Redland
SHIRE COUNCIL

Redlands Transport Plan 2016

An Integrated Local Transport Strategy for Redland Shire

Technical Report

June 2003

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Executive Summary

Redland Shire's Integrated Local Transport Plan (ILTP), also known as Redlands Transport Plan 2016 or simply Transport 2016, is part of a community vision to develop an efficient and effective transport system, which is ecologically sustainable and enables residents and visitors to travel safely and conveniently.

The Redland Transport System, which services the residential communities and other land use and economic activities within the Shire, incorporates:

- A viable and coordinated public transport system;
- A hierarchically-structured road network system;
- A choice of effective and environmentally responsible transport, including road, rail and water-based modes;
- Pedestrian and cycling connections through an extensive walkway and cycleway network;
- Ease of movement within and between communities, major and other activity centres, employment areas and public transport nodes; and
- Good quality urban design, which supports sustainable transport modes.

The ILTP will enable the Redland Shire's transport system to develop by putting in place strategies and actions to change the limited choices and opportunities to travel presently available in the Shire.

The plan includes in its consideration:

- Adjacent local governments' transport plans (Brisbane, Logan and Gold Coast);
- State agencies' transport positions (Department of Main Roads, Queensland Transport and Queensland Rail); and
- Public transport operators' positions.

For the ILTP and the Redland Planning Scheme Study, significant levels of consultation and technical analysis were undertaken. These findings provided the forums for progressing the four stages of the ILTP study program.

The four stages included:

- Inception;
- Where are we? (Transport Issues Paper);
- Background studies (Transport Position Paper); and
- Determining the strategic framework (ILTP).

The ILTP encourages walking, cycling and the use of public transport over the use of private cars and adopts the following targets for Redland Shire:

	ILTP Targets		
Mode	***1995***	***2005***	***2011***
Walking	10%	13%	15%
Cycling	6%	7%	8%
Public Transport	6%	7%	8%
Vehicle Occupancy	1.3	1.35	1.4

The ILTP also encourages the adoption of strategies and actions to:

- Ensure land use planning is adequate to support the provision and use of public transport, walking and cycling;
- Coordinate different modes of transport (eg ferry, bus, rail) to improve public transport reliability and improve commuters' experiences;
- Increase the use of car-pooling and ride-sharing;
- Maximise the use of existing transport corridors (rail, road and water-based) through modal shift, technological improvements (eg signal coordination) and institutional arrangements to delay any upgrading or construction of new works;
- Minimise transport impacts on the environment (eg wildlife and natural areas); and
- Address social aspects of transport such as accessibility, affordability and equity.

Unless this significant shift in land use and transport planning is undertaken by implementing the above strategies, it is unlikely that the Shire will achieve significant advances in creating an efficient, effective and sustainable transport system. The Redland ILTP aims to achieve this shift through the ILTP process.

The ILTP has established Shire network maps for road hierarchy, public transport, walking, cycling and freight.

Strategies and actions have been developed for:

- Land use and transport integration;
- Public transport;
- Walking and cycling;
- Travel demand management;
- Road network;
- Freight;
- Social aspects of transport; and
- Transport impacts on the environment.

The ILTP provides an implementation program, mechanisms for funding ILTP actions and indicative cost estimates, and a monitoring program using performance indicators.

The implementation program assigns priorities – short term to 2005, medium term from 2006-2011 and long term from 2012-2016 – as well as the agency or agencies responsible for implementation and start timing where applicable.

Many of the actions in the ILTP require low levels of funding and/or use of existing Council resources to implement. For actions that require higher funding levels, based on the priority assigned, more detailed costing will be required. Funding will be the responsibility of all

levels of government as well as developers. The introduction of the Transport Infrastructure Charges Plan will assist in allocating funding responsibilities.

Short-term actions considered to be high priorities are:

- Define and set up the Redland Transport Implementation and Working Groups to implement ILTP actions.
- Review parking demand and supply at Weinam Creek ferry terminal and, as a first step, investigate how demand can be minimised through improved coordination between ferry and bus services.
- Review parking demand and supply in the Cleveland CBD and Capalaba centres and investigate mechanisms to manage or rationalise parking.
- Investigate and, if feasible, launch a demonstration conversion program to convert one or two roundabouts in the Shire to a model walking and cycling friendly roundabout consistent with Austroads Standards. Possible roundabouts for trials could include the roundabout near Moreton TAFE and roundabouts in Cleveland that are used by high levels of cyclists.
- In cooperation with relevant State Agencies, undertake a travel demand management trial (carpooling/ridesharing) in the southern parts of the Shire (eg Bayview/Mt. Cotton) or one of the islands (eg Macleay Island).
- In accordance with the Integrated Planning Act (IPA) develop a transport infrastructure charges plan (TICP) to provide a mechanism that will ensure that development proposals would require the provision of contributions for pedestrian, bicycle, public transport and road infrastructure.
- In cooperation with the Department of Main Roads, undertake prerequisite studies and designs on the three major east-west arterial roads in the Shire to implement traffic management system (TMS) activities and manage peak capacity and level of services. Examples of TMS activities include signal coordination along these roads, camera surveillance of congestion and incident queues, bus priority treatments at intersections and peak period clearways for buses on breakdown lanes.
- In cooperation with Queensland Transport, Department of Main Roads and Brisbane City Council, investigate and implement appropriate improvements. These could include changes to sections of Transit Lanes (T2) along the Shire's east-west arterials and external roads to Brisbane (like Old Cleveland Road), and introducing a line haul bus system that links Capalaba with other parts of the Shire.
- Trial, in conjunction with Queensland Transport, a flexible bus service (eg use of maxi-taxi) to provide a demand-responsive and fare-share hiring service on one of the islands.
- Investigate, develop and implement a Workplace Travel Plan for Redland Shire Council staff (including ride-sharing and car-pooling programs).

Monitoring the ILTP by using some or all performance indicators – eg public transport patronage, traffic growth and travel time – will enable Council to establish if the objectives of the ILTP are being met, and will result in the reallocation of funding to the right areas. Implementation and monitoring will be best achieved through a Redland Transport Implementation Group (RTIG).

1 Introduction

Redland Shire Council wishes to integrate land use planning to achieve more sustainable transport and land use outcomes, to provide more choices in travel modes, and to maximise the opportunities for people to walk or cycle. It also wishes to ensure equitable access throughout the Shire, maintain high standards of safety and improve services and facilities.

The approach taken by Council is to prepare an ILTP with a concerted effort of involving the community. The ILTP provides a plan and actions to shape the existing transport system into one that better meets the future transport needs of the Shire. It considers:

- All modes of transport;
- Land use distribution and intensities;
- Potential to manage travel demand; and
- Social, economic and environmental concerns.

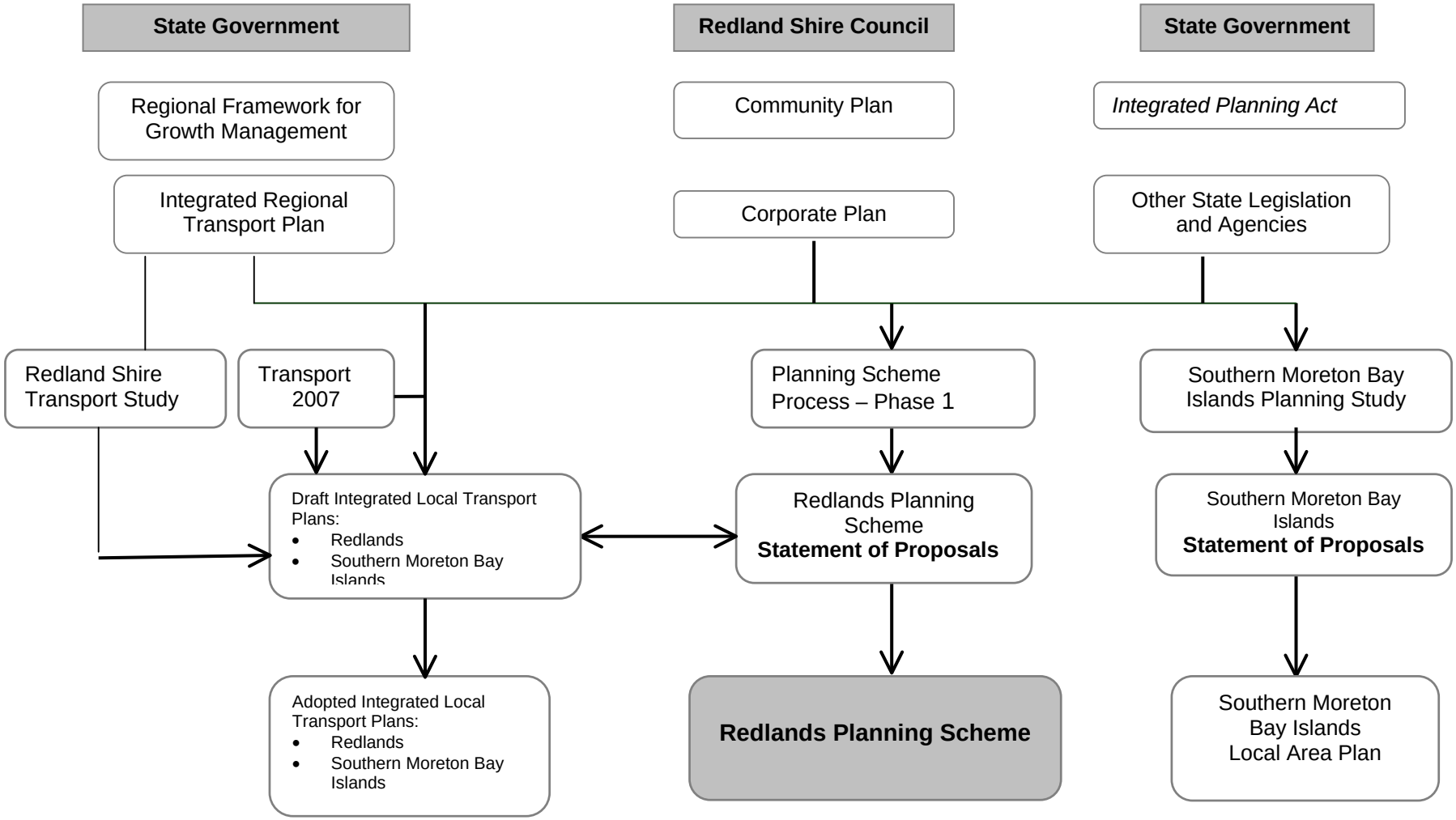
Redland Shire Council supports the Regional Framework for Growth Management and the Integrated Regional Transport Plan (IRTP) for South-East Queensland. The IRTP, released in May 1997, contains policies and actions that aim to provide a high quality, sustainable transport system for the region.

Council's Integrated Local Transport Plan (ILTP) for the Shire is to be consistent with the Shire's Community Plan and the goals of the IRTP. The ILTP will translate the policies and actions set in the IRTP and Transport 2007 into more detailed plans able to be implemented at a local government level. It is a mechanism for implementing the IRTP and Transport 2007, taking into account the specific needs of the Redlands community.

The ILTP is to set the strategic direction to develop the Shire's transport system. It is also intended to identify practical initiatives to reduce the growth in private car trips and increase the use of public transport, walking and cycling. The ILTP has taken into consideration the findings reported in the Transport Issues Paper and Position Paper, which were developed as part of the Redland Planning Scheme Study in 2001.

The relationship between various regional and local level planning initiatives is shown in Figure 1-1 ILTP in the Regional and Local Planning Context.

Figure 1-1 ILTP in the Regional and Local Planning Context



1 Introduction

The ILTP, together with the Redlands Planning Scheme, is a key delivery mechanism of Redland Shire's Community Plan. The Community Plan – called Vision 2005 & Beyond – is a long-term social, environmental and economic plan for Redland's sustainable future. It contains a vision of where the community wants the Shire to be in 2005 and beyond. The plan provides goals, strategies, measurable actions and activities that can be undertaken by the Council, other levels of governments and the community. Built on the community vision of a safe, efficient, effective and sustainable transport system, the ILTP takes these actions and activities further towards implementation.

The community's vision for transport and how it is to be addressed in an ILTP are outlined below.

1.1 Vision for Transport System

The Vision 2005 process undertaken by Redland Shire Council in 1995 identified, among other matters, the definition of the transport system that the community would like to have in the Shire.

An efficient and effective transport system is one of the six themes adopted by the Redland Shire Council in setting its Vision 2005. The plan has set the following goals in respect of the transport system. These are:

- Develop a safe, convenient and integrated public transport system to attract more people to use sustainable modes of travel;
- Expand walkways and bikeways and their integration with public transport, places of recreation and urban centres;
- Promote land use and transport systems, which provide more compact and better designed communities that make it easier to walk, cycle and use public transport;
- Develop a well-defined, hierarchically-structured, safe and efficient road network system to cater for a moderate increase in the number of vehicular trips;
- Introduce Travel Demand Management (TDM) measures in order to reduce the number of trips, especially by private cars;
- Ensure the efficient movement of goods and services;
- Develop a transport system to provide for the travel needs of all users, including physically impaired people;
- Develop implementation plans; and
- Ensure funding and finance.

In order to achieve these community goals, the purpose of the ILTP is to provide practical solutions, best suited to local circumstances, which will include the following:

- Ensure land use distributions and intensities reduce the need to travel and support public transport, walking and cycling;
- Provide equitable access to public transport systems that respond to the needs of all users;
- Encourage cycling and walking, paying particular attention to safety, convenience, and provision of facilities;
- Manage travel demand through public education, trip reduction measures, car parking provisions and transport pricing;
- Develop road strategies that minimise the duration and length of trips and allocate road space to the most appropriate uses; and

1 Introduction

- Provide efficient transport and freight networks that support economic and business development.

The ILTP has taken into consideration the vision, themes, strategies and actions that were prepared as part of the Redland Community Plan and has built upon them.

1.2 Objectives and Scope of the ILTP

The project brief for the ILTP study outlined the main objective and scope of the project.

