td>2</td>
<td>Queensland Transport</td>
<td>Queensland Transport</td>
</tr>
<tr>
<td><strong>Mount Morgan Shire</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jetty</td>
<td>Dee River Dam</td>
<td>Mt Morgan</td>
<td>1</td>
<td>Mt Morgan Shire Council</td>
<td>Mt Morgan Shire Council</td>
</tr>
</tbody>
</table>
club, marina and fuelling facilities. The large marina and Queensland Transport pile moorings in the harbour are well utilised by the boating public.

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Planning principles for water transport

Port Alma

The mission statement for Port Alma is ‘to contribute to the economic development of Queensland by developing Port Alma as a long-term commercially viable deep sea port’.

Actions for water transport (freight & passenger)

<table>
<thead>
<tr>
<th>Action</th>
<th>Timing</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wt1</td>
<td>Short term</td>
<td>CQPA, QT</td>
</tr>
<tr>
<td>Wt2</td>
<td>Medium term</td>
<td>QT</td>
</tr>
<tr>
<td>Wt3</td>
<td>Medium term</td>
<td>QT, EPA, GBRMPA</td>
</tr>
<tr>
<td>Wt4</td>
<td>Ongoing</td>
<td>CQPA</td>
</tr>
<tr>
<td>Wt5</td>
<td>Ongoing</td>
<td>QT, CQPA</td>
</tr>
<tr>
<td>Wt6</td>
<td>Ongoing</td>
<td>QT, CQPA</td>
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</table>

Capital program for water transport

<table>
<thead>
<tr>
<th>Description of Works</th>
<th>Lead Agency</th>
<th>Order of Cost</th>
<th>Timing</th>
<th>Funding Status</th>
</tr>
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<tbody>
<tr>
<td>CWt1 Keppel Sands (Pumpkin Creek) Boat Ramp Feasibility Study.</td>
<td>QT</td>
<td>$2K</td>
<td>2003/04</td>
<td>Committed</td>
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<td>CWt2 Rosslyn Bay Boat Harbour Dredging Study.</td>
<td>QT</td>
<td>$146K</td>
<td>2003/04</td>
<td>Committed</td>
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<tr>
<td>CWt3 Dredging of Rosslyn Bay.</td>
<td>QT</td>
<td>-</td>
<td>2008/09</td>
<td>Not Funded</td>
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APPENDICES

- Summary of Action Plans
- Summary of Recommended Capital Programs
- Glossary
- CapIRTP Committees
Summary of Action Plans

**Actions for roads (freight & passenger)**

**Rd1** Undertake a detailed urban road planning study for Tanby Road and Scenic Highway.

**Rd2** Investigate options to resolve transport issues such as:
- transport of quarry material from Nerimbera (Livingstone Shire)
- heavy vehicles in Bolsover Street
- rail/road issues in Bolsover Street
- heavy vehicles along Lakes Creek Road
- access to Parkhurst Industrial Estate
- through traffic on Norman Road and Dean Street
- southern access to Rockhampton for emergency vehicles
- intersection capacity at Gracemere and Capricorn Highway
- intersection capacity at Stanwell and Capricorn Highway.

**Rd3** Review multi-combination vehicle, dangerous and hazardous goods routes:
- through Rockhampton
- through Yeppoon CBD
- at Emu Park.

**Rd4** Consider the transport implications of current industry development and infrastructure planning studies associated with the Stanwell Industrial Corridor and agricultural areas along the Fitzroy River.

**Rd5** Review road access to the Shoalwater Bay military area

**Rd6** Undertake investigations into the provision of alternative freight routes to address the impact of through transport of freight.

**Rd7** Commence planning to address cross-river capacity (including consideration of approach and major intersection requirements and bicycle and pedestrian access) (also see Rd8).

**Rd8** Preserve future transport corridors, e.g. Rockhampton alternative through route.

**Rd9** Investigate future planning and funding of grade-separated rail and road crossings to minimise the risk of collision and traffic delays.

**Actions for rail (freight & passenger)**

**Ra1** Investigate options for risk mitigation in Denison Street.

**Ra2** Investigate the viability of alternative commercial and community options of the Yeppoon to Rockhampton rail corridor.

**Ra3** Investigate feasibility of a multi-modal freight facility at Yeppoon, Parkhurst and Gracemere.

**Ra4** Develop a strategy to provide safe public access across and under rail (see Ra11).

**Ra 5** Complete feasibility study into the provision of an intermodal interchange at Rockhampton Station and other sites.

