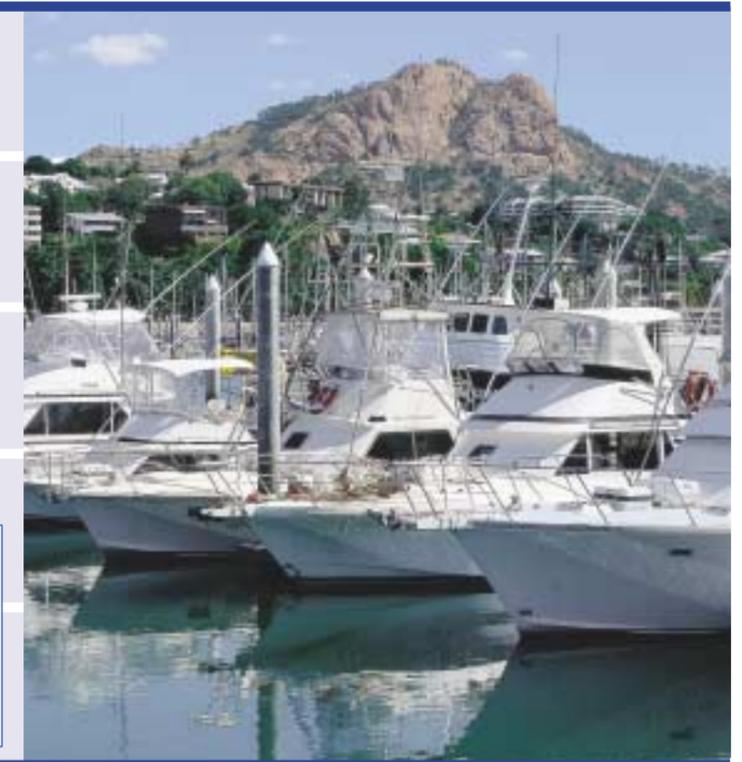
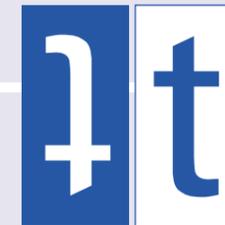


Townsville-Thuringowa Integrated Regional Transport Plan



Draft for Public Consultation

November 2000



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Acknowledgements

The TTIRTP Project Team gratefully acknowledges the efforts of all who contributed to the development of the TTIRTP, particularly those members of the community who assisted in identifying issues for consideration.

The Project Team acknowledges the support provided by Queensland Transport, Main Roads, Townsville City Council and Thuringowa City Council in providing resources towards the development of the TTIRTP.

The support and direction provided by the TTIRTP Steering Committee and the TTIRTP Technical Committee is also acknowledged.

Disclaimer

The information contained in this document is for discussion and comment only. It does not commit Queensland Transport, Main Roads, Townsville City Council, Thuringowa City Council or the TTIRTP Project Team or Steering Committee to the views expressed or to any future action. Dissemination of this information indicates only that issues are under consideration or that issues have been raised and are open for public information and discussion, and that Government policy is yet to be finalised. Issues considered in the final TTIRTP might not be the same as those discussed in this draft version. Neither the Queensland Government nor any of the organisations constituting the TTIRTP Steering or Technical Committees accept any liability for any actions taken by third parties on the basis of this information.



Foreword Townsville-Thuringowa Integrated Regional Transport Plan

We are pleased to present the draft Townsville-Thuringowa Integrated Regional Transport Plan (TTIRTP). It is presented as a draft strategy to stimulate public comment and feedback.

The TTIRTP has been developed collaboratively between Queensland Transport, Main Roads, Townsville City Council and Thuringowa City Council. It is a signature project of the broader regional planning exercise which produced the Townsville-Thuringowa Strategic Plan (TTSP). The TTIRTP is a testament to State and local government commitment to working co-operatively to deliver an efficient and comprehensive transport system which is fundamental to the region's future.

As residents of Townsville-Thuringowa, you will be aware of large scale projects including:

- Townsville Port Access Impact Assessment Study;
- Townsville Railway Station Relocation; and
- the proposed Townsville Ring Road including the bridge over the Ross River

It should be noted that the TTIRTP does not specifically address these issues separately. However the outcomes and findings of these planning studies are incorporated into the TTIRTP strategies. As the largest urban area in the State outside South East Queensland, the development of projects such as those listed above are necessary to the region's future viability.

Townsville-Thuringowa require an efficient transport system which allows for the rapid and reliable movement of goods to and from overseas and national markets, and which provides local access for commerce and business. The transport system must also allow for the mobility and access needs of residents and tourists.

However, motorised travel can have adverse environmental and social impacts on the community at large. A challenge for transport planning is to achieve the personal and business benefits of travel while maximising the environmental benefits available from fully integrating transport and land-use planning.

The TTIRTP has confronted these challenges. It provides a transport strategy for Townsville- Thuringowa in detail for the next 15 years and at a strategic level until the year 2050. A long-range approach to transport development is necessary because many transport projects have long lead times. Planning is necessary to ensure that land is available when required, that the necessary processes to achieve community acceptance can be followed, and that complex feasibility studies and project planning can be undertaken. However, long-range co-ordination with other infrastructure and town planning must also be robust in the face of inevitable change in technology, social conditions, values, resource constraints, and other key factors.

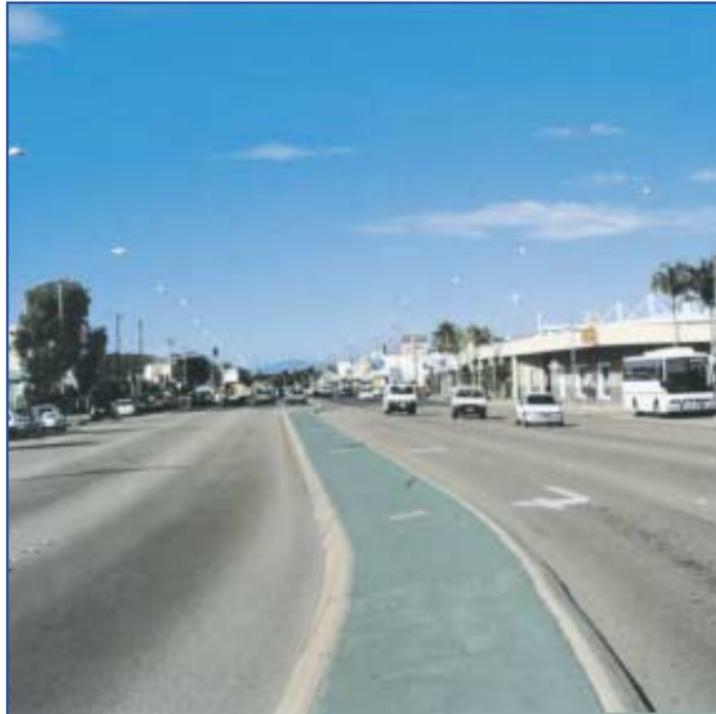
It is intended that the TTIRTP will be a living document. That is, it will change and adapt as circumstances change. The TTIRTP is official Queensland Transport policy for transport planning in the Townsville-Thuringowa region. The policy elements of the TTIRTP have been developed with the aim of providing assistance to the development of the Integrated Planning Act (IPA) Planning Schemes of Townsville and Thuringowa. Transport will contribute to achieving regional planning objectives, while regional planning can assist in achieving access and mobility goals. The integration of the strategies is an important component of the success of each of them.

Your comments and input into the TTIRTP are now sought. Details on how to provide input into the document are provided in Appendix B. The success of the TTIRTP is dependent on community, stakeholder and industry support and we therefore welcome your input.

Steve Bredhauer
Minister for Transport
Minister for Main Roads

Tony Mooney
Mayor
Townsville City

Les Tyrell
Mayor
Thuringowa City



Introduction

What is TTIRTP?

Integrated transport planning seeks to balance the future needs for public transport, freight, general motor traffic, walking and cycling, travel demand management and ecological sustainability. In order to achieve this, the transport system must be considered alongside broader urban development, regional requirements and lifestyle choices to facilitate the integration of transport and land use.

The Townsville-Thuringowa Integrated Regional Transport Plan (TTIRTP) sets the future directions for the development and management of an integrated transport system in the Townsville-Thuringowa region by identifying and implementing initiatives in public, passenger and freight transport, establishing a framework within which more detailed planning and works programs can be co-ordinated.

Integrated transport planning activities are currently being undertaken throughout the State by Queensland Transport (QT) and stakeholding partners, while many other studies aimed at achieving an integrated approach to transport planning have been completed or are proposed. Each Integrated Transport Plan across the State varies in approach and outcomes. This occurs due to the historical genesis of each IRTP and the individual tailoring of the IRTP to meet the needs of the community for which it is developed.

Direction from the TTSP

TTIRTP is an outcome of the broader regional planning exercise which resulted in the Townsville-Thuringowa Strategy Plan (TTSP). The TTSP detailed a Transport Vision for Townsville-Thuringowa which states that by 2050:

All modes are effectively integrated into a transport system that meets the economic, environmental and social objectives of the community.

A well-defined road hierarchy has been established to ensure efficient access for through and freight traffic and to maintain the safety and amenity of residential areas.

Freight transport links have been enhanced to meet the demands of the local economy and in recognition of the area's role as a major economic gateway.

An efficient public transport system and an extensive network of safe pedestrian and cyclist routes linking residential areas, major centres and other high activity areas have developed and are strongly supported by the community.

In order to achieve this vision, the TTSP nominated that an Integrated Regional Transport Plan be undertaken with Queensland Transport as the lead agency. Although Queensland Transport is the Lead Agency for the project, the Department of Main Roads and both local governments in the region have an interest in transport planning. Therefore, a Steering Committee for the project was established, comprised of Executive Level representatives from Queensland Transport, Main Roads, Townsville City Council and Thuringowa City Council. The role of the Steering Committee is to guide the overall direction of the TTIRTP and to have final approval of the project outcomes.

A Technical Committee was also established. The Technical Committee is comprised of planning and engineering professionals from all four agencies and a representative from the Department of Communication, Information, Local Government, Planning and Sport. (DCILGPS). The role of the Technical Committee is to guide the technical aspects of the project and to liaise with the Steering Committee on the general project direction and outcomes.

The TTIRTP has taken its direction from the TTSP. The primary focus of the TTIRTP was developed around four key areas of transport detailed by TTSP:

- Public Transport
- Bicycles, Pedestrian and Wheelchair Transport
- Road-Based Transport and
- Freight Transport.

The TTSP did not direct the TTIRTP to undertake detailed investigation of air, sea, or rail planning. The TTSP nominated that a number of separate studies be undertaken in relation to these facilities, including:

- Townsville Port Access Impact Assessment Study
- Townsville Airport Access Study
- Townsville Railway Station Relocation Study.

The TTIRTP takes account of the outcomes of these studies but has not undertaken a separate detailed analysis for these transport facilities.

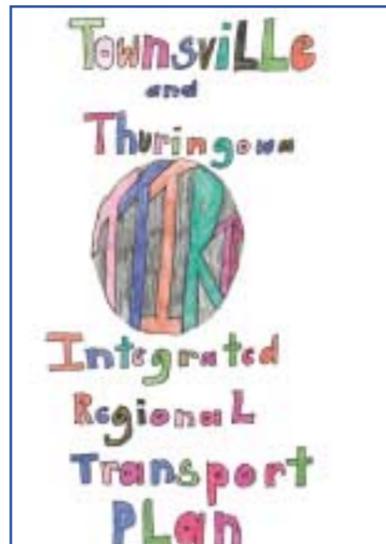
Principles

The principles and direction of the study are in accordance with the Queensland Transport publication *Integrated Regional Transport Planning Principles*. Copies of this document can be obtained from QT's Regional Transport Planning Branch or by phoning 3239 0023. The major principles in undertaking integrated regional transport planning are:

- ♦ Achieve State Government objectives
- ♦ Harmonise with national, regional and local strategies
- ♦ Facilitate regional development
- ♦ Facilitate economic development
- ♦ Facilitate social development
- ♦ Contribute to ecologically sustainable development
- ♦ Undertake public consultation
- ♦ Facilitate safety and security
- ♦ Integrate transport and land use planning
- ♦ Foster travel demand management
- ♦ Promote sustainable transport modes
- ♦ Use technology appropriately
- ♦ Be financially responsible
- ♦ Be flexible, adaptive and responsive
- ♦ Implement, monitor and review

Specifically for the TTIRTP, when considering appropriate strategies and actions for the next 15 years, it has been determined that new initiatives should not be implemented unless:

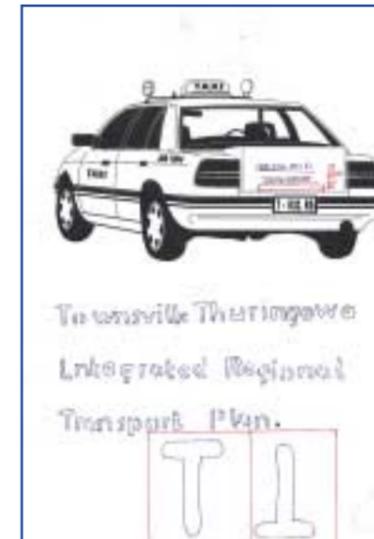
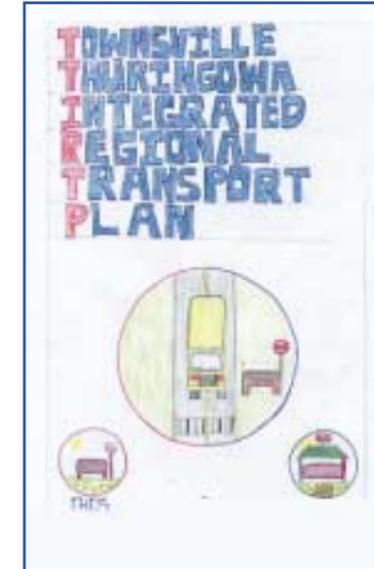
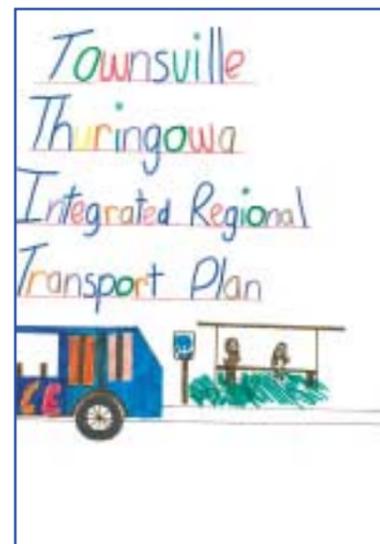
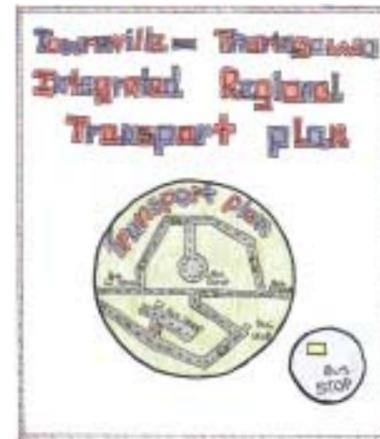
- ♦ They are practical and capable of being funded/subsidised by operators/government;
- ♦ They have the potential to deliver genuine and needed improvements to the public;
- ♦ They are relevant to Townsville-Thuringowa; and
- ♦ They provide a cost-effective solution for users and government.