The main objective of the project was to develop an ILTP for the Shire consistent with Council's and the community's vision for the Shire, as well as the Integrated Regional Transport Plan and the Regional Framework for Growth Management in South-East Queensland. The ILTP draws modelling and travel forecasting information from the Redland Shire Transport Study. The study, which was a joint Council, Queensland Transport and Department of Main Roads initiative, was completed in 2000. This study provided background modelling required for the ILTP process. It is proposed that travel demand analysis be carried out in the future as a part of the ILTP implementation and monitoring process to evaluate if implementing the ILTP has changed people's travel behaviour in the Redlands.

The scope of works for the preparation of the ILTP included:

- Review existing socio-economic conditions, land use development plans and transport systems in the Shire and beyond (as applicable) affecting the transport planning process;
- Review the Community Plan and gather information on community vision;
- Develop realistic transport and land use scenarios and analyse these for the community's optimum benefit, their ability to reduce the growth in vehicle trips, to support efficient public transport, and increase walking and cycling;
- Recommend appropriate land use and transport initiatives that will enable the reduction in the growth of vehicular trips, support public transport and increase walking and cycling;
- Identify improvements to the road, rail, ferry and cycle networks needed to support the agreed regional urban settlement and land use pattern;
- Propose efficient freight and employee access to significant business, industry and employment areas, and major freight and passenger terminals;
- Identify improvements in transport services and facilities needed to support the agreed regional transport and travel objectives;
- Develop appropriate action plans and an agreed implementation program in collaboration with all relevant stakeholders, including community education and awareness programs;
- Identify and suggest policy measures that are required to meet the strategic objectives. The policy measures should be categorised into the measures that are to be developed and enforced by local, as well as, State government level agencies;
- Assess the financial implications of the plans and programs and recommend appropriate ways of financing the recommended actions, plans and implementation program; and
- Identify appropriate institutional arrangements to ensure the action plans are implemented (including incorporating proposals in Redland Shire Council's land use and transport strategies, corporate plan and capital works program).

1 Introduction

The ILTP covers all parts of the Shire. Trips to and from areas external of the Shire are also considered in the plan, especially trips to areas frequently made from within the Shire. Nominal planning horizons in line with those adopted for the Redland Planning Study include:

- Short term to 2005;
- Medium term 2006–2011; and
- Long term beyond 2012 (up to 2016).

1.3 Consultation

The ILTP was prepared in conjunction with the Redland Planning Scheme Study and through a parallel consultation program with a number of stakeholders and the community. Those consulted included:

- Councillors;
- Council staff;
- State Government agencies;
- Neighbouring local governments;
- Transport providers and user groups;
- Community and members
- Key stakeholder groups.

The communications and consultation strategy, which is included in Appendix A, was extensive and involved a variety of mechanisms.

Some of the key transport issues identified through consultation include:

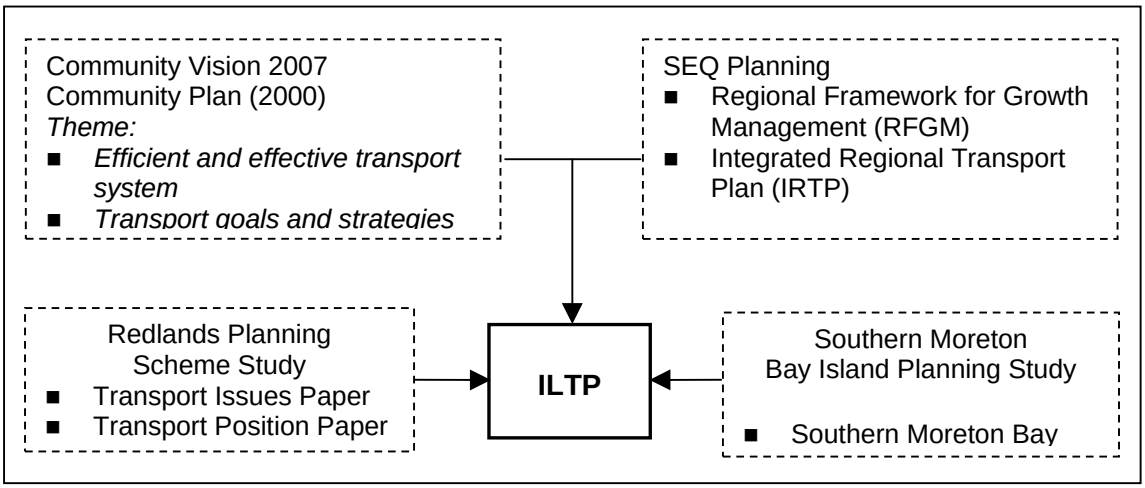
- Inter-agency communication improvements are required to improve transport service provision and coordination;
- Better designed communities are needed to reduce the need for motorised travel and to promote an urban form conducive to public transport usage and walking and cycling movement;
- Transport and land use integration;
- Coordination of alternative travel modes; and
- The need to support public transport, walking and cycling.

Issues raised by the consultation process were considered during the preparation of Transport Issues and Position Papers as part of the Redland Planning Scheme Study.

The ILTP also incorporated the transport outcomes of the Community Plan and the Southern Moreton Bay Islands Study. The ILTP process is illustrated in **Figure 1.2.**

1 Introduction

Figure 1-2 ILTP Development Process



2 Background

2.1 Existing Transport Picture

In the early stages of the project, two main points were clear about present transport use: One, there is a high reliance on cars for travel in the Shire, and two, that patronage for public transport is declining. The existing transport picture is outlined below, with description of travel patterns outlined in Section 2.2.

2.1.1 Public Transport

The four passenger transport services presently available include rail, ferry, taxi and bus. However, Council provides none of these services and so improvements to the public transport services are currently the responsibility of private transport providers and State agencies. Modal integration mechanisms (eg ticketing and timetable) do not seem to complement the existing modes of travel – ferry, bus and train – to the necessary extent. The public transport hierarchy structure (line haul and feeder routes) and financing mechanisms are currently deficient. There are plans to redesign the Capalaba Bus Interchange and a new bus interchange has been introduced at Victoria Point Shopping Centre.

2.1.2 Walking and Cycling

Walking and cycling within the Shire need to be increased for the many short internal local trips. Integrating these modes of travel within public transport also requires attention and improvement. The development of a walkways and bikeways network (currently underway) will need to address local travel by walking and cycling.

2.1.3 Transport and Land Use

Malfunctioning of the transport system can be attributed to deficiencies in the land use system. The lack of self-contained areas and urban consolidation around transport nodes do not contribute to the effective promotion of walking and cycling for short trips or the use of bus, train and ferry for long trips. Existing residential density patterns are generally low, particularly in areas located in close proximity to key transport nodes. In this respect, integrating land use and transport planning within the Shire to date has not sufficiently emphasised the principles of transit-orientated development (TOD).

2.1.4 Road Network

The road transport system offers a high reliance for total trips and this would continue to be the case in the future. The use of and adherence to functional road hierarchy and traffic management measures will ensure an effective and safe road network. The road network needs to allow for safe and convenient facilities for walking and cycling.

2.1.5 Freight

The Shire presently has industrial and extractive areas generating heavy truck movements, and these may be encroaching on sensitive land uses. However, the future controlled development of these resources is needed for the Shire's economic development. As well, the road design in some areas is insufficient for heavy vehicle movements, such as

2 Background

Wellington Street. The movement of heavy vehicles can be controlled by planning measures and restricting movements to major roads by developing a freight network plan.

2.2 Travel Patterns

Available transport data for the Shire was analysed to provide information on travel patterns, as illustrated by the graphs below. The ratio of trips out of the Shire to trips within the Shire is 1.61.

Figure 2-1 shows the 1996 Census results for the modes people use to travel to work. The categories 'worked at home' and 'travel by two/three modes' indicate evidence of some travel demand management and modal integration.

Figure 2-2 shows the present pattern of modal share for intra-Shire trips.

Figure 2-3 shows the distribution for intra-Shire trips, with evidence of this type of trip being undertaken by non-motorised and by public transport.

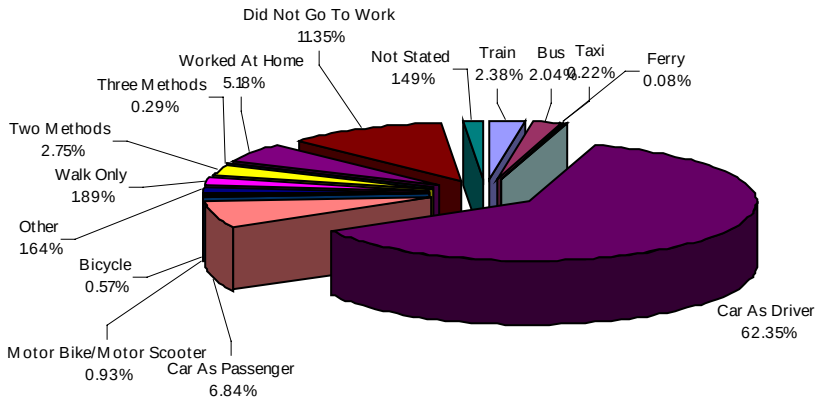


Figure 2-1 Mode of Travel to Work
(Source: ABS 1996 Census)

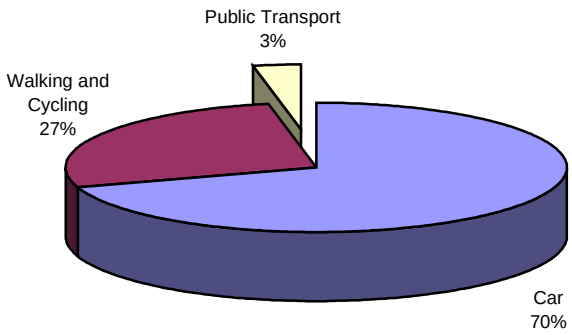


Figure 2-2 Modal Share in Intra-Shire Trips
(Source: Shire Transportation Study Trip Matrices, 2000)

2 Background

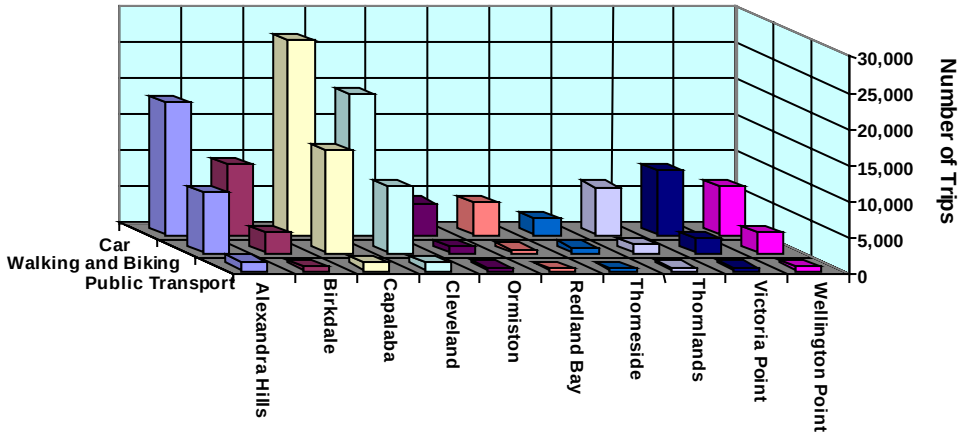


Figure 2-3 Distribution of Intra-Shire Trips
(Source: Shire Transportation Study Trip Matrices, 2000)

Figure 2-4 presents the transport or travel picture in terms of modal share, that is, how people are travelling in the Shire. It illustrates the situation in 1995 and what it is predicted to be in 2011. The figure shows travel by car is likely to remain the dominant element of the transport system, irrespective of whether the public transport system is enhanced in the Shire. The message is clear, however, that without a significant shift in land use and transport planning, there is unlikely to be significant advances in the achievement of an efficient, effective and sustainable transport system within the Shire.

Figure 2-5 demonstrates that in the absence of land use planning intervention, the modal split in 2011 will remain about the same as it was in 1995. In other words, the methods that people use for travel are unlikely to undergo change. The number of trips and therefore the amount of travel will rise with no change in modal share. Presently, public transport represents 6% of the modal split, cycling and walking 16%, and 78% for car travel. As shown, the 2011 travel target for the South-East Queensland region is to increase the public transport share to 10.5%, and walking or cycling to 23%. This would then result in a corresponding reduction in travel by car to 66.5%. Targets similar to this level have to be set for the Shire. However, the targets will not be achievable by conventional methods. The ILTP needs to investigate how the targets could be reached.

