

GLADSTONE INTEGRATED REGIONAL TRANSPORT PLAN 2001 - 2030



Transport for Queensland's Port City



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Gladstone Integrated Regional Transport Plan 2001-2030

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Acknowledgements

The GIRTP Study Team gratefully acknowledges the efforts of all participants and contributors, particularly those who provided comments on issues that should be considered in the preparation of the GIRTP during 1999 and 2000.

The GIRTP Study Team acknowledges the financial support provided by Queensland Transport, Department of Main Roads, Gladstone Port Authority, Calliope Shire Council, Gladstone City Council and QR. The GIRTP Study Team expresses, too, its appreciation of the assistance and support provided by the members of the GIRTP Steering Committee and GIRTP Technical Committee.

foreword

Gladstone is a significant, growing regional and industrial centre. The sustainable growth of the Gladstone area is vital to both the Central Queensland region and the State, due to its employment generation capacity and contribution to the nation's trade position and transport is critical to achieving this.

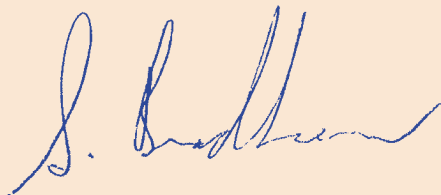
The Queensland Government and Gladstone City and Calliope Shire Councils are committed to generating jobs and prosperity in the region. The development of the Gladstone Integrated Regional Transport Plan (GIRTP) is a practical example of this commitment to regional economic development.

Given the significance of Gladstone as a major industrial centre in Queensland, an important emphasis of the GIRTP is on freight and commodity movements. However, the GIRTP also considers other transport issues such as passenger transport in and through the region and walking and cycling, and recognises that the region's transport system must be developed in an ecologically sustainable manner and in a way which contributes to an attractive lifestyle for residents.

The GIRTP has been developed through a partnership approach. It involves State Government collaborating with local government to deliver the region's transport system. A strong partnership between State and local government is essential if the major transport challenges facing the Gladstone region are to be met. The GIRTP sets out a comprehensive framework for the future development of the Gladstone region's transport network for the next 30 years. It contains consolidated action plans which will be implemented co-operatively and in a co-ordinated manner by all of the agencies involved.

The development of the GIRTP has involved seeking feedback from the community, business and industry in the Gladstone region to ensure that the transport system contributes positively to business and industry and to the lifestyle of residents in the Gladstone region.

We would like to take this opportunity to acknowledge the support and participation of all individuals and organisations who took the time to provide comments on issues that should be considered in the GIRTP and for their constructive comments on the draft GIRTP.



Steve Bredhauer
Minister for Transport
Minister for Main Roads



Peter Coronas
Mayor
Gladstone City

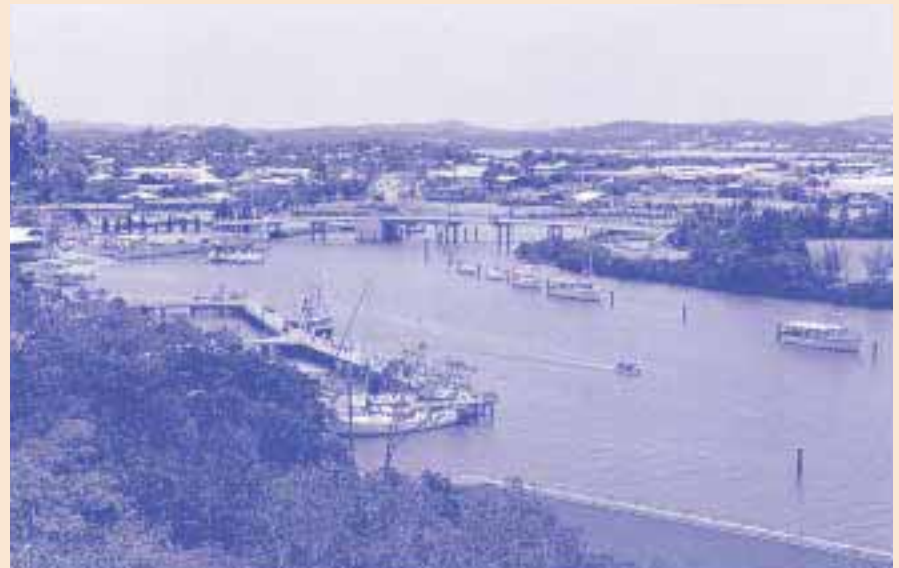


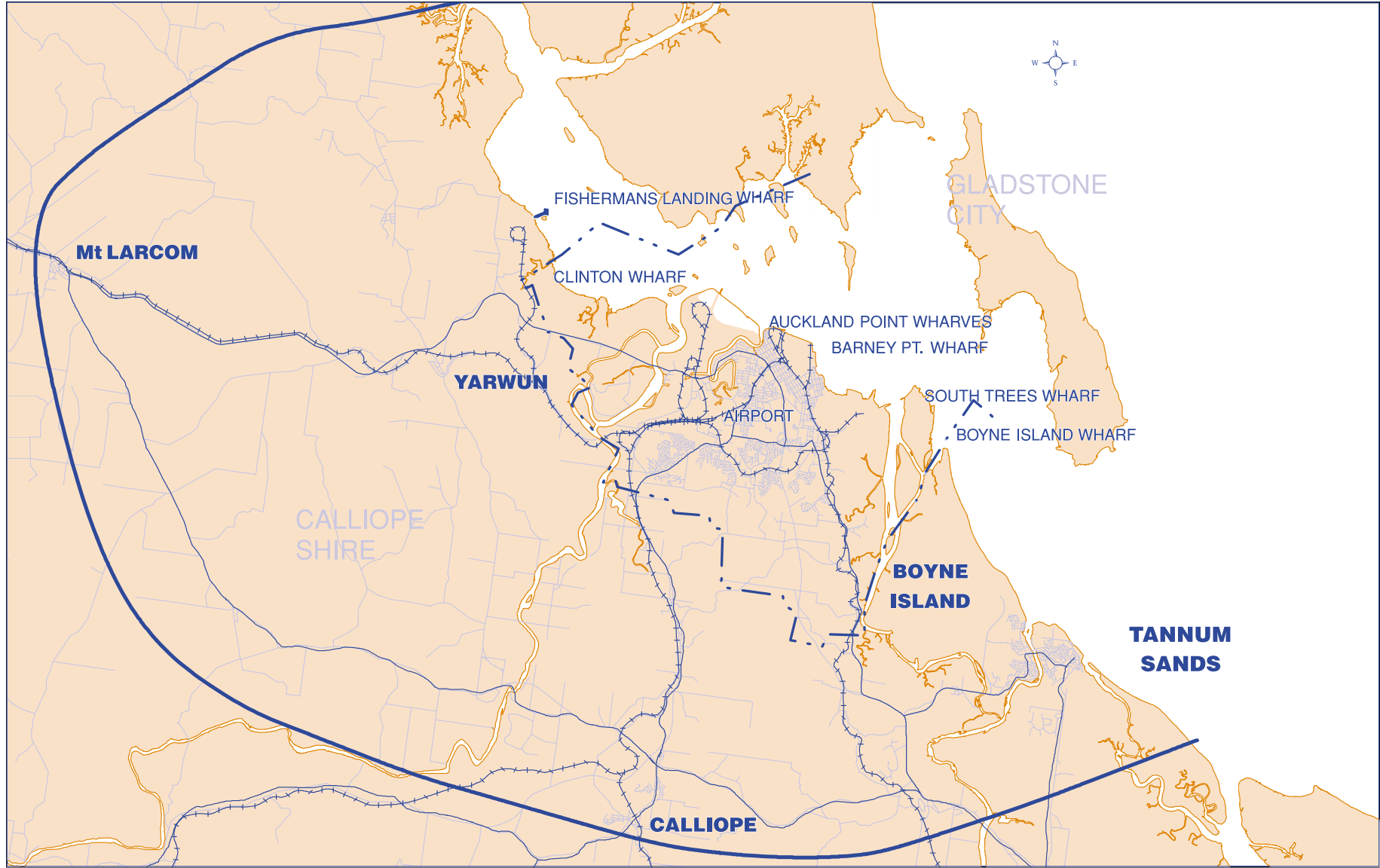
George Creed
Mayor
Calliope Shire



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GIRTP Study Area

introduction

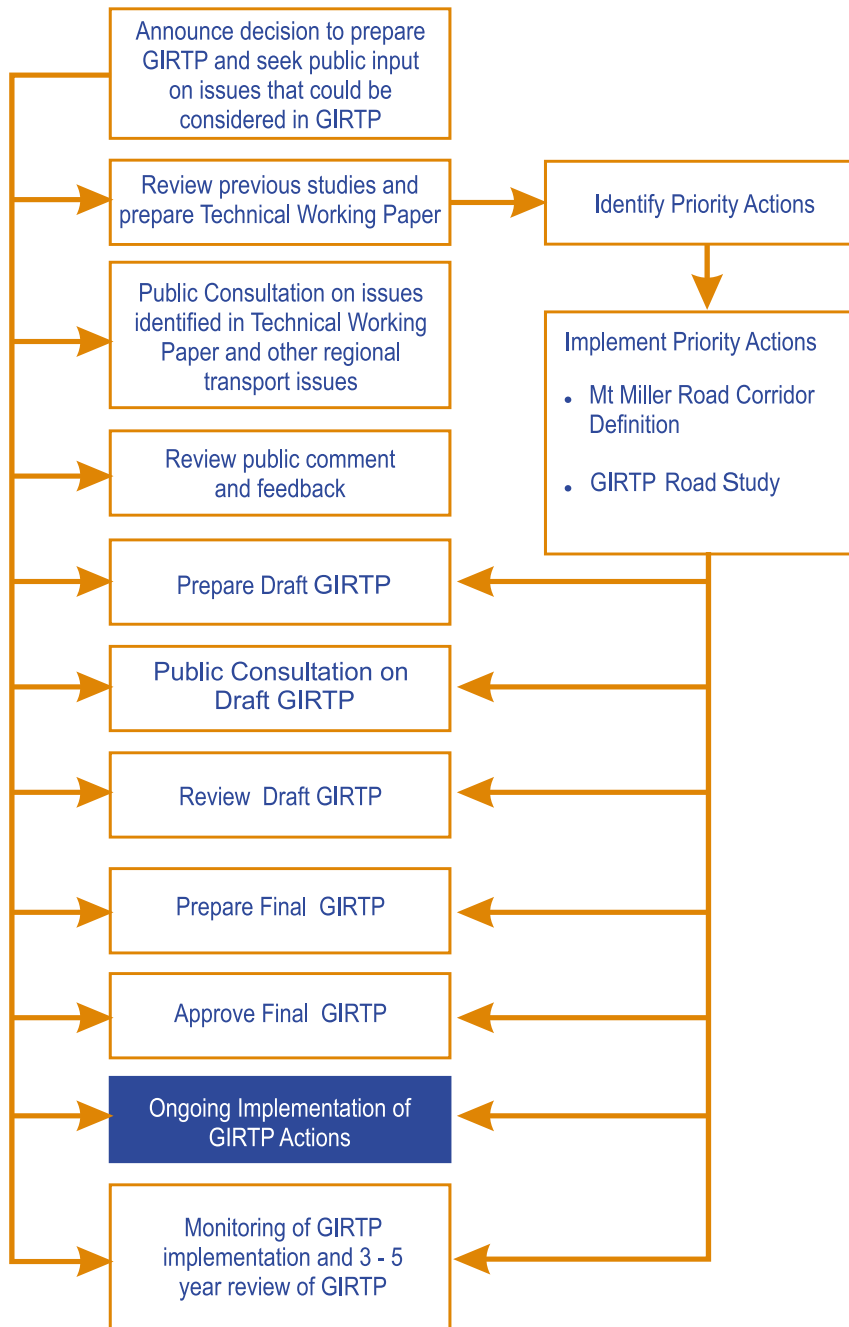
Integrated regional transport planning is a process for planning the future of transport in a region. It considers all transport modes (including road, rail, port and air) and aims to balance the need for general motor traffic, freight movements (by road, rail, air, pipeline and sea), public transport and non-motorised transport (such as bicycle travel and walking). In other words, it involves considering a region's transport system as a whole. The term integrated also means that the transport system is 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.

Integrated transport planning recognises the need for a co-ordinated approach to all modes of transport over the long term while also considering the needs of the residential population as an important component. When completed, the Gladstone Integrated Regional Transport Plan (GIRTP) will be the first comprehensive integrated thirty-year transport plan prepared for the Gladstone region which considers all modes of transport. Its aim is to provide a strategic framework for the development of a high quality, safe and efficient transport system for the Gladstone region that considers the needs of the residential population and the economic requirements of major industry and the port in a sustainable manner into the 21st century.

The GIRTP has been jointly prepared by Queensland Transport, Queensland Department of Main Roads, Gladstone City Council, Calliope Shire Council, Gladstone-Calliope Aerodrome Board, Gladstone Port Authority and QR, in consultation with interested individuals and organisations. The Department of State Development, Department of Natural Resources and Mines, Environmental Protection Agency and Department of Local Government and Planning have also provided their expertise in the development of the GIRTP.

While planning for the future, the GIRTP is based both on the findings of past and present technical transport reports and studies. The GIRTP provides a strong focus on transport investments over the next 30 years, however it should be noted that detailed social, financial and environmental impact assessment and comprehensive public consultation will be required, where appropriate, before final decisions are made or construction can commence.

The GIRTP comprises of two documents. This document provides the Action Plan for the various modes of transport considered in the GIRTP. Additional background information on the process involved in developing the GIRTP, including consultation, timeframes for the plan and the study area is provided in a separate document, *Supporting Information for the GIRTP*. This supporting document also provides information on the characteristics of the region and land use and can be obtained by contacting the GIRTP Project Team on 07 3235 4076 or 07 4931 1651.



GIRTP Development Process

planning for the future

Public consultation is an integral component in the development and implementation of the GIRTP.

Prior to the preparation of the GIRTP, initial public consultation was undertaken to identify transport issues and concerns in the Gladstone region. This consultation included the placement of advertisements in local newspapers inviting interested individuals and organisations to attend consultation workshops or to provide their comments by post, facsimile, email or phone. This included the mailout of an introductory brochure and feedback form to more than 330 individuals and organisations who were directly invited to comment and participate in the development of the GIRTP.

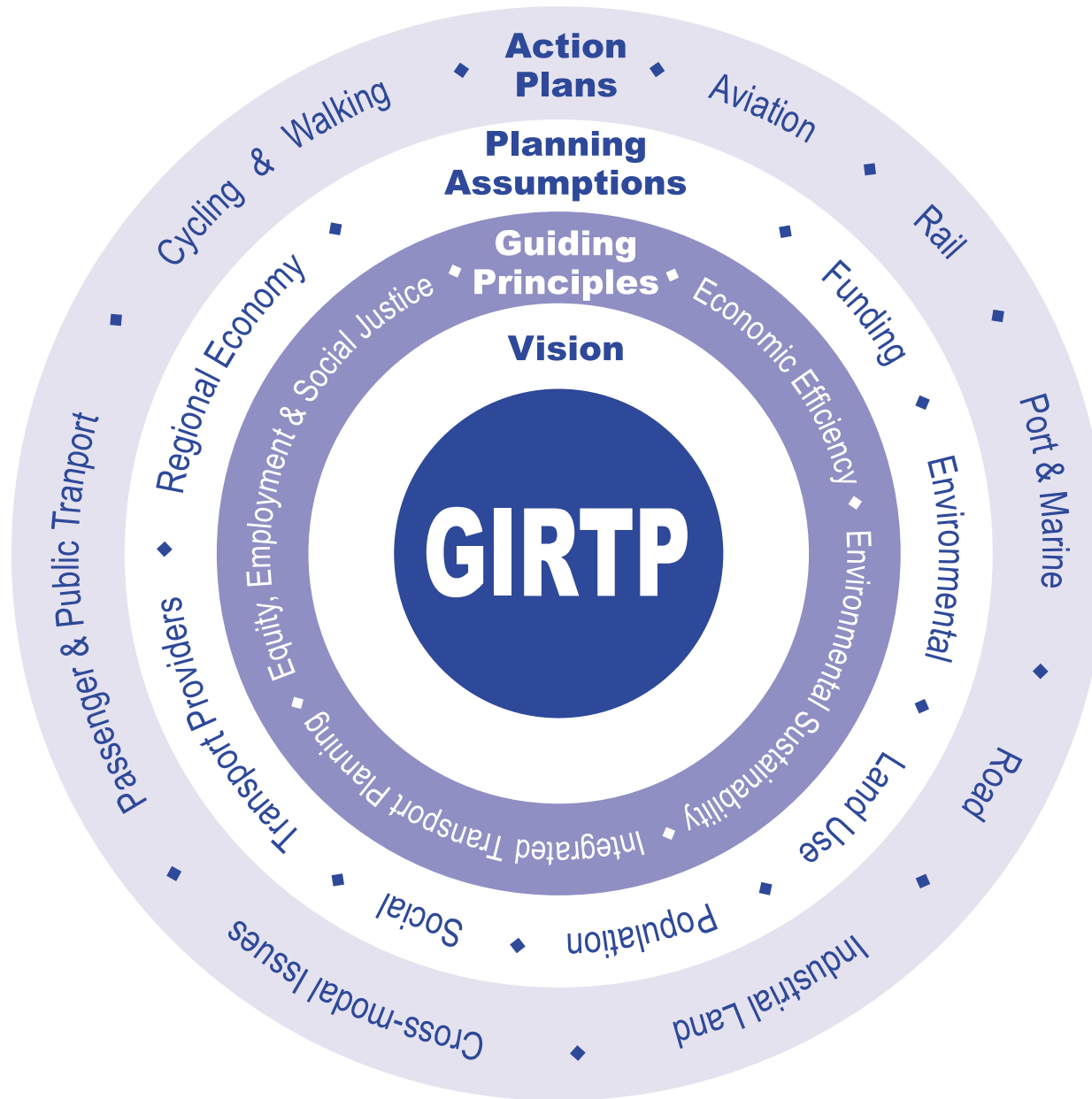
A Technical Working Paper was also prepared by Roger Brameld Consulting to assist in the preparation of the GIRTP. The Technical Working Paper is, in essence, a review of previous studies that were undertaken in recent years on the individual components of the transport network. These previous studies (eg. Gladstone Industrial Development Management Strategy) identified current and future trends for the region, including in relation to the movement of freight. The Technical Working Paper included a consolidated list of transport issues, initiatives and proposals that were presented in previous studies. These various initiatives and proposals were, in general, subject to some level of stakeholder and/or public consultation by their originating agency. The Technical Working Paper was provided to interested organisations and individuals upon request.

A background Information Paper was also prepared to provide background information on each of the transport modes in the Gladstone region and to summarise the findings of the Technical Workings Paper in an easy to understand format to seek feedback on issues which should be considered in the development of the GIRTP. The Background Information Paper was widely distributed.

A subsequent mailout contained a draft update on the development of the GIRTP and invited recipients to nominate to receive a copy of the GIRTP and indicate their interest in attending a workshop on it after its release. This was followed by the release of the GIRTP for public comment. The draft GIRTP was widely distributed to interested individuals and organisations. Advertisements were placed in local newspapers and further workshops were conducted in the Gladstone area. The comments received on the draft GIRTP at both the workshops and by written submission have been considered in the finalisation of the GIRTP.

A full list of comments received on the draft GIRTP is provided in the companion document to the GIRTP, *Supporting Information for the GIRTP*. A copy of this document can be obtained by contacting the GIRTP Project Team on 07 3235 4076 or 07 4931 1651.





Components of the GIRTP

components of the GIRTP

The GIRTP comprises a Vision, Guiding Principles, Key Planning Assumptions and Action Plans.

Vision

The vision for the GIRTP is a short statement describing the desired future transport system for the Gladstone region.

Guiding Principles

These guiding principles for the development of the actions contained in the GIRTP fall into four categories:

- Integrated Transport Planning
- Economic Efficiency & Growth
- Environmental Sustainability
- Equity, Employment & Social Justice

Planning Assumptions

The GIRTP is based on planning assumptions about:

- Population and employment
- The natural environment and environmental impact assessment
- Land use and growth
- The social environment
- Transport providers and the regulatory environment
- The regional economy
- Transport funding and the financial environment



components

Action Plans

The GIRTP contains eight Action Plans aimed at improving the transport system of the Gladstone region:

- Action Plan 1: Industrial Land
- Action Plan 2: Rail Network & Services
- Action Plan 3: Port & Marine
- Action Plan 4: Road Network
- Action Plan 5: Cross-Modal Issues
- Action Plan 6: Aviation
- Action Plan 7: Passenger & Public Transport
- Action Plan 8: Cycling & Walking

Each Action Plan consists of four main components:

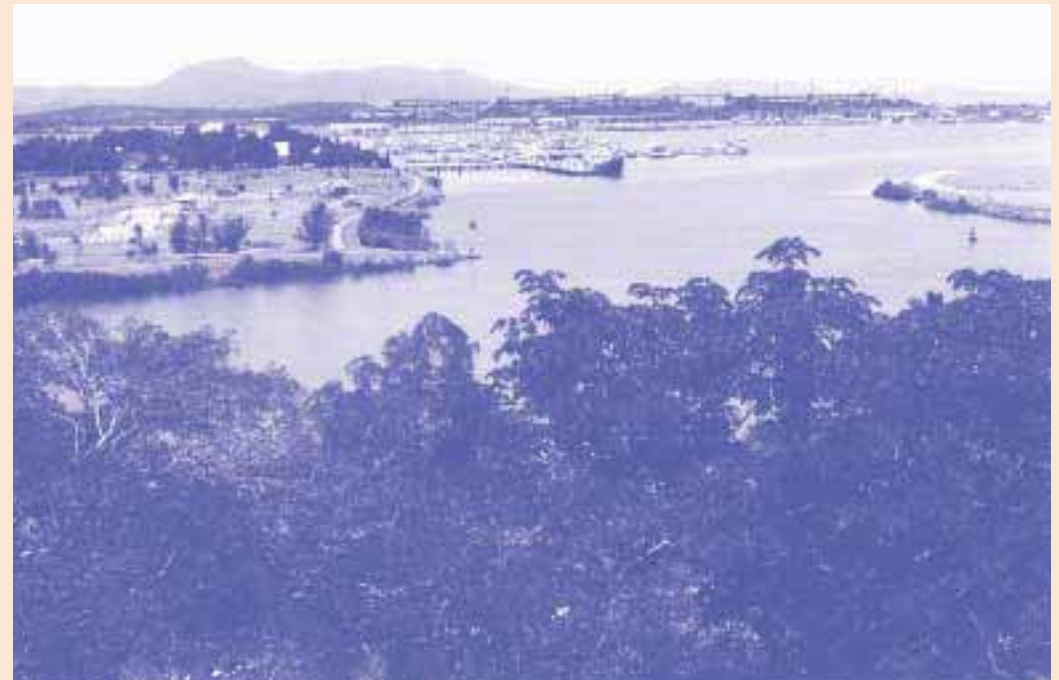
- Issues
- Objectives
- Actions
- Recommended Capital Program (Works & Assets)



vision

vision for transport in the region

A high quality, safe and efficient transport system for the Gladstone region which meets the needs of the residential population and the rural community, industry and the port in an ecologically sustainable manner over the next thirty years and beyond





principles and planning assumptions for the GIRTP

principles

guiding principles of the GIRTP

A number of broad overarching principles for integrated regional transport planning activities in Queensland were identified in Queensland Transport's (1999) *Integrated Regional Transport Planning Principles*. These over-arching principles provide a conceptual framework for integrated transport planning throughout the State. A copy of this document is available from Queensland Transport by calling 07 4931 1651 or can be downloaded from Queensland Transport's website: http://www.transport.qld.gov.au/QT/RTPWeb.nsf/index/irtp_principles

Within this broad framework, the GIRTP highlights a number of more specific principles which, while also important throughout the State, are especially applicable to the Gladstone region and will guide the implementation of the GIRTP.

The guiding principles for the development of the Action Plans contained in the GIRTP are:

- Integrated Transport Planning
- Economic Efficiency & Growth
- Environmental Sustainability
- Equity, Employment & Social Justice

These guiding principles were developed to support the identification of specific actions and the Recommended Capital Program for each Action Plan to ensure key regional concerns identified during consultation were given proper attention in the development of the GIRTP.

It should be noted that these guiding principles were selected because of their importance to the Gladstone region. They should be considered across all transport modes and actions.



Integrated Transport Planning

The GIRTP recognises the need to integrate regional transport networks and land use to facilitate the movement of freight and to cater for the needs of residents.

This will require:

- Integrating road, rail, port, aviation, public and passenger transport and miscellaneous transport infrastructure;
- Integrating land use and transport planning;
- Promoting appropriate transport modes and making full use of emerging technology;
- Ensuring the implementation of GIRTP is considered in the context of the development of the new regional plan for Central Queensland, *Central Queensland – A New Millennium*;
- Promoting safety across transport modes.

Economic Efficiency & Growth

The GIRTP recognises the significance of Gladstone Port to the regional economy and the need to plan efficient transport networks to properly serve the region's major industrial areas (i.e. the Gladstone State Development Area) and all regional industry. Specifically the GIRTP recognises the need to plan and provide appropriate port, road, rail and aviation infrastructure and miscellaneous transport infrastructure (eg. pipelines, conveyors) for the ongoing economic development of the region.

This will require:

- Identifying and preserving transport corridor options for the future provision of regional road, rail and other miscellaneous transport infrastructure;
- Planning transport networks in a flexible manner in order to accommodate new, expanding and changing major industry within the region;
- Identifying the freight task, supply chains and congestion points in transport corridors; and

- Maximising funding opportunities to meet future demands, particularly by industry, on transport networks, especially road.

Environmental sustainability

The GIRTP recognises the need to develop a sustainable transport system for the Gladstone region which meets the needs of industry and business, as well as the needs of residents and the community, without doing permanent harm to the global environment or damaging 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.

This will require:

- Implementing sensitive alignment, design, construction and management of roads, railway lines and other transport infrastructure to avoid or minimise impacts on natural and cultural values;
- Ensuring that the planning, construction and operation of the transport systems minimise noise, air quality degradation and other traffic impacts on residential areas, noise-sensitive land uses and the natural environment;
- Ensuring that the conservation of wildlife and the functioning of natural ecosystems are adequately addressed as part of impact assessment;
- Ensuring that the planning and provision of transport infrastructure and transport systems in the Gladstone region is consistent with Federal, State and local environmental statutes, State Planning Policies and any State or Regional Coastal Management Plans. These include those relating to environmental impact assessment; nature conservation; management of acid sulphate soils; development and conservation of agricultural land; National Greenhouse Strategy; the spread of declared plants; marine pollution; and the management of wetlands, State forests and reserves.

Equity, Employment & Social Justice

The GIRTP 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 Gladstone region 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;
- Ensuring that the planning, provision, operation and management of transport infrastructure and services:
 - fully assesses social and community impacts;
 - contributes to meeting gaps and unmet transport need and achieving social equity objectives;
 - considers safety and accessibility, especially for older people and people with a disability;
 - meets appropriate guidelines and standards;
 - complies with appropriate legislation contributing to social justice objectives;
- Ensuring that Cultural Heritage matters are appropriately considered including sites of heritage significance (eg. Aboriginal sites, historic buildings and landscapes);
- Ensuring that native title matters are appropriately considered.