State and Local Government Co-operation

The integration of the TTIRTP Strategies and Local Government Planning Schemes is important. Effective transport planning will contribute to achieving regional planning objectives, while regional planning can assist in achieving access and mobility goals. Local government's planning schemes, which are currently being prepared, will be developed in context of the TTIRTP, the TTSP, other policy documents and the Integrated Planning Act 1997.

Further, the responsibility for implementing the Strategies and Actions detailed in the TTIRTP falls across a number of agencies and across levels of government. Therefore, there is a need to recognise the interdependence of agencies in implementing the TTIRTP and there will need to be commitment to interagency co-operation, both in financing and implementing the strategies.



Public Consultation

Community and stakeholder input to the TTIRTP, is an important part of the development of the TTIRTP. Consultation assists in identifying and confirming issues and values, and facilitating a two-way flow of information between the Steering and Technical Committees, the study team, interested stakeholders and community members. This involvement will lead to better outcomes for the project overall, and will assist in ensuring community support and acceptance for the findings and recommendations of the report.

A number of consultation activities have already taken place to develop the draft for consultation. Further consultation activities will be undertaken in relation to this draft document.

Focus of consultation

The Townsville-Thuringowa community has been subjected to a significant amount of consultation for a number of strategic transport and planning projects in recent years including:

- Port Access Impact Assessment Study
- Townsville-Thuringowa Strategy Plan (TTSP)
- Townsville City Planning Scheme
- Thuringowa City Planning Scheme
- CBD Redevelopment
- Ross River Parkway Project
- Townsville Railway Station Relocation

A concern with participation in strategic projects is that direct outcomes for participants are not immediately apparent as most are focused on providing a framework for future planning activities, and people can become disillusioned with their involvement. It was considered that 'consultation fatigue' was likely to be an issue with the general community, due to the requirement to provide input and participate in a large number of strategic planning projects.

For this reason, it was decided to focus consultation for the TTIRTP on targeted stakeholder groups and agencies, and to raise general community awareness through activities such as a media launch, public displays, advertising and media releases at all project stages.

Consultation Activities During Stage One

The TTIRTP Project Team is committed to recognising the previous planning studies undertaken in the region and to building on the outcomes and consultation findings of these studies. Stage One of the TTIRTP involved making the community aware of the project. Consultation activities included:

- ◆ A launch of the public consultation phase of the TTIRTP was held in August 1999. The importance of public consultation to the TTIRTP process was highlighted to stakeholders and the media by the Minister for Transport and Minister for Main Roads, Mr Steve Bredhauer.
- ◆ A 1800 freecall number was established for verbal feedback.
- ◆ A website was established at www.transport.qld.gov.au/qt/rtpweb.nsf/index/ttirtp.
- ◆ A brochure was distributed to some 400 stakeholder groups. The brochure contained a reply-paid "Have Your Say" form for the community to identify the best and worst aspects of transport in Townsville-Thuringowa and to raise issues which the TTIRTP should consider. Based on this feedback, an Issues database was established. Details of the information contained in this database are available at the TTIRTP website or by contacting the Project Manager on **1800 810 680**.
- ◆ Static displays outlining the objectives of the projects were established at Queensland Transport's Wills Street office and in the Planning Departments of Townsville City Council and the City of Thuringowa to raise general community awareness of the project and to provide more opportunities for input and comment to the project.
- ◆ Fact Sheets on the various elements of the project were also made available at the static displays.

- ◆ An advertisement was placed in the *Townsville Bulletin* to advertise the location of the static displays and to offer interested groups the opportunity for a detailed presentation on the project. Twelve presentations were given.
- ◆ One group which requested a detailed project briefing was the Year 8 students of Kirwan State High School who sought further involvement with the project. The students conducted an audit of a sample of bus stops to highlight the extent of safety and information aspects of the bus stops in their area. They were also involved in developing artwork for the project.
- ◆ Based on information from the previous planning and transport studies, an Issues Paper was developed. Three workshops with community and stakeholder groups were held on 6 and 7 September 1999 to determine if the issues were still relevant and to determine any new issues which needed to be addressed. A copy of the Issues Paper incorporating the outcomes of the workshops is available on the website or by contacting the Project Manager.
- ◆ This feedback was used by the project team to develop options for the draft IRTP. Stakeholder workshops were held on 26 October 1999 with business and industry groups to determine road and freight network options. Details of the outcomes of this workshop are available on the website or by contacting the Project Manager.
- ◆ Stage 2 consultation will be undertaken to seek feedback on this document, the draft TTIRTP. A letter has been sent to stakeholders contained in the contact database developed over the course of the project to date. Static displays are located at Queensland Transport, Townsville City Council, Aitkenvale Library and the City of Thuringowa. A reply-paid feedback is available. A copy of the form appears as Appendix B in this report. Fact Sheets are also available at the static displays or by contacting the Project Manager. Verbal feedback can be given by calling the freecall **1800 810 680**.

The major issues and concerns with the transport system in Townsville-Thuringowa identified during public consultation are detailed on the following pages. The identification of these issues directed the development of the draft TTIRTP.



Issues Identification

The following section highlights the major issues relating to each transport mode raised in both the Supporting Technical Studies and during public consultation. The issues raised during public consultation appear in the highlighted text boxes. In recognition of the time and effort which the community has contributed to the public consultation process, issues contained in the document are a true reflection of concerns raised by the community. However, although an issue may have been raised during public consultation, it does not necessarily mean that it will be addressed by the TTIRTP.

The Region

The Townsville-Thuringowa region contains the largest urban population outside of South East Queensland. To service this population, a diverse commercial and industrial base operates from the region. Townsville-Thuringowa is also increasing its importance as a tourist destination.

The Townsville-Thuringowa region is an important freight node with a deepwater port, a rail network which radiates to the north, west and south of the region, roads, an airport and an important military base. The region, as a freight node, has a large catchment of dependence and facilitates output from the North West Minerals Province, agriculture and services.

If treated in isolation and not carefully managed, these functions may come into conflict. The integration of transport planning with land use planning is central to this management.

The existing urban form in Townsville-Thuringowa is characterised by decentralised land use which offers inherent inefficiencies with respect to transport services. Issues which compound this include: dispersed employment nodes; a CBD in need of revitalisation; and non-containment of urban development. When new subdivisions are developed, appropriate transport planning principles need to be applied to overcome existing shortcomings such as a lack of connectivity between streets, restricted access to public transport and co-location of services and facilities. This presents planning and environmental concerns and challenges which need to be addressed if the appropriate level of transport infrastructure and services are to be provided to the community.

Road Network

The use of the private vehicle dominates transport supply in Townsville and Thuringowa. There are many factors that encourage the use of the private car in the region, including short trip times and distances to work (low cost of journeys), ease of parking, lack of traffic congestion and the poor level of public transport services.

There are approximately 1700 km of roads in Townsville-Thuringowa. The urban road network in the region is well developed and is subject to continuous upgrading to meet increases in demand for urban transport. The financing and management of these roads is shared between the three levels of government. Townsville-Thuringowa is well served by the national and State-controlled road network, including the Bruce Highway (National Highway) which links the region to the southern and northern areas of the State and also provides access between the coastal settlements in the region. The Flinders Highway links Townsville to the western areas of the State, including Mount Isa. Hervey's Range Development Road is an entrance to the city from the west. A corridor has been preserved to allow for the future construction of a ring road between Douglas and Deeragun to allow through traffic movements on these highways to bypass the main urban areas.

Until 2015, with the exception of the Townsville Ring Road, existing road corridors will serve general traffic, road-based public transport, bicycle, walking and wheelchair trips. However, the roads will be supplemented by additional facilities for walking, cycling, wheelchairs and public transport. There will be new demands for additional facilities outside the existing network as development occurs.

Beyond the 2015 timeframe, the road network will require significant enhancement to accommodate the ultimate settlement pattern and corresponding population of 320,000. Between 2015 and 2050, population growth will consist predominantly of new development in the southern parts of Townsville City (e.g. Rocky Springs), western parts of Thuringowa, Murray/Douglas, Mt Louisa/Bohle, Mt Low/Deeragun/Burdell, along with infill in the existing residential areas. Employment growth will occur predominantly in the southern parts of Townsville (Woodstock), Stuart, western parts of Thuringowa, along with general employment infill in the existing metropolitan area in alignment with population increases.

The road network will require significant enhancement by 2050 to accommodate the ultimate settlement pattern and corresponding population of 320,000. Some new corridors will be required.

Public Consultation Major issues raised in relation to the road network

- ◆ Arterial road deficiencies in relation to incompatible contiguous land uses; environmental conflicts; noise; poor access control; complex intersections; and development-driven planning
- ◆ Bruce Highway incorporates Nathan & Duckworth Streets, compromising urban amenity
- ◆ Form, function, timing of :Townsville by-pass; Dalrymple Road extension; Beck Drive extension; Stuart bypass; and Port Eastern Corridor need to be carefully considered
- ◆ Traffic-carrying road network needs extension to serve proposed new centres
- ◆ New Ross River Bridge (part of Bypass) needed to link Condon, Douglas
- ◆ Ongoing network efficiency issues (signal coordination, congested intersections)
- ◆ Network standards (construction, maintenance)
- ◆ Vehicle access to/on Magnetic Island
- ◆ Freight access
- ◆ Traffic light co-ordination
- ◆ Surface improvement of feeder roads to Bruce Highway
- ◆ Four-lane highway to be extended to Bluewater Bridge, with speed lanes from all accesses for merging traffic
- ◆ Light vehicle driver education

A full list of issues raised appears in the Road Network and Freight Study Issues Paper.

Increasingly, industries are moving goods on a 24 hour basis. As freight traffic vehicles are generally much larger than cars, many people feel threatened by their presence on the roads. In an integrated planning process, there is a risk that freight needs will be seen as less important than congestion and amenity issues raised by the general public. Alternately, freight transport might be penalised unnecessarily due to its perceived impact on the community.

Yet if needs of freight transport are neglected, the whole region will pay through higher commodity prices, inconvenience, loss of competitiveness and reduced employment opportunities.

The TTIRTP has investigated means of developing a high quality freight transport system which is able to move goods to market efficiently and cost-effectively. Additional traffic-carrying road infrastructure will be needed, both to serve the new urban development areas and to accommodate increasing demands on the existing road system. Roads will need to be managed and developed so they can meet the needs of people and move goods to market safely without unacceptable impacts on the community and the environment.

It is also essential to ensure that the already large road asset base is used optimally before new roads are built. Accordingly, the options for maximising service delivery of existing roads must be considered alongside proposals to provide new facilities

A key component of the TTIRTP will present a balance between:

- moderating traffic growth and giving priority to public transport;
- widening and upgrading existing roads; and
- constructing new road links

The task of managing and developing the road system involves much more than satisfying the demands for private vehicle use. Roads carry many forms of transport and should be viewed as multi-modal infrastructure. Accordingly, the agencies involved in road planning, management and development for the region will carry this integrated focus into the future.

Road Freight

Transport links have a major influence in the ability of industries to compete in national and international markets. Efficient freight transport is vital to economic development and provides people with the goods and services they need.

Major commodity flows occur within and through the Townsville-Thuringowa region, particularly in association with the Townsville Port and other key industry areas.

The transport network for the region will support the economic development objectives of the region by supporting value-adding industries with efficient transport links and maximising the region's advantages as a gateway to the Pacific Rim.

The Townsville-Thuringowa region moves significant volumes of freight. In per capita terms, the region moves 2.5 times the per capita freight movement of South East Queensland. B-double access into Townsville, although restricted to a limited number of routes, is generally good. Local access to some industrial sites may be limited. The new major

industrial area in the region being considered for development at Woodstock to the south on the Flinders Highway will require efficient freight movement along this road and rail corridor to Townsville industrial areas and the port. Type I Road Trains access to the edge of the City on Hervey's Range Developmental Road. Type II Road Trains have access via the Flinders Highway to the edge of the City. B-Double access is available through the City via the Bruce Highway and the Flinders Highway.

Public Consultation Major issues raised in relation to the freight network

- ◆ Efficient access to the port needs to be resolved
- ◆ Freight-efficient vehicle access is limited
- ◆ Conflict between existing road and rail port access and residential areas needs to be resolved
- ◆ Efficient access to any new major industrial areas is imperative
- ◆ The existing freight network must be used efficiently
- ◆ Some new and upgraded links are needed
- ◆ Livestock exhaustion/damage due to poor road conditions in the wider region
- ◆ Competitiveness of rail vs road for livestock
- ◆ Lack of direct road train access to Bohle Saleyards
- ◆ Shunt rail services between Bohle Saleyards and port frequently unavailable
- ◆ Policies regarding use of sidings, branch lines, rail yards need to be developed

A full list of issues raised appear in the Road Network and Freight Study Issues Paper.