2 Background

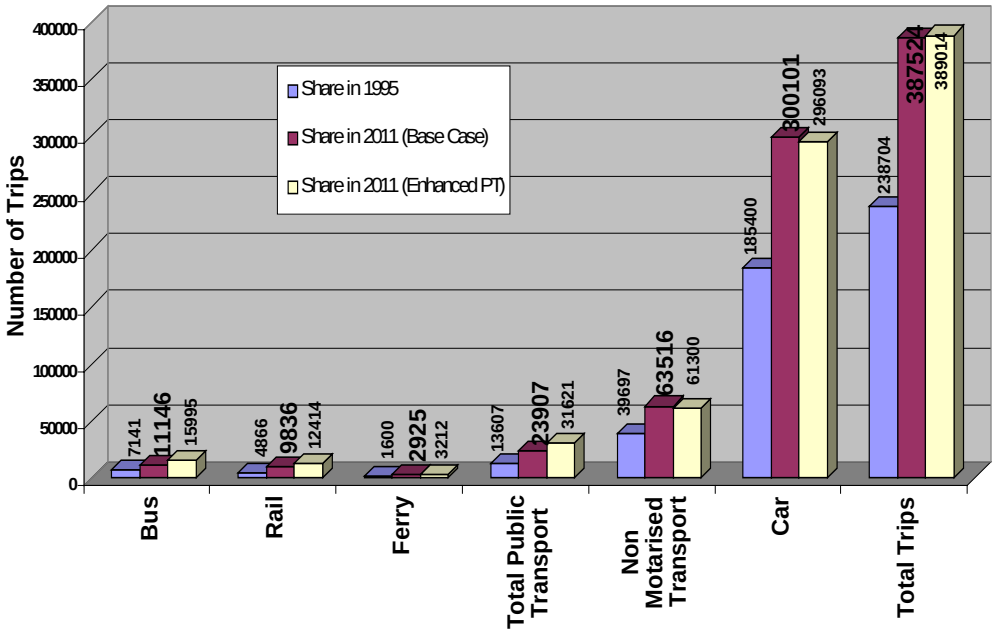


Figure 2-4 Modal Split Travel Pattern in the Shire
(Source: Shire Transportation Study Trip Matrices, 2000)

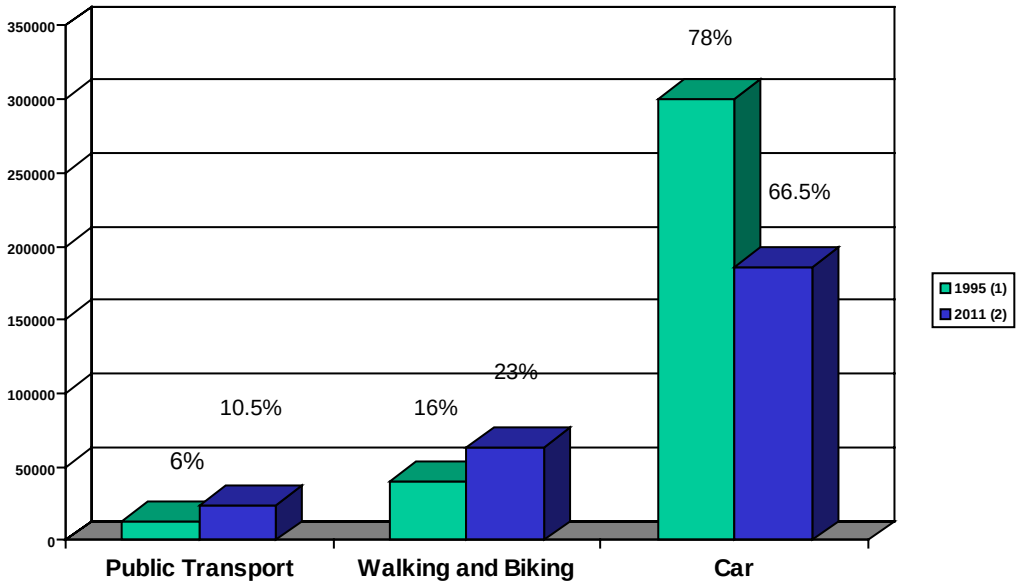


Figure 2-5 Future Modal Splits
(Source: 1. Shire Transportation Study Trip Matrices, 2000
2. South-East Queensland IRTP)

2 Background

2.3 Transport Policies in Current Planning Scheme

Council undertook a brief audit of the current Planning Scheme to identify the improvements needed to current approaches in addressing transport.

Table 2-1 Audit of Transport Policies in Current Planning Scheme

Issue	Audit of Current Planning Scheme	Improvements Required in Policy Approach
1. Integrated land use pattern and movement system	Planning Scheme identifies a number of objectives to meet the goal of an integrated land use pattern and movement system. It, however, does not clearly highlight that decision-making about new developments should include their likely impact on travel demand and travel behaviour.	Investigate further practical initiatives to integrate the land use pattern and movement system. Some of these may include increasing densities close to centres and public transport corridors, clarifying the future of protected transport corridors and transport improvements for island communities.
2. Maximise existing railway line usage	Planning Scheme supports this goal through medium densities and mixed land uses, and inter-modal facilities at and near railway stations. Integrated ticketing and the need for an overarching public transport body are not mentioned.	Investigate express options and clarify the mooted proposal of a Murarrie to Capalaba spur line and duplicating existing tracks to the Cleveland Railway Station.
3. Line haul bus priority system	The Scheme supports line haul bus priority systems consistent with systems in adjacent Local Government areas. The element of communication via a report between agencies and operators is not addressed.	Investigate options for improved services, particularly using bus priority measures.

2 Background

Table 2-1 Audit of Transport Policies in Current Planning Scheme (cont'd)

Issue	Audit of Current Planning Scheme	Improvements Required in Policy Approach
4. Improve local bus-based public transport	The Planning Scheme identifies a number of mechanisms for improving local bus-based public transport. It, however, does not address achieving acceptable industry performance criteria such as reliability, fares, coverage (which are covered within commercial contracts between Queensland Transport and operators). Acceptable measures should be used to design bus routes in any new developments.	Investigate improvements to bus services (such as demand-responsive transport) to the southern part of the Shire. Investigate improved integration of bus transport with other modes, line haul systems from major centres and opportunities for integrated ticketing. Acknowledge that improvements may be beyond the scope of land use planning controls.
5. Co-ordinated system of walking and cycling network and facilities	The Planning Scheme currently does not specify the path and bikeway network and facilities are to be in accordance with Council's Bikeways Plan.	Investigate the improved integration of walk and cycle modes with other modes. Prepare a Shire Walking and Cycling Strategy and Map.
6. Urban form which supports public transport, walking and cycling	The Scheme promotes urban form to support the use of non-motorised modes. The network maps for road the system, public transport and cycling need to be referred to as well.	Investigate ways centres and residential development could improve opportunities for public transport, walking and cycling.
7. Road hierarchy	The Planning Scheme presently does not specify that achieving and maintaining an effective road network should be in accordance with Council's Road Hierarchy Plan.	Update the functional Road Hierarchy Plan in line with the draft policy, Impact of Transportation Systems on Urban Amenity. Prepare and refer to a Road Hierarchy Map.
8. Freight	Presently, the Scheme does not specify that achieving and maintaining an effective freight network should be in accordance with Council's Freight Plan.	Create a Freight Map to identify freight-generating areas and the major road network that should cater for large commercial vehicles and extractive industry haulage.

2 Background

Table 2-1 Audit of Transport Policies in Current Planning Scheme (cont'd)

Issue	Audit of Current Planning Scheme	Improvements Required in Policy Approach
9. Co-ordination of all public transport modes	The Scheme does not refer to the need to achieve and maintain co-ordination of all public transport modes in accordance with Council's Public Transport Network Plan.	Support the Queensland Transport's TransLink Initiative – which includes integrated ticketing, public transport network plan development, timetable and service levels – and align the local walk, cycle and public transport network and services with this initiative.
10. Travel demand management	The Planning Scheme does not refer to implementing measures to achieve a shift in travel demand. There is a need to refer to policies and strategies at a state or national level in this area. There is a need to also refer to Council's Parking Code and improve the car-parking demand rates required for new developments.	Investigate ways to shift demand from private vehicle to other modes of transport as outlined in Section 7 of this report.
11. Protecting the environment	The Scheme needs to refer to measures that could protect the environment (such as air and water quality). There is likewise a need to refer to policies and strategies at a state or national level in this area. The Scheme should also refer to the policy on traffic noise abatement measures from major transport corridors.	Investigate the effect development and use of the transport system has on environmental quality, natural resources and biological diversity.
12. Social dimensions of transport	Planning Scheme needs to refer to implementing measures for equitable, affordable and accessible transport. There is a need to refer to policies and strategies at a state or national level in this area.	Investigate social and human issues in transport planning.

3 Transport Challenges in Redland

3.1 Settlement Pattern, Population Projections and Employment Trends

Redland Shire is located adjacent to Moreton Bay, south-east of Brisbane City and north-east of Logan City. The Shire stretches in a north-south direction, however the main transport routes and networks are oriented east-west to connect to western neighbours. The existing settlement pattern is concentrated in the established northern area of the Shire and there are continued growth forecasts for the northern part of the Shire, and in Thornlands, Victoria Point and Redland Bay in the southern part of the Shire.

Since the 1970s, Redland Shire has experienced sustained periods of significant population growth. Between 1980 and June 2000, the Shire's population grew from 44,000 to 111,500. Redland Shire is expected to experience sustained population growth during the ILTP planning period, with the total Shire population growing from 118,025 in 2001 to 163,448 by 2016. The vast majority of population growth will be accommodated in the mainland areas of the Shire, with the mainland population projected to increase from 111,947 in 2001 to 157,299 in 2016.

The Redland Shire population will age significantly over the planning period. By 2016 a total of 62,960 persons – or 38.5% of the Shire's population – will be aged 50 years or over. This compares with 32,881 or 27.9% of the Shire's population in 2001.

Employment in the Shire is similar to other neighbours of Brisbane City. Redland Shire is a net exporter of workers, with approximately 60% of workers travelling outside the Shire to all over South-East Queensland for work. This clearly has a significant impact on travel peaks.

Employment growth within the Shire is expected to follow the pattern of population growth, with further concentrations in the existing centres of Capalaba and Cleveland, and planned growth areas of Thornlands, Victoria Point and Redland Bay. The challenge is how to increase the Shire's level of self-containment for employment.

As seen from Table 3-1, the journey to work from the Redlands is not concentrated in the Brisbane CBD, as perhaps one would expect. The southern areas of Brisbane provide the highest number of job (34%) for the Shire residents. The Brisbane CBD provides only 12% of employment – yet the present public transport has a strong CBD-focused service. This wide spread of employment locations cannot be well served by the existing radial public transport corridors between the Shire and the CBD.

3 Transport Challenges in Redland

Table 3-1 Journey to Work Patterns

To From	Redland	North Brisbane	Brisbane CBD	South Brisbane	Logan City	Others	Total
Redland	11302	2878	3448	9865	857	563	28913
North Brisbane	277	80018	33602	17570	787	6450	138704
Brisbane CBD	3	228	414	119	6	18	788
South Brisbane	1953	22468	27776	82028	4250	4564	143039
Logan City	628	4592	4626	19156	15691	4132	48825
Others	155	20321	9730	12913	1927	38453	83499
Total	14318	130505	79596	141651	23518	54180	443768

(Source: Redland Shire Transportation Study, 2000)

To achieve the dual aims of maximising self-containment and increasing local employment, the Shire needs to generate more local jobs by 2011. Redland Shire Council is looking at expanding its integrated employment centres and telecommuting infrastructure to reduce the need to travel to work. Council's economic development and employment strategy, as well as its employment centres strategy, has suggested setting a self-containment of 60%, an increase of 20% from its present level of 40%.

3.2 ILTP Targets

The IRTP promotes integrated transport planning, which reduces dependency on private motor vehicles, encourages the use of public transport, increases vehicle occupancy, and encourages walking and cycling. For each of these activities, the IRTP has set regional and sub-regional targets. In addition to these targets, the IRTP aims to reduce total daily trips, current fuel consumption trends and the average daily vehicle kilometres travelled per person.

Clearly, the ILTP should also be driven by the necessity to achieve targets. Such targets enable, among other things, assessment of the consequences and costs of achieving the aim of altering traffic growth and mode share.

The targets adopted for the IRTP and for the ILTP are:

3 Transport Challenges in Redland

Table 3-2 ILTP Targets

Mode	IRTP (Sub-Regional)		ILTP (Redland Shire Council)			
	1992	2011 Target	1992	1995 STS (2)	2005 Target	2011 Target
Public Transport	7%	10.5%	4.8%	6%	7%	8%
Walking	13%	15%	9.6%	10%	13%	15%
Cycling	2%	8%	2%	6%	7%	8%
Private Vehicles	78%	66.5%	83.6%	78%	73%	69%
Vehicle Occupancy	1.3	1.4	N/A	N/A	1.35	1.4

(1) Derived from Queensland Transport's 1992 SEQ Household Travel Survey

(2) Adopted from Redland Shire Council's Shire Transportation Study (2000)

(3) N/A = not available

ILTP targets generally emulate the targets set in the original IRTP, with proportional increases between 1992 and 2011 in public transport, walking and vehicle occupancy. However, because of a number of factors, the Shire has set a different public transport mode share target from the IRTP target for the whole of South-East Queensland. These factors include the level of existing infrastructure and services, the undefined level of future infrastructure and services, the present absence of any agreed institutional arrangement and the need for commitment to implement the actions listed in this report.

It is proposed the mode share targets for the Shire are reviewed and new targets set, if necessary, when new travel data becomes available from the proposed South-East Queensland Household Travel Survey. The public transport mode share target may also be reviewed after TransLink is implemented.

The analysis of travel demand undertaken as part of the Shire Transportation Study in 2000 suggests the overall characteristics of travel demand in the Shire in 2011 will be:

- The total number of vehicle (including commercial vehicles) trips generated in the Shire will increase from 214,000 to 357,000 trips per day;
- The average vehicle speed on the road network will fall by approximately 10 percent; and
- The total number of trips attracted to public transport will increase, but its share of the total travel market will probably fall slightly.

Note: These estimates are referred to as trend forecasts and assume there will be no major changes in travel behaviour and preferences, nor any substantial change in the nature of the transport network. The study's analysis reported that relatively manageable levels of congestion are expected to occur within the Shire itself, with much more serious congestion beyond the Shire's jurisdiction.

3 Transport Challenges in Redland

As part of the ILTP, the emphasis and priority for Redland Shire Council is on improving walking, cycling and public transport, and managing travel demand. Improvement in these areas would assist in maintaining and maximising road capacity, as would technological improvements.

Mode share targets are difficult to achieve on their own by just transport planning interventions. These interventions need to be supported by favourable factors relating to residential and employment locations, the density of development along major transport corridors and other sustainable, transport-friendly, land use developments. It is therefore important to recognise the influence of land use planning in achieving the mode share targets.

The ILTP target, in terms of employment self-containment, is to support Council's economic development and employment strategy. The target for self-containment is to achieve a ratio of employment within to outside the Shire of 60:40 by 2011.