- Recognising the right of 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;
- Ensuring that issues of personal safety and security, particularly for older people, people with a disability, and women are considered in all transport planning decisions;
- Promoting best practice design for urban transport vehicles and infrastructure to meet the needs of people with disabilities or mobility difficulties.



key planning assumptions

key planning assumptions

The GIRTP is based on key planning assumptions about:

- Population and employment
- Land use and growth
- The regional economy
- The natural environment and environmental impact assessment
- The social environment
- Transport providers and the regulatory environment
- Transport funding and the financial environment

These key planning assumptions are based on public input from interested individuals and organisations, a review of the information contained in the GIRTP Technical Working Paper prepared by Roger Brameld Consulting and the findings and key planning assumptions of previous transport studies.

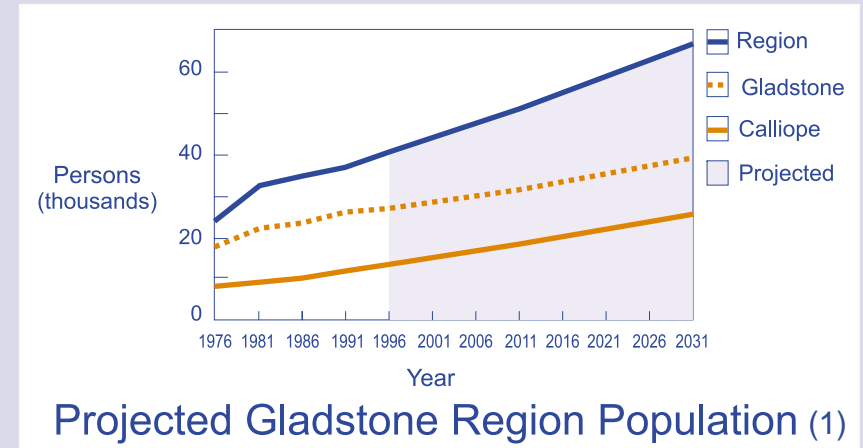
These key planning assumptions have been considered in the development of the GIRTP and will likewise need to be considered in the funding and implementation of the GIRTP.

As part of the ongoing review of the GIRTP, the key planning assumptions upon which the GIRTP is based will be periodically re-assessed. It should be noted that changes to the key planning assumptions may require adjustment to the GIRTP Action Plans and their priority and timing.



Assumptions about population and employment

- Population projections for the Gladstone region suggest continued modest growth of around 1.3% pa, compared to 1.9% pa growth observed over the last 10 years. At this rate, the region's population is expected to reach about 70,000 by the year 2031, from 40,200 in 1996.
- There will continue to be a relative shift in the region's population from Gladstone City to the surrounding areas in Calliope Shire.
- The region's labour force will approach 25,000 workers by 2031.



Projected Gladstone Region Population (1)

Assumptions about land use and growth

- Residential development will continue to occur to the southwest and south of the existing Gladstone urban area in the Tannum Sands/ Boyne Island, Benaraby and Calliope areas. There is also potential for development to occur to the west of the urban area (Kirkwood Road) in the longer term. However, it should be noted the future pattern of development will be determined by the Council's planning schemes.
- The major industrial areas in the Gladstone region are planned to be to the northwest of the city in the Gladstone State Development Area (SDA), consisting of the Aldoga and Yarwun precincts and a Material Transportation Services Corridor. The QAL and Boyne Smelters area will also continue to be an area of industrial activity.
- The movement of freight by road, rail and conveyor/pipeline to and within the Gladstone region and through the port will increase.
- Freight movements will continue to increase through Fishermans Landing Wharf. This will lead to continued expansion and development of Fishermans Landing Wharf.
- Wiggins Island will also be developed as a major new wharf area for Gladstone Port.

- The current development priority for the Gladstone State Development Area and the Northern Port Precinct is to develop and expand Fishermans Landing Wharf ahead of a future Wiggins Island Wharf.
- Barney Point and Auckland Point Wharves will continue to be used for container traffic and other products.
- The future port access road to the Auckland Point wharf area will be required.
- The Gladstone State Development Area (SDA), (Aldoga Precinct) will be developed for future industry.
- There will be continued pressure to identify and preserve transport corridors for the future.
- The existing airport will continue to serve the region. However, at some future time, options to restrict certain types of aircraft or introduce noise control measures may be required. A new airport will also be needed at some time in the future.

(1) There are currently a number of major projects in advanced planning stage in the Gladstone region. If these eventuate, these population projections may need to be revised.

key planning

Assumptions about the regional economy

- Gladstone will continue to be a major industrial centre both within Queensland and Australia.
- Continued growth can be expected in the manufacturing, construction, wholesale trade, retail trade, finance, property and business and community services sectors, with continued decline in employment in the agriculture, forestry and fishing sectors.
- Tourism will be a growing industry sector for the region. Regional tourism-specific outcomes will need to be linked to the Queensland Government's Growing Tourism Strategy.
- New major industry projects and expanded existing major projects will, from time to time, be proposed for the Gladstone region. The impact of such proposals will need to be carefully considered within the context of the transport system proposed by the GIRTP. In the case of a particularly large-scale industrial project, additional transport networks not presently foreseen may also be required.

Assumptions about the natural environment and environmental impact assessment

- New major industrial development in the region will continue to be subject to environmental impact assessment, including assessment from a transport perspective.
- The future planning and provision of transport networks and infrastructure will continue to be subject to rigorous environmental impact assessment (including the assessment of potential social impacts).
- The need to maintain environmental values for air quality may influence the location of future major industrial development.
- There will be increasing national, international and community pressure for the transport sector to address environmental issues such as
 - Greenhouse
 - Tree clearing and fragmentation of habitat
 - Biodiversity
 - Soil management
 - Marine pollution
 - Protection of wetlands and marine ecosystems
- Noise impacts are increasingly becoming an issue of concern in the community.

Assumptions about the social environment

- Interested people and organisations will need to continue to be consulted on transport issues that affect them.
- There will be continued widespread community and industry support for the development of Gladstone as an industrial centre.
- However, some members of the community will also express a need to find an appropriate balance between industrial development, quality of life and environment.
- There will be increasing community pressure to continue to ameliorate environmental and social impacts of freight movement on the road system and to separate freight from general traffic.
- Major industry and business will continue to express the need for efficient and effective transport networks to serve existing and future developments.
- There will be increasing community pressure to continue to appropriately manage the movement of hazardous goods through the region.
- There will be a need to achieve an appropriate balance between efficient movement of freight, general traffic and residential amenity and safety.
- The community will continue to express expectations about levels of service for the Gladstone transport system, which reflect their lifestyle choice to live in a smaller regional centre. For example, residents may express the desire for lower levels of traffic congestion, as would be anticipated in a small regional centre.
- Private vehicles (including cars and motorcycles) will continue to be the dominant form of commuter transport for local residents, given the comparatively low population, residential density and low traffic congestion.
- However, there will also be increasing demand for public transport to meet the growth in the regional population, especially from the region's younger and older age groups.



- Sections of the community who are unable to access private transport will require accessible, regular, public transport and community transport.
- There will be demand for public transport to industrial sites.
- Non-motorised transport (walking and cycling) will also offer alternatives to the private motor vehicle as well as recreational opportunities.
- Cultural heritage and native title matters need to continue to be appropriately considered in the future development of the region's transport system.
- There will be a need to provide transport links (especially public transport) to significant recreational sites.

key planning

Assumptions about transport providers and the regulatory environment

- 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.
- Modal choice for the movement of freight will ultimately be the choice of the private sector. However, State and local governments may choose to influence modal choice for specific major projects by continuing to ensure that the full range of social, financial and environmental costs and benefits are properly assessed, and by offering incentives.
- Movement of freight and hazardous goods will continue to be subject to the provisions of the *Transport Infrastructure Act and Regulations*, *Transport Operations (Road Use Management) Act* and *Transport Operations (Road Use Management - Dangerous Goods) Regulation* and other associated legislation.
- Government will continue to approve appropriate routes for the movement of heavy vehicles (B-Double trucks etc) within the region.
- Gladstone Planning Scheme and Calliope Planning Scheme will control and give direction to land use and development in the region.
- The Gladstone State Development Area Development Scheme will control and give direction to land use and development within the Gladstone State Development Area.
- Rail networks within the region will be subject to a third-party access regime under National Competition Policy.
- 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 such as shale oil deposits. Appropriate consultation will be required with industry as well as government agencies such as Department of Natural Resources and Mines

Assumptions about transport funding and the financial environment

- Funds for regional transport networks will continue to be scarce, as funding for public infrastructure and services becomes increasingly competitive within the region and throughout the State.
- Funding allocations will be determined in the context of each agency's planning and assessment processes for their respective capital programmes, including comprehensive technical, financial, environmental and other evaluations.
- The private sector may also be a source of funds for the future development of the regional transport network.



action plans

action plans

The GIRTP aims to address issues that impact directly or indirectly on the Gladstone region's transport system or that the Gladstone region's transport system impacts upon. A diverse range of issues has been considered in the GIRTP, including a wide variety of transport modes, freight movement, the environment, industrial development and land use.

The GIRTP contains eight Action Plans aimed at improving the transport system of the Gladstone region.

The actions contained in these Action Plans 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 Gladstone region.

A target timeframe is specified for the implementation of each action outlined in the Action Plans. It should be noted that many of the actions will be implemented on an ongoing basis. However, where possible, specific target year/s within these

broader timeframes are also shown.

The following timeframes and population thresholds apply to each of the Action Plans:

- Short Term:** 2000/01 – 2004/05 and/or population not exceeding 47,000 persons
- Medium Term:** 2004/05 – 2015 and/or a population not exceeding 52,000 persons
- Long Term:** 2015 – 2030 and/or population not exceeding 70,000 persons

Action Plans for the GIRTP:

- Action Plan 1: Industrial Land
- Action Plan 2: Rail Network & Services
- Action Plan 3: Port & Marine
- Action Plan 4: Road Network
- Action Plan 5: Cross-Modal Issues
- Action Plan 6: Aviation
- Action Plan 7: Passenger & Public Transport
- Action Plan 8: Cycling & Walking

Recommended Capital Programs

A recommended program of expenditure on transport-related infrastructure is outlined in the GIRTP. The recommended Capital Programs (Works & Assets) are intended to assist in implementing the infrastructure-based actions listed in the Action Plans.

Funding of the GIRTP 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 help by supporting actions involving community and public transport initiatives.

For items shown as being ‘indicatively funded’, there has been a notional allocation of funding by State or local government agencies.

All currently unfunded or part-funded items listed in the Recommended Capital Programs (Works & Assets) should be regarded as being targets. Each 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 for their respective capital programs, including technical, financial and other evaluations.

Future potential funding sources have been noted against each item where possible.

Responsible Agencies

Lead agencies and supporting agencies are listed for each action in the Action Plans and each item listed in the Recommended Capital Programs (Works & Assets). Lead agencies will have prime responsibility for ensuring appropriate outcomes are achieved and will provide reports to the GIRTP Implementation group. Supporting agencies will provide advice and assistance and will be appropriately consulted.

Organisations are referenced as follows:

AMSA:	Australian Maritime Safety Authority
CSC:	Calliope Shire Council
DLGP:	Department of Local Government and Planning
DNR:	Department of Natural Resources and Mines
DOF:	Department of Families
DSD:	Department of State Development
EPA:	Environmental Protection Authority
GAPDL:	Gladstone Area Promotion and Development Ltd
GBRMPA:	Great Barrier Reef Marine Park Authority
GCAB:	Gladstone-Calliope Aerodrome Board
GCC:	Gladstone City Council
GEIDB:	Gladstone Economic and Industry Development Board
GPA:	Gladstone Port Authority
MR:	Department of Main Roads
DES(CU):	Department of Emergency Services CHEM Unit
QR:	Queensland Rail
QT:	Queensland Transport
QT(SC):	Queensland Transport through the Commercial Service Contract with bus operators



Action Plan 1:

Industrial Land

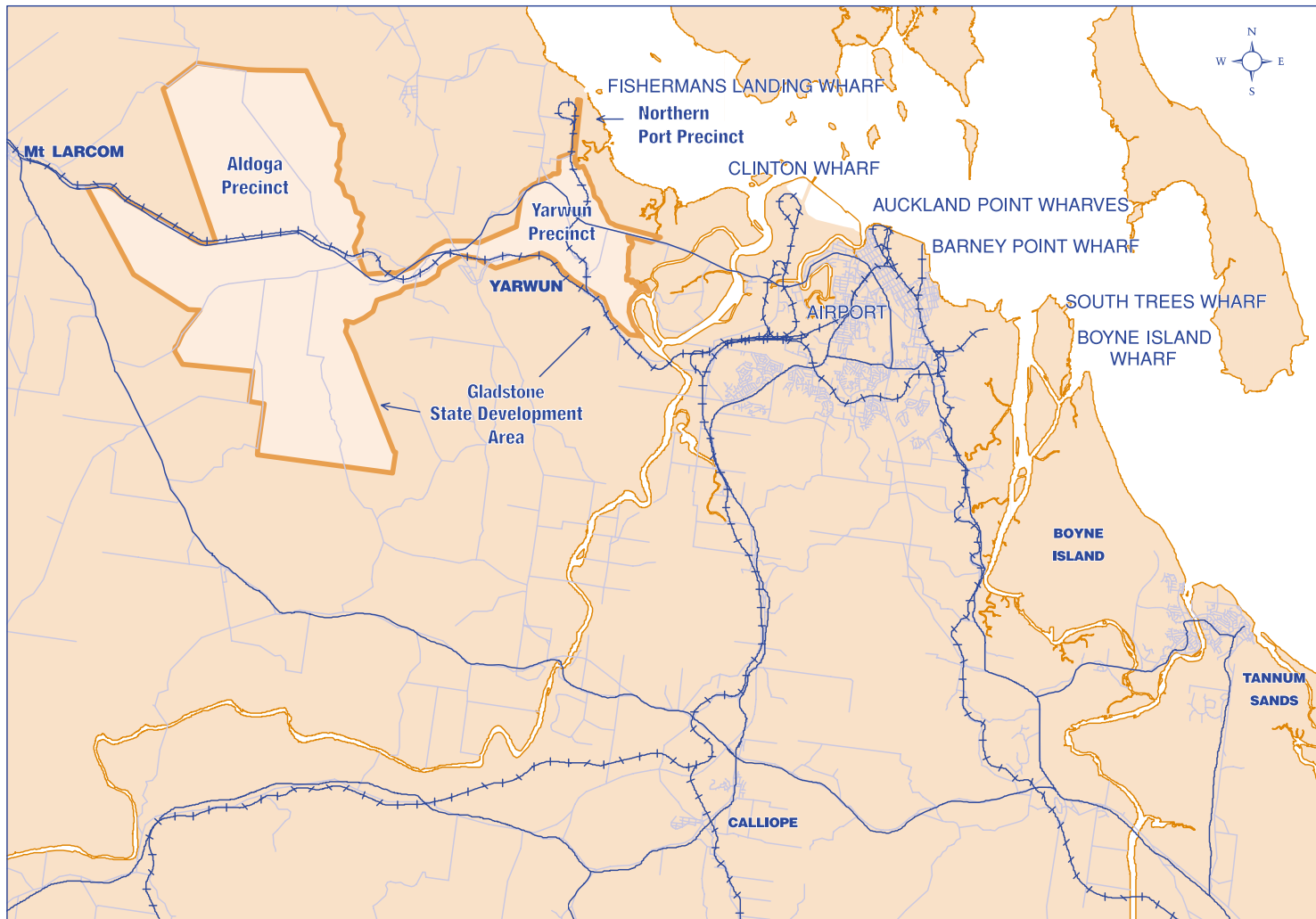


Objectives:

Plan and provide transport infrastructure and services to meet the needs of major industry located within the Gladstone State Development Area and elsewhere in the Gladstone region.

Set the framework for the provision of transport infrastructure to meet the needs of major industry located within the Gladstone State Development Area and elsewhere in the Gladstone region.

GIRTP Guiding Principles
Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice



Gladstone State Development Area

industrial land

Gladstone's future transport system is tied to the ongoing pattern of Gladstone's growth as an industrial centre. The level and pattern of industrial development and growth is the single most important factor affecting the region's transport system. Port, road and rail networks, particularly, will directly impact upon and be impacted on by industrial development and freight and commodity movements. In addition, industrial development will drive population growth and settlement patterns. It also drives overall demand for transport infrastructure and services, including passenger and public transport, walking and cycling.

The ongoing development and provision of industrial land in Gladstone and its interaction with the transport system has been presented as the first Action Plan of the GIRTP, given its wide-ranging influence and impact on all other Action Plans.

Major industry has been attracted to Gladstone because of the Port and the local supply of raw materials, particularly coal and mineral deposits from Central Queensland, and the availability of electricity. Consequently, industry has developed in close proximity to both port and rail infrastructure, which have been progressively expanded to cater for its needs.

QAL located on the south-east outskirts of Gladstone City in the 1960s and Boyne Smelters located at Boyne Island in the 1980s. Industrial areas have also developed to the north-west of the Gladstone urban area, now called the Gladstone State Development Area (Yarwun precinct) and the Northern Port precinct (ie Fishermans Landing Wharf area).



industrial

State Development Area

In December 1993, the Queensland Government declared approximately 6800 ha of land at Aldoga as a State Development Area (SDA). This area was declared a SDA to preserve it for future long-term industrial development that would meet acceptable environmental, social, economic and engineering criteria.

Following detailed studies, in 1998 the Queensland Government expanded the Gladstone SDA to include the Gladstone SDA (Aldoga precinct), a Materials Transport Service Corridor between Aldoga and the Port of Gladstone, and the Gladstone SDA (Yarwun precinct). The Queensland Government also created the Gladstone Economic and Industry Development Board to manage the development and operation of the Gladstone SDA.

The Queensland Government's declaration of the Gladstone SDA reinforces the industrial significance of the Gladstone region and the need for an integrated planning approach to both land use and transport planning in the region.

The North Coast Railway and Port Curtis Way cross the Gladstone SDA. In order to maintain and improve the industrial importance of the Gladstone region, the Gladstone SDA must be properly integrated with the Gladstone Port and other regional transport infrastructure including road, rail, pipelines and conveyors. This is particularly significant for the development of the proposed Aldoga precinct.

GIRTP Action Plan for Industrial Land

The GIRTP Action Plan for Industrial Land recognises the role of the Gladstone Economic and Industry Development Board to manage the future development and operation of the Gladstone SDA. The GIRTP also recognises that a SDA Development Scheme has been prepared and will help guide planning and development control (including in relation to transport) within the Gladstone SDA.

Transport planning for the Gladstone SDA must also recognise that transport infrastructure should be able to be provided, if required, within a short lead-time in the event of new major development projects.

On this basis, the GIRTP Action Plan for Industrial Land lists a number of investigations and studies required to provide future road and rail infrastructure within the new Gladstone SDA (Aldoga precinct), and road and rail connections to adjacent transport networks. The GIRTP Action Plan for Industrial Land also includes an action to consider the impacts on the existing road and rail networks and other miscellaneous transport infrastructure arising from future major industrial projects within the Gladstone SDA (Yarwun precinct).

These various transport actions affecting the Gladstone SDA (Aldoga and Yarwun precincts), are intended to help facilitate the future development and growth of the Gladstone SDA.

The Action Plan for Industrial Land should be read in conjunction with the GIRTP Action Plans for the Road and Rail Networks and Cross-Modal Issues. These Action Plans include other broader actions concerning road and rail links and miscellaneous transport infrastructure between the Gladstone SDA, the Port and other significant locations within the region.

In addition, other potential major industry sites outside the Gladstone SDA, as identified in Councils' Strategic Plans, will need to be appropriately considered in the future as new development projects and issues arise.

The combined list of actions in the GIRTP Action Plan for Industrial Land, along with those contained in the GIRTP Action Plans for Road, Rail and Cross-Modal Issues, will help ensure that transport demand arising from major industry at planned locations throughout the region is properly considered in a systematic way.



GIRTP Action Plan for Industrial Land¹

	Action	Timing	Responsible Agencies
Plan and provide transport infrastructure and services to meet the needs of major industry located within the Gladstone State Development Area and elsewhere in the Gladstone region	Ind1 Complete master plan including for corridors and for the provision of future transport infrastructure within the Aldoga precinct and Yarwun precinct, where appropriate	short term	GEIDB (lead) DSD, GCC, CSC, MR, QR, QT, EPA, DNR
	Ind2 Complete a planning study to determine the appropriate future road connection/s into the Aldoga precinct from Gladstone-Mt Larcom Road	short term	GEIDB (lead) DSD, MR, GCC, CSC, QT, EPA, DNR
	Ind3 Complete a planning study to determine the appropriate future rail connection/s into the Aldoga precinct from the North Coast Rail Line	short term	GEIDB (lead) DSD, QR, GCC, CSC, QT, EPA, DNR
Set the framework for the ongoing provision of transport infrastructure to meet the needs of major industry located within the Gladstone State Development Area and elsewhere in the Gladstone region	Ind4 Ensure future development within the Gladstone State Development Area is consistent with transport planning and development control policies contained in Gladstone State Development Area Development Scheme and local Planning Schemes as well as relevant federal, state & local environmental & planning policy statues, plans & policies. (eg. in relation to cultural heritage values.)	ongoing	GEIDB/DSD (leads) QT, MR, GCC, CSC
	Ind5 Consider any impacts of future major industrial projects within the Yarwun precinct on the existing road, rail and miscellaneous transport infrastructure network	ongoing	GEIDB (lead) DSD, QT, MR, GCC, CSC, QR, EPA, DNR
	Ind6 Complete detailed engineering and cost analysis of supporting port infrastructure (ie. dredging, wharf development, reclamation) and infrastructure corridor development to Aldoga and Yarwun precincts.	short term	GEIDB (lead) DSD, GCC, CSC, MR, QR, QT, EPA, DNR
	Ind7 Complete a transport and services corridor study to identify a future road corridor and associated land requirements through Aldoga precinct, from Port Curtis Way to the Bruce Highway.	short term	GEIDB (lead) DSD, GCC, CSC, MR, QR, QT, EPA, DNR

Recommended Capital Program (Industrial Land)

No	Description of Works	Order of Cost ²	Timing	Threshold Factors	Funding status
C-Ind1	Design and construct transport infrastructure within the Aldoga precinct.	\$20M ⁵	short-medium - long term ⁴	<ul style="list-style-type: none"> Future demand from major industry. Action Ind1 (Master plan for Aldoga precinct). 	not funded ³
C-Ind2	Provide the required road connection/s into the Aldoga precinct from the Gladstone - Mt Larcom Road.	\$3M ⁵	short-medium - long term ⁴	<ul style="list-style-type: none"> Future demand from major industry. Action Ind2 (Investigations into future road connections into Aldoga precinct). 	not funded ³
C-Ind3	Provide the required rail connection/s into the Aldoga precinct from the North Coast Rail Line, as required as industry develops.	\$3M ⁵	short-medium - long term ⁴	<ul style="list-style-type: none"> Future demand from major industry. Action Ind3 (Investigations into future rail connections into Aldoga precinct). 	not funded ³
C-Ind4	Provide supporting Port infrastructure (ie. dredging, wharf development, reclamation) and infrastructure for corridor development to Aldoga and Yarwun precincts. ⁽⁶⁾		short-medium - long term ⁴	<ul style="list-style-type: none"> Future demand from major industry. Action Ind6 (Investigation into supporting port infrastructure for corridor development). 	not funded ³

¹ The development of the Gladstone SDA also impacts on transport networks (especially road, rail and port) outside the Gladstone SDA. Additional actions for rail, port and road are listed in Action Plans 2,3 and 4 respectively. These Action Plans have considered the interactions between the Gladstone SDA and the regional transport networks as a whole, and should be consulted in conjunction with this Action Plan.

² Present values

³ Future possible funding sources include developer and industry contributions and Government contributions

⁴ Timing for future provision of infrastructure in Aldoga precinct is subject to the future demand by industry.

⁵ It should be noted these are preliminarily estimates. The GEIDB in collaboration with QR and Department of Main Roads, are currently reviewing these estimates.

⁶ Cost estimates are not yet available for C-Ind4. The GEIDB in collaboration with the GPA, are currently estimating this cost.



Action Plan 2:

Rail Network and Services

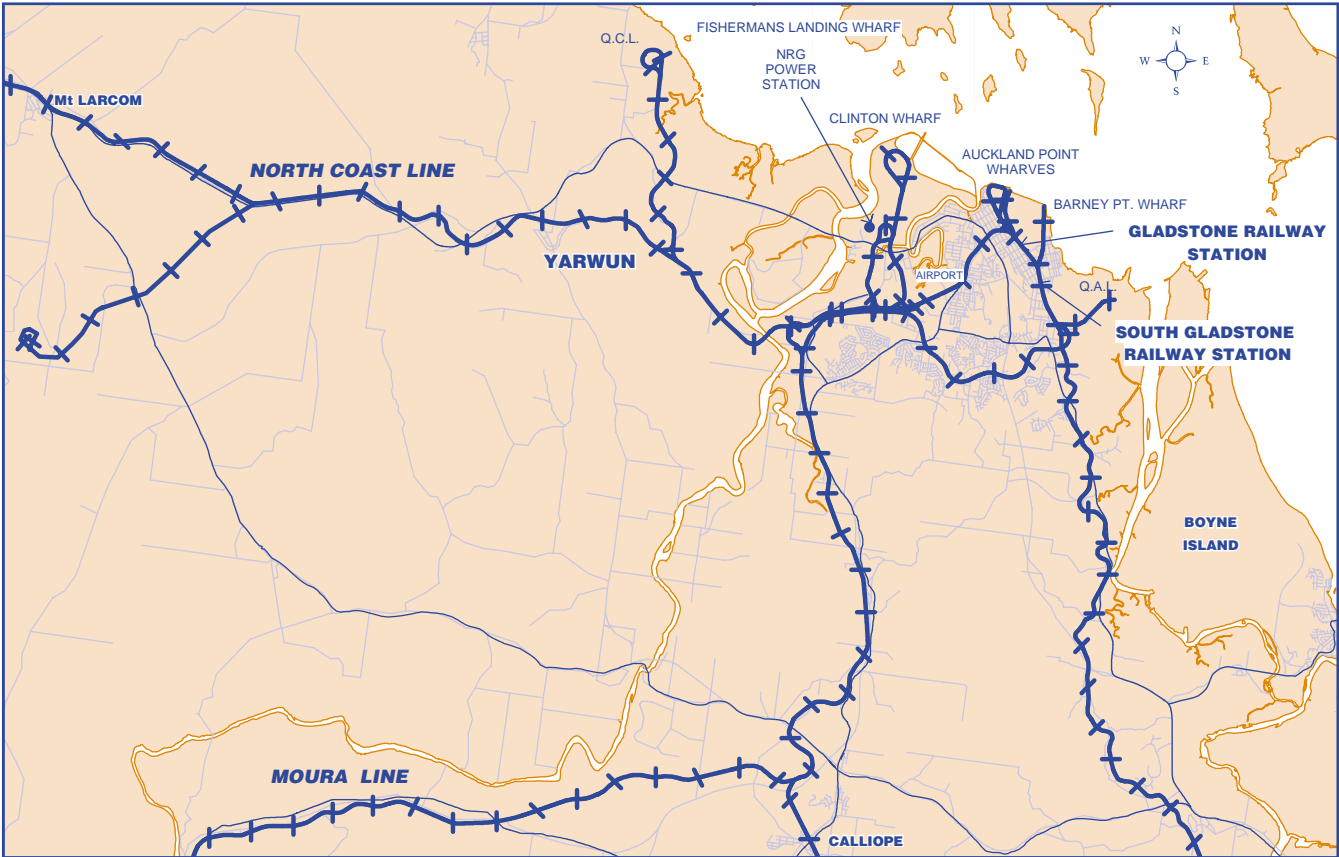


Objectives:

Plan and provide the Gladstone region's rail infrastructure, facilities and services to meet the changing needs of industry, commerce, tourism and the community.