Rail

The region is serviced by two major rail networks, the North Coast line between Brisbane and Cairns and the Mt Isa line to the west. The region accommodates substantial rail infrastructure associated with the port, freight and passenger terminals, workshops and maintenance facilities. Queensland Rail is progressively relocating major maintenance and operational activities to a new facility at Stuart to consolidate and simplify rail operations. This site is also conveniently located adjacent to the intersection of the region's major highways. Both major rail routes have also been upgraded recently to allow heavier and more efficient trains to operate and to reduce travelling times for freight and passenger trains. It is proposed that rail passenger facilities be relocated from the existing building.

A site in Flinders Street West is the preferred site for the new rail passenger station facility. The choice of this site has strong linkages to the CBD Revitalisation projects. The CBD Revitalisation project has a strong residential focus and the largely disused rail yards adjacent to both sides of Ross Creek have the potential for redevelopment as residential and other land uses. A rail line loops through the disused yards primarily to access the present station. Relocating the station enables the loop to be removed and frees the rail yards for redevelopment.

Rail carries the major part of port trade. The port line is located alongside Perkins Street and contains two running tracks plus a holding track. Queensland Rail (QR) and Townsville City Council (TCC) have investigated means of buffering the Perkins Street corridor. New diesel locomotives (recently purchased by QR) are significantly quieter, which will reduce noise levels over time. QR must ensure that both lines are retained and that all planning and works associated with the Building Better Cities Programme provide for the option of a third line in the corridor.

Recently completed rail development projects in the port area include a multi-user rail loop on the 100ha reclamation area and new sidings for the recently constructed bulk cement terminals adjacent to Benwell Road.

Public Consultation

Major issues raised in relation to the rail network

Major issues raised in relation to rail during public consultation include:

- ◆ Competitiveness of rail over road for freight transport
- ◆ High speed rail - Brisbane to Cairns
- ◆ Consideration of Townsville Station relocation
- ◆ Integration with road freight transport
- ◆ Branch line sidings policies
- ◆ Port rail planning issues
- ◆ Bohle Saleyards to port shunting

A full list of issues raised appears in the Road Network and Freight Study Issues Paper.

The TTIRTP has explored the issue of rail to some extent in relation to freight. However, as previously stated, the TTSP did not direct the TTIRTP to examine rail issues in depth.

Port

The Townsville Port is a deepwater port facility which can accommodate 80,000 tonne dead-weight vessels. It provides major handling facilities for bulk containerised cargo and direct road and rail access to the wharfside. Export and import throughput has been growing strongly and the capacity of the port is being expanded by the Townsville Port Authority. Over recent times, Queensland Nickel, Western Mining and BHP Minerals have substantially upgraded their materials handling and storage infrastructure at the port. Environmental management and control of port-related activities is crucial, due to its proximity to the World Heritage-listed Great Barrier Reef. Townsville Port Authority is a Government Owned Enterprise responsible to the Treasurer and the Minister for Transport. It is responsible for port infrastructure planning and making a required rate of return on assets; therefore no detailed future planning of the Townsville Port has been undertaken by this project. Alternative long-term access routes, including upgrading of existing road and rail access, are currently under investigation.

An alternative Eastern Corridor to the port for road and/or rail is under investigation as part of the Townsville Port Access Impact Assessment Study. Study findings to date indicate that the existing network may have the capacity to be upgraded to handle traffic up to 2025. However social and amenity issues have



Kirwan State High School
1999 Year 8

been identified which justify the review of alternative corridors. It has been decided that Boundary Street will be an ongoing road access to the port. The Eastern Corridor is currently being addressed. The TTIRTP has taken into account both the possibility of Boundary Street and the Eastern Corridor as possible port access roads when considering future road and freight demands and needs.

Airport

The existing Townsville airport at Garbutt is a joint civil and military facility. A commercial operator manages passenger and freight facilities and the runway is managed by the military. The commercial operator, AAL (Townsville), is preparing a master plan in conjunction with key transport stakeholders. The runway meets current growth needs and is sufficient to accommodate fully loaded, wide-bodied jets going to any of the major Asian destinations.

The strength of the runway currently restricts frequency of the use, although a proposed resheet of the main runway would allow unrestricted operations. The civil terminal and associated facilities are currently operating well below capacity. Encouraging international flights to Townsville would boost the local tourism industry and enable transport of fresh produce to Asian markets. The existing airport is likely to serve the region adequately for the foreseeable future.

Civil throughput is expected to increase by 75% by 2018 and international throughput is expected to increase to 4% of the total throughput by 2018. Increases in volumes of commercial aviation traffic would be expected to result in an increase in cargo handling and road freight movement to and from the airport. Airport road freight traffic would be expected to remain modest in relation to the region's other freight destinations, however efficient access remains imperative.

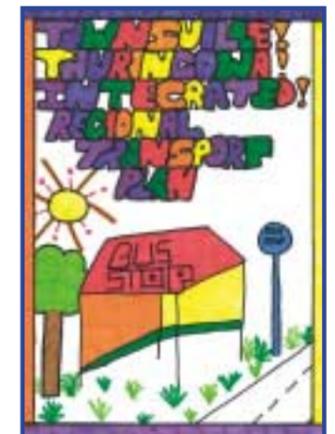
Current road access to the airport is via Meenan Street and John Melton Black Drive. Meenan Street carries more traffic and goes through a mix of residential and commercial areas. Most road traffic to the airport is passenger traffic. Movements of heavier freight vehicles through existing residential areas is undesirable, however efficient access for general cargo and military freight to the airport and urban amenity adjacent to access roads needs to be maintained.

The Airport Master Plan states that John Melton Black Drive has sufficient capacity to meet foreseeable demand well beyond the planning period, and that the Halifax Street entrance is well located to service the airport traffic to the south and west of the city, but has the disadvantage of passing through the residential area. The Master Plan states that improved road access to and from the east, south and west will be required.

Public Consultation Major issues raised in relation to the airport

- ◆ RAAF will not allow public access through its land on the airport site
- ◆ RAAF proposes to acquire some residences in Crowder Street for RAAF development
- ◆ RAAF constrains potential access to south
- ◆ Tourism is considered to be an underdeveloped sector of the region's economy, due, in part, to poor air services
- ◆ Opportunities for exporting fresh horticultural produce to Asia have also been identified, but are currently limited by a lack of direct international flights to Townsville airport
- ◆ Traffic penetration (rat running), promoting traffic conflicts, is said to occur and is expected to increase
- ◆ Issues have been raised in relation to safety of residents and school children crossing Meenan Street
- ◆ Travel speeds and current traffic volumes (said to be 6,000 vpd) are of concern
- ◆ The Airport Master Plan states that improved access to and from the east, south and west will be required
- ◆ Public transport improvements could be made over time, with proposed airport developments as one of the catalysts

A full list of issues raised appears in the Road Network and Freight Study Issues Paper.



Kirwan State High School
1999 Year 8

Bus Operations

Substantially upgraded bus services to the main urban areas of Townsville - Thuringowa were introduced in 1996 with the letting of a contract by Queensland Transport to Transit Australia operating as Sunbus for scheduled services. The contract specifies:

- ♦ Minimum service levels, by specifying peak and off-peak service frequencies
- ♦ Route Coverage - bus routes must operate so that 95% of all residents are within 800 metres of a primary bus route and within 400 metres of a service that operates during peak and shopping hours on Mondays to Saturdays.
- ♦ Data Collection - the operator has the responsibility of monitoring patronage levels and ensuring that the service conditions of the contract are met.

Two other companies, Campbell's Coaches Pty Ltd and Hermit Park Bus Service Pty Ltd, operate school services and a limited public service in the Northern Beaches, with an application of the extension of that service.

The introduction of performance-based contracts for bus and taxi companies is seeking to improve the level and quality of services being provided. As part of the contractual agreement for exclusive rights to operate, bus operators must meet specified minimum performance levels over a 5-year period.

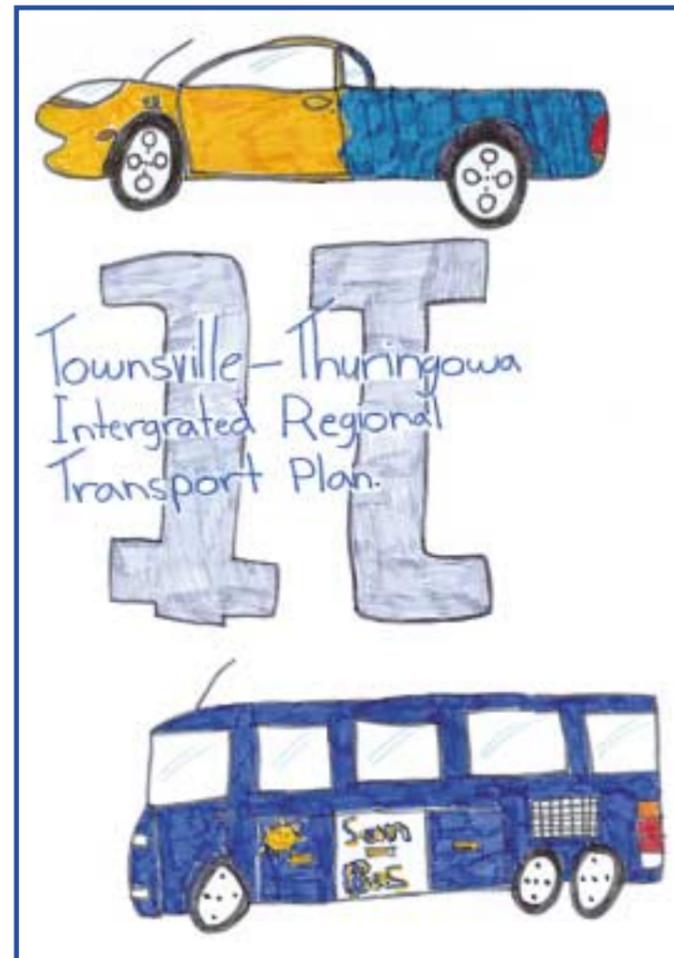
The bus fleet consists of 20 small sized, air conditioned, high floor buses, of which 18 are required to run peak services. These were purchased at the commencement of the 1996 contract. Eight have been retrofitted to enable access by wheelchairs.

Magnetic Island Bus Service Pty Ltd provides the bus service to the whole of Magnetic Island. The Magnetic Island bus fleet consists of approximately 12 large-sized buses, two of which are wheelchair accessible.

School services routes are subject to frequent amendment to facilitate the changing needs of school children and may not accurately reflect current routes in all cases.

There are two long distance bus operators servicing Townsville and they provide services to areas north and south via the Bruce Highway and to the west via the Flinders Highway, connecting to most major centres within Australia. The level of service is based on strictly commercial criteria without government intervention. Townsville-Thuringowa has one terminus based in South Townsville which is considered adequate for the current and foreseeable patronage. There is, however, a need to undertake a review of the adequacy of the current long-distance coach terminal in the long term.

From surveys conducted in relation to the information displayed at bus stops in Townsville in November 1998, it was found that there are 227 bus stops throughout the Urban Bus Contract area. Each bus stop was clearly sign-posted and many of the stops had modern shelters.



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Public Consultation
Major issues raised in relation to bus operations

- ♦ Route design is poor, resulting in some areas not having services
- ♦ Lack of direct services
- ♦ Unreliability of services
- ♦ Low-income housing developments occurring in outlying areas which are not serviced by public transport
- ♦ Operators do not see 'dial a bus' or demand-responsive transport as their market
- ♦ Difficulty in negotiating time-responsive changes to bus services
- ♦ Develop public transport to allow greater access to cultural activities, beach/ocean etc
- ♦ Fares are prohibitive
- ♦ Buses need to be told in advance that wheelchair user wants to use service (ramps malfunction, seats reintroduced). Some believe access is too inconvenient for travellers (affects on-time running) and door-to-door subsidised taxis provide a better service
- ♦ 'Sole rights' regulatory structure does not encourage entrepreneurial attitude. Opportunity when Act revised to enable 'middle market' to be developed, but this needed Government to assist previously extremely protected industry to 'adjust' to market opportunities. Entrepreneurial incentives are therefore lacking, influencing opportunity to embrace new technology and new ways of helping
- ♦ Difficulty knowing and using system once changes were introduced
- ♦ Poor information about routes and services
- ♦ Consideration of rapid transit facilities needs to be undertaken
- ♦ No co-location of long-distance buses, train services and local buses for the convenience of travellers

A full list of issues raised appears in the Supporting Technical Document on Public Transport.

Community Transport

The only Home and Community Care (HACC) funded community transport in the Townsville- Thuringowa region is organised by Lifeline (as the auspice body). This transport is provided for the frail aged and the disabled young, and not to assist those on low incomes.

The Lifeline fleet consists of a Star Wagon which can carry 8 persons (7 clients and the driver) and a Toyota Coaster Bus which seats 17 people (16 clients and the driver). The Coaster Bus is equipped to carry 5 wheel chairs. The service operates only in the main Townsville-Thuringowa suburban area bounded by Bohle, Kelso, Kirwan and Stuart. The Northern Beaches are not serviced.

Public Consultation Major issues raised in relation to community transport

- Community vehicles are under-utilised, not flexible enough for the users they service and do not use a holistic approach
- Lack of communication between community transport groups and funding not cognisant of other funding provided (eg. no standards). Cost of 'ad hoc' services to community groups
- Community bus services are affordable but are generally limited to specific groups or specific trip purposes

A full list of issues raised appears in the Supporting Technical Document on Public Transport.

Taxi Operations

Queensland Transport regulates the number of taxi licences in all areas of Queensland, so that the number achieves a balance between operator income and the need for vehicles in the community. The operation of taxis is generally restricted to a defined area.

Service in Townsville and Thuringowa is obtained by a combination of street hailing, taxi ranks and telephone bookings.

One company, Townsville Taxi, operates taxis in the area. There are 124 taxi licences in total, of which more than 10% are wheelchair accessible and can convert to maxitaxis (ie seat more than 6 persons).