**Ra6** Undertake a rail corridor direction study for the North Coast line (will include consideration of capacity of existing rail systems to cater for future freight from industrial and mining development in the area).

**Ra7** Investigate opportunities to provide rail access to industrial parks.

**Ra8** Investigate an alternative rail bridge river crossing at Stanley Street.

**Ra9** Preserve future transport corridors e.g. Stanley Street.

**Ra10** Protect the existing rail corridor to Port Alma.

**Ra11** Investigate future planning and funding of grade-separated rail and road crossings to minimise the risk of collision and traffic delays.
**Actions for Public Transport (Buses and Taxis)**

**Pt1** Establish a sustainable transport working group to resolve local issues and identify opportunities to improve passenger transport in the region.

**Pt2** Undertake an audit of public transport routes and facilities to identify future public transport needs.

**Pt3** Review the current bus kerbside infrastructure to improve access to buses, bus passenger comfort and security.

**Pt4** Review existing scheduled bus routes.

**Pt5** Examine opportunities to promote & distribute available information on public transport services.

**Pt6** Seek opportunities to implement EFTPOS, C confiscation and internet bookings of taxis.

**Pt7** Identify an appropriate location to develop intermodal passenger interchanges in Rockhampton and Yeppoon.

**Pt8** Develop a strategy to increase bus patronage.

**Pt9** Investigate the potential for the installation of bike racks on buses, subject to the outcomes of the Brisbane bike racks on buses trial.

**Pt10** Monitor and ensure public transport patronage increases as needed according to bus operators’ contracts.

**Pt11** Consider public transport access and measurability when planning new and redeveloping areas.

**Actions for Cycling**

**Cy1** Establish a sustainable transport working group to resolve local issues and identify opportunities to improve cycling in the region.

**Cy2** Develop, update and implement bicycle plans, including a regional cycle network plan. As part of the plans, undertake research that provides meaningful data on work, recreational and school cycling trips.

**Cy3** Publish a guide to local cycling trails and destinations.

**Cy4** Develop a bicycle education and awareness strategy.

**Cy5** Promote an increase in mode share (4% by 2015 and 5% by 2030).

**Cy6** Conduct regular reviews of bicycle facilities to identify possible improvements.

**Cy7** Consider bicycle access when planning new and redeveloping areas.

**Cy8** Develop supporting facilities at key destinations (schools, universities, public transport interchanges, shopping centres, recreational facilities and employment centres) to encourage cycling.

**Cy9** Include requirements for end of trip facilities for commercial and other major developments in Planning Schemes according to guidelines set out in Austroads Guide to Traffic Engineering Practice Part 14 – Bicycles (incentive schemes should be considered).

**Cy10** If warranted consider bicycle and pedestrian interaction in the planning and design of networks.

**Cy11** If warranted make provision for cycling access during construction of road and transport infrastructure.

**Cy12** If warranted adopt appropriate bicycle design guidelines as provided in ‘Shaping Up’, Austroads Guide to Traffic Engineering Practice Part 14 – Bicycles, council bicycle plans and/or planning schemes and PTED crime prevention through environmental design principles.

**Cy13** If warranted provide for cycling in all new road projects, road upgrades and maintenance work where these projects are on an identified cycle network.

**Cy14** If warranted ensure that all new road upgrades have a continuous shoulder of 1-2m, depending on the speed environment, for road safety and cycling purposes, where shared use is suitable.
Summary of Action Plans (continued)

**Actions for walking**

Wa1 Establish a sustainable transport working group to resolve local issues and identify opportunities to improve pedestrian facilities in the region.

Wa2 Develop, update and implement pathway plans.

Wa3 Review footpath widths and pedestrian facilities, including crossings at schools (including the development of pedestrian facility guidelines).

Wa4 Adopt appropriate pedestrian facilities guidelines, included in MUTCD, Austroads Part 13 and guidelines in QT’s Shaping Up publication (including the new pedestrian facilities guidelines).

Wa5 Publish a guide to local walking trails and destinations.

Wa6 Develop improvement, promotional and education programs for local pedestrian networks to improve safety and amenity.

Wa7 Consider pedestrian access and walking distances from residences and public transport services when planning new and redeveloping areas.

Wa8 Ensure ease of access for pedestrians is provided as an element of all major transport, sport and recreational, educational and commercial infrastructure.

Wa9 Map and assess existing pedestrian networks around major nodes and ensure pedestrian facilities are included in all new developments as part of planning scheme requirements. Adopt Austroads Part 13 – Pedestrians and guidelines in QT’s Shaping Up document for new work.