Set the framework for, operate and manage the Gladstone region's rail infrastructure, facilities and services for freight and passengers to meet commercial objectives and social needs.

GIRTP Guiding Principles
Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice



Rail Network in the Gladstone Region

rail network and services

Gladstone has an extensive rail network, which moves a significant amount of freight and commodities in and through the region. It is also an important component of the State's passenger rail and rail freight system. The regional rail network must therefore be properly integrated with the overall regional transport system, particularly port facilities, the road network and land use.

The main rail lines in the Gladstone region are the North Coast and Moura/Monto lines. (1) In addition to the two main rail lines there are rail connections to:

- Auckland Point area;
- Barney Point Wharf;
- RG Tanna Coal Terminal;
- Clinton Wharf;
- NRG power station;
- QAL; and
- QCL at Fishermans Landing.

Freight Rail Operations

Currently, Queensland Rail's freight operations in the Gladstone region are dominated by coal traffic. It is anticipated this will continue to be the case into the future. Thirty million tonnes of coal per annum are currently being moved by rail through the region. Confident predictions show this traffic alone could increase to 40 million tonnes per annum in the short term and 60 million tonnes per annum in the future.



¹ The Australian Transport and Energy Corridor Pty Ltd (ATEC) proposes a standard gauge link from Melbourne to Darwin via Moree, Toowoomba, Emerald, Mount Isa, Tennant Creek and Darwin, with potential connections to a number of seaports including Gladstone. In 2000, the Queensland Government gave in principle support to the ATEC proposal which was being developed as a private sector funded project. The Commonwealth Government has now supported a market study of the Toowoomba to Emerald and Gladstone proposal, and has offered funding for further pre-feasibility work on this segment.

In mid 2001, ATEC representatives advised that they would prepare an initial Advice Statement (IAS) as the basis to seek declaration of the proposal as a significant project under the State Development and Public Works Organisation Act. If the project were to proceed the implications for the GIRTP would require careful assessment.

rail network

In addition to coal, Queensland Rail carries freight for many other major industries located both within and outside the Gladstone region. A significant amount of this freight is moved to and from the Gladstone Port.

There is considerable potential for new freight traffics to serve the expansion of existing industry in products such as limestone and cement products, chemical products and fertilisers, grain, woodchip, fuel and gas, and containerised products; and to service new industry within the region and elsewhere in Queensland.

Passenger Rail Service

Gladstone's passenger rail service has regular connections both north to Cairns and south to Brisbane. The North Coast line has been electrified since the late 1980s and was recently upgraded to carry the tilt-train from Brisbane through to Rockhampton. In addition to the Sunlander service, the new tilt-train has two services passing through Gladstone each day. The tilt-train has reduced the travel time from Brisbane to Gladstone to less than six hours and has resulted in a significant increase in the number of passengers using the Gladstone railway station. The Spirit of the Outback and Spirit of Tropics operate through Gladstone on a less frequent service.

The tilt train has also reduced travel time between Gladstone and Rockhampton, thus improving linkages between the two cities.

GIRTP Action Plan for Rail Network & Services

The GIRTP Action Plan for the Rail Network & Services aims to improve and integrate the regional rail network to further achieve the efficient movement of freight and passengers to and through the region.

Implementation of the Action Plan for the Rail Network will assist in making Gladstone a competitive industrial centre and will encourage the movement of freight by rail. It also aims to improve Gladstone passenger rail services and their integration with other modes of passenger and public transport.

The development of the regional rail network will be affected by commercial decisions about the future location of industry in the region, the expansion of existing industry and the movement of freight through the region to the Gladstone Port. However, it is essential that the development of the regional rail network is integrated with other transport networks (e.g. roads and port) and other public infrastructure, and is consistent with regional development objectives and strategies. The rail network must be planned so that, together with road and port infrastructure, it efficiently serves each new industrial development, as well as contributing to the overall development of the region.

For example, as industry develops, there will need to be a rail link to a future Wiggins Island Wharf and possibly other nearby industrial development. This would need to be integrated with planning for other nearby transport infrastructure, and land use and environmental objectives. There will also need to be a direct rail link to Fishermans Landing Wharf.

Long-term planning of the rail network will help ensure the regional rail network is properly integrated with other transport infrastructure. However, specific new major industry projects sometimes warrant special attention from a rail perspective. For example, when a new major industry is proposed for Gladstone, particular matters for consideration might include planning a new rail corridor or identifying means to promote rail as the preferred transport mode for the project. To this end, the GIRTP recommends the establishment of a Gladstone Rail Transport Solutions Group, comprising representatives of relevant State and local government bodies responsible for provision of all modes of transport, to promote integrated rail transport solutions for major industry.

The GIRTP Action Plan for Rail Network and Services lists a number of rail studies and investigations to improve and integrate the rail network in the Gladstone region to serve future industry. All rail studies and investigations will need to be consistent with appropriate federal, state and local environmental statutes, plans and policies (eg. cultural heritage).

The GIRTP Action Plans also includes a review of infrastructure and transport services to and from the Gladstone passenger railway station, and a proposal to investigate passenger rail transport to industrial sites.



GIRTP Action Plan for Rail Network & Services¹

Plan and provide the Gladstone region's rail infrastructure, facilities and services to meet the changing needs of industry, commerce, tourism and the community

<i>Action</i>	<i>Timing</i>	<i>Responsible Agencies</i>
Ra1 Identify and preserve a corridor for a future rail spur from the main line to a future Wiggins Island Wharf (and possibly other nearby developments) and ensure integration with other existing and proposed transport infrastructure, land use and environmental objectives and local planning objectives	short term 2001	GEIDB, QR,QT (lead) MR, GCC, CSC, GPA, DSD, EPA, DNR (4)
Ra2 Investigate a future rail fork line connection from the Moura Line to the North Coast Line	short term 2001	QR (lead) GCC, DNR, QT
Ra3 Investigate a future rail connection from Reg Tanna Coal Terminal (RGCT) balloon loop to Powerhouse loop	short term 2001	QR (lead) GPA, EPA, DNR, QT
Ra4 Investigate future rail access from the existing QCL line to Fishermans Landing Wharf	short term	GPA GEIDB, (lead) QR, QT (4)
Ra5 Consider the future expansion and operating needs of the Callemondah Rail Yards in relation to adjacent road transport infrastructure	short term 2001	QR (lead) GCC, QT
Ra6 Consider the impact of any future standard gauge/high speed rail link to Gladstone on rail corridor planning in the region (i.e. the impact on existing rail corridors or the need for a new rail corridor)	short term 2001	QT (lead) GCC, CSC, QR, GEIDB, DSD, DNR, EPA
Ra7 Investigate suitable location and consider land requirements for a marshalling yard and cut-out roads between Mt Miller and Calliope River	short term 2001	QR (lead) QT, GCC, CSC, DSD, GEIDB
Ra8 Review Gladstone railway passenger station infrastructure	short term 2001	QR, QT (lead) GCC, CSC, GAPDL

	Action	Timing	Supporting Agencies
Set the framework for, operate and manage the Gladstone region's rail infrastructure, facilities and services for freight and passengers to meet commercial objectives and social needs	Ra9 Investigate options for regrading the Aldoga Bank	short term	QR (lead) QT, MR, GCC, CSC, DSD
	Ra10 Identify current and future freight and passenger tasks by rail (particularly to GSDA Aldoga precinct), identify major congestion points in corridors and assess technological opportunities to address the transport task	ongoing	QR, QT (lead)
	Ra11 Convene a high-level standing committee comprising State and local government bodies responsible for provision of all modes of transport to promote integrated rail transport solutions for major industry (i.e. Gladstone Rail Transport Solutions Group)	ongoing	QT (lead) QR, MR, GCC, CSC, DSD, GEIDB, GPA, EPA, DNR
	Ra12 Investigate the potential for an additional future rail connection from the North Coast line to the proposed spur line into Aldoga precinct.	short term	GEIDB (lead) QR, QT
	Ra13 Develop a Corridor Direction Proposal which will provide a vision for enhancing the relationship between utilisation and ongoing development of the North Coast Line, consistent with the Rail Network Strategy.	ongoing	QT (lead) QR
	Ra14 Determine the suitability of rail corridors within the region for non-rail transport and communication purposes and promote all suitable opportunities without compromising the safety and the integrity of rail operations.	ongoing	QT (lead) QR

Recommended Capital Program (Rail Network)

No	Description of Works	Order of Cost ²	Timing	Threshold Factors	Funding status
C-Ra1	Design and construct a) additional rail spur to Fishermans Landing Wharf b) a rail spur from the main line to a future Wiggins Island Wharf (and possibly other nearby developments). ⁽⁵⁾	\$25M	short - medium - long term	· Future development of Fishermans Landing Wharf and associated industry · Future development of Wiggins Island Wharf and associated industry · Action Ra1 (Identification and preservation of corridor)	not funded ³
C-Ra2	Parana QAL Connection	\$3M	medium - long term	· Future commercial freight demands	not funded ³
C-Ra3	Northern connection - Moura Line to the North Coast Line	\$3M	medium term	· Future commercial freight demands	not funded ³
C-Ra4	Departure and cut-off roads between Calliope River and Mt Miller	\$5M	medium term	· Future commercial freight demands	not funded ³

¹ Actions for the regional rail network have been developed alongside Action Plans for industrial land, the regional road network and the port. The Action Plan for the rail network should therefore be read in conjunction with Action Plans for industrial land, port and road (i.e Action Plans 1,3 and 4 respectively).

² Present values.

³ QR commercial funding is a possible future source of funding. Funding would be subject to commercial arrangements between rail operators and proponents of major industry projects

⁴ Consultation will be required with appropriate industry in the vicinity of any future rail spur as well as relevant government agencies (such as Department of Natural Resources and Mines). There is a need to take into account the location of the shale oil resource in the area.

⁵ Cost estimate is not yet available for the provision of an additional rail spur to Fishermans Landing Wharf.

Action Plan 3:

Port & Marine

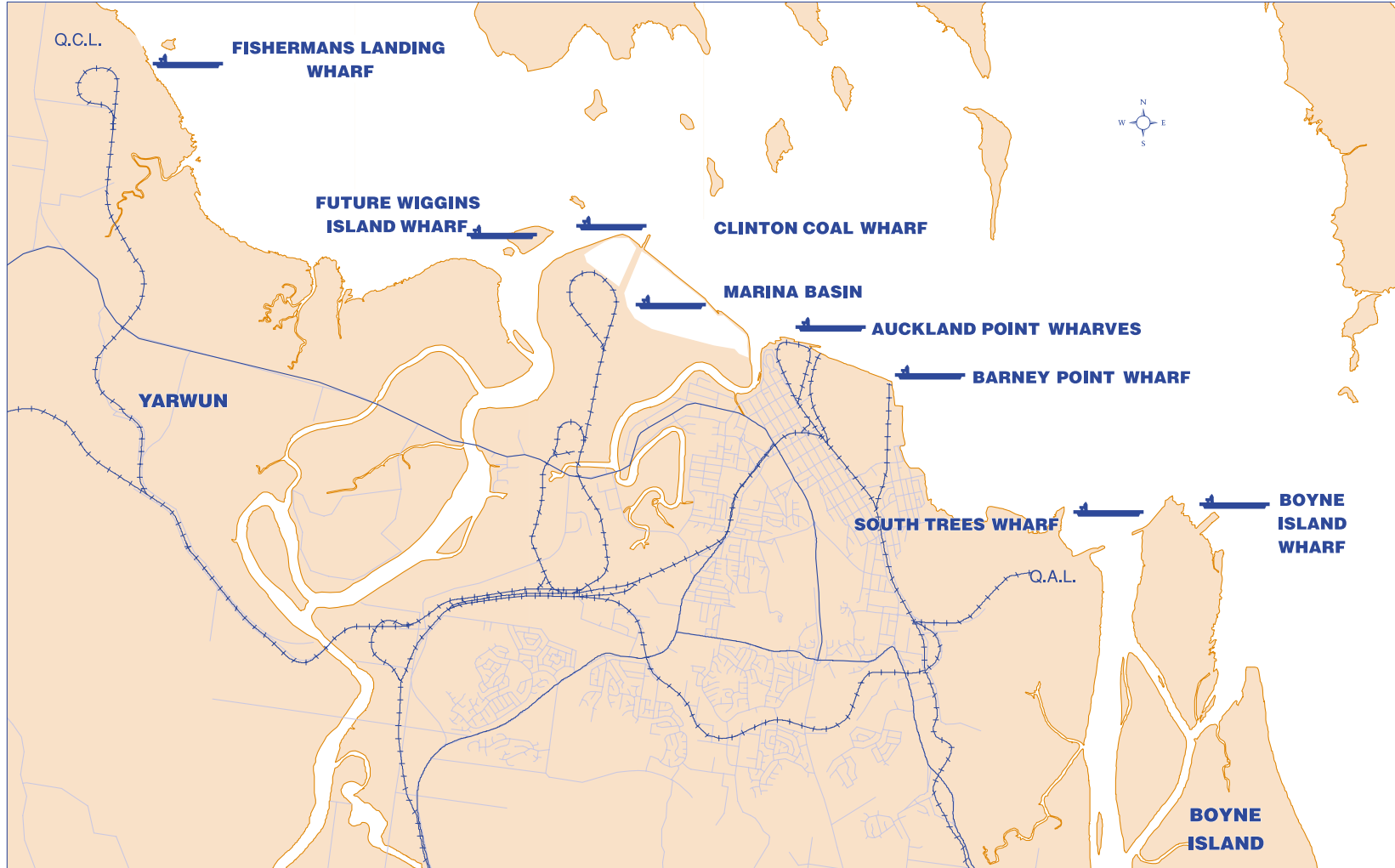


Objectives:

Plan and provide the Gladstone region's port and maritime infrastructure, facilities and services to a level appropriate to meet the changing needs of industry, commerce, tourism and the community.

Set the framework for, operate and manage the Gladstone region's port and maritime infrastructure, facilities and services to a level appropriate to meet the changing needs of industry, commerce, tourism and the community.

GIRTP Guiding Principles
Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice



Wharves in the Gladstone Region

port & marine

port and marine

The major hub of the region's freight network is the Port of Gladstone.

The Gladstone Port is vital to providing industry and the local community with the goods, services and expanding export opportunities needed for regional growth. The Port of Gladstone plays a crucial role in the economic development of the wider region and State.

As is the case for the rail network, it is essential that the Port be properly integrated with the region's overall transport system and regional land use.

The Port of Gladstone is the largest multi-commodity port in Queensland. Its success is due mainly to its large, sheltered, natural deep-water harbour, a well-planned network of supporting infrastructure, a skilled workforce, its proximity to a range of natural resources and a sustained and effective approach to the marketing of the Port at both the local and State level.

The Gladstone region is served by seven major commercial port facilities:

- Fishermans Landing Wharf - caters for exports from QCL's adjacent clinker plant and imports of caustic soda and ammonia and will be expanded to accommodate other commodities in the future.
- Clinton Coal Wharf - exports coal from the region's hinterland areas.
- Auckland Point Wharf - caters for a range of commodities.
- Barney Point Wharf - exports coal from BHP's mines.
- South Trees Wharf - operated by QAL.
- Boyne Wharf - caters for the requirements of Boyne Smelters.
- Gladstone Marina - provides a haven and repair facilities for pleasure craft, cruising yachts and the local fishing industry.



port & marine

In 1998/99 42.8Mt of freight and commodities moved through the various commercial port facilities within the Gladstone region. The shipment of bulk cargoes, such as coal, bauxite and alumina, accounted for over 90% of the total goods movement through the various commercial port facilities in the Gladstone area. Other major commodities (by mass) included caustic soda (867kt), petroleum (444kt) and cement (304kt).

Clinton Wharf currently caters for approximately 60% of the sea freight movements through the region, with South Trees Wharf serving another 28%. The two wharves closest to the Gladstone CBD, Auckland Point and Barney Point, currently cater for about 7% of all movements.

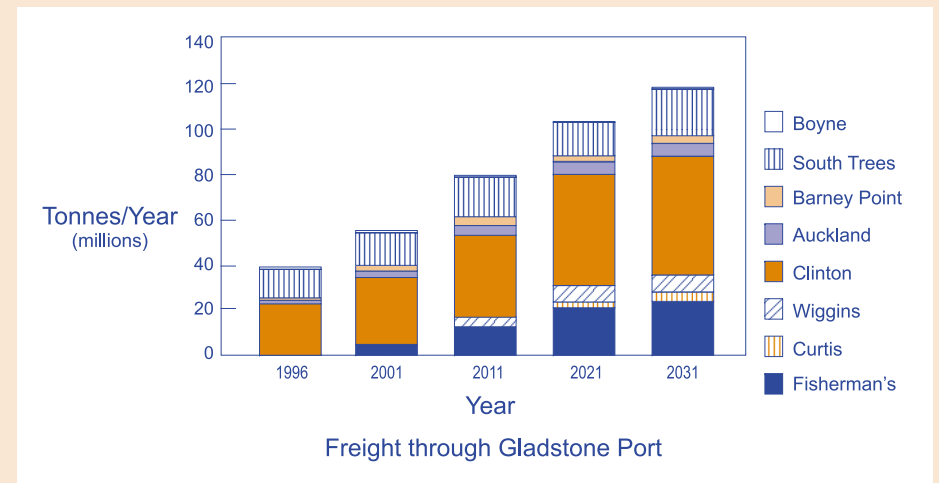
The Gladstone region also has numerous public boat ramps, jetties and mooring facilities.

GIRTP Action Plan for Port and Marine

Long-term planning and provision of port and marine infrastructure and services in Gladstone will increase operational efficiency of Gladstone's overall transport network and result in increased opportunities for the development of trade (both domestic and export). It will also help minimise the adverse environmental and social impacts of freight movement to/from the port and enhance recreational and commercial boating.

Gladstone Port Authority Strategic Plan

The Gladstone Port Authority Strategic Plan, which outlines the port's growth potential over the next 50 years, predicts a significant increase in the amount of freight shipped through the port over the coming decades. The Gladstone Port Authority's Strategic Plan also identifies the scope and timing of major port-specific works required to cater for the expected increase in the region's sea freight transport. The GIRTP Action Plan for the planning and provision of infrastructure at the port is based on the Gladstone Port Strategic Plan. The GIRTP capital program for the port reflects the capital program outlined in the Gladstone Port Strategic Plan up until the year 2017.



It is also recognised that future decisions on the development of infrastructure and services at the Port will be affected by ongoing commercial decisions about the location of future industry in the region, the expansion of existing industry and the movement of freight through the region to the Port.

The GIRTP Action Plan for port and marine recognises the role of the Gladstone Port Authority to operate and manage Gladstone Port to achieve price and service competitiveness to help attract industry to the region, in accordance with the Gladstone Port Strategic Plan.

The Gladstone Port Strategic Plan predicts a 67% increase in the amount of freight shipped through the Port by 2012, 158% by 2027 and ultimately a 212% increase (over 1999 levels) by 2047.

The Fishermans Landing Wharf (and future Wiggins Island Wharf) is expected to cater for a significant percentage of this growth, increasing their share of total port traffic from about 3% in 1999 to 27% by 2047. The proportion of total port traffic through Auckland Point and Barney Point wharves is expected to decrease marginally (by about 3%).

Future Roads on Port Land

The GIRTP Action Plan for Port & Marine includes recommended capital items for the provision of additional road network on strategic port land to serve Fishermans Landing Wharf and a future Wiggins Island Wharf.

An important element in the management of impacts in the vicinity of Auckland Point and Barney Point Wharves is the construction of the Port Access Road to cater for port-related road traffic. Detailed discussion of the Port Access Road is provided in the GIRTP Action Plan for the Road Network.

The GIRTP Action Plan (Port and Marine) also recognises the need, in future, to provide additional road linkages within Auckland Point to the Port Access Road (e.g. from the proposed container terminal). This could involve changes to existing port access routes to minimise the impact of commercial vehicle traffic on adjacent sensitive land uses (e.g. to avoid using Flinders Parade and parts of Auckland Street and Young Street).



GIRTP: Transport for Queensland's Port City 47

port & marine

Recreational & Commercial Boating Facilities

The city of Gladstone has taken shape on hills overlooking the focal point of its economic development - the natural deepwater harbour. The region's sub-tropical climate with islands, waterways and beaches provide year-round boating, fishing, swimming and surfing. With easy access to Heron Island, Lady Musgrave Island and uninhabited coral cays, the Gladstone region provides tourist access to the Great Barrier Reef. A charter boat fleet operates from the region's world-class marina.

Boating is a popular recreational activity in the Gladstone region as a result of the beautiful coastline and the good level of boating infrastructure available. This includes a high quality marina, and numerous boat ramps and public landings provided at Boyne Island, Tannum Sands, Calliope River and the Narrows. The Brisbane to Gladstone Yacht Race also attracts a wide range of recreational boaters to the region.

Trawlers and fishing vessels also operate in the Gladstone region.

The GIRTP Action Plan for Port and Marine incorporates the implementation of the Queensland Maritime Capital Investment Plan, which includes infrastructure for recreational boating such as boat ramps, aids to navigation and moorings.

Marine Pollution

The Gladstone Port Authority is committed to maintaining the health of the marine environment of Port Curtis. To this end, the GPA has established a variety of environmental monitoring programs to enhance knowledge of the harbour's marine ecosystem and provide a means of detecting potential adverse effects from the port's activities.

These programs include:

- Dust monitoring and suppression, including the use of sprinklers on stockpiles and vegetation wind breaks to reduce dust emissions - The GPA was the recipient of the Tidy Towns BHP Environmental Initiative Award for the Direct Tree Seeding Project where native shrub and tree species are used to create wind breaks and minimise erosion.
- Water quality monitoring, including monitoring water temperature, pH, dissolved oxygen, electrical conductivity (salinity), turbidity and available phosphate - This information is on public display at Kullaroo House. This data serves several purposes,

the most important being establishing baseline data against which long-term changes/trends in water quality can be identified. The GPA plans to expand its water quality monitoring to include the monitoring of heavy metals.

- Mangrove and seagrass monitoring to monitor the abundance and diversity of mangroves and seagrasses bi-annually at strategic locations within Gladstone Harbour. The study has been designed to enable detection of adverse effects of dredging and reclamation activities carried out by the port.
- Macro-benthic monitoring to detect long-term trends/changes in species composition and abundance which may be attributable to industrial and urban activities.
- Turtle monitoring to monitor the nesting of flatback turtles at South End on Curtis Island.
- A fish restocking program, in partnership with the Gladstone Area Water Board, established a fisheries hatchery, with the objective of stocking Awoonga Dam near Gladstone. Recent sampling indicates that the restocking program has been a success, with the fish exhibiting growth rates exceeding rates usually observed in captivity and appearing to be well distributed throughout the dam.



The GIRTP Action Plan for Port and Marine also includes the continued implementation of the Queensland Coastal Contingency Action Plan for oil spill events impacting on the Gladstone region. The continued implementation of this plan will ensure that responses to oil spill incidents and spills of other hazardous substances are undertaken in the most operationally and cost-effective way and that the environmental values of the region are protected.

GIRTP Action Plan for Port and Marine¹

	Action	Timing	Responsible Agencies
Plan and provide the Gladstone region's port and maritime infrastructure, facilities and services to meet the changing needs of industry, commerce, tourism and the community	PM1 Plan and provide infrastructure at the Port, in accordance with the Gladstone Port Authority Strategic Plan	ongoing	GPA (lead) GCC, QT, DNR, QR, EPA, GEIDB
	PM2 Investigate additional road linkages within Auckland Point in order to link the Port to the proposed Port Access Road	short term	GPA (lead) GCC, MR, QT, DNR, QR
	PM3 Plan and provide maritime infrastructure in accordance with the Queensland Government's Maritime Capital Investment Plan	ongoing	QT (lead) GCC, CSC, GEIDB

	Action	Timing	Supporting Agencies
Set the framework for, operate and manage the Gladstone region's port and maritime infrastructure, facilities and services to a level appropriate to meet the changing needs of industry, commerce, tourism and the community	PM4 Ensure continued implementation of the Queensland Coastal Contingency Action Plan (including REEFPLAN and GPA Oil Spill Contingency Plan) for oil spill events impacting on the Gladstone region	ongoing	Within Port limits: GPA (lead) In coastal waters & GBRMP: QT (lead) QT, GBRMPA, AMSA, GPA, EPA, industry
	PM5 Ensure continued implementation of the Gladstone Port Authority's environmental monitoring and enhancement programs	ongoing	GPA, industry
	PM6 Improve Gladstone Port price and service competitiveness and consider new technologies to help attract industry to the region, in accordance with the Gladstone Port Strategic Plan	ongoing	GPA (lead) QT, GEIDB

Recommended Capital Program (Port and Marine)

No	Description of Works	Order of Cost ²	Timing	Threshold Factors	Funding status
C-PM1	<p>Provide capital works, including wharves, stockpiles, dredging, conveyors etc, at Gladstone Port in accordance with the Gladstone Port Authority Strategic Plan</p> <p>Including at:</p> <ul style="list-style-type: none"> • Boyne Island Wharf • South Trees Wharf • Barney Point Wharf • Auckland Point Wharf • Clinton Wharf • Wiggins Island Wharf • Fishermans Landing Wharf 	\$576.5M	ongoing	· Future development of the port and associated industry	not funded ³
C-PM2	Provide additional road linkages within Auckland Point to link the proposed Port Access Road, as required	\$1M	medium - long term	· Future development of the port and associated industry · Action PM2 (Investigation of road linkages within Auckland Point to the proposed Port Access Road)	not funded ³
C-PM3	Extension of Landing Road on strategic port land to serve Fishermans Landing Wharf ⁽⁴⁾		short - medium term	· Future development of Fishermans Island Wharf and related industrial development	not funded ³
C-PM4	Provide road on strategic port land to new Wiggins Island Wharf ⁽⁴⁾	\$6M	medium term	· Future development of Wiggins Island Wharf and related industrial development	not funded ³
C-PM5	Implement the Queensland Maritime Capital Investment Plan	\$2.25M	short term		part funded
	<p>Including:</p> <ul style="list-style-type: none"> • Replacement of Fairway Beacon (Gladstone City) • Various aids to navigation (Calliope Shire) 				



¹Actions for the Gladstone Port have been developed alongside Action Plans for industrial land, road and rail. The Action Plan for Port & Marine should therefore be read in conjunction with the Action Plans for industrial land, and the road and rail networks (i.e. Action Plans 1, 2 & 4 respectively)

² Present values.

³ Possible future funding sources include GPA through port fees and charges.

⁴ Consideration needs to be given to the future needs of the port as well as existing & proposed industry in the vicinity & proposals for future development of the shale oil resource in the area.