Although Redland Shire Council has not yet set a specific target for dwelling density, the final Redland Planning Scheme will embrace a principle policy direction to increase density and control or contain outward urban sprawl. The Scheme allows for higher-density areas to grow around public transport nodes, major transport corridors and employment centres, and promotes transit-oriented developments. The final planning scheme will determine appropriate density targets in relation to high capacity transit modes, and along corridors served by high capacity and frequent public transport services. By integrating the ILTP with the Planning Scheme Study, the desired outcomes of the ILTP – that is, to deliver an efficient, effective and sustainable transport system – should be achieved.

3.3 Future Challenges, Choices and Influencing Factors

To date, the Shire has been fortunate in that it has not experienced the range of traffic problems associated with many urban areas. However, increasing levels of congestion at Capalaba and other exit points as vehicles converge to move to places of employment outside the Shire, as well as amenity issues for residents whose dwellings are located on major roads, illustrate the Shire is not immune from such impacts.

During the next decade, demand for transport is expected to significantly increase. This presents a fundamental challenge to the Shire to find ways of meeting this increasing demand while satisfying the community's desire for environmental quality, economic development and social equity.

Recognising these circumstances, the transport system may well be one of the most important determinants of the community's ability to achieve its vision. The challenge will be to find ways to maintain convenient and safe access to jobs, community services (such as schools), shops and recreation, without permitting an unacceptable level of environmental degradation in the Shire. Ultimately, this will need to involve strategies across all fronts in order to manage the present dependency on private motor vehicles.

3 Transport Challenges in Redland

The following facts and issues illustrate the scale of this challenge:

3.3.1 Population Growth

Redland Shire continues to be one of the fastest growing local government areas within South-East Queensland. The Shire's population has increased from approximately 96,000 in 1994 to approximately 118,000 in 2001. Projections indicate that approximately 50,000 more people will live in the Shire by the Year 2016.

Population growth simply means that there will be more or increased demand for travel within the Shire and to places outside the Shire. The challenge for the Shire is finding options which can be developed to address travel demands.

3.3.2 Household Size

Although the Redlands has recorded a relatively larger average household size (3.07), the household structures are changing with more people living alone, in two-person households or as sole parent families. This means that there will be more people overall, fewer people in each household, more houses and potentially more urban sprawl. The single-family dwelling, so sought after as the residential product of the Redlands, combined with the car, has had a significant impact on the environmental values of the Shire.

3.3.3 Retirees

Redland Shire is attractive to retirees because of its coastal location and character. In the Brisbane Statistical District, excluding Brisbane City, Redland Shire has a higher than average proportion of people aged 60 years or older (about 14%). As this proportion of over 60s increases, as is widely expected, this group will also create increased travel demands. One benefit, however, is that this travel can be expected to occur in off-peak rather than peak time periods.

3.3.4 Young Population

Redland Shire has a relatively high percentage of the population in the 0–14 year age group (26%). This reflects a general emphasis within the Shire of building and bringing up families. Indications are therefore that, compared with more mature local government areas, there will be a higher rate of growth in travel demand as the 0-14 year age group reaches adulthood and becomes more mobile.

3.3.5 Female Participation in the Workforce

Increased female participation in the workforce and more women with drivers' licences has led to an increase in private vehicle trips and a decline in public transport trips throughout the region. This is largely due to the complex nature of travel for the many women who balance family and work responsibilities. Traditional public transport cannot meet these requirements. In addition, many women who work part-time travel in off-peak times when public transport services are not as frequent.

3.3.6 Changing Working Hours

Flexible working hours and an increase in the number of hours that individuals work each week means that more people are working into the evening and travelling when public transport frequencies are low. Personal safety may also be a barrier to public transport in the evenings, particularly for women. On the other hand, though, flexible working hours offer opportunities to disperse peak loadings.

3.3.7 Employment

Despite the significant changes and growth in the local economy, approximately 60% (or about 27,000) employed people who live within the Shire, work outside the Shire. This establishes Redlands as a Shire reliant on other centres for employment of its residents.

Accordingly, a major challenge facing the Shire is how to provide appropriate opportunities to increase the number of people who work in the Shire, as the population increases over the next decade. This challenge is reinforced in Community Attitude Survey 1999, where 'encouraging local employment opportunities' is considered to be the most important Council corporate objective.

Jobs are becoming more decentralised, providing more opportunity for local jobs. However, they're also often locating in areas not well serviced by public transport, therefore increasing reliance on private motor vehicles.

Compared to adjoining Brisbane and Logan Councils, Redland Shire has the lowest percentage of jobs for its workforce (48.4%).

3.3.8 Journey to Work Trips

As mentioned in Section 2, work-related trips originating in Redlands have destinations that are widely scattered throughout Brisbane. This pattern poses serious challenge in terms of providing an efficient and cost effective public transport service.

3.3.9 Car Ownership

It is predicted that the average level of car ownership within the South-East Queensland region will increase slightly within the next decade. In Redland Shire, there are, in fact, very few households without cars. This is typical of an outer-lying metropolitan area where only a relatively small proportion of people have ready access to a variety of public transport options. This – combined with an overall decrease in average household size (despite Redlands' larger than average household size), an increase in population and more casual and part-time employment – indicates there will be significant challenges ahead for the transport system, not only within the region but also within Redland Shire.

The increased car ownership is a challenge that will be more prominent over the years. The extent of the challenge will be very much dependent on federal and state-level policy disincentives for continued car use versus a genuine commitment to alternatives such as public transport.

3 Transport Challenges in Redland

Increased private vehicle ownership and usage will increase overall levels of air and noise pollution, and will impact on other urban amenity considerations, including the nature and volume of traffic in residential areas, and health.

Increased private car ownership and usage will have negative social implications for members of disadvantaged groups who do not have ready access to a private vehicle. This is likely to result in isolation and therefore limited opportunities for employment, social support, education or entertainment.

3.3.10 Settlement Patterns

The existing land use pattern, which comprises housing areas often remote from concentrations of employment, entertainment and recreational activities, limits Council's effectiveness in developing alternative transport options such as walking and cycling. Current community surveys identify some concerns regarding intensifying housing densities – including those close to public transport service points. This situation is another challenge to Council's desire to promote sustainable travel modes, and one that needs to be addressed over time with appropriate land use planning interventions.

The continuing outward urban sprawl and detached housing options within the Redlands are creating ongoing difficulties in terms of creating an efficient and economical public transport system for these areas, as well as alternative non-motorised forms of transport networks.

The need for long distance travel between residences and places of employment, shops, community and education facilities, increases traffic congestion and overall accessibility difficulties (for example, through traffic and congestion). This can also have other negative health effects in terms of traffic accidents and air quality, and stress and anxiety associated with increased congestion.

The requirement for additional land to accommodate expanding traffic networks and corridors has the potential to conflict with other community values and priorities, including environmental priorities. Present differences in opinions regarding the usage of the preserved Moreton Bay transport/greenway corridor and the Northern Arterial transport/greenway corridor illustrate the potential environmental and social conflicts associated with large road corridors and ongoing car and road demands.

The design of local areas can, however, facilitate a reduction in car dependence. Strategies related to achieving a better fit between land use and transport planning include:

- Locating services, diverse employment and facilities close to where people live;
- Increasing residential densities in corridors where transport can be provided;
- Selectively concentrating housing and employment as the Shire grows; and
- Integrating land use and transport in growth patterns and providing orbital routes.

The above points are worth raising although indicate an important issue: Do we carry on doing things as individuals (and collectively cause the problems), or do we do things differently? Neither option represents an easy decision, but it seems the approach of 'do nothing' is becoming increasingly unacceptable from a social and environmental perspective.

3.3.11 Public Transport

There is a widely held view that the public transport system needs to be improved. In many community consultation processes, improvement to the public transport system is seen as the most important issue, even though almost 90% of those surveyed say they were not very likely to use this mode of travel (Cox, 1997).

The results of studies conducted by the Australian Bureau of Statistics and other bodies indicate that even though voters espouse public transport, they are, in practice, reluctant to use it. As a result, fare box receipts do not cover rising costs. Slowness, the safety and reliability of services, and the interconnections between services are seen to be the major problems in using most forms of public transport. Such results point to a need to significantly improve public transport before people will consider using it more.

In Community Attitude Survey 1999, a participant of the workshops gave an insight into one of the factors contributing to this trend: *"They are trying to encourage people to not drive, but they are not giving us enough transport".*

The range of mechanisms to increase public transport usage should include:

- Integrated ticketing;
- Community education and awareness of the use of mixed modes of travel involving walking or cycling and public transport;
- Full information to travellers on available options;
- A public transport marketing strategy; and
- Disincentives to private car travel through measures such as elevated parking fees, full-cost road pricing, and long-term changes to urban form.

The ILTP process needs to develop a strategy integrating all of these fronts, and not on one, single front.

3.3.12 Congestion

The pressures of increasing congestion are becoming increasingly common within the Shire and reversal of this trend will be difficult in the future, especially with continued economic growth. The problems with congestion within the Shire are reflected in comments made by a participant, a teacher, in Community Attitude Survey 1999:

"I drive to State High – the time factor is getting worse. I notice the congestion."

3.3.13 Environment

At present, about 70% of South East Queensland's air pollution is caused by the transport sector, with nitrogen oxides (NOx) the main pollutant produced by this activity.

Other environmental concerns from the increasing use of the private car include negative health impacts, water pollution and the depletion of resources. Cars represent more than 60% of oil use.

3 Transport Challenges in Redland

Although these issues are not specific to the Redland Shire, Council is obliged, under state, national and international policies and agreements, to ensure it works towards achieving a more sustainable future for the region. Specific to the Shire, prominent issues include reducing koala road tolls and protecting the marine environment.

The ILTP, in an effort to reduce the community and environmental impacts of car use, can suggest a host of alternative options – including walking, cycling and public transport – to meet the accessibility and mobility needs to the community. These efforts, however, will be in vain unless individual members of the public see reason to change their own travel behaviour. It is also apparent that as long as cars are affordable, and road space and parking are widely available and free, most people will continue to drive. Public transport will continue to bee seen as a distant second choice. The challenge is to how to bring tangible changes in the travel behaviour of Redlands community members, once travel options are provided through the ILTP implementation process.

4 Land Use and Transport Integration

4.1 Existing Land Use Planning Issues

Transport policies alone are unlikely to achieve the objectives of an ILTP, and as has been increasingly recognised, land use planning and transport in Redland Shire are also generally inextricably linked. The relationship between land use and transport networks influences the:

- Distance people need to travel;
- Proportion of trips that can be made with a particular mode; and
- Cost effectiveness of, and level of service provided by public transport.

There are some examples of land use planning within the Shire that do not encourage the use of public transport, walking or cycling to fulfil daily travel needs and these include:

- Poor connection of local street networks and poor connectivity between residential developments;
- Low density development close to employment, major centres and transport nodes;
- Major developments in locations only accessible by cars;
- Vast areas of single-use development;
- Incompatible uses in proximity to major transport corridors and facilities;
- Rural residential land generating substantial private vehicle usage; and
- Walking and cycling paths that are unsafe from a crime prevention perspective.

Sprawling lower density communities and segregated land uses in the Shire make it difficult for conventional public transport to function effectively, and do not encourage cycling and walking to facilitate a reduction in travel demand.

4.2 Land Use and Transport Integration Actions

The Planning Scheme is an important mechanism to achieve integrated land and transport use, and it is appropriate to use the Planning Scheme under the Integrated Planning Act to develop conditions that will better support public transport, walking and cycling in the Shire.

Improving the design of new and existing communities can increase opportunities for walking, cycling and travelling by public transport. Redland Shire Council's Community Plan has set the goal outlined below regarding the transport system. Strategies and actions identified below are steps in the right direction for better land use and transport integration.

Goal: Coordinate land use and transport systems to ensure greater support for public transport and increased opportunities for walking and cycling.

4 Land Use and Transport Integration

Strategy 4.2.1: Establish a self-contained land use and movement system based on a combination of road, rail and water transport and pedestrian and cycling systems, which is integrated with land use planning principles and objectives identified in the Redlands Shire Planning Scheme.

Actions – Land Use and Transport Integration

A4.1	Enhance and provide new activity centres by identifying new areas in the Shire that offer high accessibility and can be efficiently supported by public transport. These centres should be included in the land use plan as potential sites for major new employment attracters. A relatively low level of employment in the Shire is contributes to a low level of self-employment.
A4.2	Identify and suggest policy measures that increase local employment opportunities and encourage the development of mixed use, pedestrian-friendly precincts or centres, where people can walk or cycle to employment, education and entertainment. This is known as self-contained development.
A4.3	Propose and/or provide input to formulate a Priority Infrastructure Plan, which should be developed in accordance with the Integrated Planning and Other Legislative Act (IPOLA) in such a way as to minimise the need for new road infrastructure, vehicle trips and long car travel. The plan should also promote the construction of bikeways, walkways and public transport routes.
A4.4	Distribute and promote the use of Shaping Up guidelines (or other similar documents) to developers and architects/planners involved in developing sites, to encourage them to adopt best planning practice in both land use and transport planning.
A4.5	In cooperation with Queensland Transport, organise workshops with potential developers involved in the Shire, following the Shaping Up guidelines or similar best planning practices.
A4.6	Develop a mechanism to ensure development proposals require contributions to pedestrian, bicycle and public transport networks. The Infrastructure Charges Schedule (IPS) – part of IPOLA – should include a method to support all modes of transport infrastructure.
A4.7	Develop codes for transport infrastructure planning and institutional or commercial building complexes and educational facilities, to ensure their development includes secure bicycle parking spaces, shower and change facilities.