The Australian service benchmark for taxis is 1 taxi per 1,000 population. With a population of approximately 140,000 in 1996, the Townsville - Thuringowa area is approximately equivalent to this. However, there is a perception in the community that service levels are low and should be improved.

Passenger transport legislation introduced into Queensland in 1995 encourages more innovative marketing of taxi use and is likely to encourage greater usage. The legislation may also encourage a second operator and therefore improved service that may encourage greater competition.

The introduction of performance-based contracts for bus and taxi companies is seeking to improve the level and quality of services being provided.

Taxi companies must meet specified minimum performance levels based on average waiting times

Conventional taxi travel is highly flexible, but too expensive for much of the target population to use on a regular basis.

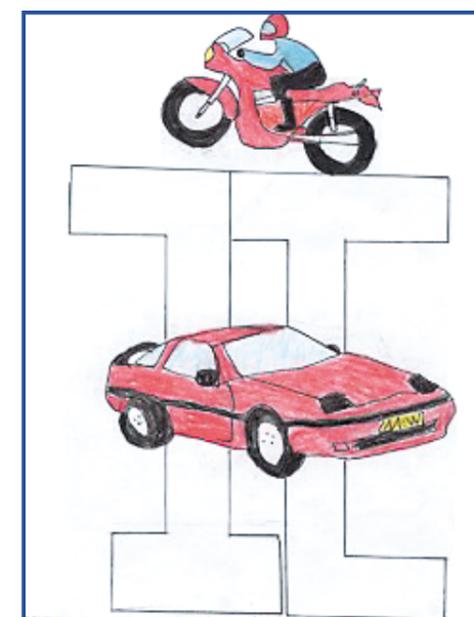
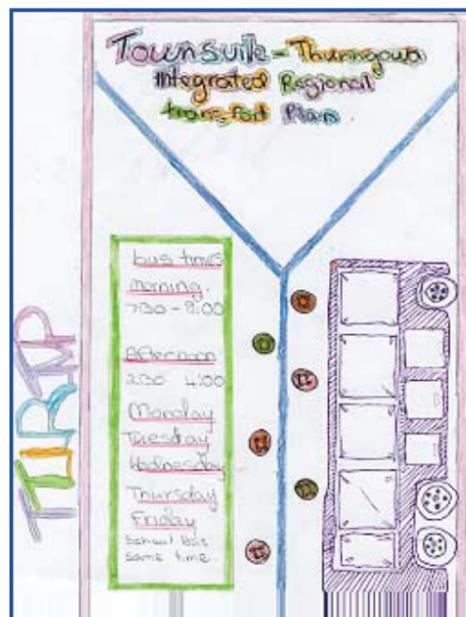
The taxi subsidy scheme provides a 50% concession on taxi fares for eligible persons who are generally not able to access conventional public transport services.

Public Consultation Major issues raised in relation to taxi operations

Issues raised during public consultation in relation to taxis in Townsville-Thuringowa include:

- Taxis are also used for school work and therefore wait times are lengthy at this time. Some believe access on buses is too inconvenient for travellers and door-to-door subsidised taxis provide a better service
- Even with a 50% subsidy, fares are normally higher than bus fares, limiting the number of trips undertaken

A full list of issues raised appears in the Supporting Technical Document on Public Transport.



Ferry Operations

Both passenger and vehicular barge services operate between Townsville and Magnetic Island. These are not regulated by Queensland Transport, except for the enforcement of normal marine safety standards.

The passenger ferry service operates between Townsville and Picnic Bay on Magnetic Island seven days per week, with approximately 30,000 passengers per annum. The barge operates a seven days per week service between Townsville and Arcadia, carrying vehicles and passengers. The ferry provides a service for both commuters and tourists.

Ferry operations currently ply between Townsville and Picnic Bay Jetty on Magnetic Island. In some inclement weather, ferries are exposed to wave action, which makes boarding and disembarking ferries more difficult. Problems for people with disabilities are magnified. The redevelopment of Nelly Bay potentially offers a sheltered mooring facility for ferries and reef tour boats. Barge facilities are also likely to be provided at Nelly Bay.

There is one scheduled passenger ferry currently providing transportation services to Magnetic Island from Townsville, Sunferries Magnetic Island Pty Ltd. The fleet consists of two large catamarans, providing a fast service, able to carry 200-300 passenger on each service. All of the Sunferries Magnetic Island Pty Ltd services are wheelchair accessible.

Public Consultation Major issues raised in relation to ferry operations

- ◆ Co-ordination of timetables with mainland bus services
- ◆ Access in bad weather
- ◆ Bus links with ferries
- ◆ Integrated services between all public transport

A full list of issues raised appears in the Supporting Technical Document on Public Transport.

Recreational Marine Facilities

There are a number of existing facilities to be maintained, including ramps, berths and piles (moorings).

Public Consultation Major issues raised in relation to recreational marine facilities

- ◆ unmet demand for boat ramps
- ◆ the only "all tide" facility is one of the two Coastguards ramps
- ◆ preserve the option of a sheltered boating facility at Toolakea

Pedestrian & Bicycle Transport

Whatever primary transport mode is used, it is highly probable that at least one end of each trip is conducted on foot or in a wheelchair. The nature of the terrain and climate in Townsville-Thuringowa is such that walking for both recreation and travel is very popular.

In general, there is a lack of footpaths adjacent to the road in most of the existing urban areas, which discourages many people from walking for short to medium journeys.

The Townsville - Thuringowa region possesses an extensive cycling network, a percentage of which is shared pedestrian paths. The infrastructure consists of approximately 100 km of on-road bicycle lanes, 40 km of off-road bicycle paths and 10 km of bicycle routes.

The on-road facilities are usually defined by signs and road surface markings. These lanes generally enable a cyclist to ride with adequate clearance to moving vehicles in the adjacent traffic lane and also to avoid an opening door of a parked car without having to enter the adjacent traffic lane.

For off-road facilities, the shared path is the most common and the one having the versatility in providing for cyclists and other users such as children, the elderly, disabled people, wheelchair users etc. This enables the maximum benefit to be derived from these facilities.

Bicycle routes are generally located in quiet streets. There is no delineation line for the bicycle area, however, the routes are marked with posted signs and bicycle symbols painted on the road.

Public Consultation Major issues raised in relation to pedestrian and bicycle transport

- ◆ End-of-trip and end-of-route facilities
- ◆ Separation/integration of different user types
- ◆ Early consideration of future needs in planning
- ◆ Existing infrastructure and maintenance issues
- ◆ Design standards
- ◆ Continuity and connectivity
- ◆ Safety
- ◆ Education of cyclists and motorists
- ◆ Integration with other modes
- ◆ Funding
- ◆ Consistent signage

A full list of issues raised appears in the Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport

Analysis and Vision Development

The issues raised during public consultation and the Transport Vision determined by TTSP, provided direction in developing the background Technical Papers. These papers formed the basis of the input for the TTIRTP. The background technical papers which were developed are:

- ◆ Supporting Technical Document on Public Transport
- ◆ Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
- ◆ Road Network and Freight Study Issues Paper
- ◆ Road Freight Alternatives Issues Paper
- ◆ Road Hierarchy Principles for Townsville-Thuringowa
- ◆ Freight Hierarchy Principles for Townsville-Thuringowa
- ◆ Road Network and Freight Study Options Scoping Working Paper
- ◆ Road Network and Freight Study Long-Term Packages Examination
- ◆ Road Network and Freight Study Recommendations Report

Copies of these individual strategies are available from Queensland Transport. Three broad themes for the future of transport in Townsville-Thuringowa emerged from these separate Strategies:

- ◆ transport and land use planning,
- ◆ the existing transport system, and;
- ◆ new infrastructure.

Focusing on these three central themes in an integrated way provides benefits beyond what could be achieved by dealing with the three modally based strategies in isolation.

Transport and Land Use Planning

The location of land use activities and the development of the transport networks should not be planned independently.

An essential need exists to recognise the relationships between residence, place of work/school, industry etc

to ensure efficiency, affordability and effectiveness of transport corridors.

Integrating transport and land use planning can ensure that transport corridors and their environments are planned, designed, developed and managed as integrated facilities with provision for more than one transport mode.

Integrating transport and land use planning can also address social and equity issues. Thus the TTIRTP has developed a Vision for Land Use and Transport Planning in Townsville-Thuringowa which states:

Appropriate transport and land use planning integration has delivered the social and environmental benefits of alternative transport modes, with street networks and patterns of development reducing both the number and length of car trips and the impact of transport corridors.

A number of strategies and associated actions have been devised to implement this Vision. These include:

***Strategy L1
Ensure transport corridors are planned as integrated environments in which the relationship between transport, land use and environmental protection is acknowledged and mechanisms for integrating transport planning and land use planning are in place***

Corridors are defined as transport routes, including their associated environments. This association is important and needs to be clearly recognised. Transport corridors may contain facilities for one or more transport modes. For example, road corridors provide facilities for general motorised traffic, but buses also use the road and either share the road width with general traffic or have their own exclusive lanes. Road and rail facilities are frequently co-located within the one corridor.

Planning for corridors involves:

- ◆ Roads and their environments being planned, designed, developed and managed as integrated facilities, with provision for more than one transport mode;
- ◆ Recognition of the relationship between the corridor and the adjoining communities, land uses, built form, amenity and environment;
- ◆ Planning for integration of development controls and traffic management; and
- ◆ Consideration of the impact of traffic on safety of pedestrians and cyclists, parking, local businesses and activities, and environmental assets.

Detailed work has been undertaken in the Supporting Technical Documents which can be applied to this Strategy. These Documents have identified the requirement for corridor and access planning studies; seek the endorsement of road, freight and cycle hierarchies and have developed principles for best practice land use and transport planning to assist in achieving Strategy L1.

Strategy L2

Facilitate and encourage the integration of land use planning and transport planning considerations in the management of major transport facilities and freight interchanges, and in the planning considerations for adjacent areas

The planning and design of transport corridors and the planning of adjacent land uses must be integrated. Transport vehicles are noisy, emit certain pollutants, can operate 24 hours a day and the corridor itself can represent a barrier to movement. Thus corridor activities have the potential to adversely impact on certain types of adjacent land uses. Alternatively, adjacent land uses can generate activity which may adversely impact on the management and operation of traffic and also compromise safety within the corridor. This association is important and must be clearly recognised.

Historically, urban development has occurred along roads and the challenge is to protect, adapt and develop the corridors to ensure their function as movement routes is in balance with the need to protect adjoining properties, business activities and local communities.

The actions devised to support Strategy L2 include implementing outcomes of previous corridor planning studies, developing ongoing liaison and relationships with transport and land use planning agencies and implementing the intentions of State planning policies.

Strategy L3

Promote compact forms of urban development to increase the efficiency of the transport system

Transport in Townsville-Thuringowa is predominantly road based and land use planning can dictate that car travel is the only viable means for both local and distance travel.

Alternatively, appropriate land use planning can support the use of public transport, cycling and walking and can also deliver street networks and patterns of development which reduce both the number and lengths of car trips. This can be done without detriment to the profitability or aesthetics of a development.



The Supporting Technical Documents have developed a number of principles for best practice land use and transport planning. Principles appropriate to achieve Strategy L3 have been detailed as Actions in the Implementation chapter of TTIRTP.

Strategy L4
Ensure land use patterns encourage the use of public transport, walking and cycling

One of the primary objectives of the TTIRTP is to develop strategies and actions that will deliver a transport system that will offer a choice of modes and routes to activity centres.

Transport and land use patterns evolve together over long periods of time and are influenced by many factors. Transport users are faced with a constrained set of choices between different travel modes.

To ensure that the transport system is effective and efficient, links must be available connecting these various attractors. Links come in the form of road-based links, public transport links, bicycle facility links and pedestrian and wheelchair facility links. The viability of these links can also be enhanced by 'activity clustering' whereby destinations provide for multi-purpose trips.

The Supporting Technical Documents have developed a number of principles for best practice land use and transport planning. Principles appropriate to achieve Strategy L4 have been detailed as Actions in the Implementation chapter of TTIRTP.

Strategy L5
Promote the integration of the administrative systems of agencies with responsibilities for transport planning

Transport planning will contribute to achieving regional planning objectives, while regional planning can assist in achieving access and mobility goals. The integration of the TTIRTP Strategies with Local Government Planning Schemes is an important component of the success of each of them. The provisions of each local government's planning scheme, currently under preparation, will need to be developed in context of the TTIRTP, as well as the TTSP, other policy documents and the Integrated Planning Act 1997 itself.

The responsibility for implementing the Strategies and Actions detailed in the TTIRTP falls across a number of agencies and across levels of government. Therefore, there is a need to recognise the interdependence of agencies in implementing the TTIRTP and there will need to be commitment to interagency co-operation, both in financing and implementing the strategies. Thus actions have been detailed to assist agencies to achieve this Strategy.

The Existing System

The transport system allows many modes of transport to operate: public and private, freight and passenger, motorised and non-motorised transport.

Townsville-Thuringowa's existing transport systems are a fundamentally important community asset. Via the transport system, the community of Townsville-Thuringowa has access to employment, education, recreation and social exchange, and industry is able to produce and market goods and services. However transport space is a scarce resource. Building more roads may bring local and temporary relief, but it is costly and often shifts problems, and may increase car dependence and reduce sustainability.

Consideration of traffic impact on the safety of pedestrians and cyclists, local businesses and activities and environmental assets is important.

A key issue is how available transport space should be allocated to different transport modes. Some transport modes are incompatible and there may also be different priorities in different locations at different times.

Therefore the TTIRTP has developed a Vision for the existing transport system which states:

The existing transport system is a significant community asset which operates in an efficient, effective and sustainable manner.

A number of strategies and associated actions have been devised to implement this Vision.

Strategy S1
Ensure that residential areas, major centres, employment nodes and freight distribution centres are developed around existing transport networks

Transport users are faced with a constrained set of choices between different travel modes. The choice of travel is a function of the transport infrastructure and services provided, the cost of those services and the arrangements of land uses that generate the need for transport. Further, no one can change their travel behaviour unless provided with viable alternatives.