Action Plan 4:

Road Network

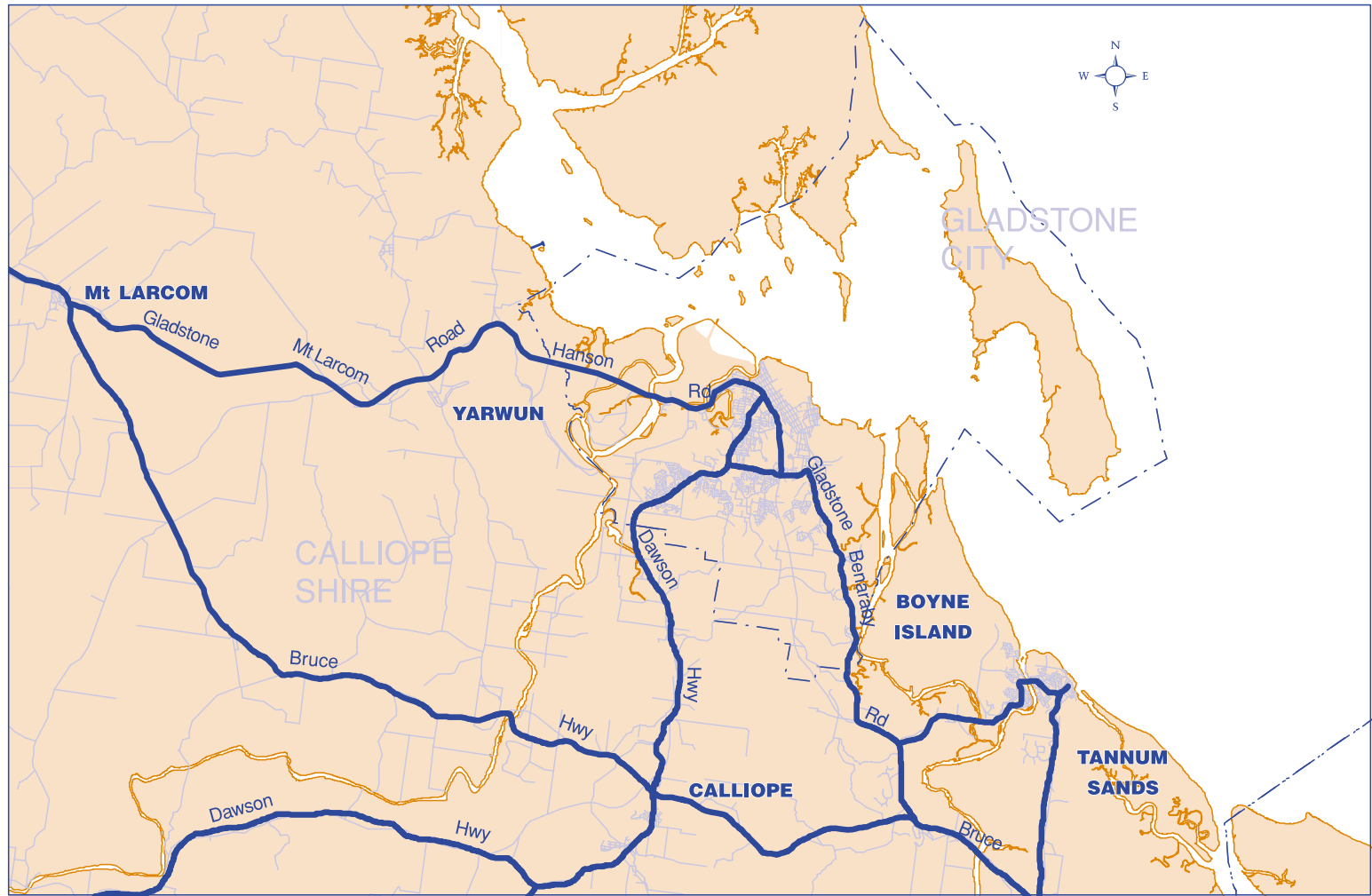


Objectives:

Plan and provide the Gladstone region's roads to meet the changing needs of industry, commerce, tourism and the community.

Set the framework for, operate and manage the Gladstone region's road network to ensure that it provides reliable and safe access for freight and passengers.

GIRTP Guiding Principles
Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice



Gladstone Road Network

road network

Unlike many Queensland provincial cities, Gladstone's road network has been developed to service major industries and the port. Heavy freight traffic is therefore a key issue to be considered in planning and integrating the future road network for Gladstone with other transport modes and land use. It is also an important factor in determining the need for new roads, their location and the upgrading of existing roads.

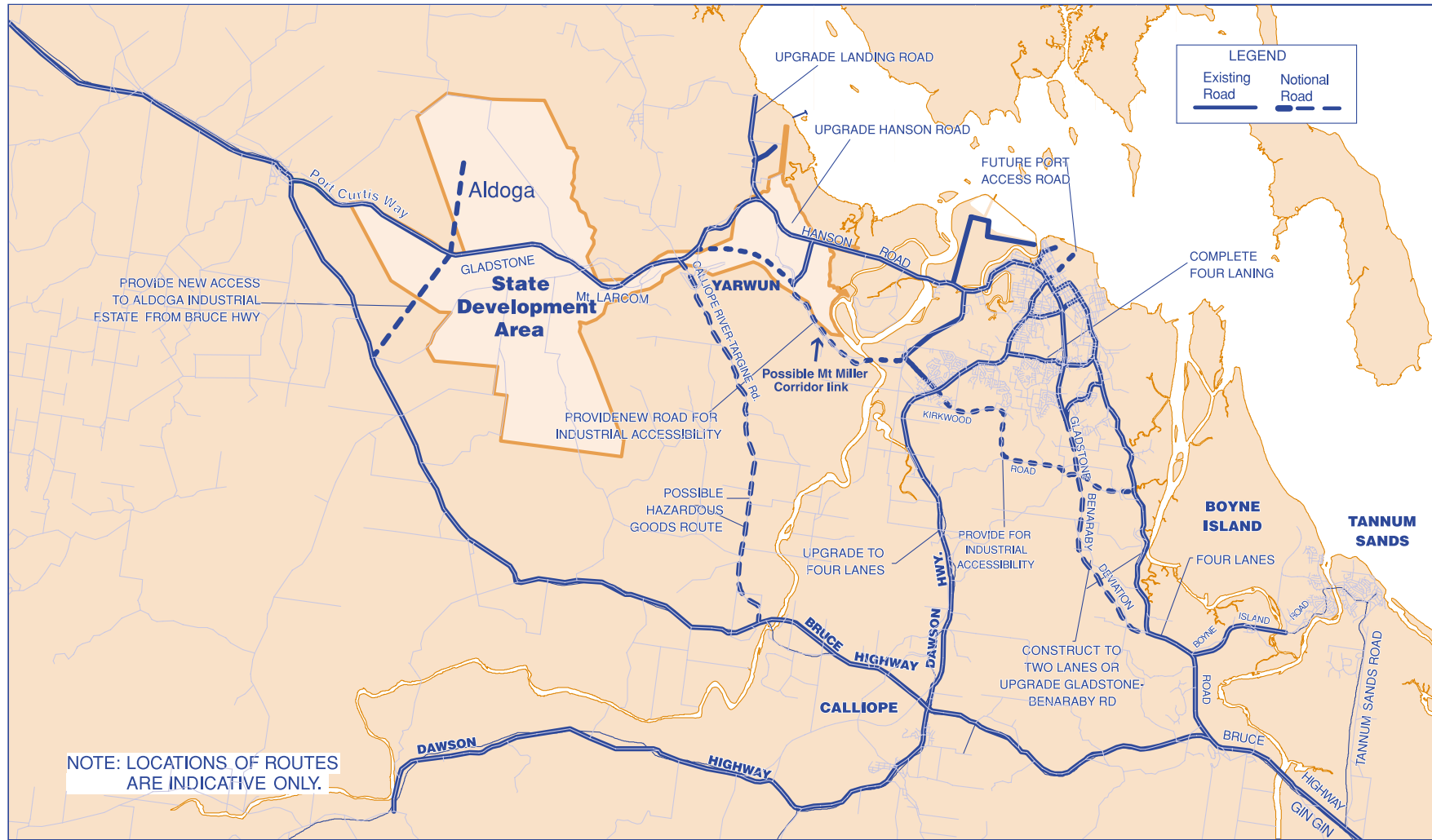
In order to maintain and develop an efficient road network for the Gladstone region, which caters for both freight movement and general traffic, various transport studies and road network plans have been undertaken since the early 1980s.

Most recently, the Gladstone Area Transport Study (1993) and the Gladstone Area Road Freight Study (1998) undertook detailed evaluation of existing travel patterns, traffic volumes, freight travel and public transport movements within the Gladstone area. These studies recommended strategies for short and long-term management of road freight and developed an overall road network for the region, which would take into account future major industrial development including that at the proposed Gladstone SDA (Aldoga precinct).

Transport infrastructure in the Gladstone area improved significantly in the 1980s. Improvements included additional new road links, upgrading of existing links, introduction of high-capacity intersection control and improved road planning. Upgrading in the 1990s was less intense as a result of the slowing down of new major industrial development.

As a result of these improvements, the Gladstone road network is currently at a relatively high level of service which is expected to continue in the short term. However, as new industry develops in the Gladstone region and the region's population increases, the impact of freight vehicles will demand the review of the existing road network and may require new road links and upgrading of the existing road network.





Recommended Road Network for the Gladstone Region

Proposed timings are contained in the Recommended Capital Program for the road network

road network

Levels of service for the road network are defined by such factors as travel time, speed, freedom to manoeuvre, traffic interruptions, comfort, convenience and safety.

The Gladstone Area Transport Study, Gladstone Area Road Freight Study and studies into future industrial land use, together with forecasts of future freight movements, have identified major components of the road network that will require upgrading or expansion. Previous studies have also identified complete new road links that will be required as industry expands into new areas. This will also help to provide alternative access routes throughout the region.

GIRTP Action Plan for the Road Network

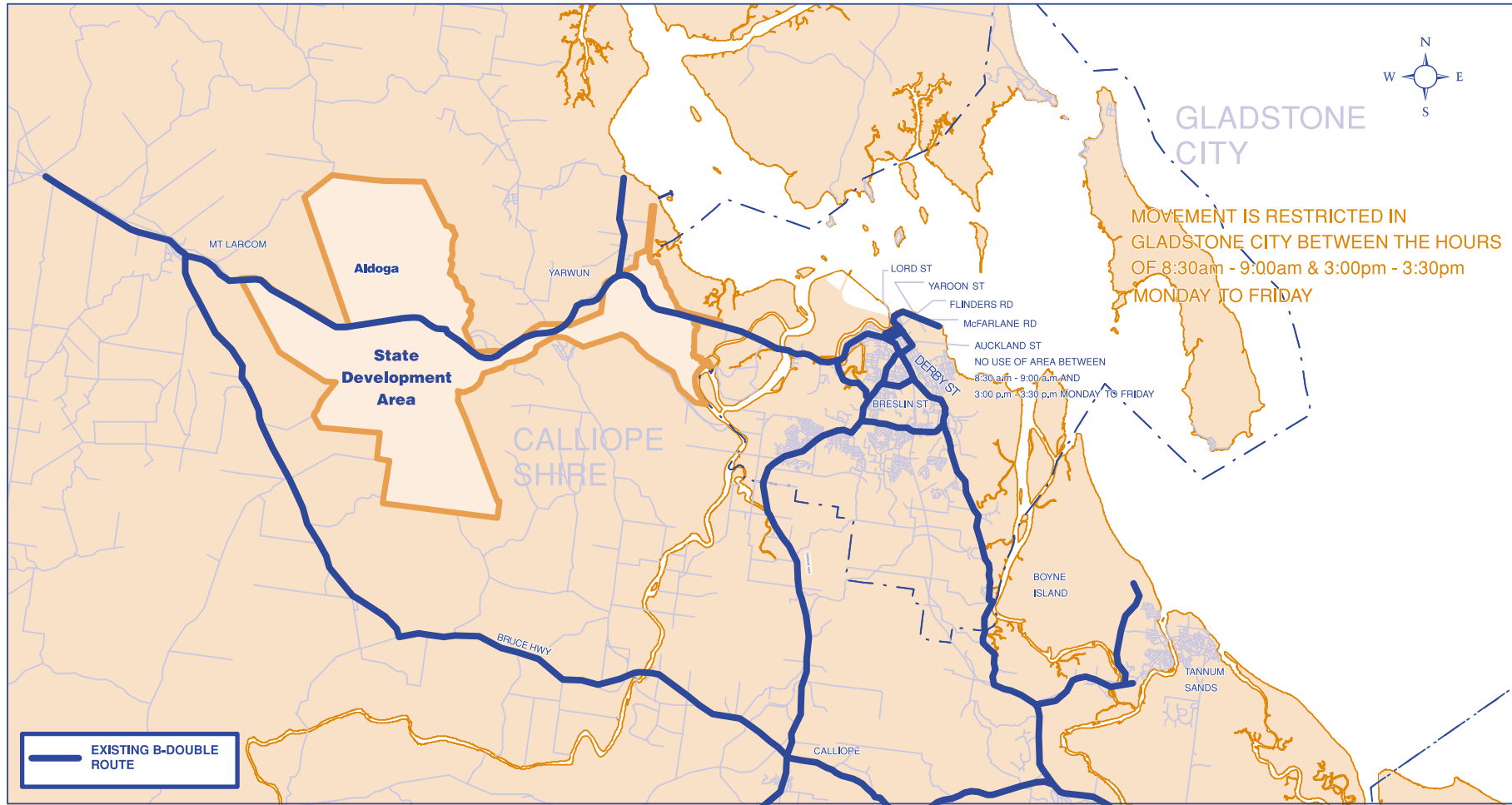
The Recommended Road Network

An efficient and integrated road freight network is essential to the ongoing development of Gladstone as an industrial centre.

However, while playing an important role in supporting and attracting local industry, the movement of freight by road through the region also has the potential to adversely impact residential amenity and traffic operations in more built-up areas. Similarly, the movement of hazardous goods within and through the region needs to be carefully managed. Operation of heavy vehicles in and around the urban area is currently causing some level of community concern. As new heavy industry develops, the impact of heavy vehicles on noise levels, air quality, and perceived safety is expected to be such that, ideally, freight movements would be contained on roads which specifically take account of the need for the movement of freight.

The GIRTP recommended regional level road network, shown above, aims to develop such a road system which will cater for the efficient movement of freight throughout the region while, at the same time, minimising impact of freight movement on residential amenity and safety as well as serving the needs of general traffic. It aims to achieve an appropriate balance between the efficient movement of freight, the needs of general traffic and residential amenity and safety.





B-Double Routes in the Gladstone Region

road network

Heavy Vehicles & Hazardous Goods Movement

B-Double trucks, which carry freight for major industry, are presently permitted to operate on the routes illustrated on the map of B-Double Routes in the Gladstone region, without specific permits from Queensland Transport. During the consultation process on issues that should be considered in the GIRTP, many respondents identified the movement of heavy vehicles as a concern. The GIRTP recognises these concerns and also recognises that as freight tonnages increase and the transport industry moves towards larger vehicles and longer working hours, further control of B-Double trucks and other heavy vehicle combinations may need to be considered, in consultation with the community and industry.

During the GIRTP consultation process, respondents also noted that semi-trailers and B-Doubles are transporting hazardous goods through the study area. Ideally such goods should be increasingly moved by other transport modes. While the GIRTP aims to move such goods by other modes as far as possible, it is recognised there are limits to which this can be achieved, especially for local deliveries.

The movement of both freight and hazardous goods was considered in some detail in the Gladstone Area Road Freight Study.

The GIRTP Action Plan for the Road Network includes the assessment and implementation, where appropriate, of the recommendations of the Gladstone Area Road Freight Study with respect to the movement of hazardous goods and freight.

Other GIRTP actions that will also help ensure the safe and efficient movement of freight and hazardous goods in the Gladstone region are discussed in more detail in the Action Plan for Cross-Modal Issues.

The Gladstone Area Road Freight Study recommended:

- *changes be made to existing 'B-Double' truck routes and time restrictions in urban localities - particularly near schools and other sensitive areas where appropriate.*
- *consideration be given to long-term strategies for relocation of hazardous goods routes where possible.*
- *relocation of hazardous good movements to alternative routes outside the Gladstone urban area where possible - this will be assisted by the development of the recommended freight network for Gladstone.*

road network

Port Access

An important action in the GIRTP Action Plan for the Road Network concerns the future Port Access Road from the Hanson/Glenlyon Road via the North Coast Rail route, through the central city area, to the Gladstone Port area. Information on the Gladstone Port access route and the GIRTP position on this issue is provided below.

Q. What is the Port Access Road and what is its purpose?

A. *The Port Access Road will be an alternative access road to Auckland Point and Barney Point Wharves to the currently used route of Flinders Parade and Lord Street. The purpose of the Gladstone Port Access Road is to serve the Auckland Point and Barney Point Wharves in the future and also to serve adjacent land uses. The Gladstone Port Authority Strategic Plan forecasts increasing freight movement through the Auckland Point and Barney Point Wharves.*

Q. What is the history of the Port Access Road?

A. *In 1993 the Gladstone Area Transport Study identified a possible new route to the Gladstone Port. A number of options were considered, but the favoured route was "Route D". In 1996 Kinhill were commissioned to investigate the feasibility of constructing "Route D". They concluded that it was feasible to construct. Some consultation on "Route D" occurred in both the development of the Gladstone Area Transport Study and in the undertaking of the Kinhill Study. In late 1997 the then Minister for Transport & Main Roads announced that "Route D" would be the preferred Port Access Road. Property acquisition commenced on a hardship acquisition basis only following this announcement.*

Q. What decisions are yet to be made regarding the Port Access Road?

A. *Further decisions to be made on the Gladstone Port Access Road include:*

- Timings and funding for the Gladstone Port Access Road will be a matter for further consideration.*
- Further decisions will be required in relation to the detailed planning and design of the Gladstone Port Access Road.*
- The links between the Gladstone Port Access Road and the regional road network may require detailed consideration.*
- There may also be a need to consider the position of the carriageway within the proposed corridor.*
- Appropriate environmental assessment will be required prior to any final decisions in relation to construction of the Port Access Road.*

Q. Who are the decision-makers?

A. *The decision-makers who have a role in relation to these various decisions are the Minister for Transport and Minister for Main Roads, Gladstone Port Authority and the Gladstone City Council. The Federal Minister for Transport has a role in decision-making regarding timing and funding issues, and the Calliope Shire Council has a role in relation to links with the regional road network.*

Q. What is the position of the GIRTP on the Port Access Road?

A. *The GIRTP's position is that the Port Access Road will be provided as required for the development of the port and adjacent land uses. This position reflects the findings of previous studies (including those outlined in the GIRTP Technical Working Paper), decisions made to date and the views of the lead decision-making agencies listed above. It also gives consideration to the varying issues that have been raised in relation to the Gladstone Port Access Road in the consultation undertaken to date in the development of the GIRTP.*

The GIRTP position is also specifically based on:

- GPA Port Strategic Plan and proposed port uses at Auckland Point and Barney Point;*
- The need for a safe and efficient freight route to the port area and adjacent land uses;*
- The need to facilitate local traffic management in the vicinity of the Gladstone central business area and Flinders Parade;*
- The need to improve the amenity of Flinders Parade; and*
- The need to relieve heavy vehicle impact on the local road network (especially Flinders Parade).*

The GIRTP recognises that the question of timings, funding and detailed design and planning of the Gladstone Port Access Road will be considered by the relevant authorities. The GIRTP Action Plan for the Road Network proposes actions in relation to the detailed planning and design of the Gladstone Port Access Road and its possible linkages to the regional road network. The GIRTP Action Plan for Cross-modal Issues also proposes that investigations be undertaken relating to risk management and assessment associated with hazardous goods movements within the Gladstone urban area as a whole.

Studies & Investigations

The Action Plan for the Road Network lists a range of specific studies and investigations to support the development of the recommended road network. These will be integral to the development of the region's road network and to ensure that its development is integrated with other transport modes, especially rail, and considers issues such as environmental impacts.

For example, the GIRTP recommends that transport and services corridor studies be undertaken to identify future road corridors and associated land requirements for roads such as the proposed Mt Miller Road and the proposed Calliope-Targinnie Road. These studies are important for preserving options for such future road corridors and will also help ensure that the future road network is integrated with rail and other transport infrastructure.

Other investigations will be concerned with determining the priority and timing of infrastructure projects as part of the overall transport network, for example, the priority for developing the various components of the road network servicing the Aldoga Industrial Area and its integration with other transport modes, especially rail. A review of the relative advantages of extending Glenlyon Road as opposed to upgrading the existing Gladstone-Benaraby Road as a future freight route will also be undertaken. All investigations and studies will need to be consistent with appropriate federal, state and local environmental status, plans and policies, including in relation to cultural heritage.

Operation & Management of the Region's Road Network

The Gladstone road network needs to be properly operated and managed to meet the needs of all transport modes, both motorised and non-motorised. For example, appropriate road standards must be achieved and maintained, signage must be maintained and all services (e.g. water, sewerage, electricity, telecommunications) within the road reserves must be co-ordinated.

In addition, road safety must be appropriately audited and safety standards improved to meet the needs of all transport modes and local needs and expectations (e.g. in the vicinity of schools).

The Action Plan for the Road Network outlines actions for achieving the appropriate operation and management of the road network.



GIRTP Action Plan for the Road Network¹

Plan and provide the Gladstone region's roads to meet the changing needs of industry, commerce, tourism and the community

<i>Action</i>	<i>Timing</i>	<i>Responsible Agencies</i>
Ro1 Undertake a transport and services corridor study to identify a future road corridor and associated land requirements, from Callemondah through Mt Miller to Yarwun (i.e. Mt Miller Road) ²	Completed	QT (lead) MR, GCC, CSC, QR, GPA, DSD, GEIDB, EPA, DNR
Ro2 Undertake a planning study to identify upgrading options for Landing Road, including the link to Fishermans Landing Wharf	short term 2001	CSC (lead) MR, GPA, DSD, GEIDB, EPA, DNR
Ro3 Assess priorities and timings for the development of the various components of the road network servicing the Gladstone State Development Area (e.g. the future Mt Miller Road versus duplication of Hanson Road; the viability of Calliope-Targinnie Road)	Partially completed (consideration of Calliope - Targinnie Rd not yet completed)	QT (lead) MR, CSC, GCC, QT, GPA, DSD, GEIDB
Ro4 Review the proposal to extend Glenlyon Road as opposed to upgrading existing Gladstone-Benaraby Road as a future freight route	short term 2001	MR (lead) GCC, QT, EPA, DNR
Ro5 Undertake a transport and services corridor study to determine the upgrade requirements for Calliope - Targinnie Road	short term 2001	CSC (lead) MR, QT, DNR, GEIDB, EPA
Ro6 Investigate the need to review the position of the carriageway within the proposed corridor for the future Port Access Road between Auckland Street and Hanson Road from the southern to the northern side of the rail line	short term 2001	GCC (lead) QT, GPA, QR, MR
Ro7 Investigate the potential to extend the future Port Access Road west along the northern side of the rail corridor to Callemondah, in order to relieve heavy vehicle impact on the local road network (in particular the Dawson Highway and Hanson Road)	short term 2001	GCC (lead) CSC, QT, GPA, EPA, DNR, QR
Ro8 Assess the recommendations of the Gladstone Area Road Freight Study (1998) with respect to the movement of hazardous goods and freight and the identification of preferred freight and hazardous goods routes	ongoing	QT, QES(CU) (leads) MR, DSD, GCC, CSC

Ro9 Preserve future transport corridors, as appropriate	ongoing	GCC, CSC, DSD (leads) MR, QT, QR, EPA, DNR
Ro10 Complete a transport and services corridor study to identify a future road corridor and associated land requirements through GSDA (Aldoga precinct, from Port Curtis Way to the Bruce Highway)	short term 2001	GEIDB (lead) MR, QT, CSC, GCC, DSD
Ro11 Develop and recommend proposals for an appropriate funding strategy for upgrading and improving the road network	short term	MR, GCC, CSC (leads) QT, DSD, GPA, GEIDB

Set the framework for, operate and manage the Gladstone region's road network to ensure that it provides reliable and safe access for freight and passengers

Action	Timing	Supporting Agencies
Ro12 Maintain and improve standards for the economic life of the road in accordance with State and local asset management policies and programmes	ongoing	Road Owner (lead) MR,CC,SC
Ro13 Undertake road safety audits for roads, as required	ongoing	Road Owner (lead) MR, GCC, CSC, QT
Ro14 Maintain and improve road safety standards that are responsive to specific local needs (e.g. encourage the use of speed awareness devices near schools)	ongoing	QT (lead) MR, GCC, CSC, Community Groups & local school P&Cs etc
Ro15 Maintain road signage in accordance with local/State standards	ongoing	Road Owner (lead) MR, GCC, CSC

- 1 *Actions for the regional road network have been developed alongside Actions Plans for industrial land, the rail network and the port. This Action Plan should be read in conjunction with the Action Plans for industrial land, port and marine and the rail network (Action Plans 1,2 & 3 respectively)*
- 2 *For additional information, refer to Supporting Information for the draft GIRTP. The corridor option identified as a result of this work, as well as other options, will be considered by the GIRTP technical committee. It should be noted that the timing of environmental impact assessment for any possible corridor would be subject to threshold factors such as listed in CRo-1 in the GIRTP Recommended Capital Program (Road Network). All planning work in relation to those corridor options will need to be consistent with appropriate Federal, State and local statutes plans and policies (eg. in relation to cultural heritage, vegetation management).*

Recommended Capital Program for the Road Network

The Recommended Capital Works Program for the road network provides detail on the road infrastructure required to implement the recommended general road network and the recommended freight network.

It should be noted funding is not secured for all capital projects identified in the GIRTP for the period beyond 2004/05.

Funding for some capital projects for the period 2000/01–2004/05 is also not secured. Some capital projects for the period 2000/01–2004/05 are “indicatively funded only”.

All capital projects are subject to each agency’s planning and assessment processes including comprehensive technical, financial and other evaluations.

For example, additions to the road freight network (as well as networks for other services) are proposed to serve the new Gladstone SDA (Aldoga precinct), the existing industrial areas and various port facilities. In particular, there will be a need, as industry develops, for a new Mount Miller Road across the Calliope River to assist in providing access to the Gladstone SDA (Yarwun and Aldoga precincts).

The GIRTP Road Action Plan includes actions to develop a network to serve the Gladstone SDA (Aldoga and Yarwun precincts), such as the new Kirkwood Road extension and the upgrade of Fishermans Landing Road. The Recommended Capital Program (Works & Assets) provides additional detail on these actions.

In identifying proposed new and upgraded roads, the GIRTP recognises that an important issue will be to secure adequate funding for these and other required new and upgraded roads. Such candidate road projects need to be properly evaluated on both economic and qualitative criteria in order to compete with other projects for construction priority.



News Flash/Update

At the time of publication of the final GIRTP, a number of investigations listed in the GIRTP Action Plan for the Road Network have been completed. More information on these (and other) findings will be included in *GIRTP Implementation Newsletters*, to be released in the future. However, two important findings of these completed investigations are summarised below so interested organisations and persons are kept up to date with current developments, as they occur.

- Stage 1 of the GIRTP Road Study Subproject included an analysis of a future Mt Miller Road and an assessment of the road’s priority and timing. (This is consistent with GIRTP Action Ro3). The Road Study Subproject concluded that Mt Miller Road is unlikely to be required within the GIRTP timeframe, given assumed levels of fixture traffic. It concluded future traffic demands would best be met by upgrading the existing road network.
- The Road Study Subproject also assessed the proposal to extend Glenlyon Road rather than upgrade existing Gladstone-Benaraby Road as a future freight route. (This is consistent with GIRTP Action Ro4). The Study concluded Glenlyon Road should not be extended as a freight route, but rather that the existing Gladstone-Benaraby Road be upgraded to meet future traffic demands.