Wa10 Adopt recommendations of Queensland Transport’s Cycle Note C2 to address pedestrian and cyclist conflict.

Wa11 Target an increase in walk trips to 6% of all trips to work in 2015 and to 8% in 2030.

**Actions for aviation (freight & passenger)**

Av1 Preserve options for the maximum utilisation of the existing airport site in accordance with the Rockhampton Airport master plan.

Av2 Develop controls to ensure protection of airspace (i.e. radio masts).

Av3 Review all aspects of the redevelopment of the international terminal facility.

Av4 Consider issues surrounding access to the airport.

Av5 Ensure that future development in and around the airport is compatible with relevant planning policies (airport master plan, state planning policy and council planning schemes).

**Actions for water transport (freight & passenger)**

Wt1 Review access requirements for Port Alma.

Wt2 Investigate potential to develop coastal tourist transport.

Wt3 Find a long-term solution for the economic disposal of dredge material from Rosslyn Bay.

Wt4 Promote Port Alma regionally, nationally and internationally as a dangerous goods port.

Wt5 Plan and provide maritime infrastructure in accordance with the Queensland government’s Boating Infrastructure Capital and Maintenance Programme.

Wt6 Ensure continued implementation of Rosslyn Bay and Port Alma’s environmental monitoring and enhancement programs.
Summary of Recommended Capital Programs

**Road Network**

CRd1  Rockhampton-Yeppoon Road (Mackays Road to Hidden Valley Road section) widening and sealing.

CRd2  Capricorn Highway (Rockhampton-Duaringa) Neerkol-Spring Creek rehabilitation and widening.

CRd3  Capricorn Highway (Rockhampton-Duaringa) Stanwell-Stuart Creek widening.

CRd4  Yeppoon-Emu Park Road Mulambin and Rosslyn Bay Roads intersection improvements.

CRd5  Rockhampton-Emu Park Road (West of Pattison Street section) widening.

CRd6  Rockhampton-Emu Park Road (Cooper Street Intersection) intersection improvements.

CRd7  Rockhampton-Emu Park Road (Berserker/Dean Street Intersections) install traffic lights - Dean Street.

CRd8  Rockhampton-Emu Park Road (Berserker/Thozet Road intersections) installing traffic signals.

CRd9  Yeppoon-Tanby Road (Taranganba Road intersection) widening and sealing.

CRd10  Gavial-Gracemere Road (Bruce Highway-Gavial Creek section) upgrade.

CRd11  Gavial-Gracemere Road (Washpool Creek-Breakspear Street section) upgrade.

CRd12  Burnett Highway (Mt Morgan-Rockhampton) Dee River area at-grade intersection improvement.

CRd13  Burnett Highway (Mt. Morgan-Rockhampton) Poison Creek bridge widening.

CRd14  Rockhampton-Yeppoon Road (Median Access 3 – Median Access 9 section) rehabilitation and widening.

CRd15  New Yeppoon Western Bypass Road and Yeppoon - Tanby Road widening and sealing.

CRd16  Yeppoon-Byfield Road Byfield Creek, bridge replacement.

CRd17  Yeppoon multi modal facility construction.

CRd18  Tanby Road to Rosslyn Bay link construction.

CRd19  Farnborough Road to Adelaide Park Road link construction.

CRd20  Taranganba Road upgrade to dual carriageway.

CRd21  Artillery Road and Coowonga Road upgrades.

**Rail Network**

CRa1  Rockhampton – Ogmore (North Coast Line) track upgrade.

CRa2  Security fencing (section Rockhampton to Ogmore).

CRa3  Timber bridge replacement.

CRa4  Level crossing protection.

CRa5  Infrastructure projects (various).

CRa6  Traveltrain accessible stations.

Note: The above rail infrastructure improvement programs are demand driven and could change.

**Public Transport**

CPt1  Construction of bus interchange at Emu Park.

**Aviation**

CAv1  Terminal Redevelopment.

CAv2  Runway 04/22 Upgrade.

CAv3  General Aviation Apron Upgrade.

**Water Transport**

CWt1  Keppel Sands (Pumpkin Creek) Boat Ramp Feasibility Study.

CWt2  Rosslyn Bay Boat Harbour Dredging Study.