To ensure the transport system is effective and efficient, links must be available, connecting various attractor destinations. Links come in the form of road-based links, public transport links, bicycle, pedestrian and wheelchair facility links. The viability of these links can also be enhanced by activity clustering, whereby destinations provide for multi-purpose trips. Flexibility, from both an operational perspective and in transport planning, needs to be evident to ensure the existing system is maximised to its best advantage.

With a small number of exceptions, the transport and demand modelling undertaken as part of the TTIRTP has determined that until 2015, there will be no new transport corridors developed. To make the most of the existing corridors, the roads will need to be supplemented with additional facilities for walking, cycling and public transport.

Strategy S2

Pursue alternative public transport delivery models which utilise existing infrastructure and offer a viable alternative to car travel

Public transport is expensive to deliver. Townsville and Thuringowa is operating off a relatively low population base and, historically, from a transport environment that is dominated by the private car. The region has traditionally exhibited a very low level of public transport usage due to a range of factors, including low levels of traffic congestion, easy parking and the low service level of the bus services.

There are other challenges to the effective increase in public transport usage. These include a relatively inactive CBD, although it is still an active employment node with substantial levels of affordable parking, the creation of sub-regional centres that serve a similar purpose to CBDs elsewhere, dispersed activity centres and dispersed employment with two major employment centres - Lavarack Barracks and James Cook University-located on the fringe of the region.

However this is not to say that public transport cannot deliver benefits to the region. Nor does it mean that public transport is irrelevant in a regional environment. Further, while the principal focus for the TTIRTP is on the medium-term horizon, the requirements for the long term needs of the region must not be overlooked. The TTSP anticipates the region can accommodate a population of about 320,000 people (about the current size of the Gold Coast). Thus the groundwork for transport systems of the future must be laid now.

It is acknowledged on a global scale that there is no one single action which will encourage greater use of public transport. There needs to be a range of policies and actions which are complementary, able to be incorporated into everyday lifestyles and also politically and practically implementable.

The primary objective of Strategy S2 is to develop actions that will deliver a public transport system that will offer an alternative to car travel to activity centres and provide a quality service to those who have no alternative but to utilise public transport.

Strategy S3

Explore alternatives to restrain heavy vehicle traffic growth, reduce the impact of heavy vehicles on the existing system and improve urban road freight efficiency

Townsville is an important freight node for both inter-regional and intra-regional freight movements and these freight movements are expected to continually increase in the future. However, the demands of freight traffic come into conflict with the requirements of residential and tourist traffic, walking and cycling, and impact on the amenity of residential areas. There is a need to maximise the urban road freight efficiency and the potential to utilise alternative modes for freight traffic, and to develop designated freight routes.

The Road Network and Freight Study Supporting Technical Documents have developed a number of options for achieving this which have been developed in Strategy S3 and associated actions.

Strategy S4

Identify opportunities to reduce the environmental impacts of car use and promote the environmental, economic and health benefits of public transport, cycling and walking

There are significant economic, social and environmental costs to the community of unrestrained transport growth.

These costs are not generally perceived by road users or considered in individual travel decisions, and do not therefore influence the overall levels of road usage. They need to be taken into account in setting overall directions for a transport strategy which focuses on transport demand management as well as investment in infrastructure which can be justified in terms of sustainable demand levels.

Such impacts are still relatively minor in the Townsville-Thuringowa region but this does not mean the issue can be ignored. The challenge is how to reconcile the societal disadvantages of growth in car usage with the private advantages which the car provides to its users. This is, in many respects, a global issue.

Experience suggests that the use of transport information, marketing and community education as part of an integrated transport plan can increase levels of public awareness of the problems of increased traffic growth and influence public attitudes in favour of

alternatives to the car. However research has revealed that there are two principles on which to base policies to influence travel behaviour:

- ♦ Transport plans should not be physically introduced without accompanying information, education and dialogue with local communities.
- ♦ The use of information and education alone is not sufficient to change travel behaviour across the population. Some groups will only reduce car travel if they are restrained either geographically or financially. However, no one can change their behaviour unless they are provided with viable alternatives.

Strategy S4 details a number of actions to initiate education and dialogue with the community and to develop education programs.

Strategy S5

Ensure that there are efficient and reliable freight interchanges

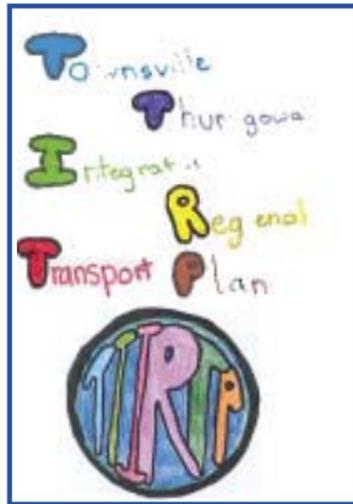
There are a number of freight distribution centres in Townsville-Thuringowa at Stuart and the Bohle area. There is a risk of fragmentation and increased transport demand as a consequence. A more focused approach would reduce impact on infrastructure and residential amenity. Strategy S5 details some studies to be undertaken to achieve this.

New Infrastructure

Even by employing best practice transport and land use planning principles and by making the most of the existing transport infrastructure, new transport infrastructure will be required. This is due to:

- ♦ an expected increase of the region's population of around 50,000 in the next 15 years.
- ♦ an increase in the number of residential areas, employment nodes and retail and support services to serve the increased population.
- ♦ a more diversified economic base; and
- ♦ an increase in freight demand both within and through the region.

The road network of Townsville and Thuringowa will require significant enhancement by 2050 to accommodate the ultimate settlement pattern and corresponding population of 320,000. Some new transport corridors will be required. Population growth between 2015 and 2050 will occur



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significantly in the southern part of Townsville City (e.g. Rocky Springs) as well as the western part of Thuringowa, Murray/Douglas, Mt Louisa/Bohle, along with infill in the existing residential areas. Employment growth will occur significantly in the southern part of Townsville (Woodstock), along with Stuart, western parts of Thuringowa and general employment infill in the existing metropolitan area in alignment with population increases.

Total growth in regional travel demand between 2015 and 2050 is approximately 39%.

This will result in the largest increases in travel demand occurring in the following sectors:

- ◆ Onoonbah - Idalia-Cluden, Stuart-Roseneath which is associated with the industrial development at Stuart;
- ◆ Kelso and Kirwan which is associated with population increase and commercial activity;
- ◆ New population centre at Rocky Springs and industrial centre at Woodstock
- ◆ Burdell/Mt Low/Deeragun/Bohle Plains

Therefore, the TTIRTP has developed a Vision for developing new infrastructure in Townsville-Thuringowa.

New transport infrastructure has supported continued economic development, including specific major industrial developments, and quality of life is enhanced through the provision of cyclist, pedestrian and public transport services and facilities.

A number of strategies and associated actions have been devised to implement this Vision. These include:

Strategy 1 1
Identify transport network constraints and options to overcome these constraints

The Road Network and Freight Strategy Background paper prepared two broad road network packages to accommodate travel demand in Townsville and Thuringowa to 2015. Detailed assessment and consultation determined a preferred network and the results are presented below. The chosen package consists of upgrades to the traffic carrying road network to maintain uncongested operation, plus new sub-arterial linkages to new development planned to be in place by 2015.

The preferred network includes three major improvements:

- ◆ Capacity increases to the region's north-west (Bruce Highway)
- ◆ Capacity increases to the region's west (Townsville Ring Road)
- ◆ Capacity increases to the regions south (Flinders Highway, Stuart Bypass, Stuart Drive and Abbott Street).

Also identified indicatively are new sub-arterial network elements in the growth areas of Deeragun, Mount Low and Bohle Plains. These will be needed to provide efficient connection to the arterial network in accordance with the Road Hierarchy Principles detailed in Strategy L1.

These programs of works are consistent with the outcomes of the Townsville Port Access Impact Assessment Study. It has been determined that Perkins Street will be the rail access to the port and Boundary Street will be an ongoing road to the port from the west and north. An Eastern Corridor may be developed, subject to further outcomes of the Port Impact Assessment Study (IAS). Preliminary results of the Port IAS show that the volumes of traffic on the Eastern Corridor would be moderate. However the link would carry a high proportion of freight traffic and is therefore under consideration as a strategic freight network element.

However, given the societal changes that could occur over this extended 50 year planning horizon, the need, timing and form of these improvements is highly uncertain. In addition to major road network improvements, further road network improvements would also be required including intersection upgrades, localised widening, traffic management measures in established areas and entire road networks in new development areas.

For works on State-controlled roads, the determination of priority is based on anticipated growth in travel demand on links. This is related to historic growth trends and predicted future growth trends and triggers for upgrading.

A change in development rates or patterns in growth areas may impact on the priority and timing of proposed road infrastructure projects.

In addition, construction of projects is dependent on the availability of Federal Government funding for the National Highway and State Government funding for all other State-controlled roads.



Strategy 12
Ensure there is adequate choice of public transport, particularly for the disabled and those without access to a car

A clear directive of the TTSP is to increase the proportion of trips made by public transport. It is difficult to make substantial changes to public transport quickly. This is because Queensland Transport regulates services through contracts.

Strategy 12 has developed actions which focus on improving services by:

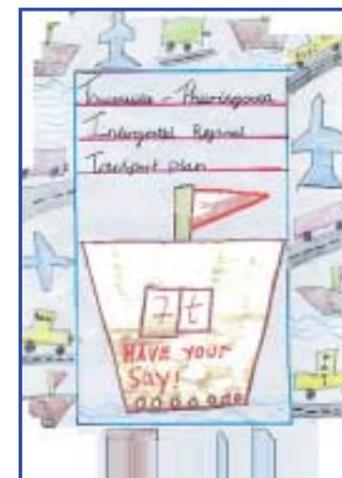
- ◆ increasing accessibility in terms of convenience and quality of transport options;
- ◆ maintaining or improving affordability for the public; and
- ◆ ensuring services are affordable to the State Government in terms of overall subsidy levels.

When considering increasing public transport patronage, the concept of “transit” facilities are often raised as a way to attract more patrons to public transport. There are a number of categories of transit which are appropriate at different stages of a region’s development.

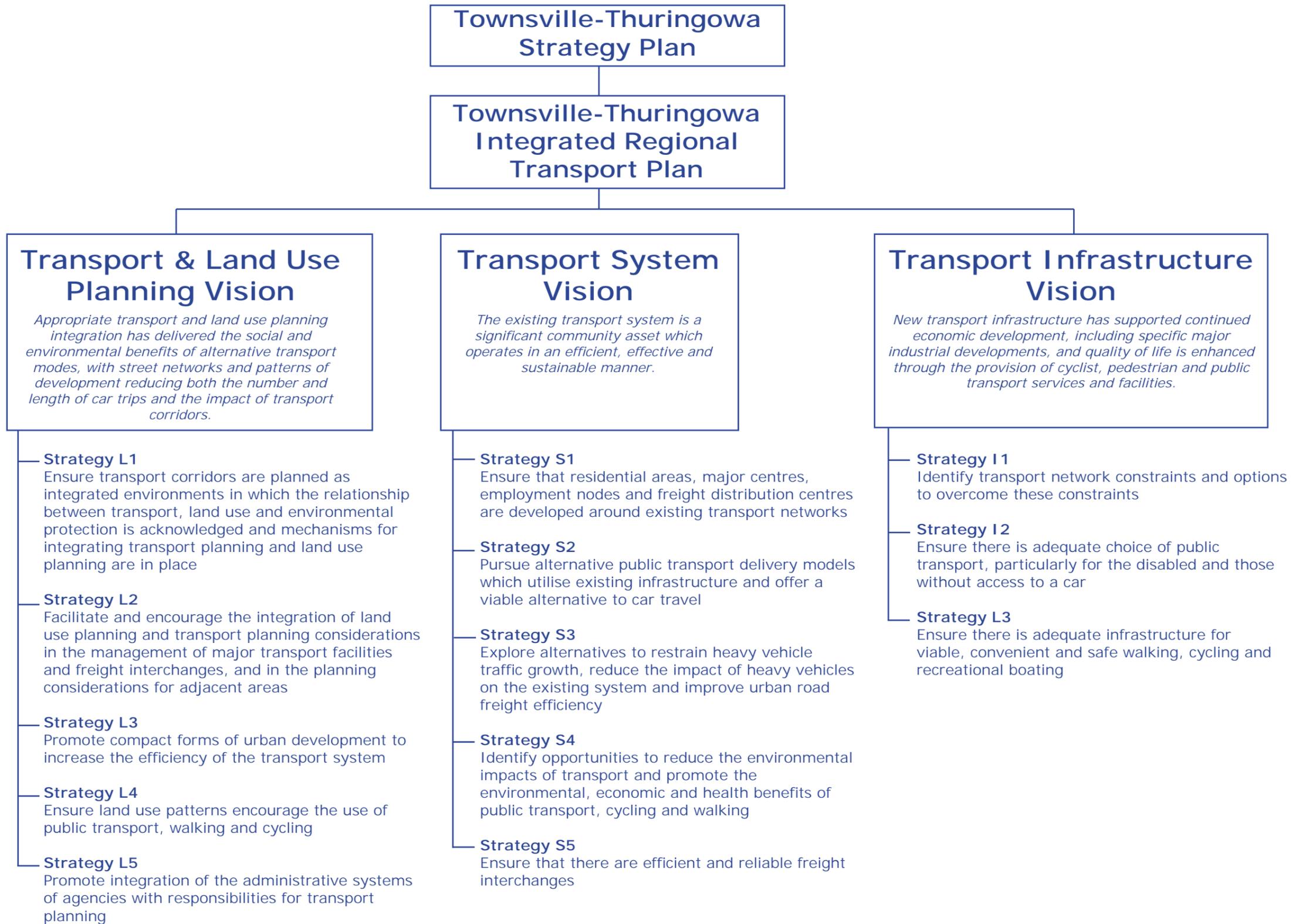
Currently, the region does not have the population base nor the public transport patronage to warrant investment in such facilities. However by 2050, with a population the same size as the current Gold Coast population, the probability of the provision of rapid transit facilities becomes a little more feasible. The complexity of choosing mode type and selection of corridors for line-haul transit is beyond the scope and budget of this current study. However future provision should be considered. The success of any line-haul transit system is heavily dependent on development patterns. In the case of Townsville-Thuringowa, development needs to be cognisant of this fact.