The findings of these investigations will be incorporated into the GIRTP Recommended Capital Program (Road Network) by the GIRTP Implementation Group.

Recommended Capital Program (Road Network)

No	Description of Works	Order of Cost ¹	Timing	Threshold Factors	Funding status
C-Ro1	Callemondah to Yarwun (Mt Miller Road) <i>Stage One: Red Rover Road to Reid Road (new construction)</i>	\$25M	long term	<ul style="list-style-type: none"> · Future development of the Gladstone SDA (Aldoga and Yarwun precincts). · Action Ro3 (Assessment of priorities and timings for the development of components of road network servicing Gladstone SDA) · Need to maximise benefits of construction of Mt Miller Road versus upgrading Hanson Road 	not funded
C-Ro2	Callemondah to Yarwun (Mt Miller Road) <i>Stage Two: Reid Road to Aldoga precinct (new construction)</i>	\$15M	long term	<ul style="list-style-type: none"> · Future development of the Aldoga precinct. · Action Ro3 (Assessment of priorities and timings for the development of components of road network servicing Aldoga precinct) · Need to maximise benefits of construction of Mt Miller Road versus upgrading Hanson Road 	not funded
C-Ro3	Hanson Road duplication <i>Stage One:</i> <ul style="list-style-type: none"> · Gibson Street - Blain Drive · Blain Drive - Red Rover Road · Red Rover Road - Power station access 	\$10.1M	medium term	<ul style="list-style-type: none"> · The timing of this work is especially dependent upon future industrial development in the Yarwun precinct (e.g. Comalco). Such development may require this work to be brought forward into the short term. · Future development of the Yarwun precinct. · Action Ro3 (Assessment of priorities and timings for the development of components of the road network servicing the Aldoga precinct) · Mix and level of traffic along Hanson Road 	not funded
C-Ro4	Hanson Road duplication <i>Stage Two:</i> <ul style="list-style-type: none"> · Power station access - Gladstone- Mount Larcom Road intersection · Gladstone- Mount Larcom Road/ Landing Road intersection - Aldoga precinct 	\$31M \$17M	medium term	<ul style="list-style-type: none"> · The timing of this work is especially dependent upon future industrial development in the Yarwun precinct (eg Comalco). Such development may require this work to be brought forward into the short term. · Future development of the Yarwun precinct. · Action Ro3 (Assessment of priorities and timings for the development of components of the road network servicing the Aldoga precinct) · Mix and level of traffic along Hanson Road 	not funded

No	Description of Works	Order of Cost¹	Timing	Threshold Factors	Funding status
C-Ro5	Gladstone- Mount Larcom Road / Landing Road intersection	\$3M	short term	<ul style="list-style-type: none"> · Future development of the Yarwun precinct and Northern Port precinct (Fishermans Landing Wharf) generating traffic volumes severely affecting traffic operations and safety and producing unacceptable delays · Mix and level of traffic across intersection 	not funded
C-Ro6	Link Road from Hanson Road to Mt Miller Road	\$4M ²	long term	<ul style="list-style-type: none"> · Future development of the Aldoga precinct · Action Ro3 (Assessment of priorities and timings for the development of components of road network servicing Gladston SDA) subject to construction of Mt Miller Road 	not funded
C-Ro7	Landing Road upgrade <i>Stage One: widen and strengthen Gladstone- Mount Larcom Road to QCL</i>	\$2M	short term	<ul style="list-style-type: none"> · Future development of Northern Port precinct (Fishermans Landing Wharf) and related industrial development 	not funded ³
C-Ro8	Landing Road upgrade <i>Stage Two: widen and strengthen QCL to Forest Road</i>	\$1M	medium term	<ul style="list-style-type: none"> · Future development of Fishermans Landing Wharf and related industrial development 	not funded
C-Ro9	A new two-lane extension of Glenlyon Road from Dalrymple Drive to the southern intersection with the Gladstone Benaraby Road (Glenlyon Road Extension - 8 km) (new construction) or Upgrading of the existing Gladstone Benaraby Road from Kirkwood Road to Ten Mile Creek to four lanes	\$20M	long term	<ul style="list-style-type: none"> · Future freight movement between the Bruce Highway and the Port/Gladstone City areas · Future traffic movement resulting from urban development in areas such as Tannum Sands · Action Ro4 (Assessment of the proposal to extend Glenlyon Road as opposed to upgrading existing Gladstone-Benaraby Road as a future freight route) 	not funded
C-Ro10	Glenlyon Road to Gladstone - Benaraby Road Link (Kirkwood Road extension) (new construction)	\$5M	medium term	<ul style="list-style-type: none"> · Future freight movement between the Bruce Highway and the Port/Gladstone City areas · Future traffic movement resulting from new urban development such as in Tannum Sands area · Action Ro4 (Assessment of the proposal to extend Glenlyon Road as opposed to upgrading existing Gladstone-Benaraby Road as a future freight route) 	not funded

C-Ro11	Gladstone - Benaraby Road to four lanes between the Glenlyon Road extension and the Boyne Island Road intersection (2.5km) <i>(Including Glenlyon Road extension intersection and upgrading of Boyne Island Road intersection)</i>	\$6M	medium term	<ul style="list-style-type: none"> · Future freight movement between the Bruce Highway and the Port/ Gladstone City areas · Future traffic movement resulting from urban development in areas such as Tannum Sands · Future development of Boyne Island 	not funded
C-Ro12	Four-laning of the last two-lane section of Philip Street <i>(includes safety works along western end)</i>	\$2M	short term	<ul style="list-style-type: none"> · Future freight movement between the Bruce Highway and the Port/Gladstone City areas · Future traffic movements to and around Gladstone City area from the south 	partial indicative funding ⁴
C-Ro13	Glenlyon Road to four lanes between Bramston Street and Derby Street (1 km) <i>(includes intersection upgradings at Tank and Derby Streets)</i>	\$2.5M	medium term	<ul style="list-style-type: none"> · Future freight movement in traffic volumes (including freight movements) between the Bruce Highway and the Port/Gladstone City areas · Future non-freight movements to and around Gladstone City area from the south · Subject to the Glenlyon Road extension from Dalrymple Drive to the Gladstone-Benaraby Road at Ten Mile Creek being constructed 	not funded
C-Ro14	A new two-lane section of Kirkwood Road from Dawson Highway to the Glenlyon Road extension <i>Stage One: middle part of new road</i>	\$3.5M	short term	<ul style="list-style-type: none"> · Future traffic movement associated with urban expansion to the south-west of Gladstone · Provides improved linkages between north-western industrial areas and Boyne Island 	not funded ⁵
C-Ro15	A new-two lane section of Kirkwood Road from Dawson Highway to the Glenlyon Road extension and associated intersection works <i>Stage Two: balance of new road</i>	\$9M	medium term	<ul style="list-style-type: none"> · Future freight movement in traffic volumes (including freight movements) between the Bruce Highway and the Port/Gladstone City areas · Future non-freight movements to and around Gladstone City area from the south · Subject to the Glenlyon Road extension from Dalrymple Drive to the Gladstone-Benaraby Road at Ten Mile Creek being constructed 	not funded

¹ Present values.

² This order of cost is based on the assumption that any link road between Hanson Road and a future Mt Miller Road would be constructed along Reid Road.

³ A partial contribution may be available from Calliope Council Arterial Roads Program.

⁴ Indicative funding on Department of Main Roads' Roads Implementation Plan (RIP).

⁵ A partial contribution may be available from Gladstone City Council's five-year Arterial Road Program.

No	Description of Works	Order of Cost¹	Timing	Threshold Factors	Funding status
C-Ro16	Port Access Road (new construction)	\$12M-15M ⁷	short - medium term	<ul style="list-style-type: none"> · As required for development of the Port and adjacent land uses · Future freight movement to and from Bruce Highway and Aldoga precinct/Yarwun precinct/Northern Port precinct · Development of the road network in the vicinity · Possible future hazardous goods route 	partly funded ⁶
C-Ro17	Calliope - Targinnie Road upgrade <i>Stage One: Upgrade to two-lane bitumen standard</i>	\$10M	short - medium term	<ul style="list-style-type: none"> · Future freight movement to and from Bruce Highway and Aldoga precinct/Yarwun precinct/Northern Port precinct · Development of the road network in the vicinity · Possible future hazardous goods route · The timing of this work is especially dependent on future industrial development in Aldoga and Yarwun Industrial Areas. It is also dependent on the future level of use of the road by heavy vehicles. Such factors may require this work to be brought forward into the short term. 	not funded ³
C-Ro18	Calliope - Targinnie Road upgrade <i>Stage Two: Upgrade and overlay strengthening to meet industrial traffic demand</i>	\$7M	long term	<ul style="list-style-type: none"> · Future freight movement to and from Bruce Highway and Aldoga precinct/Yarwun precinct/Northern Port precinct · Development of the road network in the vicinity · Possible future hazardous goods route 	not funded
C-Ro19	Upgrade Dawson Highway to four lanes <i>Stage One:</i> <ul style="list-style-type: none"> · Breslin Street to Blain Drive · Brifney Roundabout to Chapman Drive 	\$4.5M	short term	<ul style="list-style-type: none"> · Future freight movement between the Bruce Highway and the Port/Gladstone City areas · General traffic movement between the Bruce Highway and the Port/Gladstone City areas · Local urban traffic accessing city centre 	indicative funding ⁴
C-Ro20	Upgrade Dawson Highway to four lanes <i>Stage Two:</i> <ul style="list-style-type: none"> · Chapman Drive to Kirkwood Road 	\$4M	long term	<ul style="list-style-type: none"> · Future freight movement between the Bruce Highway and the Port/Gladstone City areas · General traffic movement between the Bruce Highway and the Port/Gladstone City areas · Local urban traffic accessing city centre 	not funded

C-Ro21	Callemondah rail overbridge (new construction)	\$3M	short term	<ul style="list-style-type: none"> · Future traffic movement between the Bruce Highway and the Port/Gladstone City areas · Future traffic movements to and around Gladstone City area from the south 	not funded
C-Ro22	Coronation Drive, Tannum Sands (new construction)	\$2M	medium term	<ul style="list-style-type: none"> · Population growth in Boyne Island/Tannum Sands area 	not funded ³
C-Ro23	Coronation Drive, Tannum Sands/Boyne Island including Boyne Island Bridge (new construction)	\$15M	long term	<ul style="list-style-type: none"> · Future traffic movement associated with urban expansion of the Boyne Island/Tannum Sands area · Development of the road network in lieu of duplication of Malpas Avenue and John Oxley Bridge 	not funded ³
C-Ro24	Boyne Island Road	\$3M	medium term	<ul style="list-style-type: none"> · Future traffic movement associated with urban expansion of the Boyne Island/Tannum Sands area · Duplication of existing road 	not funded
C-Ro25	Gladstone–Mount Larcom Road overtaking lanes	\$1.4M	medium term	<ul style="list-style-type: none"> · Future freight movement between Bruce Highway and Gladstone. · Increased requirements for overtaking opportunities 	not funded
C-Ro26	Gladstone–Benarby Road shoulder widening and overtaking lanes (Gladstone–Toolooa)	\$2M	short term	<ul style="list-style-type: none"> · Increased safety and overtaking opportunities 	indicative funding ⁴

¹ Present values.

³ A partial contribution may be available from Calliope Council Arterial Roads Program.

⁴ Indicative funding on Department of Main Roads' Roads Implementation Programme (RIP).

⁶ \$6M has been allocated by the Federal Government under the Roads of National Importance Programme in 2001/2002 and 2002/2003. Matching contributions from other stakeholders are yet to be agreed.

⁷ This cost estimate is under review



Action Plan 5:

Cross-Modal Issues



Objectives:

Plan and provide integrated transport systems and inter-modal facilities to meet the changing needs of industry, commerce, tourism and the community in the Gladstone region

Set the framework for the operation and management of integrated transport systems and inter-modal facilities to meet the changing needs of industry, commerce, tourism and the community in the Gladstone region

GIRTP Guiding Principles
Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice

cross-modal

cross-modal issues

Regional freight movements need to be integrated and co-ordinated across road, rail, sea and air transport modes. This will help ensure that freight capacity and modal choice is appropriate for the expansion of local industry.

Better planned and more efficient inter-modal freight facilities can also promote environmental and safety objectives.

All levels of government and the private sector have a role in the process of integrated transport systems in the Gladstone region to promote industrial development and exports. In addition to achieving more efficient and effective freight movements, the integration of transport modes and land use, environmental and social objectives will improve general transport systems in the region. This has the potential to reduce the dependence on private car travel, enhance passenger safety and support the local tourism market.

A number of actions are identified throughout the GIRTP, which would enhance the region's freight and general transport systems.

Examples of actions identified throughout the GIRTP which will promote integrated freight and general transport include:

Sea

- Investigating additional road linkages within Auckland Point to Port Access Road.

Rail

- Undertaking a study to identify a future rail corridor to future Wiggins Wharf.
- Finalising investigations into the selection of a site for a future container terminal.
- Reviewing passenger infrastructure at the Gladstone railway station and possible co-ordination with other transport modes eg. buses.
- Providing adequate rail infrastructure on Port Land to meet port plans.

Road

- Constructing the Port Access Road.
- Planning for and upgrading Fishermans Landing Road to Fishermans Landing Wharf.

Air

- Upgrading the existing airport facilities as passenger movements increase, the capacity of the aircraft increases, and as freight movements increase.
- Preserving land and airspace at Kangaroo Island for future airport.
- Encouraging use of the airport for specialised freight (perishables etc.).

Passenger & Public Transport

- Accessing walking/cycling pathways to/from public transport.
- Undertaking a mobility/accessibility study and audit community transport.

Walking & Cycling

- Incorporating crime prevention through environmental design in the planning and design of public spaces and major pedestrian and cycling destinations.

GIRTP Action Plan for Cross-Modal Issues

The GIRTP Action Plan for Cross-Modal Issues includes additional actions which will promote integrated transport systems to those already outlined in the GIRTP.

Integrating Land Use & Transport

The GIRTP recognises that there is a need to integrate land-use and transport in the Gladstone region. It supports the consideration of good urban design in the development of the Gladstone Planning Scheme and Calliope Planning Scheme and in the assessment of individual development applications. This will help make Gladstone a more enjoyable place to live and work in.

Both land use and transport planning have a major influence on where and how people travel. The location of land uses and transport systems strongly influences both travel demand and the efficiency of public transport services. At the same time, the availability of roads and transport services often determines the location and distribution of different land uses. An example of good urban design is to plan new residential subdivisions to promote a highly connected local street system which allows people high levels of movement within and external to the estate without their being forced to use the more major collector and arterial roads. This will help preserve these collector and arterial roads for longer car trips and faster passenger bus services.



cross-modal

Safe & Efficient Movement of Freight & Hazardous Goods

The GIRTP Action Plan for the Road Network discussed how the recommended road freight network would help achieve the safe and efficient movement of freight and hazardous goods in the Gladstone region. The GIRTP Action Plan for Cross-Modal Issues further supports this objective and includes additional actions towards this end. The GIRTP Action Plan for Cross-Modal Issues recommends that, for new major industry locating in the region, the impact of moving freight and hazardous goods, especially by road, is to be properly assessed. It will also identify and consider any outstanding matters associated with the movement of hazardous goods within the Gladstone urban area in the light of existing and anticipated transport patterns and the proposed future transport network.



Miscellaneous Transport Infrastructure

Pipelines, conveyors and other miscellaneous transport infrastructure are important components of the transport system in the Gladstone region and need to be integrated with other modes of transport, especially road and rail. The GIRTP Action Plan for Industrial Land notes that the Gladstone SDA includes a material transportation services corridor which will provide for commodity movement by pipeline and conveyor between the Gladstone SDA and the port. This Action Plan for Cross-Modal Issues includes an action to co-ordinate the provision of services such as water, sewerage, gas, electricity and telecommunications within road reserves to ensure that future road upgrading does not negatively impact on those services.

Future Container Terminal

The GIRTP Action Plan for Cross-Modal Issues will also investigate opportunities for future container terminals for road, rail and port. Consideration to date has been given to a future container terminal site at one of the following:

- Gladstone Station;
- South Gladstone Railway Yard;
- Parana Bypass Line;
- QAL siding;
- Mt Miller; and
- Gladstone SDA (Aldoga precinct).



GIRTP Action Plan for Cross-Modal Issues

Plan and provide integrated transport systems and inter-modal facilities to meet the changing needs of industry, commerce, tourism and the community in the Gladstone region

<i>Action</i>	<i>Timing</i>	<i>Responsible Agencies</i>
CM1 In the Gladstone Planning Scheme and Calliope Planning Scheme and State Development Area Development Scheme and in the assessment of development applications, support good urban design and take account of integrated regional transport planning principles (e.g. as contained in “Shaping Up” Guidelines, “Queensland Streets” and AMCORD)	ongoing	GCC, CSC (lead) DLGP, QT, DSD
CM2 Investigate opportunities to integrate and improve passenger transfers between modes (e.g. taxi services and flight arrivals at the Gladstone airport, bus services and ferry terminals and train station)	short term 2001/2002	QT (lead) GCC, GCC, GCAB
CM3 Investigate possible site/s for a future multi-modal container terminal	short term 2001/2002	QT (lead) GPA, QR, MR, CSC, GCC, DSD, GEIDB
CM4 Investigate future planning and funding of grade-separated rail/road crossings to minimise the risk of collision and traffic delays	short term 2001	MR, GCC, CSC, QR (lead) QT, DSD, GPA

Set the framework for the operation and management of integrated transport systems and inter-modal facilities to meet the changing needs of industry, commerce, tourism and the community in the Gladstone region

Action	Timing	Supporting Agencies
CM5 For new major industry locating in the region, continue to fully assess the impact of moving freight, especially by road	ongoing	QT (lead) QR, MR, DSD, GCC, CSC
CM6 For new major industry locating in the region, continue to fully assess the impact of moving hazardous goods, especially by road	ongoing	QT (lead) QR, MR, DSD, GCC, CSC
CM7 Identify and consider any outstanding matters associated with the movement of hazardous goods within the Gladstone urban area in the light of existing and anticipated transport patterns and the proposed future transport network	short term 2001	QT (lead),DES
CM8 Co-ordinate the provision of services (e.g. water, sewerage, gas, electricity, and telecommunications) with road reserves to ensure future road upgrading does not impact on those services	ongoing	GCC, CSC (leads) QR, MR, Service Authorities
CM9 Consider the interaction of miscellaneous transport infrastructure (eg. pipeline and conveyor) within other transport networks, where appropriate	ongoing	GCC, CSC, QT, MR
CM10 Consider car parking issues in Gladstone Planning Scheme and the assessment of development applications	ongoing	GCC (lead)
CM11 Undertake consultation with representatives of central business commercial operators to develop and rationalise off-street car parking in the central city area and to improve accessibility and optimise useage of exisiting car parking facilities	short term	GCC (lead)



Action Plan 6:

Aviation



Objectives:

Plan and provide the Gladstone region's aviation infrastructure and services to meet the changing needs of industry, commerce, tourism and the community.

Set the framework for, operate and manage air services and associated aviation services for the Gladstone region.

GIRTP Guiding Principles
Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice



Aviation Infrastructure in the Gladstone Region

aviation

The existing airport is located in Gladstone City, just west of the Dawson Highway at Clinton. The airport is owned, operated and managed by the Gladstone-Calliope Aerodrome Board, and was opened in 1957.

The Gladstone Airport is well serviced by the road network. It has direct access to Gladstone City's heart along the Dawson Highway; to Calliope via the Dawson Highway; to the Gladstone SDA (Yarwun precinct) via the Dawson Highway, Blain Drive and Hanson Road; and to Boyne Island and Tannum Sands via Philip Street and the Gladstone-Benaraby Road.

The Gladstone Airport is predominantly used for passenger transport, but also has a significant component of general aviation and helicopter activity. Due to the type of industry in Gladstone, air transport is not seen as a major transport mode for freight, other than for perishables and some specialist freight. However, Gladstone Airport is identified in the category of 'State Significance' in the Government's State Planning Policy on Airports.

The airport and associated facilities occupy about 70 ha of land; its runway can handle aircraft up to BAE 146 and Fokker F100 jet category, which carries up to 90 passengers. However, the main passenger aircraft currently being used only carry up to 36 passengers. A recently provided parallel taxiway permits high aircraft usage with greater safety. Provisions are also available for helicopter operations, which amount to about 20% of the total airport movements; these are mainly associated with Heron Island services and Marine Pilot transfers.



aviation

Currently, regional airlines provide regular daily flights to the northern centres (Rockhampton, Mackay, Townsville and Cairns) and nine daily services to Brisbane. The largest proportion of passengers by trip purpose, based on a 1998 study, is business.

Total aircraft operations at Gladstone have remained relatively stable at around 15,000 and 17,500 aircraft movements per year over the last seven years.

The GIRTP Action Plan for Aviation

In June 1998, a Discussion Paper was prepared for the Gladstone-Calliope Aerodrome Board on development planning forecasts for the Gladstone Airport. The Discussion Paper indicated that the existing airport's facilities could be upgraded to be adequate to and beyond 2016/17. However, physical, social and environmental impediments could constrain the existing airport's growth at some time in the future (probably between 10 and 20 years). While this is unlikely to necessitate the closure of the airport at its current location, options to restrict particular types of aircraft or to introduce noise abatement procedures might need to be considered over this period.

From the forecasts and evaluation in the Gladstone-Calliope Aerodrome Board's Discussion Paper, there is adequate capacity at the existing airport for expansion to and beyond 2016/17; this expansion would involve:

- larger aircraft (which can apparently be accommodated);
- expansion at apron for increased aircraft parking;
- expansion and upgrading of the terminal facilities; and
- increasing car parking provision.

However, the airport has potential environmental constraints relating to noise in the residential areas under the flight paths.

For the long term, the Aerodrome Board has proposed the construction of an airport at Kangaroo Island. Kangaroo Island was considered by the 1998 Gladstone-Calliope Aerodrome Board's Discussion Paper to be the only location suitable for the projected

future airport requirements for the Gladstone region. The Commonwealth Department of Transport and Communications in 1980 had identified that location after extensive research, and this site was endorsed by the Civil Aviation Safety Authority in 1990.

The Gladstone-Calliope Aerodrome Board controls the land at Kangaroo Island and is holding it for airport purposes. The development of an airport on Kangaroo Island, at the appropriate time, would need to be preceded by an environmental impact assessment and a community consultative process. Balaclava Island and the Narrows, which includes Kangaroo Island, have been entered on the Heritage Register under the Australian Heritage Commission Act 1975. This factor would be a matter to be taken into account in any future environmental impact assessment process. A condition of the Heritage Commission listing reads that: “The Commission recognises that Kangaroo Island is the preferred site for a future airport for Gladstone. The Commission supports continued planning and environmental assessment to minimise adverse impacts on national estate values.”

Access to a future airport at Kangaroo Island is also an issue which would require further consideration, in due course.

The GIRTP Action Plan for aviation lists the following actions to improve regional air transport services:

- preserve appropriate options for the maximum utilisation of the existing airport site (e.g. runway extensions etc) as identified in the Gladstone-Calliope Aerodrome Board Report on Development Planning forecasts;
- upgrade the existing terminal facilities as passenger movements increase, the capacity of the aircraft increases, and as freight movements increase; and
- preserve land and airspace at Kangaroo Island for an airport and undertake, as required, a review of alternative future airport sites, future access requirements and environmental impact assessment of preferred options.



GIRTP Action Plan for Aviation

	Action	Timing	Responsible Agencies
Plan and provide the Gladstone region's aviation infrastructure and services to meet the changing needs of industry, commerce, tourism and the community	Av1 Preserve appropriate options for the maximum utilisation of the existing airport site (e.g. runway extensions, air space control) in accordance with the Gladstone Calliope Aerodrome Board's Master Plan	ongoing	GCAB (lead) GCC, CSC, QT
	Av2 Preserve land and airspace at Kangaroo Island for a future airport and consider future access requirements	ongoing	GCAB (lead) GCC, CSC, QT, EPA, DNR
	Av3 Undertake, as required, environmental assessments at Kangaroo Island for a possible future airport and future access requirements, in conjunction with consideration of any alternative sites ³	long term	GCAB (lead) GCC, CSC, QT, DNR, EPA

	Action	Timing	Supporting Agencies
Set the framework for, operate and manage air services and associated aviation services for the Gladstone region	Av4 Improve air services to/from Gladstone (e.g. encourage use of Gladstone Airport for specialised freight such as high value industrial products which need to reach their destination quickly)	ongoing	GCAB (lead) QT, GCC, CSC

Recommended Capital Program (Aviation)

No	Description of Works	Order of Cost¹	Timing	Threshold Factors	Funding status
C-Av1	Upgrade existing airport as usage increases	\$1.6M for terminal \$0.5M for runway	short term	<ul style="list-style-type: none"> · Future air traffic demand · Regular operation of medium-sized jets · Action Av1 (Preserve appropriate options for the maximum utilisation of the existing airport site) 	not funded ²
C-Av2	Upgrade runway at existing airport as usage increases	\$10M for runway upgrading	medium term	<ul style="list-style-type: none"> · Future air traffic demand · Regular operation of medium-sized jets · Action Av1 (Preserve appropriate options for the maximum utilisation of the existing airport site) 	not funded ²

¹ Present values.

² Potential funding may come from a range of sources including the Rural & Remote Airport Development Programme and GCAB through aviation fees and charges.

It should be noted that under the Rural & Remote Airport Development Programme, projects are assessed on published criteria and supported projects are determined annually.

³ It should be noted that the timing of any environmental impact assessment at Kangaroo Island as a possible future airport site will be subject to the future level of demand for a new airport in the Gladstone Region.