4 Land Use and Transport Integration

Actions – Land Use and Transport Integration

A4.8	Analyse the functional hierarchy of the existing arterial road network in the Shire (in consultation with Department of Main Roads in the case of state-controlled roads) and suggest ways to protect the function and capacity of these major arterials. Special attention should be given to controlling direct access from properties adjoining these roads. Implement appropriate development control along these major arterial roads to protect the function and capacity of major roads. This is necessary so that the development does not rule out the possibility of developing feeder bus services along frontage roads that serve line haul mass transit and bus routes.
A4.9	Include in the Planning Scheme a requirement for developments within an 85th percentile walking distance of rail stations and other high capacity public transport nodes to be built at a minimum residential density of 40 dwellings/ha.
A4.10	The Planning Scheme should require all new residential developments, except those close to high capacity public transport nodes, to achieve a residential density range of 12-15dwellings/ha.
A4.11	Council should identify, facilitate and promote local examples of transit-oriented development to the development industry and community.
A4.12	Propose the State Government (through state or joint funding, as decided by Redland Shire Council) undertake a demonstration project within the Shire to promote public transport-oriented housing or mixed-use development. This would form part of IRTP initiatives to encourage local governments to use Shaping Up guidelines.
A4.13	Research and pursue increased employment opportunities within the Shire in order to improve self-containment.
A4.14	Ensure the higher order activity centres of the Shire are located near major line haul modes.
A4.15	Implement a process to coordinate strategic transport and land use planning to address cross-border issues. This should happen at a regional and sub-regional level.

4 Land Use and Transport Integration

Strategy 4.2.2: Ensure an urban form that allows public transport to be developed to a level and efficiency that makes it more attractive than the use of private motor vehicles.

Actions – Land Use and Transport Integration

A4.16	Investigate alternative uses for transport corridors identified on the current strategic plan so that other forms of transport (public transport, cycling and so on) can develop along these corridors, not just roads.
A4.17	Promote the development of more compact urban forms, which will encourage and be able to support a higher level of public transport. At the same time, the compact developments should reduce the overall average trip length required for work, shopping, school and other purposes.
A4.18	Ensure any new major employment and visitor attractions be adequately supported by public transport. This way, any policy that restrains car use will not adversely affect people's mobility or the development of these activity centres.
A4.19	By developing Integrated Local Area Community Plans – incorporating economic development and employment strategies – as well as Council's other infrastructure development programs, encourage mixed-use developments and self-contained precincts to be pedestrian and bicycle-friendly centres. This way, people can walk or cycle from their places of residence to employment, services and facilities, without needing to use their cars for travel.
A4.20	Educate the developers to prepare their development proposals in accordance with the Shaping Up guidelines or other best practices for transit-oriented development, in order to make sure public transport services provision in future can be made more cost-effective.
A4.21	When planning new residential developments, Council should allow for the early introduction of public transport (line haul) services, integrated with walkways and bikeways as per Council, State and Australian standards. This should be done in consultation with Queensland Transport.

5 Public Transport

Redland Shire is serviced by four modes of public transport: Bus, taxi, rail and ferries. These services require convenient and flexible coordination to make the public transport system a realistic and attractive alternative to the car. The public transport network, illustrated on Map 5-1, needs to be refined as improvements are progressively implemented.

Council's Community Plan set the goals outlined below with respect to the public transport system, and these have been adopted by the ILTP. In addition, a goal relating to the desired level of public transport mode share has also been established.

Goal: Provide a safe, convenient and integrated public transport system, which meets the needs of the community and provides a convenient and affordable alternative to private car use.

Goal: Public transport use targets:
• 7% of all trips by public transport by 2005; and
• 8% of all trips by public transport by 2011.

5.1 General

5.1.1 Public Transport Preferred Mode of Travel

One of the main issues to be addressed by an ILTP is how to provide more attractive and alternative forms of travel than by car. Redland Shire Council's ILTP considers public transport as one of its main components. Some criteria available for strategic transport planning and ones that need to be considered in Redland Shire to make public transport travel as the preferred mode of travel include:

- Ideally, 90% of potential passengers should live within 400m of their nearest bus stop for peak period services or within 800m of rail services. Within Redland Shire, the figures could be 800m for bus and 1km for rail;
- Lower density land uses that attract public transport users capable of walking further are located at the edge of convenient walking areas. Thus, TAFE colleges and high schools should be located about 400m from bus interchanges and up to 800m from rail stations. The figures could be 800m for bus and 1km for rail within the Shire, as this seems to be typical for the area;
- In general terms, bicycles are ideally suited to journeys of under 5km and walking is suited to trips under 2km;
- Public transport vehicles are about 10-20 times more efficient at using road space. For example, a standard bus can seat 49 people, taking up significantly less road space than 49 cars;
- Intersections should give priority treatment for public transport vehicles, using new intelligent transport system (ITS) technology and public transport-oriented road network systems; and

5 Public Transport

- A density of 12-25 dwellings per hectare is needed to support effective public transport services. Around rail stations, a density of 40 dwellings/ha (similar to that advocated in Transport 2007) will be targeted.

Strategy 5.1.1: Improve public transport so that it becomes the preferred mode of travel for greater numbers of people.

Actions – Public Transport Strategy

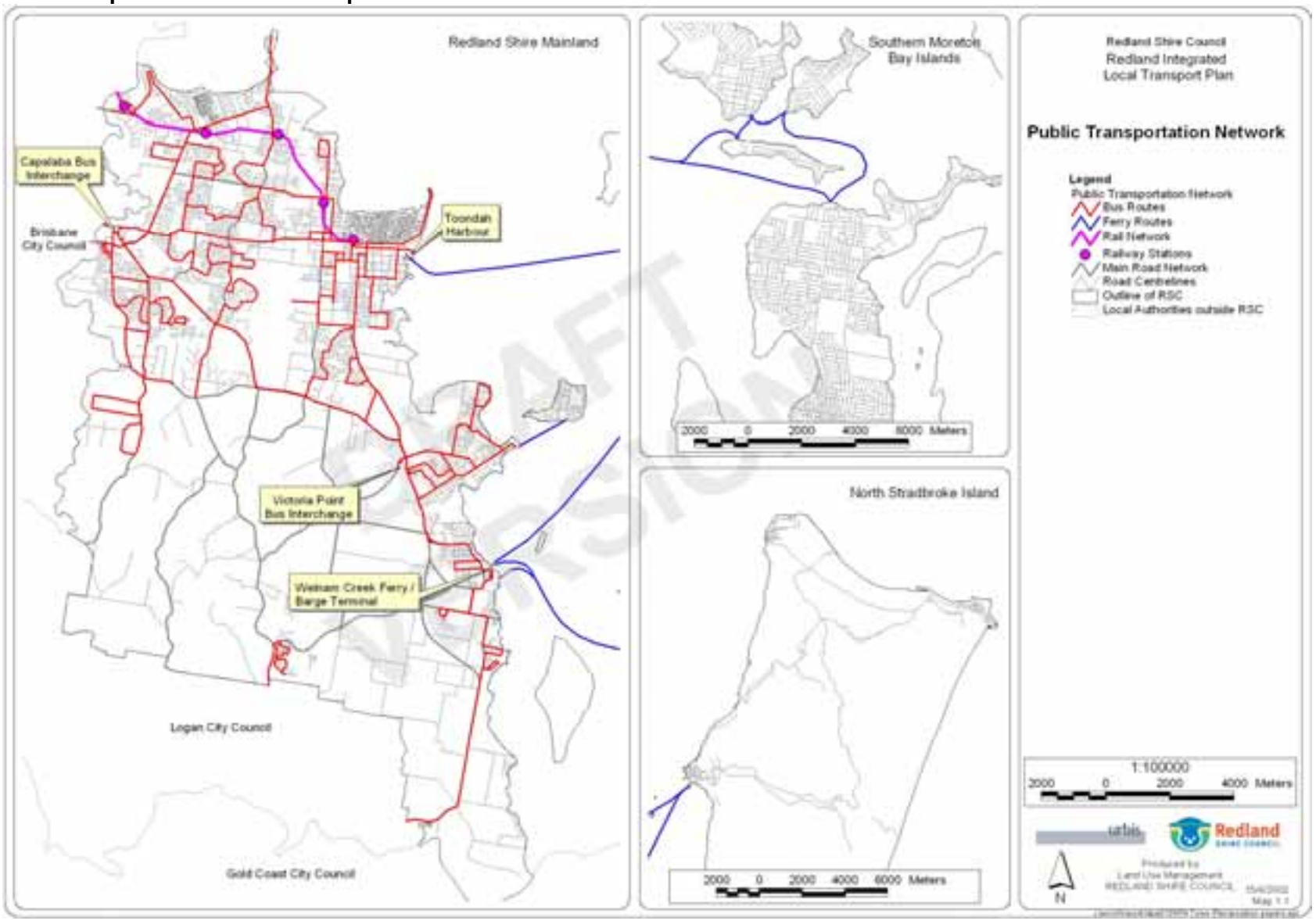
A5.1	Identify and adapt performance indicators to be used to evaluate public transport in the Shire. Performance indicators could include patronage, catchment, frequency of operation, inter-modal integration, reliability, comfort, and safety.
A5.2	Adopt the public transport network system plan and make annual improvements after reviewing performance indicators.
A5.3	Investigate mechanisms to promote and gain awareness of public transport to encourage and inform people to use it. For example, develop and launch community awareness and education programs on the benefits of using public transport, similar to TravelSmart in Perth.
A5.4	Implement and continually improve the clarity and presentation of public transport information. This includes public transport network map and bus stop information.
A5.5	Work in collaboration with the State Government to address the funding requirements of public transport improvement proposals for the Shire.
A5.6	Work with TransLink to improve bus, ferry and train linkages and coordination by introducing integrated public transport fares, electronic ticketing and coordinated timetables. For example, this integration could be encouraged via a TrainLink service between Birkdale/Moreton Institute of TAFE and Capalaba, and a Redland Bay/Victoria Point/Cleveland FerryLink service.
A5.7	Work with TransLink to develop a ticketing pricing strategy, reducing the number of ticket types and specifying or extending the number of hours passengers can travel with transfer ticket received at the start of journey. This will ensure public transport fares are simple to understand and represent good value for money. .
A5.8	Develop a positive new image for public transport through marketing and promotion. For example, promote the TransInfo line of 13 12 30 and www.transinfo.qld.gov.au web site, ensuring information is regularly updated.

5 Public Transport

Actions – Public Transport Strategy

A5.9	Work with TransLink to review opportunities for improved bus facilities at Capalaba and beyond, with a view to providing a longer term, line haul public transport development plan with staged implementation. For example, bus or High Occupancy Vehicle (HOV) lanes could be followed by a dedicated busway and then, when patronage demand existed, converted to a light rail system.
A5.10	Provide functional and aesthetic elements of public transport infrastructure in the Shire.

Map 5-1 Public Transportation Network



5.1.2 Institutional Arrangements

The reality is that the Shire, in preparing the ILTP with a focus on public transport, has little control over public transport. Redland Shire Council has to take a proactive and partnership role to provide public transport, although public transport services provision is mainly Queensland Transport's responsibility. Queensland Transport has in place service contracts with public transport operators. However, Redland Shire Council needs to play a role in advocating the community's expectations and assisting in education and publicity strategies.

Queensland Transport is venturing on a new project with public transport operators, TransLink, to develop a new, integrated, simple-to-use system for all of South-East Queensland. The project will include responsibilities such as planning public transport network priorities, negotiating new performance-based contracts with operators, central marketing of the new system and integrated ticketing and fares.

A recent collaborative venture known as CityTrans between Brisbane Transport and Queensland Rail has provided the mechanism to accelerate the delivery of integrated public transport services. The integration is based on an operator-driven model, rather than a regulator-driven approach. The patronage levels per service, as reported by CityTrans for the first year, have been increasing at a rate of 20% per quarter. CityTrans introduced new service delivery standards for:

- Passenger convenience;
- Information systems;
- Integrated tickets;
- Service design; and
- Precinct integration.

Included in **Appendix B** are some slides for the CityTrans venture. Redland Shire Council should liaise closely with CityTrans through its RTIG to learn from the CityTrans lessons.

Strategy 5.1.2: Establish institutional arrangements to monitor and proactively improve public transport services and facilities.

Actions – Public Transport Strategy

A5.11	Define and set up a local level institutional framework to advocate for and incorporate local government input in defining public transport routes. The framework would also plan, coordinate, monitor and evaluate the system – such as the operator's performance and the system's performance – assist in commuter planning and implement findings of the South-East Queensland Transit Development project within Redland Shire. This group could be referred to as the Redland Transport Implementation Group (RTIG). The RTIG would be supported by the officer-level Redland Transport Working Group (RTWG).

5 Public Transport

Actions – Public Transport Strategy

A5.12	Support the State Government in its initiatives to address the necessary level of funding required to implement initiatives of the IRTP and ILTP.
A5.13	Provide local level input to TransLink to develop or implement mechanisms for sharing revenue among operators, making modal coordination (eg rail, bus and ferry) a mandatory requirement of the service contracts, and arranging for meetings with CityTrans. Of immediate concern is the revenue-sharing arrangement between National and Brisbane City bus operators.
A5.14	As an initial gesture of commitment to provide alternative forms of transport to Shire residents, Council should employ under contract an officer (eg a TDM coordinator) who would promote walking, cycling and public transport and provide input to public transport planning. The role would include coordinating and following up with Queensland Transport, operators, and adjoining local government agencies. This position would provide input to develop a public transport policy for Redland Shire Council and oversee the performance of public transport services but not day-to-day operating issues.

5.1.3 Accessible Public Transport

Redland Shire has a high proportion of retired and a fair share of residents with mobility difficulties (for example, wheelchairs) that require satisfactory and equitable services.

Strategy 5.1.3: Ensure the mobility requirements of disadvantaged groups are met through public transport.

Actions – Public Transport Strategy

A5.15	Introduce low floor buses in the fleet by gradually replacing the current bus fleets in accordance with DDA Transport Standard.
A5.16	Apply pressure to the State Government to fund appropriate buses for physically impaired people, supporting provisions of the Disability Discrimination Act.
A5.17	Review and ensure wheelchair access to bus, ferry and train stations and associated facilities meet the requirements laid down by the prevailing Disability Discrimination Act.
A5.18	By developing new or applying existing codes, ensure local bus services are accessible to all people, regardless of physical disability.