CWt3  Dredging of Rosslyn Bay.
### Glossary

| **ABS** | Australian Bureau of Statistics. |
| **Accessibility** | The ease and convenience of reaching and using a service. |
| **ADI** | Australian Defence Industries. |
| **B-Double** | Over-sized vehicle that is a combination of a prime mover followed by two trailers, of which the total length is less than 25 metres. |
| **CapIRTP** | Capricornia Integrated Regional Transport Plan. Also referred to as "plan". |
| **CBD** | Central Business District. |
| **Community transport** | Transportation that supports community activities. |
| **CQ ANM** | Central Queensland A New Millennium. |
| **CQPA** | Central Queensland Ports Authority - Previously Rockhampton Port Authority (RPA) and Gladstone Port Authority (GPA). |
| **CRG** | Community Reference Group. |
| **DMR** | Department of Main Roads. |
| **DNRMD&E** | Department of Natural Resources, Mines, and Energy. |
| **DLG&P** | Department of Local Government & Planning. |
| **DSD&I** | Department of State Development and Innovation. |
| **Ecologically Sustainable Development (ESD)** | Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased. |
| **EPA** | Environmental Protection Agency. |
| **FSC** | Fitzroy Shire Council. |
| **GBRMPA** | Great Barrier Reef Marine Park Authority. |
| **Infrastructure** | Basic structures (such as roads, railways, wharves and traffic lights) needed for transportation. |
| **Integrated** | Combined into a unified system, taking into consideration all modes of transport, land use, social, environmental and economic considerations. |
| **IDCC** | Inter Divisional Consultative Committee. |
| **Intermodal** | Providing for two or more modes of transportation. |
| **LSC** | Livingstone Shire Council. |
| **Local road** | A road whose main function includes the distribution of traffic between arterial and collector roads and residential areas, and is under the control of local government. |
| **Multi-modal** | Transport systems incorporating two or more modes e.g rail and road. |
| **MMSC** | Mount Morgan Shire Council. |
| **PIFU** | Planning Information and Forecasting Unit located in the DLG&P. |
| **Public transport interchange** | Place built for passengers to gain access to public transport or to transfer from one public transport vehicle to another. |
| **QR** | Queensland Rail. |
| **QT** | Queensland Transport. |
| **RCC** | Rockhampton City Council. |
| **Service contract** | An agreement for the provision of transport services between a transport operator and government. |
| **Social justice** | Social justice advocates that all people should be able to move freely and safely in urban and rural areas and not be disadvantaged because of their remoteness from community facilities, their economic circumstances or personal impairment. |
| **Vpd** | Vehicles per day. |
CapiRTP Committees

CapiRTP Steering Committee

Queensland Transport
Johan Louw: Regional Manager (Integrated Transport Planning) Central (Chair)

Department of Main Roads
Malcolm Hellmuth: Executive Director (Central)
Terry Hill: District Director (Central)

Rockhampton City Council
Rod Green: Councillor

Livingstone Shire Council
Bill Ludwig: Mayor

Fitzroy Shire Council
John Hopkins: Mayor

Mount Morgan Shire Council
Stan Lean: Mayor (Previous)

CapiRTP Technical Committee

Queensland Transport
Johan Louw: Regional Manager (Integrated Transport Planning) Central (Chair)
Andrew Bourne: Regional Director (Central)

Department of Main Roads
Robert Crawford: Regional Advisor Strategic Planning
Bill McRuvie: Manager (Transport Planning) Rockhampton

Rockhampton City Council
Stuart Randle: Director of Works Services
Douglas Press: Airport Manager (Previous)
David Blackwell: Airport Manager

CapiRTP Team

Livingstone Shire Council
Gary Murphy: Manager Civil Operations

Fitzroy Shire Council
Tony McDougall: Director Technical Services (Previous)
Bruce Russell: Design & Planning Engineer

Mount Morgan Shire Council
Michael Rowe: Chief Executive Officer

Department of Local Government and Planning
Scot Stewart: Principal Planner

CQ ANM
Liz Orupold: Project Director (Previous)
Kate Rose: Project Director

Queensland Rail
Ian Kayes: Regional Manager Network Infrastructure

Department of Natural Resources & Mines
Geoffrey Smith: Regional Resources Planning Officer

Department of State Development & Innovation
Angus Russell: Principal State Development Officer

Environmental Protection Agency
Steve Elson: Principal Planning and Assessment Officer

Defence
Ian Cox: Manager Service Delivery
The Capricornia Integrated Regional Transport Plan is available on the Queensland Transport internet site:

http://www.transport.qld.gov.au

Contact the Regional Manager Integrated Transport Planning Central, Queensland Transport on (07) 4931 1651 for information regarding the Capricornia Integrated Regional Transport Plan or other integrated regional transport planning activities being undertaken across the State.