Action Plan 7:

Passenger & Public Transport



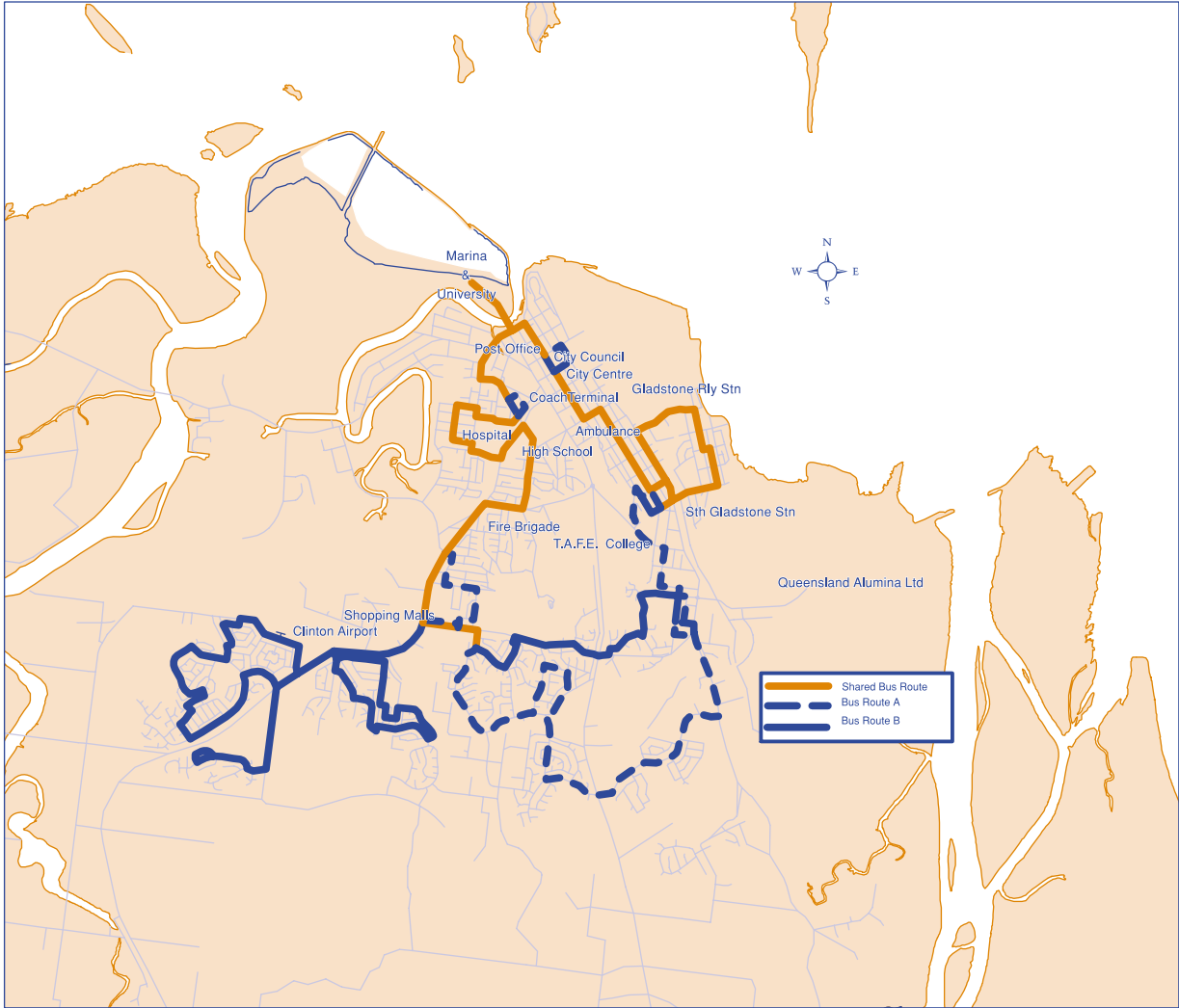
Objectives:

Plan and provide transport (including public transport) infrastructure, services and facilities to ensure safety and security for passengers and to meet community needs in the Gladstone region.

Set the framework for and ensure the efficient and effective operation and management of passenger transport in the Gladstone region.

GIRTP Guiding Principles

Economic Efficiency & Growth
Integrated Transport Planning
Environmental Sustainability
Equity, Employment & Social Justice



Passenger Bus Routes in the Gladstone Region

passengers

passenger and public transport

The growth in the Gladstone region's population experienced since the mid-1980s, is expected to continue, increasing the demand for public transport services, particularly from the region's younger and older age groups. However, the comparatively low population, residential density and low traffic congestion which characterise the Gladstone region negatively affect the development of a passenger and public transport system which can compete efficiently with the private motor vehicle.

Passenger and public transport services within the Gladstone region are especially dependent upon the level of industry based in the area, together with a small (but growing) tourism market. Nevertheless, passenger and public transport in the Gladstone region has 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 (eg. kerbside infrastructure), affordability and customer satisfaction.

Passenger and public transport in Gladstone can

- help meet the accessibility needs of the population and efficiently serve local communities and land uses;
- better cater for people with mobility difficulties;
- provide adequate linkages to the rest of the State;
- reduce the dependence on the private car; and
- provide adequate linkages to other modes of transport.

Existing passenger and public transport services within the Gladstone region include:

- scheduled urban bus services
- private bus services provided by a range of local community organisations
- long distance coach services
- taxi services
- scheduled long distance passenger rail services.



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passengers

Scheduled Bus Services

Scheduled bus services are provided by Buslink Queensland, which recently took over the local bus service contract. About six operators in the region, including Buslink Queensland and Calliope Coaches provide scheduled school services.

A 1996 survey showed that just over 200 passenger trips were undertaken daily on the region's scheduled bus services. Less than 30% of these were full fare-paying passengers and just over 80% are female. Approximately 70% of bus travel within the region occurred prior to 11.00am. The scheduled bus services were used predominantly for shopping, which accounted for over 70% of bus passenger journeys. The major bus trip origins and destinations were the Gladstone CBD, Kin Kora and Clinton. Between them, these three areas alone accounted for over two-thirds of the boardings and alightings.

Surveys of passenger bus services between 1991 and 1996 suggested that patronage on the region's scheduled bus services increased at an average rate of 12% per annum over that period. This increase was likely due to a major restructuring of routes and services that was undertaken in the early 1990s. Nevertheless, continued economic development within the region, coupled with a corresponding growth in population, particularly in the older age groups, is expected to underpin ongoing growth in public transport travel demand. One estimate suggests that, without further intervention, patronage on the region's scheduled bus services will increase by 1.3% to 4.9% per annum.

Scheduled bus routes are currently being restructured in accordance with the Queensland Transport's minimum service levels. The restructuring process should help ensure that major generators such as the Gladstone CBD, Kin Kora, the hospital, TAFE College and schools are better served. In addition, community feedback has identified the need for additional scheduled services, for example between Gladstone City and the Boyne Island area.

A new bus service contract is currently being established for the new operator for the Gladstone region. The aim of this contract is to provide passenger transport services, at an acceptable cost and with higher levels and standards of service than would be achieved through unrestricted competition.



Examples of possible minimum service levels for the urban parts of the region are:

- 85% of the population to be within 400m of a bus route
- Route length not more than 30% greater than the shortest on-road distance
- Two peak and six off-peak services during the week
- Two services on Saturdays.

Community Transport Services

A number of organisations provide community transport services in the Gladstone region. Community Transport is used here to describe transport aimed at helping people who do not have access to adequate transport.

Community transport services

- provide services using a number of different forms of transport including car, mini-bus, taxi and bus;
- have a high level of local input into management;
- often receive government funding or support; and
- try to use existing community resources where possible.

Local organisations providing community transport services in the Gladstone region include those providing transport for older people, nursing homes and hostels, hotels, social clubs and Boyne Smelters.

A Home and Community Care Frail Aged Transport service, to assist older residents to remain in their home and maintain their independence rather than be placed in aged or other care accommodations is also operating in the Gladstone region. This service provides a means for these residents to access services such as medical, hospital, therapy and respite care as well as catering for their social and personal needs. This service utilises the local taxi fleet, and is provided by councils in such areas as Boyne/Tannum, Calliope, Yarwun and Mt Larcom.

These community services are very important in an area such as the Gladstone region for servicing the transport disadvantaged and often complement scheduled urban bus services, taxis and other forms of public transport. Their contribution should be recognised and their continuation encouraged.



passengers

Long Distance Coach Service

Long distance coach companies operate services to/from Gladstone on a daily basis. All services stop at the Mobil 24hr Roadhouse on the Dawson Highway. Existing long distance coach passenger facilities at the Mobil 24hr Roadhouse have recently been upgraded, with funding being provided by Queensland Transport, Gladstone City Council and the leasee of the Mobil roadhouse.

This will serve the needs of long distance coach services in the foreseeable future. However, in due course, it may be desirable to consider the need for and feasibility of a new integrated bus/rail transit centre for Gladstone.



Taxis

Taxi services within the region are provided by Blue and White Cabs. Their vehicle fleet includes two wheelchair-accessible vehicles. Blue and White Cabs is also the primary operator servicing the Gladstone Airport and Railway Station. Taxis provide the only twenty-four hour passenger service in Gladstone.

Passenger Rail Services

Passenger rail services to/from the Gladstone are outlined in the Action Plan for Rail Network and Services.

GIRTP Action Plan for Passenger and Public Transport

The region's public transport operators and regulators have the opportunity to enhance local public transport services, which could further improve patronage. It is vitally important, however, that planning for enhancement is undertaken in consultation with interested organisations and individuals in the community. The development of the draft GIRTP provides an opportunity to formalise a process of regular consultation with the local community on passenger transport issues.

Public Transport Consultative Committee

The GIRTP proposed the establishment of a Public Transport Consultative Committee with its membership representing a wide range of interests, including local bus and taxi operators, State Government agencies, council, local community groups, police, Chamber of Commerce and local industry.

Matters for consideration by the proposed Public Transport Consultative Committee could include:

- fine-tuning existing public transport services in response to changing development patterns;
- better targeting the main areas of need within the community; and
- disseminating information about new public transport services and infrastructure.

Long-term growth in bus patronage also offers the opportunity to address gaps in services. The GIRTP Action Plan for Passenger & Public Transport, for example, will investigate the need for and viability of improved scheduled bus services to major employment generators and Boyne Island/Tannum Sands (e.g. shopping centres, major industry).

Minimum Service levels for bus operators

The GIRTP Action Plan for Passenger and Public Transport recommends that new bus Commercial Service Contracts set service levels to be met by bus operators as part of service delivery contracts which address issues such as:

- reviewing existing scheduled bus routes;
- levels of punctuality and reliability for buses; and
- value for money and affordable fares.



passengers

Accessible Bus Fleet

The GIRTP Action Plan for Passenger and Public Transport also includes a range of other actions concerning the operation and management of the bus services. For example, it is important for passenger bus services to be accessible to aged people as well as people with mobility difficulties (e.g. parents with prams, shoppers with trolleys and wheelchair users). The need for a fully accessible bus fleet is also guided by the Disability Discrimination Act, which establishes minimum levels of compliance over specific time periods. The GIRTP Action Plan for passenger transport provides for the promotion of a fully accessible bus fleet.

Mobility & Accessibility Study

In addition to the bus service, the GIRTP recognises that there is a need for a review of mobility and accessibility within Gladstone. This would involve consideration of opportunities to develop community transport (e.g. community buses, car-pooling) and its interaction and impact on the bus service.

The GIRTP will undertake a mobility/accessibility study and audit community transport and its interaction with other passenger transport in the Gladstone region and encourage the development of community-based car-pooling, where appropriate.

Marketing & Education

Marketing and education can play an important role in improving patronage of the bus service. The GIRTP Action Plan for Passenger and Public Transport recommends the promotion and distribution of information on public transport. This includes ensuring that bus timetable information is readily available to passengers and the establishment of public transport information displays at libraries and council offices. Queensland Transport is also developing a number of Statewide initiatives to increase levels of public transport usage. These include:

- TravelSmart - a community-based programme that involves groups and organisations in activities to encourage more use of public transport, walking and cycling; and
- School-based Projects - such as the development of a public transport module in the school syllabus for Studies of Society & Environment and a primary and secondary school competition to develop media and visual arts materials on TravelSmart issues.

Professional marketing support also is provided to local scheduled service bus operators by Queensland Transport through the Local Operator Marketing Assistance Plan (LOMAP). The objectives of LOMAP are:

- to assist local operators to market their services;
- to raise public awareness of local public transport services, particularly in regional and provincial Queensland;
- to increase public transport patronage;
- to increase the level of marketing skills in industry;
- to progress the mutual goals of Government, industry and the community including improved efficiency and frequency of service.

To make public transport use more convenient, electronic ticketing and “clock face” or memory timetabling based on multiples of the hour for scheduled bus services are recommended in the GIRTP Recommended Capital Programme.

The Need for Good Urban Design

It can be difficult for public transport to service the Gladstone urban area efficiently because of the increased travel time and operating costs associated with looping in and out of urban pockets. To support the Action Plan for Passenger and Public Transport, the Action Plan for Cross-Modal Issues recommends good urban design for future urban area, through the Gladstone Planning Scheme and Calliope Planning Scheme and the assessment of development applications, in accordance with the *Integrated Planning Act*. Queensland Transport’s *Shaping Up* (1998) also suggests ways to better integrate public transport planning and urban design.

The GIRTP Action Plan for Passenger and Public Transport also suggests other actions to support good urban design, for example:

- Consideration of walking/cycling pathways to/from public transport through development assessment undertaken under local Planning Schemes.
- Undertaking an audit of bus stop infrastructure to support accessibility to buses (e.g. street and kerb design for wheelchairs) and to enhance bus passenger comfort and safety and security (e.g. design and provision of bus shelters, lighting and visibility of bus stops, shaded areas).



GIRTP Action Plan for Passenger Transport

	<i>Action</i>	<i>Timing</i>	<i>Responsible Agencies</i>
Plan and provide passenger transport (including public transport) infrastructure, services and facilities to ensure safety and security for passengers and to meet community needs in the Gladstone region	PT1 Establish a public transport consultative committee for the Gladstone region to identify opportunities to improve passenger transport in the region in the short and long terms	short term 2001	QT (lead) GCC, CSC, QR, DOF (Disability Services)
	PT2 Investigate the need for and viability of improved scheduled bus services to Boyne Island/Tannum Sands	short term	QT(SC) (lead) GCC, CSC,
	PT3 Investigate the need for and viability of improved public transport (including bus or rail services, or a combination of both) to major employment generators (e.g. major industry especially Aldoga and Yarwun precincts, shopping centres, etc). The proposed Gladstone Growth Study should be used as the basis for assessing the configuration of passenger and public commuter services	ongoing	QT(SC) GEIDB (leads) QT, GCC, CSC,
	PT4 Ensure that safe and direct walking/cycling pathways are provided to/from public transport through development assessment undertaken under local Planning Schemes	ongoing	GCC/CSC (lead) MR
	PT5 Undertake an audit of bus stop infrastructure to support accessibility to buses (e.g. design of street and kerb for wheelchairs)	short term 2001	QT (lead) GCC, CSC, MR
	PT6 Undertake an audit of bus stop infrastructure to enhance bus passenger comfort and safety and security (e.g. design and provision of bus shelters, lighting and visibility of bus stops, shade areas)	short term 2001	QT (lead) GCC, CSC, MR

Set the framework for and ensure the efficient and effective operation and management of passenger transport in the Gladstone region

<i>Action</i>	<i>Timing</i>	<i>Supporting Agencies</i>
PT7 Establish new bus Commercial Service Contracts and set service levels to be met by bus operators as part of service delivery contracts	short term	QT (lead) Bus operator, GCC, CSC
PT8 Review existing scheduled bus routes through the Commercial Service Contracts with bus operators	short term	QT(SC) (lead) Bus operator, GCC, CSC
PT9 Promote a fully accessible bus fleet through the Commercial Service Contracts with bus operators	ongoing	QT(SC) & QR (leads) Bus operator
PT10 Maintain and improve levels of punctuality and reliability for buses through the Commercial Service Contracts with bus operators	ongoing	QT(SC) (lead) Bus operator
PT11 Provide public transport services by buses that achieve value for money and affordable fares through the Commercial Service Contracts with bus operators	ongoing	QT(SC) (Lead) Bus operator
PT12 Promote and distribute information on public transport (e.g. ensure bus timetable information is readily available to passengers; establish public transport information displays at libraries and council offices)	ongoing	QT(SC), GCC, CSC (leads) QT, Bus operator, GAPDL
PT13 Undertake a mobility/accessibility study and audit community transport and its interaction with other passenger transport in the Gladstone region	short term 2001	QT (lead) GCC, CSC, QR, GAPDL
PT14 Encourage the development of community-based car-pooling, where appropriate (e.g. in the Boyne Island area)	short term	Community groups (lead) CSC, GAPDL, QT
PT15 Investigate the need for, and feasibility of, a new integrated bus/rail transit centre.	medium- long term	GCC, QT (lead) QR

Action**Timing****Supporting Agencies**

PT16 In the Gladstone Planning Scheme and Calliope Planning Scheme and in the assessment of development applications, support the provision of accessible public transport infrastructure and signage especially at major shopping centres.

ongoing

GCC, CSC (leads)

PT17 Investigate the feasibility and viability of a new passenger transport link to the Gladstone State Development Area, especially Aldoga precinct.

short term

GEIDB (lead) QT, QR

GIRTP Recommended Capital Program (Passenger & Public Transport)

No	Description of Works	Order of Cost¹	Timing	Threshold Factors	Funding status
C-PT1	Upgrade facilities at the existing long-distance coach terminal	\$200,000	short term	· Completed	fully funded ²
C-PT2	Introduce a fully accessible bus fleet	\$1M	short term 2002/2003	· Development and implementation of the Commercial Services Contract with bus operators	partially funded (25%) ³
C-PT3	Kerbside infrastructure to support accessibility to buses	\$300,000	short term 2001/2003	· Action PT5 (Undertake an audit of kerbside infrastructure to support accessibility to buses)	not funded
C-PT4	Kerbside infrastructure for buses to improve passenger comfort, safety and security	\$500,000	short term 2001/2003	· Action PT6 (Undertake an audit of kerbside infrastructure to enhance bus passenger comfort and safety and security)	not funded
C-PT5	Introduce electronic ticketing for buses	\$40,000	short term 2001	· Development and implementation of the Commercial Services Contract with bus operators	conditional funding ⁴
C-PT6	Introduce clock face timetabling for buses	\$60,000	short term 2001	· Development and implementation of the Commercial Services Contract with bus operators	funded ⁵
C-PT7	Ongoing development of bus service & kerbside infrastructure	\$2.5M	medium-long term	· Future population growth, community need and future public transport patronage	not funded



1 Present values.

2 Private sector, QT, GCC.

3 25% funding provided by QT through Accesible Bus Programme. Possible 75% of funding by bus operators including 6% interest subsidy.

4 Funded by bus operators (contract condition).

5 Queensland Transport Local Operator Marketing Assistance Programme.



Action Plan 8:

Cycling & walking



Objectives:

Plan and provide infrastructure and networks for cycling and walking in the Gladstone region.

Set the framework for cycling and walking in the Gladstone region to increase their attractiveness, safety and convenience.

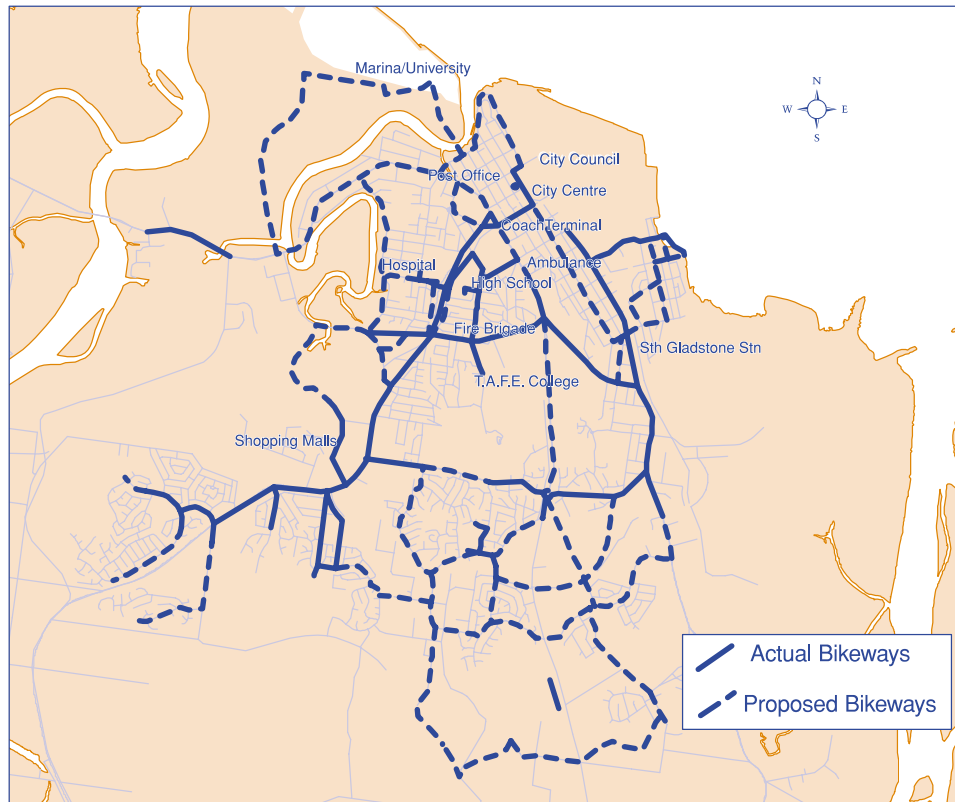
GIRTP Guiding Principles

Economic Efficiency & Growth

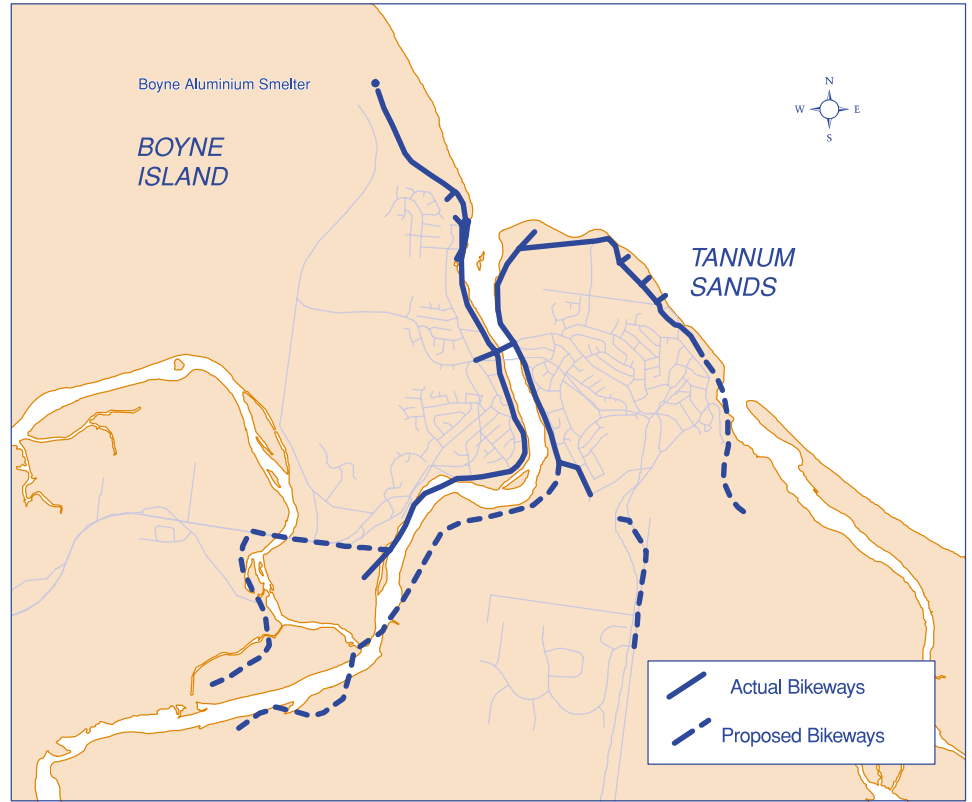
Integrated Transport Planning

Environmental Sustainability

Equity, Employment & Social Justice



Bikeways in Gladstone City



Bikeways in Boyne Island/Tannum Sands

cyclina

cycling

Cycling

Cycling has certain advantages over other modes of transport, such as car or bus, including its wider environmental and health benefits and lower cost. It can offer more direct, convenient and shorter travel options than public transport or private vehicles. The Gladstone region's topography is generally conducive to bicycle travel. This, coupled with the significant number of younger residents, highlights the need to provide for and promote bicycle travel.

Cyclists in the region can be classified as:

- Inexperienced Cyclists: cyclists usually of a young age, who should not ride on busy roads and for whom bikepaths are required. This includes school children.
- Recreational Cyclists: cyclists who ride for enjoyment or fitness, often to recreational facilities or along scenic routes. Routes can be on-road, off-road, bikepaths, or a combination of these.
- Commuter Cyclists: cyclists who ride to work or school and generally use the quickest and most direct route. Routes can be on-road, footpaths (where allowed), bikepaths, or a combination of these.

The Gladstone region's existing cycle network and proposals to expand it includes a mix of on and off-road facilities.



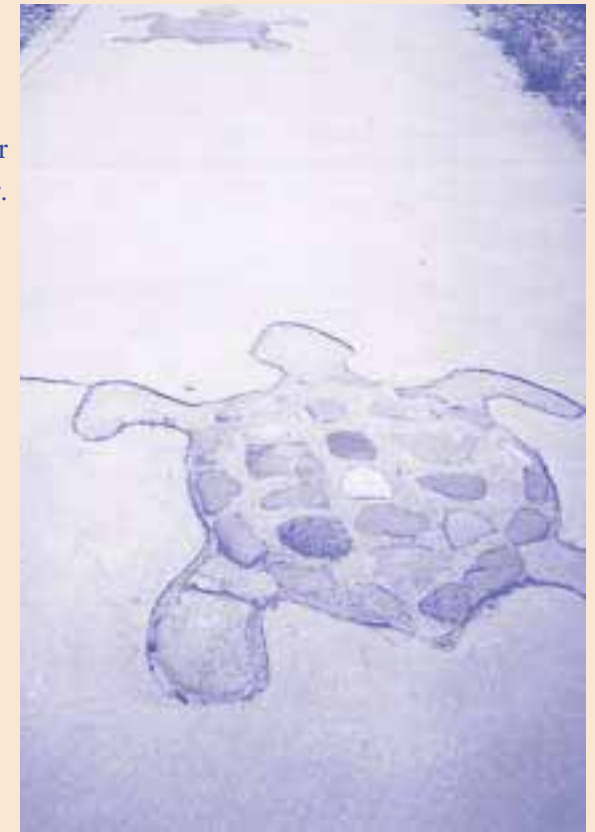
cyclina

Gladstone has a relatively extensive network of bicycle paths (compared with other regional centres), along major roads and through areas of open space. The existing cycle network in Gladstone City provides relatively direct links to a number of major community and shopping facilities, such as the TAFE College and the Airport, and a number of major employers such as the Gladstone Power Station and the hospital.

By comparison, the Boyne Island/Tannum Sands network is more recreational in nature, but does serve adjacent educational and tourist facilities. Of particular note are the Turtleway Bikepaths and the Boyne Island Aluminium Smelter Bikeway. The Turtleway is an award-winning recreational bikeway that includes extensive interpretive and education information about the lifecycle of sea turtles. The Turtleway also serves as a training facility for school cyclists. By contrast, the Boyne Island Aluminium Smelter Bikeway is a significant commuter bikeway which was constructed in a joint venture between the smelter staff and their employer. It links residential areas to the smelter and includes significant bike parking areas and other supporting facilities, including showers and change facilities.

Levels of service for cycling infrastructure can be defined by such factors as accessibility, connectivity, safety, amenity, convenience and comfort. The existing cycle network for the region needs to be expanded to ensure adequate coverage of major trip generators and developing residential and commercial areas. A combination of cycle paths and lanes offers opportunities for enhancing the region's cycling network. Options available in the local context include:

- dedicated cycle routes, or “cycleways”, which combine on and off-road facilities;
- cycle paths, which provide a functional off-road route. Such paths are free from the dangers to cyclists posed by vehicles, and are well suited for young or recreational cyclists; and
- on-road cycle facilities, which usually provide the most direct route in terms of time and distance. These can be provided either by way of dedicated/marked cycle lanes or wide sealed shoulders, are particularly suited to more experienced or commuter cyclists.



Action Plan for Cycling

The future planning and development of the region's cycle network requires co-operation between the Gladstone and Calliope Councils and State Government agencies such as the Department of Main Roads; and regular communication with local bicycle user groups to ensure the best approach to bicycle planning. The GIRTP will be a factor in helping to achieve this.