Strategy 13
Ensure there is adequate infrastructure for viable, convenient and safe walking, cycling and recreational boating

Although there is already a comprehensive network for walking, cycling and wheelchair transport in the region, the Bicycle, Pedestrian and Wheelchair Transport Supporting Technical Document determined that there are deficiencies with the system. These deficiencies include lack of network connectivity and lack of infrastructure such as lighting and end-of-trip facilities. These facilities and infrastructure are required to enhance the perceived level of safety of the environment and to encourage the increased patronage of walking and cycling as transport modes. Strategy 13 details a number of principles, capital works and studies to be undertaken to rectify the deficiencies.



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Implementation

The TTIRTP represents the commitment of the Queensland Government and Townsville City Council and the City of Thuringowa to develop an integrated transport plan for the region.

The plan has been developed through an extensive consultation process with the community and key stakeholders and every effort has been made to include their suggestions in the strategic framework.

The plan serves two purposes. Firstly it provides a commitment by the Queensland Government and the two Councils to fund infrastructure that will build a better transport system for the region. Most of the initiatives will be funded by either the Queensland Government or one of the Councils. In some cases there may be shared funding. However the plan provides the basis for consultation and integration between the two levels of government and between the two Councils.

Secondly it serves to highlight the underlying principles for effective transport planning in the region. The two Councils are committed to implementing the guidelines when developing their respective town planning schemes. Decisions taken on a daily basis at the local level through both planning schemes are crucial to effective transport planning.

While this plan represents the end of an exhaustive planning process, the real test is in the future. We must be accountable for implementing the plan in a way that is acceptable to the community. Therefore the Queensland Government and the two Councils are committed to reviewing its implementation on a regular basis to ensure its goals are achieved.

The TTIRTP provides a link between the regional planning framework (TTSP) and the works programs of infrastructure delivery agencies.

The TTIRTP will achieve the objectives of:

- ◆ enhancing quality of life through provision of improved non-motorised and public transport services
- ◆ supporting economic growth by developing efficient and integrated transport networks
- ◆ supporting specific major industrial development through sustainable transport initiatives.

The TTIRTP will achieve these objectives by:

- ◆ developing policy to be implemented through existing statutory processes
- ◆ incorporating best practice land use and transport planning principles into planning instruments
- ◆ integrating planning for new infrastructure to fit within a transport and regional planning framework
- ◆ conducting feasibility investigations
- ◆ recommending regulatory mechanisms
- ◆ providing education and information campaigns to achieve the projects' recommendations

As previously stated, when considering appropriate strategies and actions for the next 25 years, it has been determined that new initiatives should not be implemented unless:

They are practical and capable of being funded/subsidised by operators/government;

They have the potential to deliver genuine and needed improvements to the public;

They are relevant to Townsville-Thuringowa; and

They provide a cost-effective solution for users and government.

Further, it must be realised that for infrastructure works, the determination of priority is based on anticipated growth in travel demand on links. This is related to historic growth trends and predicted future growth trends and triggers for upgrading.

A change in development rates or patterns in growth areas may impact on the priority and timing of proposed road infrastructure projects.

In addition, construction of projects is dependent on the availability of the Federal Government to fund National Highways and State Government funding for all other State-controlled roads.

Detailed List of Actions

The following section details how the actions will be undertaken and assigns priorities, lead agencies, supporting agencies and indicative timings. The actions are designed to show how the TTIRTP Visions and Strategies will be achieved.

Types

The Detailed List uses icons to show the general type of action proposed. The icons are described below:



Investigation/Study



Best practice land use and transport planning principles



Capital Works



Policy Action



Endorsement/agreement/monitoring

Timeframes

The indicative timeframes outlines in the detailed list are:

short-term	2001-2006
medium-term	2007-2011
long-term	2012+

Reference

The numbering system for actions refer to the three Visions and associated strategies

L	=	Land Use and Transport Planning Vision
S	=	The Transport System Vision
I	=	The Transport Infrastructure Vision

Lead agency and supporting agency

The TTIRTP uses the term agency to refer to government departments or other organisations that might be responsible for part of the TTIRTP implementation. Lead agencies have the overall responsibility for a particular action. Supporting agencies assist the lead agency in their areas of responsibility.

TRANSPORT PLANNING & LAND USE PLANNING VISION

Strategy L1

Ensure transport corridors are planned as integrated environments in which the relationship between transport, land use functions and environmental protection is acknowledged and mechanisms for integrating transport planning and land use planning are in place

Actions Underpinning Strategy L1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L1.1	<p>Endorse the functional road hierarchy for the current and future networks, including a system of standards, level of service and access management criteria and review every two years or as required</p> <p>This will be achieved by incorporating the road hierarchy developed by TTIRTP into the Planning Schemes of Townsville City Council and the City of Thuringowa to form the basis of ongoing planning and system management aimed at reducing the mix of incompatible functions. (State Government agencies will also be bound by the Planning Schemes)</p>	Local Govts.	QT/DMR	Incorporate into Local Governments' IPA Planning Schemes	Road Hierarchy Principles for Townsville-Thuringowa
 L1.2	<p>Endorse the current and future routes for freight-efficient vehicles, over-dimensional vehicles and dangerous goods, including a system of standards, level of service and access management criteria and review every two years or as required</p> <p>This will be achieved by incorporating the freight hierarchy developed by the TTIRTP into the Planning Schemes of Townsville City Council and the City of Thuringowa and into the DMR/QT regulation process to allow orderly planning of freight-efficient vehicle routes, over-dimensional and dangerous goods routes by concentrating longer distance flows onto routes in less sensitive areas (State Government agencies will also be bound by the Planning Schemes)</p>	Local Govts.	QT/DMR*	Incorporate into Local Governments' IPA Planning Schemes	Freight Hierarchy Principles for Townsville-Thuringowa
 L1.3	<p>Endorse the cycleway (including shared paths) hierarchy and review every two years or as required</p> <p>This will be achieved by incorporating the cycleway hierarchy developed by the TTIRTP into the Planning Schemes of Townsville City Council and the City of Thuringowa to provide a framework within which both local and State governments can plan to provide co-ordinated, continuous and well-signed facilities for Townsville-Thuringowa</p>	Local Govts.	QT/DMR*	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport

*where it relates to State-controlled roads

Actions Underpinning Strategy L1 (cont)

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L1.4	<p>Undertake rail corridor planning, identification and acquisition decisions that ensure the continued integrity of the network, and establish policies and procedures with both Councils to ensure the ongoing integrity of rail corridor land</p> <p>This will be achieved by developing a Rail Corridor Directions Statement for the Western Line and the Great Northern Line, which will include documenting the current capabilities of each corridor, undertaking an analysis of each corridor and determining and documenting how the corridors can be developed to meet these needs</p>	QT	QR/Local Govts.	Ongoing	QT's Rail Network Strategy
 L1.5	<p>Undertake investigations to determine the potential use of rail corridors as integrated cycleways and the viability of retaining disused rail corridors as future "rail trail" facilities for regional cycling, walking and tourism opportunities</p>	QT	QR	Medium-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 L1.6	<p>Promote the concurrent use of rail corridors for transport purposes</p> <p>This will be achieved through QT's State Rail Network Strategy by:</p> <ul style="list-style-type: none"> - Determining the minimum railway standards for the safe concurrent use of rail corridors - Ascertaining the minimum industry standards of selected, potential non-rail users for the safe, concurrent use of corridors - Examining the range of possible tenure and contractual arrangements for the concurrent use of rail corridors, within the existing legislative framework - Providing information and advice on the concurrent use of rail corridors, targeting potential rail and non-rail users - Assisting potential users in negotiating with existing and potential railways managers for the concurrent use of corridors - Monitoring and reviewing the concurrent use of corridors 	QT	QR	Ongoing	QT's Rail Network Strategy

Actions Underpinning Strategy L1 (cont)

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L1.7	Finalise studies investigating new corridor requirements such as the Port Access Impact Assessment Study	QT, DMR, TCC, QR, TPA		Short-term	Townsville Port Access Impact Assessment Study
 L1.8	Undertake Airport Road Access Study	TCC	QT, AAL (Townsville)	Short-term	Townsville Airport Master Plan
 L1.9	As development and demand require, develop and protect new transport routes as multi-purpose and multi-modal corridors This will be achieved by ensuring: <ul style="list-style-type: none"> Planning Schemes include adopted Road Hierarchy Planning Schemes promote transit supportive development patterns Planning Schemes include provisions requiring new development to recognise and make provision for the level of corridor envisaged 	Local Govts.	QT	Incorporate into Local Governments' IPA Planning Schemes	Road Hierarchy Principles for Townsville-Thuringowa Supporting Technical Paper on Public Transport
 L1.10	Ensure neighbourhoods are designed to improve the quality of the transport environment for all users including reducing the impact on the local communities and ensuring development is complementary to the adjacent transport function. This will be achieved by ensuring: <ul style="list-style-type: none"> Planning Schemes promote transit-supportive development patterns Planning Schemes include provisions which ensure subdivision design maximises accessibility to potential public transport routes Planning Schemes include provisions for transport-related buffering and noise/vibration amelioration measures where appropriate 	Local Govts.	QT	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Paper on Public Transport Road Hierarchy Principles for Townsville-Thuringowa Freight Hierarchy Principles for Townsville-Thuringowa

Actions Underpinning Strategy L1 (cont)

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L1.11	Implement mechanisms for traffic noise prevention and mitigation during land use design and assessment This will be achieved by ensuring Planning Schemes include provisions for transport-related buffering and noise/vibration amelioration measures where appropriate	Local Govts.	DMR	Incorporate into Local Governments' IPA Planning Scheme	Road Hierarchy Principles for Townsville-Thuringowa Freight Hierarchy Principles for Townsville-Thuringowa
 L1.12	Implement mechanisms to manage heavy vehicles in urban areas This will be achieved through local laws or police mechanisms	Local Govts.	QPS	Short-term	

TRANSPORT PLANNING & LAND USE PLANNING VISION

Strategy L2

Facilitate and encourage the integration of land use planning and transport planning considerations in the management of major transport facilities and freight interchanges, and in the planning considerations for adjacent areas

Actions Underpinning Strategy L2

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L2.1	Investigate the extent and severity of traffic-generated vibration on Boundary Street (port access)	DMR		Short-term	Townsville Port Access Impact Assessment Study
 L2.2	Investigate short-term measures to improve amenity and reduce the social impacts of vehicles accessing the port via Boundary Street, such as road surfacing measures to reduce noise and vibration, and measures to improve traffic flow and pedestrian activity	DMR	TCC	Short-term	Townsville Port Access Impact Assessment Study
 L2.3	Initiate a review of the potential to introduce less noise-sensitive land uses in the vicinity of Boundary Street (port access)	TCC		Short-term	Townsville Port Access Impact Assessment Study
 L.2.4	Liaise with port owners (sea port and air port) and the community on facility strategic plans and environmental management plans	QT	TPA/ Townsville Airport	Ongoing	
 L.2.5	Identify specific sites for freight distribution centres This will be achieved by including such sites in Planning Schemes	Local Govts.		Short-term	

Actions Underpinning Strategy L2

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
	<p>L2.6 Implement planning controls to restrict increases in residential densities within the noise-affected suburbs of Heatley and Mount Louisa to the south of the airport</p> <p>This will be achieved by ensuring Planning Schemes include provisions regulating density and sensitive land use in areas affected by aircraft-related noise</p>	TCC		Incorporate into Local Governments' IPA Planning Schemes	Townsville Airport Master Plan
	<p>L2.7 Ensure local governments' IPA Planning Schemes take account of air and noise pollution generated by major transport facilities and major industry while protecting operational capabilities</p> <p>This will be achieved by ensuring Planning Schemes provide for the separation of incompatible land uses and include environmental, building and design standards to reduce air and noise-related impacts of major industry</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	State Planning Policy: Planning and Management of Development in the Vicinity of Certain Airports and Aviation Facilities
	<p>L2.8 Protect the aerodrome and associated aviation facilities from encroaching incompatible development by integrating the proposed <i>State Planning Policy: Planning and Management of Development in the Vicinity of Certain Airports and Aviation Facilities</i> into local government IPA Planning Schemes as a guide to ensuring the operational and safety requirements of air traffic and to protect the standards of safety and amenity for residents living and working in nearby new developments</p> <p>This will be achieved by ensuring Planning Schemes are consistent with the requirements of State Planning Policy and include building and development controls within established flight paths that protect operational viability of Townsville Airport</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	State Planning Policy: Planning and Management of Development in the Vicinity of Certain Airports and Aviation Facilities
	<p>L.2.9 Recognise the role of the State Rail Network Strategy in addressing rail network planning issues not addressed at the local level</p>	QT	Local Govts./ QR	Ongoing	State Rail Network Strategy

TRANSPORT PLANNING & LAND USE PLANNING VISION

Strategy L3

Promote compact forms of urban development to increase the efficiency of the transport system

Actions Underpinning Strategy L3

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L3.1	<p>Ensure that the centres' hierarchy nominated by the TTSP is incorporated into Councils' IPA Planning Schemes to ensure consolidation and to develop key regional centres as multi-purpose nodes</p> <p>This will be achieved by adopting and applying TTSP commercial centres hierarchy under the Planning Schemes</p>	Local Govts.	DCILGPS	Incorporate into Local Governments' IPA Planning Schemes	Townsville-Thuringowa Strategy Plan Supporting Technical Paper on Public Transport
 L3.2	<p>Ensure that opportunities for mixed-use development are facilitated at all existing and future centres</p> <p>This will be achieved by ensuring Planning Schemes include provisions allowing a mix of appropriate land uses with established commercial centres</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Townsville-Thuringowa Strategy Plan Supporting Technical Paper on Public Transport
 L3.3	<p>Provide for increased residential densities immediately adjacent to low-order centres and within easy walking distance of larger centres</p> <p>This will be achieved by ensuring Planning Schemes promote transit-supportive development patterns</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Paper on Public Transport
 L.3.4	<p>Ensure that new rural residential development opportunities will not unduly constrain future urban expansion needs and consolidate already fragmented rural residential areas prior to opening up new dispersed areas or development which would be expensive and inefficient to supply with infrastructure and services</p> <p>This will be achieved by ensuring Planning Schemes limit expansion of rural residential development to those areas identified under TTSP so that rural residential expansion is limited largely to infill of existing areas</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Townsville-Thuringowa Strategy Plan