5 Public Transport

5.2 Buses

Two private operators provide public bus transport on the mainland within Redland Shire, namely:

- National Bus Company; and
- Mt Gravatt Bus Service.

Bus operators also provide services on Coochiemudlo Island, Southern Moreton Bay Islands and North Stradbroke/Minjerribah Island.

Redlands Transport provides the bulk of the school bus services, National Bus Company operates the local and line haul bus services and Mt Gravatt Bus Service operates a small number of services to Garden City. The bus operators currently have a temporary annual contract with Queensland Transport, which requires delivery of services at agreed minimum service levels (MSLs). Some of the MSLs include:

- Passengers should be able to access a bus within 400m (weekday) of a bus stop;
- No reduction in services without approval of Queensland Transport;
- Only one fare increase per year allowed with 10% maximum per increase; and
- Line haul routes cannot be too circuitous.

Longer-term contracts, when in place, will apply for a term of five years and will require two reviews involving passenger surveys during the contract period.

National Bus provides a service that covers the major residential areas with links to significant activity centres, such as the Cleveland and Capalaba major centres and the Redland Bay, Birkdale, Wellington Point and Victoria Point shopping precincts. Services also link the Cleveland Rail Line and the ferry and barge docking points, providing access for Bay and island communities. National Bus also provides access to major external activity centres, such as:

- Brisbane City CBD;
- Garden City;
- Carindale Shopping Centre; and
- Wynnum Central.

The regularity of service and hours of operation of these external linkages needs to be improved.

Bus patronage in the Shire is declining as shown in **Figure 5-1** and actions by operators, Queensland Transport and Redland Shire Council need to be implemented to address this decline. Issues such as lengthy waiting and travel times and high fares, raised during consultation, could be identified as contributors to the decline.

5 Public Transport

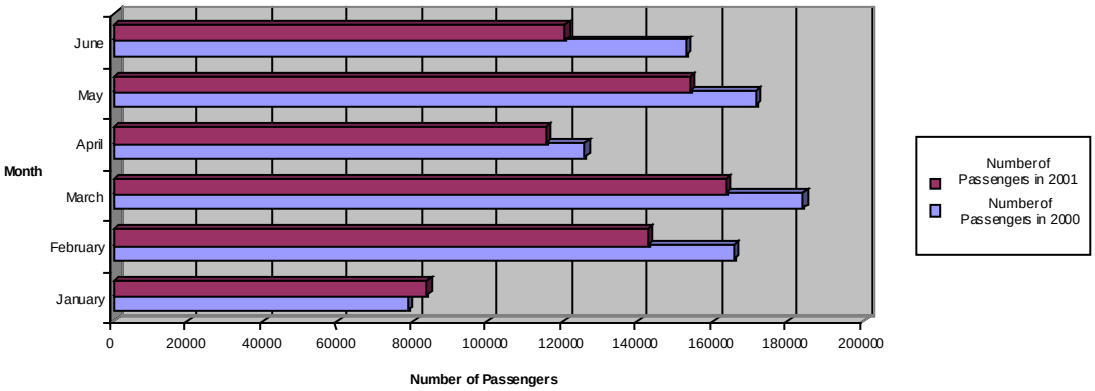


Figure 5-1 Number of Total Monthly Bus Passengers
(Source: National Bus Company)

Strategy 5.1.4: Improve local bus-based public transport to centres, employment areas and line haul transport system stops.

Actions – Buses

A5.19 Designate Capalaba and Koala Park Bus Stations as major line haul bus interchange facilities in the Shire's public transport network and link the line haul bus routes with feeder bus routes.

A5.20 Investigate the option of a flexible bus service. For example, one that is demand-responsive and offers fare-share hiring in lower density rural areas.

A5.21 Work proactively and provide input to TransLink to identify and implement measures to integrate bus services provided by bus operators in the Shire and Brisbane Transport. One measure would include coordinating routes and services at major interchanges such as those at Carindale, Garden City and Mt Gravatt.

A5.22 Develop integrated land use and transport plans that support Redlands Planning Scheme's desired environmental outcome (DEO 4), covering the Shire's transport systems performance. The plan embraces elements that:

- Encourage the planning of local communities that could be best served by bus service and that can be accessed by walking and cycling modes;
- Adopt appropriate road network and design standards in the development plan;
- Minimise walking distances to local bus stops by providing walkways (including design issues such as ramp design) and local road patterns;

5 Public Transport

Actions – Buses

- Provide appropriate amenities like bus shelters, bays and loops at bus stops to facilitate the provision of an efficient local bus service through development codes; and
- Promote the establishment of public transport services at an early stage in the development of new urban areas.

A5.23 Work with TransLink to develop a long-term bus route structure (or map) for major transport corridors and bus routes. This will ensure that access to public transport and bus stops can be meaningfully considered when Council is approving new subdivision plans.

A5.24 Work with TransLink to plan and promote the development of an integrated local bus service that provides a high degree of accessibility to major centres, employment areas and to line haul transport systems.

A5.25 Propose and pursue the feasibility study of a busway to Capalaba Bus Interchange and its gradual extension to the Victoria Point Bus Interchange. Ensure the current development of interchange facilities would be suitable for integrating with this proposal.

A5.26 Work with Queensland Transport's Public Transport Division and TransLink to examine funding arrangements to ensure that bus services are clearly cheaper to use than private cars. The tasks will include:

- Investigate, through an appropriate behavioural study, the level of fare that community members are willing to pay for bus or other transit services, given factors including frequency, wait time and ride time;
- Carry out a patronage survey to determine fare box revenue and determine the level of subsidy required for bus operation;
- Put into discussion whether a stratified subsidy policy (by route) should be proposed, to ensure operators do not provide services only along profitable routes and that bus services would be made available in all localities of the suburbs for maximum spatial coverage;
- Investigate the feasibility of running zero or nominal fare local bus services to access line haul stations or to cater to local mobility needs. The investigation would need to start with a few high demand corridors and base its findings partly on a participatory community consultation process. It would be financed by the revenue generated from parking fees imposed on a Shire-wide basis; and
- Provide supplementary funding for a public transport subsidy to reduce fares and make public transport more attractive.

5 Public Transport

Actions – Buses

A5.27	Through a participatory community consultation process, establish what types of bus services and what level of services are required to make community members willing to switch from driving the car to riding the bus. The community must be made aware of the implications of their desire to have a good bus service without using it (based on the analysis under Action 5.29).
A5.28	Through a participatory community consultation process, obtain commitments from the community that each household would use an improved bus service for at least 75% of the intra-suburb trips currently being made by car (where bus services are available).
A5.29	In collaboration with TransLink, work out a cost proposal for providing improved local or feeder bus services. The participatory community consultation process, outlined in Action 5.27, will determine the improvements. The proposal should include a corresponding fare required for: (a) Full cost recovery (zero subsidy); (b) 50% cost recovery; and (c) Nominal cost recovery (full subsidy). Establish at what level of patronage these services would be cost effective and put less demand on the public purse.

Kerbside bus infrastructure, like this one in Alexandra Hills, needs to be progressively implemented at other line haul bus stops within the Shire.

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5.3 Rail

The Cleveland Rail Line serves the northern and eastern (to Cleveland) parts of the Shire. The majority of passengers access stations in the area directly by either walking or cycling. National Bus provides a link to all of the railway stations, expanding the existing direct rail catchment to residents without immediate access to the rail system. Other modes of access to the rail stations are presently Park and Ride or Kiss and Ride. Stations on the line within the Shire are at:

- Thorneside;
- Birkdale;
- Wellington Point;
- Ormiston; and
- Cleveland.

The distribution of intra-Shire railway station trips in 2000 and customer locations by station of origin are shown in **Figure 5-2** and **Figure 5-3** respectively.

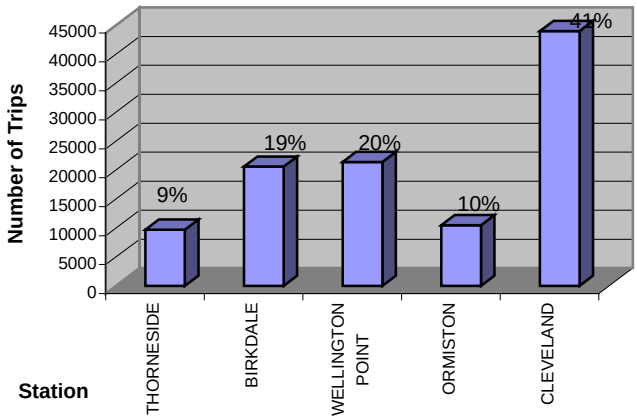

Figure 5-2 Distribution of Intra-Shire Railway Station Trips - 2000
(Source: Queensland Rail)

Being relatively new, these stations are designed to modern standards and are generally accessible to people with disabilities. However, only Birkdale and Cleveland railway stations are wheelchair accessible at this stage. Commuter parking is provided at each of the stations in the Shire. This provision is generally less than what is required to meet actual demand, as there is evidence of parking spilling into adjacent streets. There is adequate parking for people with disabilities.

5 Public Transport

The service frequencies and hours of operation on the line are consistent with metropolitan-wide standards. Services are provided seven days per week with twenty-minute frequencies in the weekday peak and a standard thirty-minute frequency at other times, including weekends. Express services on the line are very limited. This is understood to be attributable to a lack of line capacity – thus, the feasibility of duplicating railway lines to Cleveland should be pursued.

From Cleveland, normal travel time to the city is approximately 58 minutes, reflecting the circuitous alignment. This is, in fact, marginally slower than the service provided by National Bus to the city. The extra travel time, lower frequency at night and cost comparison to bus diminishes the attractiveness of rail for city-bound commuters.

With recent passenger service improvements at the Birkdale railway station for bus circulation, a new TrainLink service has been introduced between the railway station, Moreton Institute of TAFE and Capalaba shops, with communications between bus driver and Station Master to ensure timely integration.

Strategy 5.1.5: Take maximum advantage of the opportunity to use the existing railway.

5 Public Transport

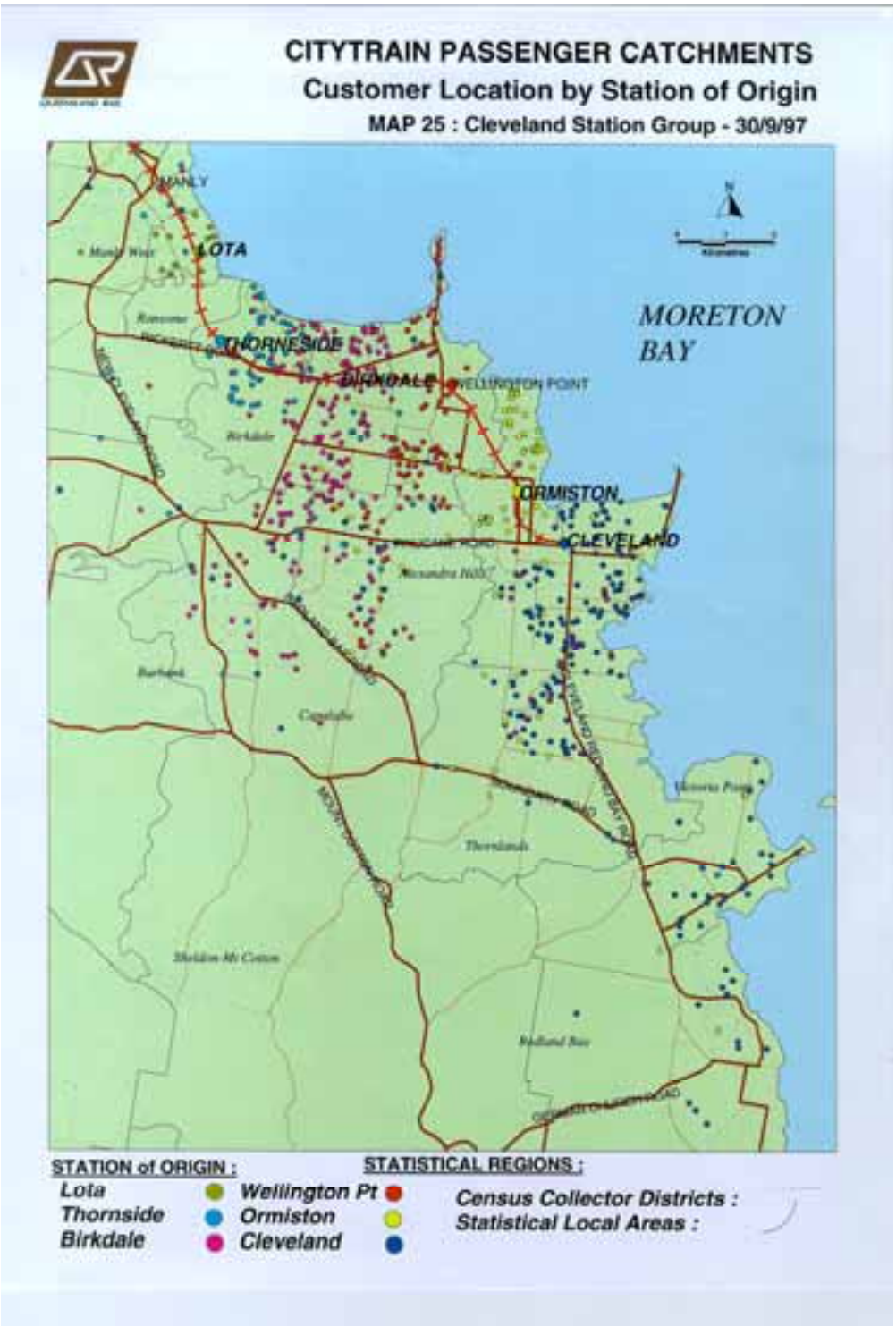

Figure 5-3 Customer Location by Station of Origin
(Source: Queensland Rail)

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Actions – Rail

A5.30	Through land use planning interventions, promote medium to high-density residential development, employment and community facilities in areas accessible to existing train stations. This should be done in accordance with Queensland Transport's State Interest Planning Policy (SIPP) for rail noise and consistent with Queensland Transport's Rail Network Strategy.
A5.31	With support from Queensland Transport, propose Queensland Rail initiates an in-depth study on requirements for operational improvements in the current line in order to increase frequency, zone stop and express operations, which are all necessary to reduce the overall journey time and to improve inter-modal integration through timetables.
A5.32	Advocate to Queensland Rail the ongoing importance of increasing perceived public safety in train rides. Pursue installing surveillance cameras in trains, at stations and parking facilities, and other measures for improving safety.
A5.33	Investigate the adequacy – through qualitative and quantitative analysis – of Park and Ride facilities at train stations in the Shire. Advocate for the monitoring and progressive expanding of these facilities, taking into account the likely shift in access mode share to walking, cycling and feeder buses following the improvement or upgrading of the walkways and cycle ways infrastructures and feeder services around rail stations.
A5.34	In collaboration with Queensland Rail, investigate options for using rail or Government land for transit-oriented development.
A5.35	Investigate the feasibility and desirability of protecting a spur line from Murarrie to Capalaba via Chandler or a TrainLink service to Murarrie using buses. This would allow an option for bus-rail coordination that caters for travel to Brisbane in case a busway to Capalaba via Carindale along Old Cleveland Road is not feasible.
A5.36	Investigate the potential of an enhanced linkage to southern parts of the Shire and the feasibility of having a light rail system within the Shire as a long-term extension to the busway program.
A5.37	Plan and provide further storage spaces for bicycles, wheelchairs and strollers on trains and stations to offer equity of access to all users.
A5.38	Incorporate the current Transitional Planning Scheme Policy – Impact of Transportation System on Urban Amenity – into the new planning scheme.