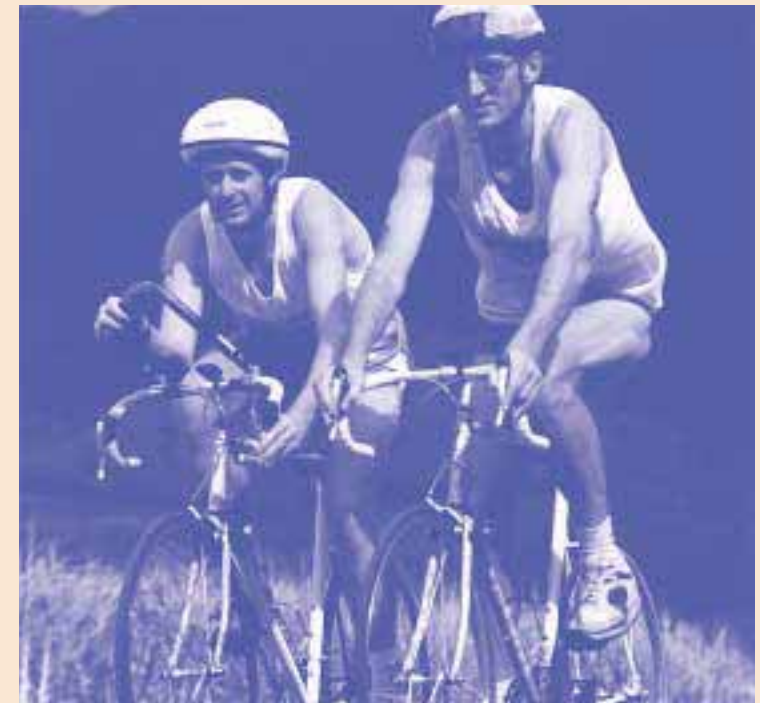
The GIRTP Action Plan for Cycling aims to build upon the existing cycling infrastructure by updating the existing regional cycle plan to better support and promote bicycle travel as a viable, convenient and safe travel mode, and by improving recreational cycling opportunities. Key outcomes are likely to include:

- the further development of a comprehensive integrated cycle network for the region;
- expansion of existing recreational cycling facilities;
- the provision of end-of-trip facilities at major destinations (e.g. CBD, schools, shopping centres, large employers etc); and
- mechanisms to ensure that the needs of cyclists are integrated into future infrastructure and development planning.

The GIRTP Action Plan for Cycling will also continue to promote and encourage cycling in the region. This promotion could, for example, include publishing a guide to local walking and cycling trails and destinations.

Environmental design of cycling infrastructure and facilities to help prevent crime and enhance personal safety and comfort such as planning for appropriate lighting, visibility, water fountains and taps and rest stops, will also be undertaken to encourage bicycle use.

It should be noted that cycling infrastructure is also often used by others, including pedestrians and those using motorised or non-motorised wheelchairs. The GIRTP recommends that cycling infrastructure, wherever possible, considers space requirements for these users and be designed to appropriate standards.



GIRTP Action Plan for Cycling

Plan and provide infrastructure and networks for cycling in the Gladstone region

<i>Action</i>	<i>Timing</i>	<i>Responsible Agencies</i>
Cyc1 Update the existing regional cycle plan for the Gladstone region and prioritise and cost the future network	short term 2001/2002	GCC, CSC (lead) QT, MR
Cyc2 Plan and design cycling infrastructure in accordance with standards and guidelines and ensure design of new cycle ways considers space requirements for wheelchairs, where appropriate	ongoing	GCC, CSC (lead) QT, MR
Cyc3 Design the major road network to accommodate cycle movements where appropriate	ongoing	Road Authority (MR, GCC, CSC) (lead) GCC, CSC, QT
Cyc4 Promote cycling and cycle safety, as part of a state wide initiative	ongoing	QT, GCC, CSC, MR

Set the framework for cycling to increase its attractiveness, safety and convenience in the Gladstone region

<i>Action</i>	<i>Timing</i>	<i>Responsible Agencies</i>
Cyc5 Publish a guide to local walking and cycling trails and destinations	short term 2001	GCC, CSC, GAPDL
Cyc6 Undertake environmental design of cycling infrastructure and facilities to help prevent crime	ongoing	GCC, CSC
Cyc7 Examine the potential for carrying cycles on the local public transport system	short- medium term	QT(SC) lead QT

walking

Walking

Walking, like cycling, has environmental and health benefits. However, it is recognised that walking is not suitable for all purposes. The GIRTP therefore identifies and supports those trip purposes most suited to walking. These are likely to include trips:

- for leisure and exercise,
- to and from school,
- to and from the local store for convenience shopping,
- shorter distance commuter trips,
- trips to access public transport, and
- trips by tourists.

The extent of the Gladstone region's existing pedestrian network has not been mapped. However, it comprises a range of formal and informal footpaths and shared pedestrian/cycle paths. Levels of service for the pedestrian network can be defined by such factors as availability, accessibility, connectivity, safety, amenity, convenience and comfort.

The suitability of the pedestrian network in meeting the region's shorter distance travel needs can be measured determining the "ped shed" or pedestrian catchment area surrounding each major transport node (e.g. schools, major shopping centres).



walking

Suitable targets for both existing and newly developed areas might be:

- 60% of the area within 400m radius of a school, neighbourhood centre or bus stop to be within five minutes walking distance
- 60% of the area within 800m radius of a major centre or public transport interchange to be within 10 minutes walking distance.

To enhance and support walking as a viable alternative to private car travel for short distance trips, the GIRTP will map and assess the existing pedestrian network around major transport nodes (e.g. schools, major shopping centre, and major employers). This will help develop measures to increase local accessibility, connectivity to surrounding areas, and pedestrian safety and security.

Examples of centres of activity, which could be given greatest priority for investigation, might include:

- Gladstone CBD
- Calliope
- neighborhood shops
- schools
- Tannum Sands
- Kin Kora
- Gladstone Hospital
- public transport interchanges

GIRTP Action Plan for Walking

The GIRTP Action Plan for Walking will promote walking within the region. This could, for example, include publishing a guide to local walking and cycling trails and destinations.

Queensland Transport's *Shaping Up Guidelines* and other contemporary urban design standards suggest a range of measures for enhancing the pedestrian environment in urban areas, including:

- designing local road network to ensure accessibility for pedestrians and cyclists;
- designing the major road network to accommodate the safe movement of, and crossing by, pedestrians;
- utilising crime prevention through environmental design in the planning and design of public spaces and major pedestrian destinations; and
- providing lighting on major pedestrian routes and at key intersections to enhance safety.

The GIRTP provides actions to implement these measures in the Gladstone region.

GIRTP Action Plan for Walking

	Action	Timing	Responsible Agencies
Plan and provide infrastructure and networks for walking in the Gladstone region	Wk1 Map and assess existing pedestrian networks around major nodes (e.g. shopping centres), through local Planning Schemes.	short term 2001/2002	GCC, CSC (lead) QT, MR
	Wk2 Design the local road network to consider the movement and safety of pedestrians, in line with appropriate standards and guidelines.	ongoing	GCC, CSC, MR (lead) QT
	Wk3 Ensure that new walkways and pedestrian paths consider space requirements for wheelchairs and prams, where appropriate.	ongoing	GCC, CSC (leads)

	Action	Timing	Supporting Agencies
Set the framework for walking in the Gladstone region	Wk4 Publish a guide to local walking and cycling trails and destinations.	short term 2001	GCC, CSC (lead) GAPDL
	WK5 Undertake environmental design of pedestrian infrastructure to help prevent crime and to enhance personal safety including appropriate sign posting to indicate conditions of use (eg shared cycles / walking track).	ongoing	GCC, CSC (lead)

GIRTP Recommended Capital Program (Walking & Cycling)

No	Description of Works	Order of Cost¹	Timing	Threshold Factors	Funding status
C-Cyc1	Extend the existing cycle network in accordance with the regional cycle plan	\$7M	ongoing	· Action Cyc1 (Update the existing regional cycle plan)	part funded ²
C-Cyc2	Provide secure cycle parking and end-of-trip facilities at major destinations	\$100,000	short - medium term	· Action Cyc1 (Update the existing regional cycle plan)	not funded ³
C-Wk1	Augment the existing pedestrian network around major nodes to improve accessibility	\$7M	ongoing	· Action Wk1 (Map and assess existing pedestrian networks around major nodes)	not funded ³
C-Wk2	Provide lighting and shelter, as appropriate, on major pedestrian routes and at key intersections	\$100,000 (including shelter, lighting, drink station and refuse station)	short - medium term	· Action Wk1 (Map and assess existing pedestrian networks around major nodes)	not funded ³

¹ Present values.

² \$671,000 tentatively funded through the Main Roads RIP. Possible funding through local councils' rates and charges and Main Roads TIDS Programme.

³ Possible future funding sources include local councils' rates and charges.

financing & implementing the GIRTP



What will transport in the Gladstone region look like after the GIRTP has been implemented?

This section of the GIRTP describes the conditions we need to successfully implement the GIRTP and what the transport system in Gladstone will look like after the GIRTP has been implemented. It describes the desired state of Gladstone's future transport system from the perspective of different stakeholders and individuals – be they local residents, industry and business, environmental and community interests or State and local government transport system providers and regulators.

Conditions we need to successfully implement the GIRTP include:

- Ongoing consultation and communication with all stakeholders and the community including local residents, industry and business and environmental interests
- General support for the GIRTP from highest levels of State and local government
- General support for the GIRTP across State and local government transport agencies
- General support for the GIRTP across local residents, industry and business, environmental and community interests and organisations and other stakeholders
- General support for the GIRTP across non-government transport providers
- General appreciation across stakeholders of the need for a transport system that supports the development of Gladstone as a leading industrial centre in Queensland in an ecologically sustainable manner, and which benefits the local community and the State
- Clearly identified accountabilities and roles across transport agencies for the implementation of GIRTP actions
- Good co-ordination and integration across transport modes and transport agencies
- Ongoing monitoring and review of GIRTP and its implementation
- Preparedness to change and vary plans as circumstances change
- Leadership from appropriate State and local government agencies
- Adequate human and financial resources to meet objectives
- Good information bases about the transport systems and existing and future demands

What will transport in the Gladstone region look like after the GIRTP has been implemented?



Industry and Business will enjoy:

- A more efficient and effective transport system, offering opportunities for regional economic and industrial development which appropriately balance the needs of industrial development, quality of life for residents and environmental sustainability;
- More integrated road and rail and port infrastructure and services;
- New and better transport systems in and to the Gladstone State Development Area;
- Continued development of Gladstone Port, with new transport networks better integrated with surrounding land use;
- A better more efficient and effective road system for freight movements;
- A safer road system with better separation of freight from urban areas and less environmental impact of regional freight movements;
- A better, more efficient and effective rail network serving industry and business.



Local residents and the community will enjoy:

- A transport system which appropriately balances the needs of industrial development, quality of life and the environment;
- A transport system which supports regional economic growth, jobs and prosperity;
- A better, more efficient and effective road system for use by private transport including cars, motor bikes, bicycles and pedestrians;
- A safer road system with better separation of freight from urban areas and less environmental and social impact of regional freight movements;
- Improved and more accessible public and passenger transport;





- Better cycle and pedestrian networks;
- Ongoing development of Gladstone Port with new transport networks better integrated with surrounding land use;
- High quality recreational boating facilities;
- Better designed urban development for public and private transport, cycle and pedestrian movements.

Transport system providers (including State and local government and non-government agencies) will enjoy:

- Increased satisfaction with the transport system by users and stakeholders;
- More transparent regional transport objectives and frameworks based on existing transport systems and work undertaken to date;
- Better co-ordination and integration across transport modes and agencies;
- Savings in investment through better co-ordination and integration;
- Improved transport outcomes for the Gladstone region;
- More harmonious use of the transport system by industry, business, local residents and the community;
- Clearer accountabilities and responsibilities for the delivery of the regional transport system;
- Improved opportunities to articulate regional priorities and needs within State planning and resource allocation processes.



financing the GIRTP

The following graphs concern the overall financing of each GIRTP Recommended Capital Program (Works & Assets). The following should be noted.

Total Cost Per Period

Each bar in the following graphs shows *total cost per period*:

- Total cost for the short term is for a five-year period 2000/2001 - 2004/2005.
- Total cost for the medium term is for a ten-year period 2004/2005 - 2015.
- Total cost for the long term is for a fifteen-year period 2015 - 2030.

Funding Considerations

All unfunded and assumed future funding capital items will be subject to:

- Future funding approvals;
- Studies and investigations listed in the GIRTP Action Plans;
- Environmental assessments;
- Further public consultation; and
- Each agency's planning and assessment processes for their respective capital programs including comprehensive technical, financial and other evaluations.

Indicative Funding

For items shown as being *indicatively funded*, there has been a notional allocation of funds by State or local government agencies. They should be regarded as being subject to flexibility and adjustment within the work programs of the responsible lead agency or agencies.

Unfunded

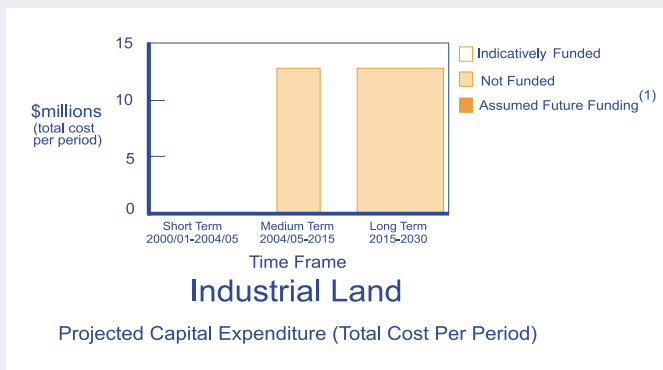
All estimates of *unfunded* capital expenditure should be regarded as being targets only.

Assumed Future Funding

Assumed future funding assumes that the existing level of short-term tentative funding will continue over the medium and long terms.

Threshold Factors

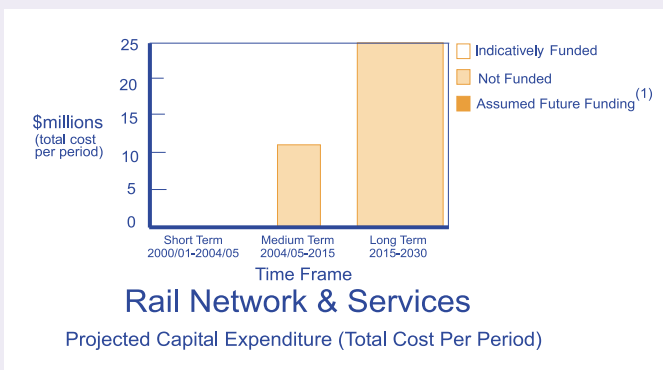
All estimates shown in the graphs below depend on threshold factors identified in the respective Recommended Capital Program. They also assume all developments identified in the Recommended Capital Programs proceed within the projected timeframes.



¹ Assumes the existing level of short-term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for Industrial Land

- It has been assumed capital expenditure will be required for the development of transport infrastructure in the Gladstone SDA (Aldoga precinct) in the medium and long terms. However, this is subject to future demand by major industry. The figures recorded for each period shown are indicative only. Development of the Aldoga precinct may occur sooner and infrastructure may be required within a shorter timeframe.
- **The funding of such infrastructure will be subject to commercial arrangements between the Gladstone Economic & Industry Development Board, the Queensland Government and proponents of major industry projects.**
- It should be noted that the figures shown in the attached graph refer only to road and rail networks within and connections to the Gladstone SDA itself. They do not consider road and rail networks impacted on by the Gladstone SDA, but external to the Gladstone SDA. Financing for these is considered in their respective sections below.
- The overall implementation of the GIRTP Recommended Capital Program for Industrial Land requires appropriate planning of transport corridors in the short term.

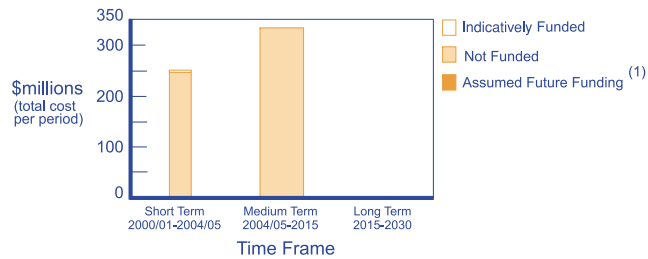


¹ Assumes the existing level of short term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for the Rail Network and Services

- It has been assumed capital expenditure will be required for the augmentation and enhancement of the rail network in the medium and long terms. In particular, at this stage it is assumed the rail spur to the future Wiggins Island Wharf will be required in the long term.
- However, the need for augmentation and enhancement of the rail network is subject to future demand by major industry and may be required within other timeframes. For example, a rail spur to Wiggins Island Wharf may be required in the short term.
- **Funding will be subject to commercial arrangements between rail operators and proponents of major industry projects.**
- The overall implementation of the capital program for the rail network requires the appropriate planning and preservation of rail corridors and their integration with other transport modes and land uses in the short term. This will be assisted by the Gladstone Rail Transport Solutions Group, as proposed in the GIRTP Action Plan for the Rail Network.

financing



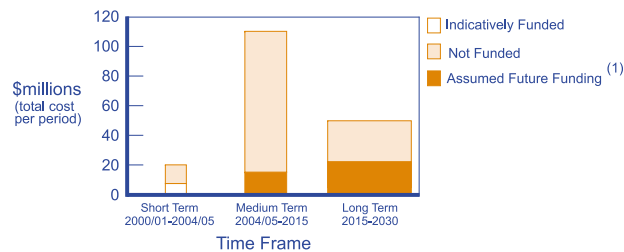
Port and Marine

Projected Capital Expenditure (Total Cost Per Period)

¹ Assumes the existing level of short-term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for Port and Marine

- Recommended capital expenditure for the Port has been generally identified in accordance with the Gladstone Port Authority Strategic Plan. The projected level of required expenditure and its timing will be subject to the future pattern of industrial development and growth and freight/commodity movements within and through the region.
- Capital expenditure requirements for the Port for the long term are not available.
- **Future funding for Port infrastructure will be subject to commercial arrangements between the Gladstone Port Authority and port users.**



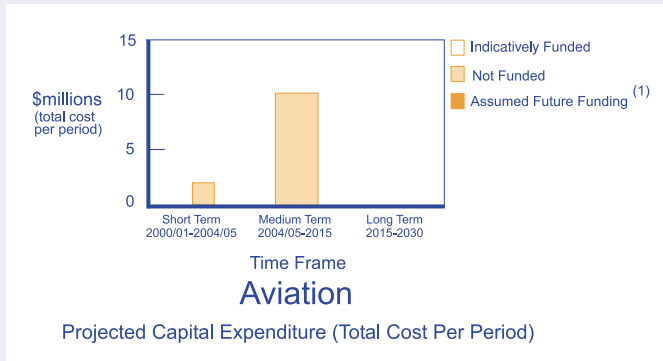
Road Network

Projected Capital Expenditure (Total Cost Per Period)

¹ Assumes the existing level of short-term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for the Road Network

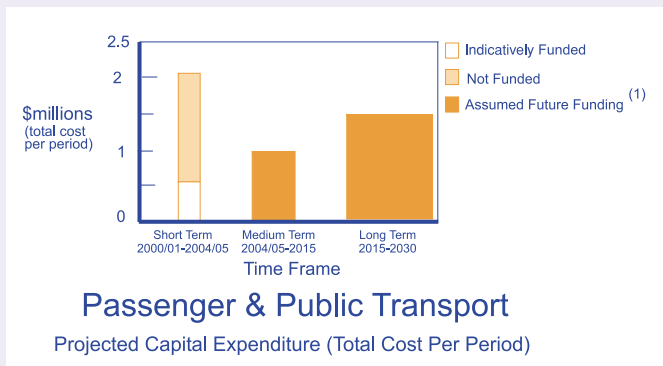
- \$7.5M of capital funds for the road network required in the short term is indicatively provided under the Queensland Government's Roads Implementation Program.
- In addition, the draft GIRTP has identified Gladstone City Council and Calliope Shire Councils' Arterial Roads Programs as making possible contributions to a number of other specific road projects which are also required in the short term, as outlined in the Recommended Capital Program for the Road Network.
- It should be noted that, should industry commit to proceeding with one or a number of new large industrial projects, this could result in the need to bring forward the GIRTP Recommended Capital Program for the Road Network. This could create a more significant funding shortfall over the short term.
- A significant funding shortfall for the road network has been identified in the medium and long terms.
- The overall implementation of the GIRTP Recommended Capital Program for the Road Network requires, in the short term, the appropriate identification, planning and preservation of road corridors as set out in the Action Plan for the Road Network.



¹ Assumes the existing level of short-term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for Aviation

- It has been assumed capital expenditure will be required for the upgrade of the existing Gladstone Airport over both the short and medium terms. However, the respective levels of required funding in each period shown in the graph are indicative only.
- **Funding for such an upgrade would be subject to commercial arrangements between Gladstone Calliope Aerodrome Board and airport users, and the availability of funds through the Rural and Remote Airport Development Program.**
- Financing of any future airport will require further detailed consideration.

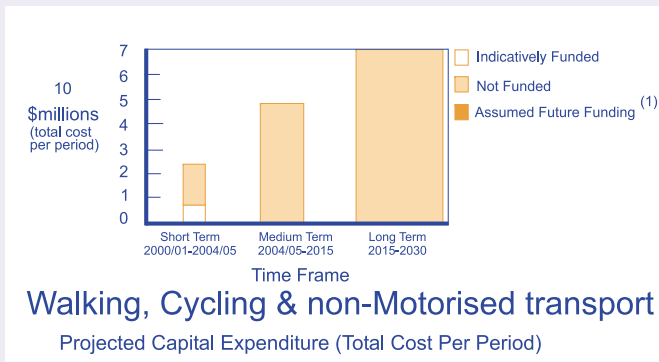


¹ Assumes the existing level of short-term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for Passenger and Public Transport

- It is assumed capital expenditure for passenger transport is required in the short term for an accessible bus fleet, electronic ticketing and clock-faced timetabling, and kerbside infrastructure.
- Items for an accessible bus fleet, electronic ticketing and clock-faced timetabling may be partially funded through Government sources and/or the bus operator as a contract condition.
- Required expenditure for kerbside infrastructure is, at present, not funded. Possible funding sources include Government sources.
- The estimated level of required capital expenditure over the medium and long terms is a rough estimate only and will be subject to future population growth, community need and future public transport patronage.

financing



¹ Assumes the existing level of short-term indicative funding will continue over medium and long terms

Financing the Recommended Capital Program for Walking, Cycling and non-Motorised transport

- Recommended capital expenditure for walking and cycling includes provision for augmentation and extension of the existing networks.
- It is assumed capital expenditure for walking and cycling will be required over the short, medium and long terms. However, the respective levels of funding required in each period shown in the graph are indicative only.
- The estimated level of required capital funding for walking and cycling and its required timing, will be subject to future population growth, community need and patterns of urban growth and development. This will be able to be better estimated when the regional cycle plan is updated.

implementing the GIRTP

The GIRTP Implementation Group

A GIRTP Implementation Group will be established to:

- monitor and implement the GIRTP Action Plans and recommended Capital Programs; and
- review the Gladstone Integrated Regional Transport Plan in 3 - 5 years.

The membership of the GIRTP Implementation Group will include Queensland Transport, Department of Main Roads, Gladstone Port Authority, Queensland Rail, Gladstone City Council, Calliope Shire Council and other relevant government agencies. Business, industry and community representatives will also have appropriate representation on or be consulted by the GIRTP Implementation Group, as required. (eg Gladstone Area Industry Network, community interest groups)

Responsibilities for implementing specific GIRTP actions have been identified in the GIRTP Action Plans. For each action, a lead agency and supporting agencies have been identified. Appropriate consultation will need to be undertaken with individuals, industries and organisations impacted by proposals.

The GIRTP Recommended Capital Programs also indicate an order of cost and proposed timings for each recommended capital item as well as possible sources of funding to implement the full GIRTP Recommended Capital Program.

An important challenge of the GIRTP Implementation Group will be to identify and develop opportunities to secure funding for the implementation of the GIRTP.

implementing

Keeping Track of the Implementation of the GIRTP

The GIRTP Implementation Group will also be responsible for keeping track of the implementation of the GIRTP. This will involve monitoring the implementation of the GIRTP itself.

For each action outlined in the GIRTP, the responsible lead agency or agencies will monitor and report to the Implementation Group on progress to date.

The GIRTP Implementation Group will regularly review the overall implementation of the GIRTP and the planning assumptions that underpin it. The GIRTP Implementation Group will also regularly communicate with interested individuals and organisations on the overall implementation of the GIRTP.

In addition, each lead agency will need to incorporate appropriate detailed performance measures (eg time and budget-related measures, environmental performance etc) into their project planning for each specific action.

Reviewing the GIRTP

Circumstances will change over the next thirty years. Planning assumptions, priorities and issues will need to be reviewed and revised and new priorities will emerge. The GIRTP will need to be adjusted and reviewed to take account of these changing circumstances.

In particular, it should be noted that within the GIRTP framework, agencies may need to consider a range of constraints in developing their own ongoing work programs. Each individual agency may therefore need to exercise flexibility to adjust their yearly work program and determine the absolute priority of GIRTP actions. The GIRTP recognises the need for such flexibility to cater for changing circumstances and work plans.

On the other hand, it is recognised that the GIRTP does not necessarily list all work activity on transport infrastructure and services that will be undertaken in the Gladstone region. The intention of the GIRTP is to canvass the main transport issues of regional significance and will not cover local level work activity by transport providers.

It is anticipated there will be a need for an overall review of the final GIRTP in three to five years time.

Preliminary Reporting on Progress of Priority Actions

As part of the GIRTP process, two specific ‘priority actions’ have been identified. These ‘priority actions’ have already commenced and are being undertaken in conjunction with the development of the GIRTP itself. These ‘priority actions’ concern detailed planning for the future road network and transport corridor alignment planning for proposed Mt Miller Road.

A preliminary report on progress to date in implementing these ‘priority actions’ is included in the document *Supporting Information for the GIRTP*. A copy of this document is available by contacting the GIRTP Project Team.



Summary of Actions & Recommended Capital Program Items

summary of actions

INDUSTRIAL LAND

- Ind1 Complete master plan including corridors and the provision of future transport infrastructure within the Aldoga precinct, and Yarwun precinct where appropriate.
- Ind2 Complete a planning study to determine the appropriate future road connection/s into the Aldoga precinct from Gladstone - Mt Larcom Road.
- Ind3 Complete a planning study to determine the appropriate future rail connection/s into the Aldoga precinct from the North Coast Rail Line
- Ind4 Ensure future development within the Gladstone State Development Area is consistent with transport planning and development control policies contained in Gladstone State Development Area Development Scheme and local Planning Schemes as well as relevant Federal, state & local environmental & planning statues, plans & policies. (eg in relation to cultural heritage values)
- Ind5 Consider any impacts of future major industrial projects within the Yarwun precinct on the existing road, rail and miscellaneous transport infrastructure networks.
- Ind6 Complete detailed engineering and cost analysis of supporting port infrastructure (ie. dredging, wharf development, reclamation) and infrastructure for corridor development to Aldoga and Yarwun precincts.

- Ind7 Complete a transport and service corridor study to identify a future road corridor and associated land requirements through Aldoga precinct, from Port Curtis Way to the Bruce Highway

RAIL NETWORK & SERVICES

- Ra1 Identify and preserve corridors for future rail spurs to Fishermans Island Wharf and from the main line to a future Wiggins Island Wharf (and possibly other nearby developments). Ensure integration with other existing and proposed transport infrastructure, land use, environmental objectives and local planning objectives.
- Ra2 Investigate a future rail fork line connection from the Moura Line to the North Coast Line.
- Ra3 Investigate a future rail connection from Reg Tanna Coal Terminal (RGCT) balloon loop to Powerhouse loop.
- Ra4 Investigate future rail access from the existing QCL line to Fishermans Landing Wharf.
- Ra5 Consider the future expansion and operating needs of the Callemondah Rail Yards in relation to adjacent road transport infrastructure.
- Ra6 Consider the impact of any future standard gauge/high speed rail link to Gladstone on rail corridor planning in the region (i.e. the impact on existing rail corridors or the need for a new rail corridor).
- Ra7 Investigate suitable location and consider land requirements for a marshalling yard and cut-out roads between Mt Miller and Calliope River.
- Ra8 Review Gladstone railway station passenger infrastructure.