Strategy L3 Implementation



Actions Underpinning Strategy L3

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L3.5	<p>Ensure that there is connectivity between residential developments and that there are multiple entry points to residential developments</p> <p>This will be achieved by ensuring Planning Schemes include provisions which encourage the use of permeable road network design which is more conducive to effective and efficient public transport provision</p>	Local Govts.	DMR*	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Paper on Public Transport Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport

* where it relates to State-controlled roads

TRANSPORT PLANNING & LAND USE PLANNING VISION

Strategy L4

Ensure land use patterns encourage the use of public transport, walking and cycling

Actions Underpinning Strategy L4

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L4.1	<p>Incorporate measures into IPA Planning Schemes that require the provision of cycle and pedestrian infrastructure to be designed and provided to appropriate standards</p> <p>This will be achieved by ensuring Planning Schemes include standards requiring the provision of appropriately designed pedestrian paths and cycleways</p>	Local Govts.	*DMR	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 L4.2	<p>Promote neighbourhood design to achieve high levels of connectivity and accessibility</p> <p>This will be achieved by ensuring Planning Schemes promote transit supportive development patterns</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Paper on Public Transport Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 L4.3	<p>Where required, major bus stops or interchanges provided at centres or other activity nodes should be located and designed to provide maximum accessibility, safety and visibility for users.</p> <p>This will be achieved by ensuring Planning Schemes include standards for the appropriate design of transport interchange facilities in centres</p>	Local Govts.	*DMR/QT	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Paper on Public Transport
 L.4.4	<p>New residential developments are to: provide opportunities for efficient local bus routes and ensure that 90% of all new dwellings are within 400m of bus stops; are well connected to existing adjoining neighbourhoods, centres, facilities and public transport opportunities; and provide high levels of connectivity and permeability for public transport in the design of local streets</p> <p>This will be achieved by ensuring Planning Schemes include provisions which encourage the use of permeable road network design which is more conducive to effective and efficient public transport provision</p>	Local Govts.	QT/Local bus operators	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Paper on Public Transport

* where it relates to State-controlled roads

Actions Underpinning Strategy L4

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L4.5	Manage vehicle speed where pedestrians are at risk	Local Govts./ QT	DMR*	Incorporate into Local Governments IPA Planning Schemes	
 L4.6	Develop location-sensitive principles for determining pedestrian accessibility and safety requirements. Different principles may apply, for example, to a retirement village and a shopping centre	Local Govts.		Incorporate into Local Governments IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport

* where it relates to State-controlled roads

TRANSPORT PLANNING & LAND USE PLANNING VISION

Strategy L5

Promote the integration of the administrative systems of agencies with responsibilities for transport planning.

Actions Underpinning Strategy L5

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 L5.1	Develop mechanisms that ensure interagency co-operation and commitment to integrated planning	QT	All transport delivery agencies	Ongoing	
 L5.2	Ensure linkages are established between key stakeholders in transport chains, irrespective of jurisdiction or regional boundaries	QT	All transport delivery agencies	Ongoing	
 L5.3	Investigate mechanisms to remove institutional barriers so that local government can have a larger role in planning public transport, and local communities are given a real choice as to long-term transport investment opportunities	QT	Local Govts.	Ongoing	Supporting Technical Paper on Public Transport

THE TRANSPORT SYSTEM VISION

Strategy S1

Ensure that residential areas, major centres, employment nodes and freight distribution centres are developed around existing transport networks

Principles Underpinning Strategy S1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
	<p>S1.1 Identify opportunities to concentrate urban development, employment-generating activity centres, social and other services around existing transport routes, public transport and pedestrian and cycling spines, with higher residential and employment densities near interchanges or stops</p> <p>This will be achieved by ensuring Planning Schemes promote transit-supportive development patterns</p>	Local Govts.		Incorporate into Local Governments IPA Planning Schemes	Townsville-Thuringowa Strategic Plan
	<p>S1.2 Develop and promote transport and land use patterns which result in fewer and shorter trips to reduce pressure on the existing system and minimise requirements for additional infrastructure</p> <p>This will be achieved by ensuring Planning Schemes promote transit-supportive development patterns and encourage the controlled decentralisation of employment opportunities to achieve containment and manage the demand for multiple vehicle trips</p>	Local Govts.		Incorporate into Local Governments IPA Planning Schemes	
	<p>S1.3 Encourage major new developments to plan for urban containment by provision of employment opportunities, retail outlets and educational opportunities, thereby reducing the impact on the existing transport system and minimising requirements for access upgrades onto the existing system</p> <p>This will be achieved by ensuring Planning Schemes promote transit-supportive development patterns and encourage the controlled decentralisation of employment opportunities to achieve containment and manage the demand for multiple vehicle trips</p>	Local Govts.		Incorporate into Local Governments IPA Planning Schemes	<p>Townsville-Thuringowa Strategic Plan</p> <p>Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport</p> <p>Supporting Technical Paper on Public Transport</p>

Actions Underpinning Strategy S1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S1.4	Undertake cycleway audits of all proposed road building or widening and traffic management schemes to open up the existing system to alternative modes	Local Govts.	DMR*	Short-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 S1.5	Investigate the adequacy of the cycle network for commuter trips by providing safe and direct links via the existing road network to employment destinations	Local Govts.	QT	Short-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 S1.6	Provide safe and convenient links for pedestrians across transport corridors and in existing street networks This will be achieved by ensuring Planning Schemes include provisions for those requiring transport mode separation (vehicle/pedestrian separation)	Local Govts.		Incorporate into Local Governments IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport

*where it relates to State-controlled roads

THE TRANSPORT SYSTEM VISION

Strategy S2

Pursue alternative public transport delivery models which utilise existing infrastructure and offers a viable alternative to car travel

Actions Underpinning Strategy S2

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S2.1	Conduct an audit of the existing bus routes to investigate the potential to decrease public transport travel time, travel costs and increase convenience	Local Govts.	QT	Short-term	Supporting Technical Document on Public Transport
 S2.2	Investigate the potential to develop integrated fare systems and discounting for longer distance travel	QT		Long-term	Supporting Technical Document on Public Transport
 S2.3	Investigate alternative delivery modes for community transport to make it a viable transport alternative	QT		Medium-term	Supporting Technical Document on Public Transport
 S2.4	Conduct a study into the feasibility, viability, timing and support required for a trial of demand responsive public transport in Townsville-Thuringowa, including flexible routes, multi-hire buses, "dial-a-ride" and scheduled taxi services	QT		Medium-term	Supporting Technical Document on Public Transport
 S2.5	Ensure that the points of interchange between different modes of transport are easy and convenient This will be achieved by ensuring Planning Schemes include location and design principles for transport interchanges, and bus stop and route marking is enhanced	Local Govts.	QT	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Public Transport

Actions Underpinning Strategy S2

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S2.6	<p>Ensure that bus, taxi, ferry and passenger rail termini are co-located.</p> <p>This will be achieved by ensuring Planning Schemes include provisions which encourage the integration of alternative public transport types</p>	QT/Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Public Transport
 S2.7	<p>Explore opportunities for operators and agencies to work with the management of "The Cowboys" football team to trial alternative transport scenarios to and from the relocated clubhouse</p>	QT			
 S2.8	<p>Investigate the provision of a regular bus service to Townsville Airport and recognise the airport as a public transport interchange</p>	QT			<p>Supporting Technical Document on Public Transport</p> <p>Townsville Airport Master Plan</p>
 S2.9	<p>Plan, design and provide safety and security features for the public transport system, including more variety of activity at transport interchanges</p>	Local Govts.	QT	Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Public Transport
 S2.10	<p>Undertake a comprehensive audit of the intermodal interchange facilities and bus stops in the region, with the view to developing a program of works necessary to provide safe, accessible and a high standard of integrated facilities</p>	QT			Supporting Technical Document on Public Transport
 S2.11	<p>Provision of accessible services by bus and taxi is to be closely monitored and actions taken as necessary to facilitate discussions between the operators and wheelchair patrons, with enforcement as necessary</p>	QT			Supporting Technical Document on Public Transport

THE TRANSPORT SYSTEM VISION

Strategy S3

Explore alternatives to restrain heavy vehicle traffic growth, reduce the impact of heavy vehicles on the existing system and improve urban road freight efficiency

Actions Underpinning Strategy S3

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S3.1	Encourage the use of rail for the line-haul freight task between Townsville and other major regional and national centres served by rail	QT	QR		Road Freight Alternatives Issues Paper
 S3.2	Encourage the use of rail for bulk commodity movement associated with the Townsville Port and major industry	QT	QR TPA		Road Freight Alternatives Issues Paper
 S3.3	Review the livestock transport task into the region, particularly customer requirements and support road and rail modes	QT/ DMR*			Road Freight Alternatives Issues Paper
 S3.4	Support the use of road transport for short-distance general freight movements within the region, acknowledging its flexibility and efficiency for this task	QT	DMR/Local Govts.		Road Freight Alternatives Issues Paper
 S3.5	Encourage the use of rail, pipeline or conveyor as appropriate for short-distance bulk commodity movements in the region	QT			Road Freight Alternatives Issues Paper
 S3.6	Support the use of road transport for the medium-distance farm-to-market freight task where rail is unavailable or unviable to the customer and encourage rail where it has potential. Encourage the application of technological advances that have the potential to improve the flexibility and efficiency of alternative modes to road, including rail, pipeline, conveyor and by sea	QT	DMR/Local Govts.		Road Freight Alternatives Issues Paper

*where it relates to State-controlled roads

Actions Underpinning Strategy S3

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S3.7	Encourage the mechanisms to improve efficiency at freight mode interchange facilities This will be achieved by ensuring Planning Schemes include standards for the appropriate design of freight transport interchange facilities	Local Govts.	QR	Incorporate into Local Governments' IPA Planning Schemes	Road Freight Alternatives Issues Paper
 S3.8	Develop a road works program, targeting locations with high heavy vehicle accident rates, high levels of complaints from the community and/or industry, deficiencies in meeting standards and road network inefficiencies	DMR* /Local Govts.**			Road Freight Alternatives Issues Paper Freight Hierarchy Principles for Townsville-Thuringowa
 S3.9	Promote the proper use of the freight hierarchy for the movement of freight in the region	QT	DMR/Local Govts.		Road Freight Alternatives Issues Paper Freight Hierarchy Principles for Townsville-Thuringowa
 S3.10	Ensure that infrastructure for local distribution is provided, particularly in respect of Local Area Traffic Management	Local Govts.			Road Freight Alternatives Issues Paper

*where it relates to State-controlled roads
 ** where it relates to local government roads

THE TRANSPORT SYSTEM VISION

Strategy S4

Identify opportunities to reduce the environmental impacts of transport and promote the environmental, economic and health benefits of public transport, cycling and walking

Actions Underpinning Strategy S4

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S4.1	Implement National and State educational initiatives at a regional level to reinforce messages such as Queensland Transport's AirCare campaign to help motorists understand how they can reduce their vehicle emissions, and to reinforce the benefits of using environmentally friendly modes	QT	Local Govts.		Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport Supporting Technical Paper on Public Transport
 S4.2	Establish innovative partnerships with other government agencies and private organisations to become "TravelSmart", the aim of which is to reduce vehicle trips and promote travel alternatives in participating workplaces	QT	Local Govts.		Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport Supporting Technical Paper on Public Transport
 S4.3	Support the new Australian Design Rules to improve vehicle emission standards	QT		Ongoing	Queensland Transport Policy
 S4.4	Support the introduction of low-polluting fuels for urban passenger tasks	QT		Ongoing	Queensland Transport Policy
 S4.5	Support the establishment of in-service emission standards which may be included as part of the roadworthy certificate and development of improved vehicle tuning and maintenance regimes to decrease emissions for poorly maintained vehicles	QT		Ongoing	Queensland Transport Policy
 S4.6	Investigate the requirement for a trial of Transport Officers within Councils	QT	Local Govts.		Supporting Technical Paper on Public Transport

Actions Underpinning Strategy S4

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S4.7	Prepare a user map of the cycle network within Townsville-Thuringowa	QT/ Local Govts./QH/ Dept. of Sport and Rec	Local Govts.	Completed. To be reviewed every two years	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 S4.8	Develop local action plans for pedestrian and cycle path safety	Local Govts.		Short-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 S4.9	Encourage/promote school safety councils	QT	Local Govts.	Short-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport Supporting Technical Document on Public Transport

THE TRANSPORT SYSTEM VISION

Strategy S5

Ensure that there are efficient and reliable freight interchanges

Actions Underpinning Strategy S5

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 S5.1	Investigate the need to set aside land adjacent to Stuart rail facilities to support a multi-modal freight interchange and distribution area	TCC		Short-term	
 S5.2	Identify the needs of freight activities in the Bohle area and the Shaw industrial area	Local Govts.			
 S5.3	Identify the transport needs of industrial areas in the City of Thuringowa	City of Thuringowa			