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This Park and Ride facility – with car parks, bicycle lockers and pathways – at Cleveland Railway Station is a good example of existing infrastructure for modal co-ordination.

Ferry, bus and train co-ordination at Cleveland Railway Station with passengers delivered to the ferry terminals from the railway station.

5.4 Ferry

Note: The Southern Moreton Bay Islands – Integrated Local Transport Plan (SMBI – ILTP) has been prepared separately, but will become part of this Shire-wide ILTP. The SMBI – ILTP addresses issues relating to both water-based and land-based transport, in terms of access and movement throughout the Southern Moreton Bay Islands. The detailed short to long-term strategies and actions established in the SMBI – ILTP need to be considered and implemented in addition to those identified within this ILTP report.

Ferry services to and from North Stradbroke and the Southern Moreton Bay Islands are a crucial link to the mainland for island residents. Queensland Transport, quite recently, regulated the provision of some passenger ferry services between coastal island communities and the mainland by way of service contracts. These are similar to those existing for scheduled urban bus services. Regulated servicing arrangements of this form are provided pursuant to the Transport Operations (Passenger Transport) Act 1994. The routes in the Shire where a market entry restriction has been imposed in terms of this Act are:

- Coochiemudlo Island and Victoria Point; and
- Karragarra, Lamb, Macleay and Russell Islands and Weinam Creek (Redland Bay).

Service contracts (five years) can be either exclusive or non-exclusive. In this regard, only the Coochiemudlo Island contract is exclusive. For non-exclusive contracts, other operators may enter the market provided they have entered into a contract with Queensland Transport. Redland Shire has numerous ferry (passenger) and barge (passenger and vehicle) operators that service the islands situated in Moreton Bay and Redland Bay. The islands that are currently serviced are:

- North Stradbroke Island;
- Russell Island;
- Macleay Island;
- Lamb Island;
- Karragarra Island; and
- Coochiemudlo Island.

The ferry and barge operators for Redland Shire are:

- Stradbroke Ferries;
- Island Link Ferries;
- Bay Island Taxi Service (BITS);
- Island Transport; and
- Stradbroke Flyer.

Table 5-1 outlines the types of services available to the islands in Redland Shire.

Table 5-1 Water Transport Services Available in the Shire

Operator	Cargo Type	Service
Stradbroke Ferries	Passenger	Cleveland to North Stradbroke Island
Bay Island Taxi Service (BITS)	Passenger	Redland Bay to the Bay Islands
Stradbroke Flyer	Passenger	Cleveland to North Stradbroke Island
The Express (Stradbroke Flyer)	Passenger	Cleveland to the Bay Islands
Island Link Ferries	Passenger	Victoria Point to Coochiemudlo Island
Stradbroke Ferries	Vehicular	Cleveland to North Stradbroke Island
Stradbroke Ferries	Vehicular	Redland Bay to the Bay Islands
Island Transport	Vehicular	Redland Bay to the Bay Islands
Island Link Ferries	Vehicular	Victoria Point to Coochiemudlo Island

Most operators terminate weekday services in the early evening with the last service leaving the mainland at approximately 6pm. Some operators provide later services on Friday

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evenings. Services provided on weekends are comparable to weekday services (both in terms of services provided and the hours of operation).

Queensland Transport does not envisage any major challenges for passenger ferry operators on Moreton Bay in the foreseeable future. Patronage growth is increasing at a rate of around 4% per annum, with growth in both residential and visitor numbers. A recent survey of ferry users as part of the South Moreton Bay Islands ILTP provided valuable travel statistics, including the mode of travel to and from the ferry (see **Figure 5-4** and **Figure 5-5).** The statistics highlight that the use of public transport, cycling and walking modes needs to be increased both to and from the ferries.

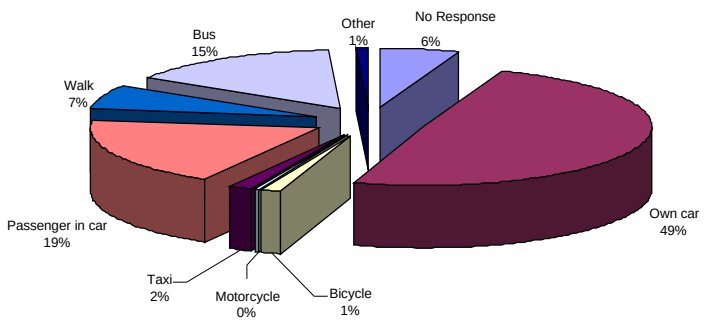

Figure 5-4 Passengers' Mode of Transport <u>from</u> mainland ferry terminal

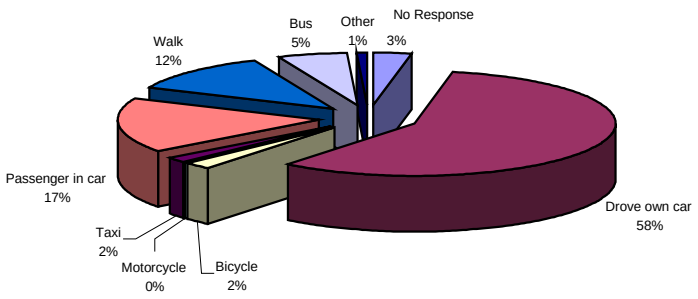

Figure 5-5 Passengers' Mode of Transport <u>to</u> Island ferry terminal

Efficient operation of public transport to the islands requires coordination of other public transport operations at the ferry terminals. Improved efficiencies in this area will reduce demand for use of private vehicles and related demands for car parking in the immediate vicinity of the ferry piers. Service contracts require operators (bus vs ferry) to integrate

services wherever practical. In the main, Queensland Transport advises this is occurring but there are cases where buses fail to meet ferry services and vice versa. Road delays, in particular, do result in some late running of buses, which then fail to meet ferry connections. Operators do try to alleviate this by radioing each other, advising of any delays, but this does not always occur and sometimes the ferry has to depart to keep to its timetable of crossings.

A new FerryLink service has commenced between Redland Bay Ferry Terminal, Victoria Point Shopping Centre (bus interchange) and Cleveland Shopping Centre (railway station). Master planning and upgrading of facilities at Weinam Creek terminal are progressing.

The demand for car parking facilities is not only from tourist and visitors, but also increasingly from island residents who leave their cars permanently on the mainland. While an improvement in bus and ferry coordination at the ferry terminals will have some effect on reducing parking demand, this will be more than offset by increased demands related to the future development and associated population growth on the islands. Current parking provisions at the mainland ferry terminals are as follows:

Weinam Creek (approx)	
Secured parking compounds	234 bays
Vehicles with boat trailers	102 bays
Regulated parking	329 bays
Bus bays and set-down areas	5 bays
Victoria Point (approx)	
Regulated parking	145 bays
Vehicles with boat trailers	92 bays
Wellington Point (approx)	
Regulated parking	108 bays
Vehicles with boat trailers	69 bays
Toondah Harbour	
Regulated parking	616 bays
Vehicles with boat trailers	47 bays

The Shire Transportation Study (2000) concluded the issue of ferry-related mainland parking required closer examination to determine the maximum potential cost-effective parking supply possible at each pier. This was also necessary to study how this supply could be best managed to ensure adequate supply is available to visitors at times of peak demand.

Existing coordination of ferry services with buses and taxis may be summarised as follows:

- ***Coochiemudlo Island***
  Bay Islands Taxi Service has up to five fast ferries daily from Cleveland (Middle Street). The Coochie Bus Service presently meets all ferries.

- ***North Stradbroke Island***
  Courtesy bus transfers from Cleveland Railway Station presently connect with ferries. Stradbroke Ferries run water taxis from Cleveland (Toondah Harbour) to Dunwich and are met by a connecting bus to Amity Point and Point Lookout. The

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North Stradbroke Island Bus Service operates between Dunwich, Amity Point and Point Lookout.

With respect to the future, since the island community is well adapted to public transport, the islands will continue to be serviced by the ferry. Between 1996 and 1998, Redland Shire Council and the Queensland Government undertook a comprehensive planning investigation of the Southern Moreton Bay Islands (SMBI). This process involved an extensive community consultation program and a series of technical studies. The final strategy did not support a bridge link to the islands. This represents the current policy position of both the State Government and Redland Shire Council. Accordingly, providing and maintaining an adequate and efficient ferry system continues to remain the primary focus of future transport planning for inter-island and island to mainland travel.

Strategy 5.1.6: Ensure the ferry services within the Shire are improved to provide an efficient, safe, reliable, accessible and cost effective form of transport for residents and visitors to the Shire.

Actions – Ferry

A5.39	Identify any problems (eg licensing and regulation) associated with the improvement of water-based transport in the Shire and address them through RTIG.
A5.40	Identify and initiate a promotion and awareness program (including reviewing the location and presentation of ferry information) of the ferry system to encourage greater use of this form of transport.
A5.41	Develop, as a component of an overall public transport network plan, proposals to improve or upgrade existing facilities and identify the needs of new facilities.
A5.42	Review the Toondah Harbour project with a view to upgrading the facility.
A5.43	Install 'bund walls' in the vicinity of ferry terminals to allow safe movement of passengers to and from the ferries, and also to prevent erosion.
A5.44	Continue to monitor the impact of water-based transport on marine and foreshore environments. These impacts include turtle strikes by ferries, turbidity and channel dredging.
A5.45	Carry out – or collect, if available – a passenger and freight movement survey and evaluate the adequacy of the currently available service. (Issues covered may include protecting particular service routes and establishing new service routes) .
A5.46	Identify and assess alternative sites for additional facilities – such as passenger jetties at Russell and Macleay Islands – including facilities for recreational boating.

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Actions – Ferry

A5.47	Identify and assess alternative sites for additional facilities suited to recreational boating.
A5.48	Develop and, over time, refine walking and cycling networks and public transport networks for the islands. As a first step, investigate sealing primary roads and car-pooling or demand-responsive public transport for commuters.
A5.49	Continue to liaise with Queensland Transport and ferry and barge operators to improve the management of island ferry and barge services. This includes frequency, hours of operation and fares.
A5.50	Investigate mechanisms to improve security of tenure to barge and ferry operators.
A5.51	Endorse and implement strategies and actions from the SMBI – ILTP.
A5.52	Evaluate if, and ensure that, Council-owned water-based transport infrastructure in the Shire is accessible to all users, including people in wheelchairs .
A5.53	Undertake a review of all island and mainland ferry modes to ensure these facilities can accommodate increased usage. This includes the number of ferry terminals or barge landings required and the types of vessels, such as high capacity or high frequency.
A5.54	Review parking demand and supply on island and mainland ferry terminals and, as a first step, investigate how demand can be minimised by improving coordination between ferry and bus services.
A5.55	Investigate opportunities for water-based transport for mainland residents.
A5.56	Plan new bicycle, motorcycle and car parking facilities at ferry terminals and suggest and implement security measures.
A5.57	Investigate ways to improve and integrate coordination of water-based and land-based transport systems in the Shire.

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Weinam Creek passenger ferry service terminal with signs and an all-weather protected shelter. Similar standard facilities are available at the other terminals.

Many Island residents' cars are permanently parked within private properties on the mainland at Weinam Creek, affecting the area's amenity and character. The situation can be addressed through a much better coordinated and cheaper service between the ferry and bus operators.

Cyclists, pedestrians and private vehicles are pictured boarding the barge ferry to Coochiemudlo Island. Such opportunities for ferry users need to be maintained in the future.

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A bus is waiting for passengers at the Victoria Point ferry terminal. Coordinating ferry and bus timetables is a priority for the Shire.

5.5 Taxi

Taxi services in the Shire are provided by:

- Yellow Cabs (25 permanent cabs);
- Black and White Cabs;
- Stradbroke Taxi Service; and
- Macleay Island Taxi and Hire Car.

These operate in accordance with Queensland Transport licensing requirements and include maxi-taxis for wheelchair passengers. Queensland Transport has taxi service contracts with taxi booking companies and the contracts require minimum service levels such as 85% of bookings met within 10 minutes and 95% of bookings met within 20 minutes. Major taxi ranks are located at Cleveland (Middle Street), Capalaba Park Shopping Centre, Capalaba Central Shopping Centre and in other suburban localities.