- Ra9 Investigate options for regrading the Aldoga Bank.
- Ra10 Identify current and future freight and passenger tasks by rail (particularly to GSDA Aldoga precinct), identify major congestion points in corridors and assess technological opportunities to address the transport task.
- Ra11 Convene a high level standing committee comprising State and local government bodies responsible for the provision of all modes of transport to promote integrated rail transport solutions for major industry (i.e. Gladstone Rail Transport Solutions Group).
- Ra12 Investigate the potential for an additional future rail connection from the North Coast line to the proposed Spur line into Aldoga precinct.
- Ra13 Develop a corridor Direction Proposal which will provide a vision for enhancing the relationship between utilisation and ongoing development of the North Coast Line, consistent with the Rail Network Strategy.
- Ra14 Determine the suitability of rail corridors within the region for non-rail transport and communication purposes and promote all suitable opportunities without compromising the safety and the integrity of rail operations.

PORT & MARINE

- PM1 Plan and provide infrastructure at the Port, in accordance with the Gladstone Port Authority Strategic Plan.

PM2	Investigate additional road linkages within Auckland Point in order to link the port to the proposed Port Access Road.		Gladstone-Benaraby Road as a future freight route.	Ro13	Undertake road safety audits for roads, as required.
PM3	Plan and provide maritime infrastructure in accordance with the Queensland Government's Maritime Capital Investment Plan.	Ro5	Undertake a transport and services corridor study to determine the upgrade requirements for Calliope - Targinnie Road.	Ro14	Maintain and improve road safety standards that are responsive to specific local needs (eg encourage the use of speed awareness devices near schools).
PM4	Ensure continued implementation of the Queensland Coastal Contingency Action Plan (including REEFPLAN and GPA Oil Spill Contingency Plan) for oil spill events impacting on the Gladstone region.	Ro6	Investigate the need to review the position of the carriageway within the proposed corridor for the future alternate Port Access Road between Auckland Street and Hanson Road from the southern to the northern side of the rail line.	Ro15	Maintain road signage in accordance with local/ State standards.
PM5	Ensure continued implementation of the Gladstone Port Authority's environmental monitoring and enhancement programs	Ro7	Investigate the potential to extend the future alternate Port Access Road west along the northern side of the rail corridor to Callemondah, in order to relieve heavy vehicle impact on the local road network (in particular the Dawson Highway and Hanson Road).		
PM6	Improve Gladstone Port price and service competitiveness & consider new technologies to help attract industry to the region, in accordance with the Gladstone Port Strategic Plan.	Ro8	Assess the recommendations of the Gladstone Area Road Freight Study (1998) with respect to the movement of hazardous goods and freight and the identification of preferred freight and hazardous goods routes.		

ROAD NETWORK

Ro1	Undertake a transport and services corridor study to identify a future road corridor and associated land requirements, from Callemondah through Mt Miller to Yarwun (i.e. 'Mt Miller Road').	Ro9	Preserve future transport corridors, as appropriate.	Av1	Preserve appropriate options for the maximum utilisation of the existing airport site (e.g. runway extensions, air space control) in accordance with the Gladstone Calliope Aerodrome Board's Master Plan.
Ro2	Undertake a planning study to identify upgrading options for Landing Road, including the link to Fishermans Landing Wharf.	Ro10	Complete a transport and service corridor study to identify a future road corridor and associated land requirements through GSDA Aldoga precinct, from Port Curtis Way to the Bruce Highway	Av2	Preserve land and airspace at Kangaroo Island for a future airport and consider future access requirements.
Ro3	Assess priorities and timings for the development of the various components of the road network servicing the Gladstone State Development Area (e.g. the future Mt Miller Road versus duplication of Hanson Road; the viability of Calliope-Targinnie Road).	Ro11	Develop and recommend proposals for an appropriate funding strategy for upgrading and improving the road network.	Av3	Undertake, as required, environmental assessments at Kangaroo Island for possible future airport and future access requirements and, if required, in conjunction with consideration of alternative sites.
Ro4	Review the proposal to extend Glenlyon Road as opposed to upgrading the existing	Ro12	Maintain and improve standards for the economic life of the road in accordance with State and local asset management policies and program.	Av4	Improve air services to/from Gladstone (e.g. encourage use of Gladstone airport for specialised freight such as high value industrial products which need to reach their destination quickly)

PASSENGER & PUBLIC TRANSPORT

PT1	Establish a public transport consultative committee for the Gladstone region to identify opportunities for improving passenger transport in the region in the short and long terms.	PT10	Maintain and improve levels of punctuality and reliability for buses through the Commercial Service Contracts with bus operators.		development applications, support good urban design and take account of integrated regional transport planning principles (e.g. as contained in “Shaping Up” Guidelines, “Queensland Streets” and AMCORD).
PT2	Investigate the need for and viability of improved scheduled bus services to Boyne Island/Tannum Sands.	PT11	Provide public transport services by buses that achieve value for money and affordable fares through the Commercial Service Contracts with bus operators.	CM2	Investigate opportunities to integrate and improve passenger transfers between modes. (e.g. taxi services and flight arrivals at the Gladstone airport, bus services and ferry terminals).
PT3	Investigate the need for and viability of improved public transport (including bus or rail services, or a combined of both) to major employment generators (eg major industry, especially GSDA Aldoga & Yarwun precincts, shopping centres, etc). The proposed Gladstone Growth Study should be used as the basis for assessing the configuration of passenger and public commuter services.	PT12	Promote and distribute information on public transport (eg ensure bus timetable information is readily available to passengers; establish public transport information displays at libraries and council offices)	CM3	Investigate possible site/s for a future multi-modal container terminal.
PT4	Ensure that safe and direct walking/cycling pathways are provided to/from public transport through development assessment undertaken under local Planning Schemes.	PT13	Undertake a mobility/accessibility study and audit community transport and its interaction with other passenger transport in the Gladstone region.	CM4	Investigate future planning and funding of grade-separated rail/road crossings to minimise the risk of collision and traffic delays.
PT5	Undertake an audit of bus stop infrastructure to support accessibility to buses (eg design of street and kerb for wheelchairs).	PT14	Encourage the development of community-based car-pooling, where appropriate (eg in the Boyne Island area).	CM5	For new major industry locating in the region, continue to fully assess the impact of moving freight, especially by road.
PT6	Undertake an audit of bus stop infrastructure to enhance bus passenger comfort and safety and security (eg design and provision of bus shelters, lighting and visibility of bus stops, shade areas).	PT15	Investigate the need for, & feasibility of, a new integrated bus/rail transit centre.	CM6	For new major industry locating in the region, continue to fully assess the impact of moving hazardous goods, especially by road.
PT7	Establish new bus Commercial Service Contracts and set service levels to be met by bus operators as part of service delivery contracts.	PT16	In the Gladstone planning scheme & in the assessment of development applications, support the provision of accessible public transport infrastructure & signage especially at major shopping centres.	CM7	Identify and consider any outstanding matters associated with the movement of hazardous goods within the Gladstone urban area in the light of existing and anticipated transport patterns and the proposed future transport network.
PT8	Review existing scheduled bus routes through the Commercial Service Contracts with bus operators.	PT17	Investigate the feasibility & viability of a new passenger transport link to the Gladstone State Development Area especially Aldoga precinct.	CM8	Co-ordinate the provision of services (eg. water, sewerage, gas, electricity and telecommunications) within road reserves to ensure future road upgrading does not impact on those services.
PT9	Promote a fully accessible bus fleet through the Commercial Service Contracts with bus operators.			CM9	Consider the interaction of miscellaneous transport infrastructure (eg. pipeline and conveyor) on other transport networks, where appropriate.
			CROSS-MODAL ISSUES	CM10	Consider car parking issues in Gladstone Planning Scheme and the assessment of development applications.
		CM1	In the Gladstone Planning Scheme and Calliope Planning Scheme and State Development Area Development Scheme and in the assessment of		

CM11 Undertake consultation with representatives of central business commercial operators to develop and rationalise off-street car parking in the central city area and to improve accessibility and optimise useage of exisiting car parking facilities.

CYCLING

Cyc1 Update the existing regional cycle plan for the Gladstone region and prioritise and cost the future network.

Cyc2 Plan and design cycling infrastructure in accordance with standards and guidelines and ensure design of new cycle ways considers space requirements for wheelchairs, where appropriate.

Cyc3 Design the major road network to accommodate cycle movements where appropriate.

Cyc4 Promote cycling & cycle safety, as part of a Statewide initiative.

Cyc5 Publish a guide to local walking and cycling trails and destinations.

Cyc6 Undertake environmental design of cycling infrastructure and facilities to help prevent crime

Cyc7 Examine the potential for carrying cycles on the local public transport system.

WALKING

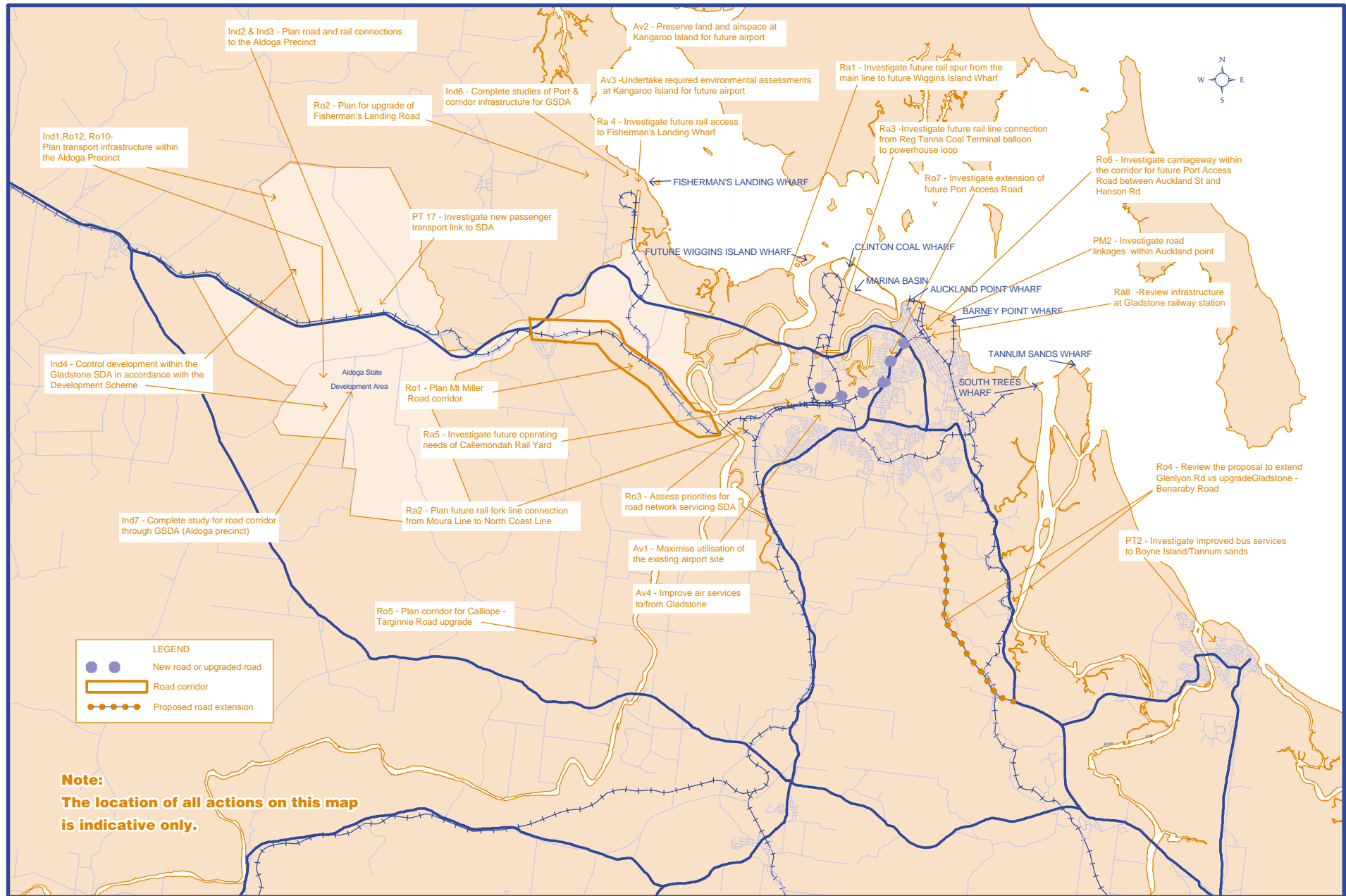
Wk1 Map and assess existing pedestrian networks around major nodes (eg shopping centres), through local Planning Schemes.

Wk2 Design the local road network to consider the movement and safety of pedestrians, in line with appropriate standards and guidelines.

Wk3 Ensure that new walkways and pedestrian paths consider space requirements for wheelchairs and prams, where appropriate.

Wk4 Publish a guide to local walking and cycling trails and destinations.

Wk5 Undertake environmental design of pedestrian infrastructure to help prevent crime and to enhance personal safety including appropriate sign posting to indicate conditions of use (eg shared cycles/walking track).



Summary of Geographically-based Actions

summary

recommended capital program

INDUSTRIAL LAND

- C-Ind1 Design and construct transport infrastructure within the Aldoga precinct.
- C-Ind2 Provide the required road connection/s into the Aldoga precinct from the Gladstone - Mt Larcom Road.
- C-Ind3 Provide the required rail connection/s into the Aldoga precinct from the North Coast Rail Line, as required as industry develops.
- C-Ind4 Provide supporting Port infrastructure (ie dredging, wharf development, reclamation) and infrastructure for corridor development to Aldoga and Yarwun precincts. (6)

RAIL NETWORK & SERVICES

- C-Ra1 Design and construct
 - a) additional rail spur to Fishermans Landing Wharf
 - b) a rail spur from the main line to a future Wiggins Island Wharf (and possibly other nearby developments)
- C-Ra2 Parana QAL Connection.
- C-Ra3 Northern connection - Moura Line to North Coast Line.
- C-Ra4 Departure and cut-off roads between Calliope River and Mt Miller.

PORT & MARINE

- C-PM1 Provide capital works, including wharves, stockpiles, dredging, conveyors etc., at Gladstone Port, in accordance with the Gladstone Port Authority Strategic Plan.
- C-PM2 Provide additional road linkages within Auckland Point to link the proposed Port Access Road, as required.
- C-PM3 Extension of Fishermans Landing Road on strategic port land to serve Fishermans Landing Wharf.
- C-PM4 Provide road on strategic port land to new Wiggins Island Wharf.
- C-PM5 Implement the Queensland Maritime Capital Investment Plan.

AVIATION

- C-Av1 Upgrade existing airport as usage increases.
- C-Av2 Upgrade runway at existing airport as usage increases.

PASSENGER & PUBLIC TRANSPORT

- C-PT1 Upgrade facilities at the existing long-distance coach terminal.
- C-PT2 Introduce a fully accessible bus fleet.
- C-PT3 Kerbside infrastructure to support accessibility to buses.
- C-PT4 Kerbside infrastructure for buses to improve passenger comfort, safety and security.
- C-PT5 Introduce electronic ticketing for buses.
- C-PT6 Introduce clock-face timetabling for buses.
- C-PT7 Ongoing development of bus service & kerbside infrastructure.

CYCLING

- C-Cyc1 Extend the existing cycle network in accordance with the regional cycle plan.
- C-Cyc2 Provide secure cycle parking and end of trip facilities at major destinations.

WALKING

- C-Wk1 Augment the existing pedestrian network around major nodes to improve accessibility.
- C-Wk2 Provide lighting and shelter, as appropriate, on major pedestrian routes and at key intersections.

ROAD NETWORK

C-Ro1	Callemondah to Yarwun Road (Mt Miller Road) - Stage 1: Red Rover Road to Reid Road. (new construction)	C-Ro10	Glenlyon Road to Gladstone - Benaraby Road Link (Kirkwood Road extension). (new construction)	C-Ro21	Callemondah rail overbridge. (new construction)
C-Ro2	Callemondah to Yarwun (Mt Miller Road) - Stage 2: Reid Road to Aldoga precinct. (new construction)	C-Ro11	Gladstone - Benaraby Road to four lanes between the Glenlyon Road extension and the Boyne Island Road intersection (2.5 km).	C-Ro22	Coronation Drive, Tannum Sands. (new construction)
C-Ro3	Hanson Road duplication - Stage 1: Gibson Street - Blain Drive; Blain Drive - Red Rover Road & Red Rover Road - Power Station access.	C-Ro12	Four-laning of the last two-lane section of Phillip Street.	C-Ro23	Coronation Drive, Tannum Sands/Boyne Island including Boyne Island Bridge. (new construction)
C-Ro4	Hanson Road duplication - Stage 2: Power Station access - Gladstone-Mount Larcom Road intersection & Gladstone-Mount Larcom Road intersection - Aldoga precinct.	C-Ro13	Glenlyon Road to four lanes between Tank Street and Derby Street (1 km) - includes intersection upgradings at Tank & Derby Streets.	C-Ro24	Boyne Island Road.
C-Ro5	Gladstone-Mount Larcom Road intersection.	C-Ro14	A new two-lane section of Kirkwood Road from the Dawson Highway to the Glenlyon Road extension - Stage 1: middle part of new road.	C-Ro25	Gladstone - Mount Larcom Road overtaking lanes
C-Ro6	Link Road from Hanson Road to Mt Miller Road.	C-Ro15	A new two-lane section of Kirkwood Road from Dawson Highway to the Glenlyon Road extension - Stage 2: balance of new road.	C-Ro26	Gladstone - Benaraby Road shoulder widening and overtaking lanes (Gladstone - Toolooa)
C-Ro7	Landing Road upgrade - Stage 1: widen & strenghten Gladstone-Mount Larcom Road to QCL.	C-Ro16	Port Access Road. (new construction)		
C-Ro8	Landing Road upgrade - Stage 2: widen & strengthen QCL to Forest Road.	C-Ro17	Calliope - Targinnie Road upgrade Stage1: upgrade to two-lane bitumen standard.		
C-Ro9	A new two-lane extension of Glenlyon Road from Dalrymple Road to the southern intersection with the Gladstone-Benaraby Road (Glenlyon Road Extension - 8 km) or Upgrading of the existing Gladstone Benaraby Road from Kirkwood Road to Ten Mile Creek to four lanes. (new construction)	C-Ro18	Calliope - Targinnie Road upgrade Stage2: Upgrade & overlay strengthening to meet industrial traffic demand.		
		C-Ro19	Upgrade Dawson Highway to four lanes - Stage 1: Breslin Street - Blain Drive and Brifney roundabout to Chapman Drive.		
		C-Ro20	Upgrade Dawson Highway to four lanes - Stage 2: Chapman Drive to Kirkwood Road.		



glossary

glossary

- Accessibility** Accessibility in the context of the GIRTP refers to the ease and convenience of reaching and using a service or location.
- Activity/transport nodes** Activity/transport nodes are places where different groups of people gather during the day and/or night. A node might be a railway station, a bus stop or street corner.
- Airshed** A local zone or region of the atmosphere affected by pollutants
- AMSA** Australian Maritime Safety Authority
- Arterial road** Primary connecting road, from which smaller roads link to more local areas
- Biodiversity** The variety of all life forms - the different plants, animals and micro-organisms, the genes they contain, and the ecosystem of which they form a part
- B-Double** A type of oversized vehicle that is a combination of a prime mover followed by two trailers. The total length of the vehicle is less than 25 metres.
- Car pooling** The use of a private vehicle which more than one person shares to make a trip
- Clock-face timetabling** Timetabling based on multiples of the hour to assist in memorising timetables
- Collector road** A road whose primary function is the distribution of traffic between arterial roads and residential streets.
- Cross-Modal Issues** Issues which impact on or are impacted upon by more than one transport mode or modes (eg. rail and road)
- CSC** Calliope Shire Council
- DLGP** Queensland Department of Local Government and Planning
- DNR** Queensland Department of Natural Resources and Mines
- DSD** Queensland Department of State Development
- EPA** Queensland Environmental Protection Agency
- 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.
- Freight network** Designated road and rail transport infrastructure supporting efficient freight movement and minimising impacts on the community
- GAPDL** Gladstone Area Promotion & Development Ltd

GBRMP	Great Barrier Reef Marine Park
GBRMPA	Great Barrier Reef Marine Park Authority
GCAB	Gladstone-Calliope Aerodrome Board
GCC	Gladstone City Council
GEIDB	Gladstone Economic & Industry Development Board
GIRTP	Gladstone Integrated Regional Transport Plan
GPA	Gladstone Port Authority
Grade separation	Separation of different transport routes using over and underpasses
Greenhouse gases	Gases (mainly carbon dioxide) contributing to the greenhouse effect and climate change
Infrastructure	Fixed equipment (such as roads, railways, wharves and traffic lights) needed for transport services
Integrated	Combined into a unified system taking into consideration all relationships. In terms of transport this means considering all modes of transport, land use patterns and social, environmental and economic considerations.
Kt	Kilotonnes
Local road	A road whose main function includes the distribution of traffic between arterial and collector roads and residential areas. Local roads are under the control of local government.
Long term	Year 2015-2030 and/or population not exceeding 70,000 persons
Medium term	Year 2004/05 - 2015 and/or a population not exceeding 52,000 persons
Mt	Mega tonnes
MR	Queensland Department of Main Roads
National Greenhouse Strategy	The National Greenhouse Strategy is the primary mechanism through which Australia's international commitments on greenhouse gas emissions are to be met. It involves a broad range of actions, some of which are to be implemented by governments acting individually, some by joint governmental initiatives and some through partnerships between government, various stakeholders and the community
National Strategy for Ecologically Sustainable Development	
Sustainable Development	The National Strategy for Ecologically Sustainable Development sets out the broad strategic policy framework under which governments will co-operatively make decisions and take actions to pursue ESD in Australia
Ped shed	Pedestrian catchment area
Public transport interchange	Place built for passengers to gain access to public transport or to transfer from one public transport vehicle to another.
DES(CU)	Department of Emergency Services, CHEM Unit
QR	Queensland Rail
QT	Queensland Transport
QT(SC)	Queensland Transport through the Commercial Service Contract with bus operators

glossary

- Ride-sharing** A form of transport, other than public transport, in which more than one person shares in the use of the vehicle, such as a mini bus, van or car, to make a trip. Car-pooling is a form of ride sharing.
- Ring road** Road encircling an urban area to enable traffic to avoid the centre of that area
- RIP** Department of Main Roads' Road Implementation Program
- SDA** State Development Area
- Service contract** An agreement for the provision of transport services between a transport operator and the government
- Short term** 2000/01- 2004/05 and/or population not exceeding 47,000 people
- 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.
- TIDS** Department of Main Roads Transport Infrastructure Development Scheme
- Traffic calming** Traffic management techniques aimed at reducing the impact of traffic on local streets
- Transport disadvantaged** People who do not have access to adequate transport
- Transport system** Infrastructure, services and equipment to provide for the movement of people and freight.
- Transport infrastructure** Fixed equipment such as road, railway, bikeways, footpaths, and traffic lights needed for transport services

Membership of GIRTP Steering Committee

QUEENSLAND TRANSPORT

Executive Director Integrated Transport Planning (Chair)

GLADSTONE CITY COUNCIL

Peter Corones, Mayor

CALLIOPE SHIRE COUNCIL

Trevor Jones, Director of Engineering

DEPARTMENT OF MAIN ROADS

Mal Hellmuth, Executive Director Central

Terry Hill, District Director Rockhampton

GLADSTONE PORT AUTHORITY

General Manager

QUEENSLAND RAIL

Steve Cantrell, Group General Manager for Network Access

GLADSTONE Economic & Industry Development Board

Chair - Interim board of SDA, Avars Blums - CEO, GEIDB;

Brian French, Department of State Development

DEPARTMENT OF STATE DEVELOPMENT

Chris Cook, Manager Infrastructure Planning & Co-ordination

GLADSTONE CALLIOPE AERODROME BOARD

represented by Robin Elsmore, Gladstone City Council

GIRTP Study Team

QUEENSLAND TRANSPORT

John Trigger, GIRTP Project Manager & co-author GIRTP

Regional Manager Integrated Transport Planning Central

Deanna Grant-Smith, GIRTP Consultation Co-ordinator & co-author GIRTP

Ian Reed, Senior Project Officer (Regional Transport Planning)

ROGER BRAMELD CONSULTING

Roger Brameld, GIRTP Technical Consultant

GIRTP Priority Action Sub-projects

Transport Corridor Alignment & Planning for proposed Mt Miller Road Sub-project

QUEENSLAND TRANSPORT

Phil Howell, Supervising Design Drafter, Integrated Transport Planning

Ian Reed, Senior Project Officer (Regional Transport Planning)

Funding for the Future Regional Road Network Sub-project

DEPARTMENT OF MAIN ROADS

Ray Cameron, Manager Design Services (Central Queensland Region)

Bob McPherson, Principal Advisor (Transport Infrastructure Planning)

Membership of GIRTP Technical Committee

QUEENSLAND TRANSPORT

Regional Manager Integrated Transport Planning Central (Chair)

John Trigger, GIRTP Project Manager

Neville Patterson, Director Regional Transport Planning

Tim Griffin, Regional Transport Planning Advisor (Central)

GLADSTONE CITY COUNCIL

Robin Elsmore, Director of Engineering

CALLIOPE SHIRE COUNCIL

Trevor Jones, Director of Engineering

Martin Crowe, Director of Works

DEPARTMENT OF MAIN ROADS

Bill McRuvie, Manager Transport Planning (Central Queensland Region)

Ray Cameron, Manager Design Services (Central Queensland Region)

Allan Richmond, Principal Advisor Regional Strategic Planning

GLADSTONE PORT AUTHORITY

Ian Bailey, Special Projects Manager

GLADSTONE ECONOMIC AND INDUSTRY DEVELOPMENT BOARD

Brian French, Director State Development Centre (Gladstone)

DEPARTMENT OF STATE DEVELOPMENT

Chris Cook, Department of State Development

DEPARTMENT OF COMMUNICATION, INFORMATION, LOCAL GOVERNMENT & PLANNING

Scot Stewart, Senior Planner

QUEENSLAND RAIL

Koumar Thambar, Manager for Investment & Development - Coal & Main Line Freight

GLADSTONE CALLIOPE AERODROME BOARD

Robin Elsmore, Director of Engineering

ENVIRONMENTAL PROTECTION AGENCY

Steve Elson, Principal Planning & Assessment Officer

DEPARTMENT OF NATURAL RESOURCES AND MINES

Ken Day, Principal Environment Officer

David Myers, Forest Planner



The GIRTP is available on the GIRTP Internet Site:

<http://www.transport.qld.gov.au/qt/rtpweb.nsf/index/girtp>

Contact the **Regional Manager Integrated Transport Planning Central** on **07 4931 1651** for information regarding the GIRTP or other integrated regional transport planning activities being undertaken across the State.



Queensland Government
Queensland **Transport** and **Main Roads**