Strategy S5 Implementation



TRANSPORT INFRASTRUCTURE VISION

Strategy I1

Identify transport network constraints and options to overcome these constraints

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I1.1	Recognise that “the system” goes beyond the roadbased transport system and implement integration of all modes by supplementing existing infrastructure with additional facilities for public transport, walking, cycling and wheelchairs. This will be achieved by ensuring Planning Schemes include provisions which encourage the integration of alternative transport modes	Local Govts.		Incorporate into Local Governments IPA Planning Schemes	Supporting Technical Document on Public Transport
 I1.2	Investigate the benefits of infrastructure efficiency solutions on existing and future freight routes	QT	DMR*/ Local Govts.		Road Network and Freight Study Road Freight Alternatives Issues Paper
 I1.3	Develop Plans for Infrastructure (PFI 's) to ensure that the basis for negotiation between local governments and State Agencies is clear and understood	DMR		Short-term/ ongoing	Road Network and Freight Study Recommendations Report
 I1.4	Agreement to be reached between Townsville City Council, Thuringowa City Council and Main Roads to determine the extent of future responsibility for the road between Thuringowa Drive and the Shaw Road	Local Govts.	DMR	Short-term	Road Network and Freight Study Recommendations Report
 I1.5**	Undertake road infrastructure projects on Dalrymple Road (Thuringowa Drive to Shaw Road) This will be achieved by works such as a bridge over the Bohle River and floodway improvements	Local Govts.	DMR	Medium and-Long term Ongoing	

* where it relates to State-controlled roads

**control of roads will depend on a revised network analysis and negotiations on ownership between DMR and local governments

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I1.6	Undertake road infrastructure projects on the Townsville Ring Road (future National Highway bypass of Townsville)	DMR*			Road Network and Freight Study Recommendations Report with amendments by DMR
	This will be achieved by works such as: Douglas Arterial (University Road - Upper Ross River Road):			Short-term	
	Shaw Road extension (Hervey's Range Rd - Dalrymple Road): Two-laning			Medium-term	
	Condon extension (Upper Ross River Road-Hervey's Range/Shaw Road): Two-lane limited access			Long-term	
	Bohle Plain extension (Shaw Road - Bruce Highway at Mt Low): Two-lane limited access	Long-term			
 I1.7	Undertake road infrastructure projects on Bruce Highway northern approaches	DMR*			Road Network and Freight Study Recommendations Report with amendments by DMR
	This will be achieved by works such as: Black River - Yabulu: Four-laning			Medium-term	
	Stony Creek - Mt Low: Four-laning			Medium-term	
	Mt Low - Black River: Four-laning			Medium-term	
	Ingham Road-Mt Low: Six-laning	Long-term			
 I1.8	Undertake road infrastructure projects on Nathan St.	DMR*			
	University Road-Ross River Road: Six-laning			Long-term	
 I1.9	Undertake road infrastructure projects on Bruce Highway southern approaches	DMR*			Road Network and Freight Study Recommendations Report with amendments by DMR
	This will be achieved by works such as: Vantassal Road to Stuart Drive: Four-lane and grade separation at QR line			Medium/Long-term	
	University Road, Stuart Drive-Yolanda Drive: Six-laning	Long-term			

* current funding responsibility of Commonwealth Government.

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I1.10	<p>Undertake road infrastructure projects on Abbott Street</p> <p>This will be achieved by works such as: Rooney's Bridge (Abbott St - Railway Av): New bridge</p> <p>Abbott St (Bruce Hwy - Rooney's Bridge): New two-lane alignment</p>	DMR		Medium-term Medium/Long-term	Road Network and Freight Study Recommendations Report with amendments by DMR
 I1.11	<p>Undertake road infrastructure projects on Flinders Highway</p> <p>This will be achieved by works such as: Stuart Drive (Diamantina-University Road): Ancillary lane</p>	DMR		Medium-term	Road Network and Freight Study Recommendations Report with amendments by DMR
 I1.12	<p>Undertake road infrastructure projects on Stuart Drive</p> <p>Ross River Bridge (Stuart Drive - Bowen Rd): New bridge</p>	DMR		Medium-term	Road Network and Freight Study Recommendations Report with amendments by DMR
 I1.13*	<p>Construct the Stuart Bypass</p> <p>This will be achieved through works such as: Flinders Highway - Bruce Highway: Two-lane limited access</p>	DMR/TCC*		Medium/Long-term	Road Network and Freight Study Recommendations Report with amendments by DMR
 I1.14	<p>Undertake road infrastructure projects on Hervey's Range Road</p> <p>Bohle River to Shaw Road (extended): Four-laning</p> <p>CoT dump to Black River Road: to a 9m bitumen seal standard</p> <p>Blackhawk Boulevard - Bohle River: Four lanes</p>	DMR		Long-term# Short/Medium-term Medium-Term	Road Network and Freight Study Recommendations Report with amendments by DMR

* Negotiations on ownership of Stuart Bypass and Stuart Drive between Stuart Bypass and University Road will be required between DMR and TCC

timing will be dependent on development of the Burdell/Mt Low/Deeragun region

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I1.15	Undertake road infrastructure projects on Shaw Road Shaw Road (Dalrymple Road - Bruce Highway): Four-laning	DMR*		Medium/Long-term	Road Network and Freight Study Recommendations Report
 I1.16	Undertake road infrastructure projects on North Ward Road North Ward Road (Oxley Street-Ingham Road): Four-laning	DMR		Medium/Long-term	Road Network and Freight Study Recommendations Report
 I1.17	Undertake road infrastructure projects on Boundary Street (Railway Avenue to Eighth Avenue) This will be achieved by works such as Auxiliary lane (part); road surfacing and measures to improve traffic flow and pedestrian safety Charters Towers Road to Railway Avenue: Four-laning	DMR		Short-term Long-term	Road Network and Freight Study Recommendations Report
 I1.18	Undertake other road infrastructure projects to overcome networks constraints This will be achieved through works such as: Beck Drive, Santal Drive (Feeney Ave - Allambie Lane) Golf Links Dr (Extend to Dalrymple Road) Burdell/Mt Low Sub-Arterial Network (Burdell Road extension, north-south connector, east-west connector, Mt Low Parkway) Deeragun Sub-Arterial Network (Tomkins Road extension, east-west connector, Innes Drive extension)	Local Govts. CoT CoT/developer CoT		Short-term Short-term ongoing Long-term	Road Network and Freight Study Recommendations Report
 I1.19	Undertake local road upgrades This will be achieved by works such as: Angus Smith Drive Fairfield Waters Drive Kings Road Duplication	TCC		Medium-term	Road Network and Freight Study Recommendations Report

* current funding responsibility of Commonwealth Government.

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Timing#	Supporting Technical Documents
 I1.20	Identify strategic long term constraints on the road network and identify ameliorative actions. Areas to be investigated include:				Road Network and Freight Study Long-term packages Examination with amendments by DMR
	Dalrymple Road - Thuringowa Drive to Shaw Road	Local Govts. *	DMR	Short-term	
	Bruce Highway, Ingham Road-Black River Adjacent to Burdell/Mt Low/Deeragun	DMR		Short/Medium-term	
	Mt Low Parkway - south end	CoT		Short-term and ongoing	
	Garland Road	CoT		Short-term and ongoing	
	Crescent Road	CoT		Short-term and ongoing	
	Bruce Highway north of Rocky Springs to Stuart Drive	DMR		Short/Medium-term	
	University Road - Stuart Drive to Yolanda Drive	DMR		Medium-term	
	Nathan Street - University Road to Ross River Road	DMR		Medium-term	
	Flinders Highway north of new Rocky Springs connection - Stuart Bypass	DMR	TCC - local network	Short/medium-term	
	Stuart Bypass	DMR		Short-term	
	Southwood Road east of Hunter Street	Local Govts.		Medium-term	
Local network improvements such as intersection upgrades, localised widening, traffic management measures and road networks in new demand areas, particularly Rocky Springs and Woodstock	Local Govts.				

* responsibility will depend on revised network analysis and negotiations in ownership between DMR and local government

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I1.21	Undertake a review of infrastructure access requirements to service future developments of Arthur, Florence and Radical Bays on Magnetic Island and negotiate ownership issues	DNR	N.P.		
 I1.22	Consideration is to be given to the timing of the construction of the Rocky Springs connection	TCC	DMR/QT		
 I1.23	Relocate Townsville Rail Passenger Station	QT	QR/TCC	Short-term	Townsville Rail Passenger Station Investigation (TMG Int.)
 I1.24	Remove rail loop connecting existing station to main line	QR	CBD task-force	Short-term	Townsville Rail Passenger Station Investigation (TMG Int.)
 I1.25	Relocate passenger train servicing siding to Stuart	QR		Short-term	
 I1.26	Rehabilitate Townsville Airport runway	Dept. of Defence		Short-term	

Actions Underpinning Strategy I1

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
	I1.27 Undertake Capital Works at Townsville Port	Townsville Port Authority			Port Development Plan
	This will be achieved by works such as:				
	- Construct third sugar storage shed			Short-term	
	- Establish port-related light industrial development on Benwell St.			Short-term	
	- Establish multi-modal container facility on Benwall Road			Short-term	
	- Relocate slipway operation			Short-term	
	- Establish light industrial boat building			Short-term	
	- Upgrade Berth 4			Short-term	
	- Demolish Berth 6/7			Short-term	
	- Extend Berth 10			Short-term	
	- Realign Lennon Drive			Medium/Short-term	
	- Develop reclamation area			Medium/Short-term	
	- Construct reclamation area access road			Medium/Short-term	
	- Establish rail spur at rear of berth backup land			Medium/Short-term	
	- Relocate gas terminal			Medium/Short-term	
	- Relocate molasses terminal			Medium/Short-term	
	- Upgrade Petroleum Loading System			Medium/Short-term	
- Develop cruise ship terminal			Medium/Short-term		
- Develop long-term small craft marina			Long-term		
- Develop long-term commercial marina			Long-term		
- Widen and deepen entrance channels			Long-term		
- Long-term planning for the outer harbour			Long-term		

TRANSPORT INFRASTRUCTURE VISION

Strategy I 2

Ensure there is adequate choice of public transport, particularly for the disabled and those without access to a car

Principles Underpinning Strategy I2

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I2.1	<p>Ensure there is sufficient car parking spaces at major public transport interchanges</p> <p>This will be achieved by ensuring Planning Schemes include car-parking standards for transport interchange facilities</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Public Transport
 I2.2	<p>Consideration should be given to the long-term adequacy of the current location of the long distance coach terminal</p>	QT	TCC		Supporting Technical Document on Public Transport
 I2.3	<p>Undertake an investigation of the long-term public transport corridor requirements including the timing and type of facility required</p>	QT			Supporting Technical Document on Public Transport
 I2.4	<p>Encourage development to occur around any proposed rapid transit routes, being mindful of access requirements to enhance the viability of any proposed infrastructure</p> <p>This will be achieved by ensuring Planning Schemes promote transit-orientated development</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Public Transport
 12.5	<p>Plan corridors as potentially multi-modal transport routes</p>	QT/DMR/Local Govts.			
 12.6	<p>Plan for early forms of rapid transit such as bus queue jump facilities and on-road feeder systems to rapid transit routes</p>	QT			Supporting Technical Document on Public Transport

TRANSPORT INFRASTRUCTURE VISION

Strategy I3

Ensure there is adequate infrastructure for viable, convenient and safe walking, cycling and recreational boating

Actions Underpinning Strategy I3

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 13.1	<p>Endorse the cycleway (including shared paths) hierarchy and review every two years or as required</p> <p>This will be achieved by incorporating the cycleway hierarchy developed by the TTIRTP into the Planning Schemes of Townsville City Council and the City of Thuringowa to provide a framework within which both local and State Governments can plan to provide co-ordinated, continuous and well-signed facilities for Townsville-Thuringowa</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 13.2	<p>Encourage Councils to prepare Infrastructure Charging Plans as the primary mechanism for requiring development contributions towards pedestrian and cycle infrastructure</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 13.3	<p>Provide on-site bicycle parking and end-of-trip facilities in certain developments</p> <p>This will be achieved by ensuring Planning Schemes include standards requiring provision of end-of-trip bicycle parking with certain developments</p>	Local Govts.		Incorporate into Local Governments' IPA Planning Schemes	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 13.4	<p>Develop a comprehensive and consistent cycleway signing program across the region</p>	Local Govts.		Short-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 13.5	<p>Develop website facilities to indicate cycling and walking transport networks, forthcoming works, a facility to report incidents and/or maintenance requirements and to further promote education and awareness campaigns</p>	Local Govts.	QT	Medium-term	Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 13.6	<p>Undertake safety and accessibility reviews/audits of cycling facilities as required using the "Austroads Guide to Traffic Engineering Practice Part 14 Bicycles" as a guide</p>	Local Govts.			Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport

Strategy I3 Implementation



Actions Underpinning Strategy 13

No	Action	Lead Agency	Supporting Agencies	Priority	Supporting Technical Documents
 I3.7	Undertake a walking and cycling infrastructure plan for Magnetic Island and develop a staged program of works	TCC			
 I3.8	Develop guidelines for cycle and pedestrian facility construction for connectivity, signage, treatments and roundabouts	Local Govts.			Supporting Technical Document on Bicycle, Pedestrian and Wheelchair Transport
 I3.9	Undertake a review of existing boat ramps and associated facilities with a view to closing ramps inappropriately located in residential areas and constructing an adequate number of all-tide ramps and associated facilities in appropriate locations to meet present and future needs	QT			

Committee Membership

Steering Committee

Queensland Transport

Mr Les Ford, Executive Director, Integrated Transport Planning

Mr Mick McShea, Executive Director, Public Transport

Mr Neville Patterson, Director, Regional Transport Planning

Main Roads

Mr Paul Smith, Executive Director, North Queensland

Mr Ian Rose, District Director, Northern

Mr Ivor Preston, Regional Advisor, Strategic Planning

Townsville City Council

Cr Toni Kirkpatrick, Councillor

Mr Neville Abbey, past Councillor

Mr Angelo Licciardello, Planning and Development Services Director

Mr Dawson Wilke, Engineering Services Director

Thuringowa City Council

Cr Les Tyrell, Mayor

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HAVE YOUR SAY FORM - How to Contact the Study Team

We are seeking your comments and input into the draft TTIRTP. Comments received will be considered for incorporation into the final TTIRTP. Comments can be provided by completing this form and returning it to:

POST: (no stamp required)
REPLY PAID 13
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Name: Group represented (if applicable):

Title: Contact Ph:

Address:

Do you have any comments on the strategies and actions being considered?

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Are there any other strategies or actions you think should be considered?

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Do you have any other comments or suggestions?

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Please return by December 15, 2000