Accessible taxis also play an important role in meeting the transport needs of people with disabilities in the Shire. The current inability of these services to satisfactorily meet the needs of people with disabilities in the Shire is fully recognised. This situation has arisen due to the relatively small number of accessible taxis in service. Only two are rostered for use in the Shire and there is a corresponding high cost to users.

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Strategy 5.1.7: Ensure taxi services continue to be reliable, efficient, accessible and improved within the Shire.

Actions – Taxi

A5.58	Introduce innovations to create a flexible taxi service, such as demand-responsive fare-share hiring – which could be subsidised in lower density areas – using maxi-taxis.
A5.59	Provide supporting infrastructure for taxi ranks at shopping centres.

This taxi rank at Victoria Point Shopping Centre has sufficient shelter, seats and path connections. Such passenger facilities should be available at locations of high taxi use throughout the Shire.

5.6 Interchanges

The Capalaba Bus Interchange, located at Capalaba Central Shopping Centre, provides the nucleus for a large proportion of all services offered and is a major bus-bus inter-modal transfer location. This primary interchange role is illustrated below in **Figure 5-6.** The facility's location and operation is currently the subject of a separate review by the Shire in conjunction with Queensland Transport. This review is discussed later in this section.

Ferry/bus interchanges are located at Weinam Creek and Victoria Point. Bus/rail interchanges are located at Cleveland, Wellington Point and Thorneside Railway Stations. Other major bus stops are located in Middle Street (Cleveland) and Koala Park Shopping Centre (Victoria Point).

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Figure 5-6 Capalaba Bus Interchange Nucleus Role
(Source: Queensland Transport Public Transport Division)

The Capalaba Bus Interchange relocation and redesign plan is responding to change. The plan has funding of $3.5 million from Queensland Transport, $2.5 million from Redland Shire Council and $1.38 million from the regional Controls Program Grant. Reasons for the redesign and relocation include:

- The evolving Town Centre highlighted a need to relocate the existing bus interchange;
- The current bus interchange is isolated from major pedestrian activity;
- It is located between two major retail centres and is operationally inefficient; and
- The present bus interchange is not visible to passers-by.

The changes to the Capalaba interchange, as shown in **Figure 5.7**, include:

- Relocating the public transport node close to, and integrated within, the heart of the Capalaba Business Centre;
- Ensuring the bus station serves major shopping centres and surrounding activities;
- Integrating its design with the buildings and surrounding spaces; and
- Locating the bus station in a direct line of sight, and with direct pedestrian access.

Together with interchanges, there are presently Park and Ride facilities in the Shire at all railway stations. The centres at Victoria Point (Koala Park) and Capalaba (Capalaba Park) allow allotted areas for commuter parking for line haul bus services.
However, the Park and Ride facility at the shopping centre is not a fixed arrangement and is not available during the busy shopping times, such as prior to Christmas.

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Figure 5-7 Relocation and Redesign of Capalaba Bus Interchange within Capalala Town Centre
(Source: Queensland Transport Public Transport Division)

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Strategy 5.1.8: Ensure the function of interchanges encourages efficient and reliable coordination for passengers.

Actions – Interchanges

A5.60	Develop interchanges with walking, cycling and wheelchair access, and with bicycle lockers.
A5.61	Enhance safety and security at interchanges with better lighting levels, video surveillance, duress buttons and commercial outlets.
A5.62	Include real-time passenger information at interchanges.
A5.63	Provide direction signs (consistent with the Manual of Uniform Traffic Control Devices) at appropriate points on the road network to indicate the location of interchanges.
A5.64	Identify the needs and develop a plan for gradually expanding Park and Ride and Bike and Ride facilities at all interchanges – including ferry terminals, railway stations and shopping centres – with wheelchair accessibility as a priority.
A5.65	Enhance the provision of parking facilities and drop-off areas for commuters at all stations within the Shire.
A5.66	Work with TransLink to plan and provide an integrated public transport system. This includes developing inter-modal transfer facilities at existing train and ferry stations, and integrating bikeways, walkways and bus routes from respective catchments.
A5.67	Investigate the option of using the existing Capalaba Bus Interchange site for a Park and Ride facility to support the functioning of the interchange.

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This line haul bus interchange at Victoria Point Shopping Centre is well designed with an all-weather shelter, lighting, seats and path connections. The interchange requires additional passenger facilities such as a timetable and telephone.

Pictured is the old Capalaba Bus Interchange, which now being relocated and integrated within the heart of the Capalaba business centre. There is an opportunity to utilise the site for a Park and Ride facility to ensure necessary support for effective operation of the new bus interchange.

6 Walking and Cycling

6.1 Walking and Cycling in Redland Shire

The Shire's climate and natural environment is generally suitable for visitors and residents to walk and cycle, and introducing any measures to continue encouraging walking and cycling will lessen the use of private cars for short trips. Council's strategic pathway and bikeway network plan is illustrated on Map 6-1.

Footpaths and shared paths have been provided progressively and a reasonable network of cycle facilities currently exists. However, there is a need for greater attention to on-road cycling needs, such as through new or upgraded roads and improved infrastructure at intersections. Liaison between Redland Shire Council and Department of Main Roads needs to be improved to clarify priorities and funding for on-road links using arterial roads. Infrastructure design in the past has traditionally favoured motorised traffic movement.

Older developments, both residential and commercial, show evidence of cycling and pedestrian facilities that require improvements, such as narrow path widths. The streets, however, are wide enough to encourage on-road cycling.

The existence of walking groups and cycle groups, such as RedBUG and RedBAC, together with Council's appointment of a Cycling and Pedestrian Coordinator, are positive indications of growth and increases in the use of non-motorised modes. The existence of these groups is also an indication that the Shire community is aware of the distinct advantages of cycling and walking over the car.

Facility improvements (both type and number) and existing initiatives to develop the Shire's detailed walking and cycling strategy will help to promote and encourage the increased use of non-motorised transport. As well, overall facilities must cater for people with disabilities.

The Redlands Cycling and Walking Strategy is an integral component of the ILTP. The strategy is being developed through consultation with the public and other local interest groups. The aim of the strategy is to increase cycling and walking as modes of transport and to provide safe, attractive environments in which to cycle and walk within the Shire. The intent of the strategy is to improve the current and future provisions for cyclists and pedestrians, to ensure that access to town centres, employment nodes, recreational centres, schools and shops is comprehensive and convenient. The strategy will support the draft Regional Cycle Network Plan (RCNP), developed recently by Queensland Transport, and detail network plans and direct capital works and programs at a Shire level to develop a comprehensive network. The strategy will also provide actions to encourage and facilitate increased cycling and pedestrian activity and help Council to develop a policy position in relation to walking and cycling in the Shire.

6 Walking and Cycling

Queensland Transport's draft RCNP has been considered in the development of the Redland Cycling and Pedestrian Strategy (RCPS). The RCPS will be reviewed and revised within the Regional Trails Network Framework, where applicable, to include the provision of regional level walkways and trails.

Redland Shire Council's Community Plan has set the following goal with respect to walking and cycling in the Shire:

Goal: Expand and integrate the Shire's network of footpaths and bikeways to facilitate walking and cycling as viable transport modes for work, recreational, shopping and education trips.

Additional goals as part of the ILTP include:

Goal: Promote and encourage walking and cycling as legitimate and important transport modes.

Goal: Cycling target: 7% of all trips by cycling by 2005 and 8% by 2011
Walking target: 13% of all trips by walking by 2005 and 15% by 2011

6.2 Strategies and Actions for Walking and Cycling

Strategy 6.2.1: Take measures to improve existing pedestrian facilities and develop and maintain new facilities throughout the Shire so that more people walk to their destinations.

Actions – Walking

A6.1 Prepare and update the Shire's inventory of pathways – including at the interface with other bordering Councils – and include these in a detailed walking and cycling network plan.

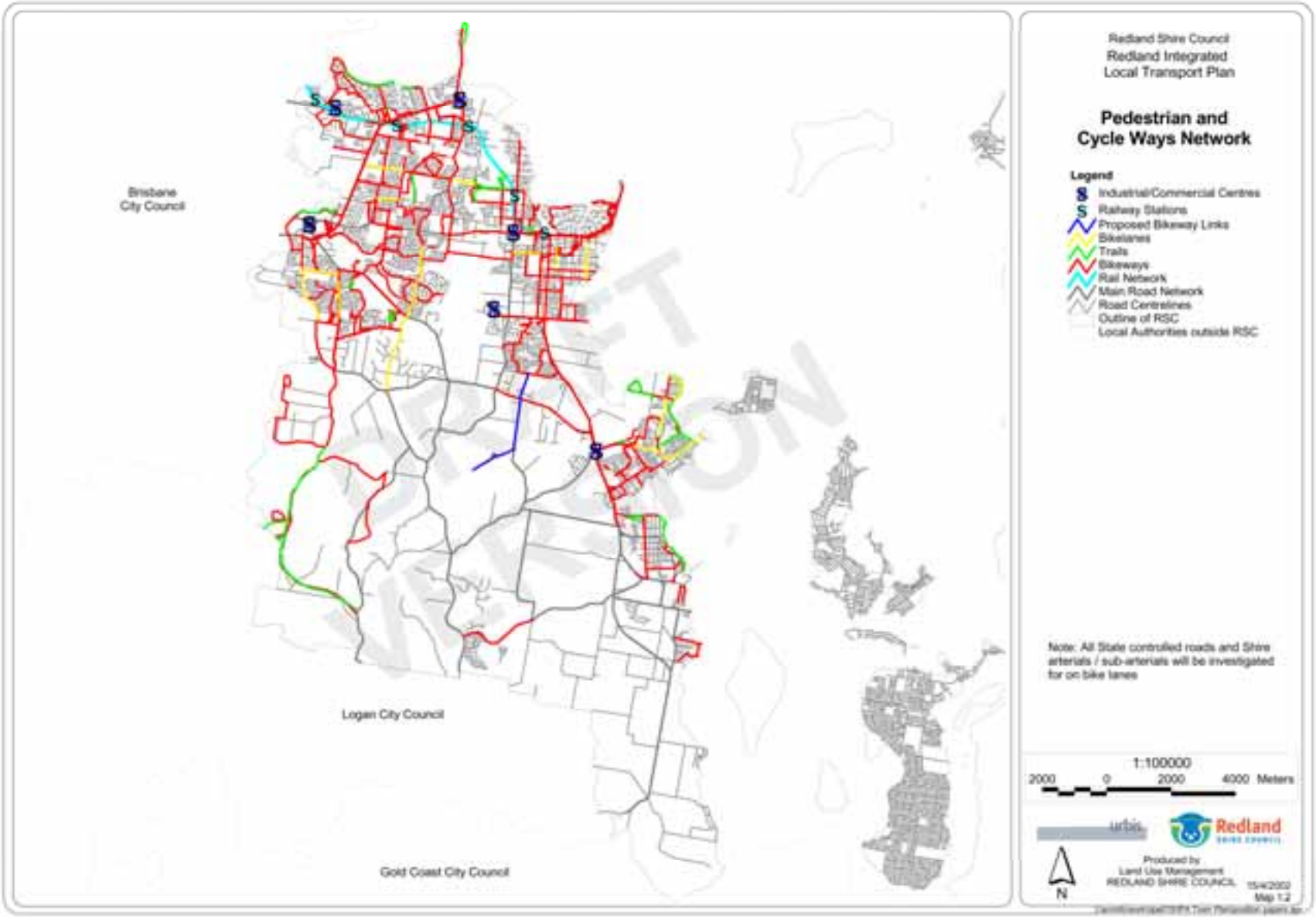
A6.2 Develop and implement a mechanism to ensure all applications for development proposals meet the requirements of the Disability Discrimination Act, Australian Standards for Disabled Access and relevant Council policies.

A6.3 Through the land use Planning Scheme, ensure the urban form supports walking as a mode of travel and that all new developments and subdivisions provide pathways in accordance with the walking and cycling network plan and the IPA Infrastructure Charges Plan. Walking is suited to trips under 2km and ideally 90% of potential passengers should live within 400m of their nearest bus stop for peak period services or within 800m of rail services.

Actions – Walking

A6.4	Develop a plan to progressively improve and provide new walking facilities in the Shire by adopting State and National standards and guidelines (these include Crime Prevention through Environmental Design principles and Austroads' Guide to Traffic Engineering Practice, Part 13 for Pedestrians). Include a requirement within the Redlands Planning Scheme that new developments must facilitate an interconnected network of pathways, open spaces and public spaces. Existing developments must at least not impede this network. The network will meet the requirements of pedestrian connectivity and outdoor recreational and social activities while contributing to the identity and environmental health of the community.
A6.5	Examine constraints that hinder the promotion of walking as a viable mode of travel, and suggest or implement measures to remove those constraints.
A6.6	Evaluate the road network in terms of the adequacy of walking facilities, such as signs, signals, refuge islands and other traffic control devices, to ensure that urban roads allow for safe walking.
A6.7	Formulate and devise an in-house mechanism within Council to gradually implement a local area traffic management plan favouring walking. Examples include developing interior streets into walking precincts or malls, and completely restricting car movements in these streets. The mechanism should include a requirement that the impact on the surrounding road network system be fully considered.

Map 6-1 Strategic Pathway and Bikeway Network Plan



6 Walking and Cycling

Actions – Walking

A6.8	Through a local walkways and bikeways plan, integrate walking facilities with cycling facilities to assist in developing an integrated walking and cycling network throughout the Shire.
A6.9	Continue to fund the development of walkways and trails (on-street, as well as off-street) throughout the Shire. Conduct an Environmental Protection Agency search of the cultural heritage sensitivities of the areas for any off-street walkways or trails.
A6.10	Develop and launch a Walk for Health program and support the National Heart Foundation's Just Walk It program as means of raising awareness of the benefits of walking. This will help to demonstrate how short trips of up to 30 minutes (or less than 2km) duration to work or to school can be fitted into a person's daily exercise to keep healthy.
A6.11	Work with the State Government to address additional funding requirements for walkway construction in the Shire, as this helps to maintain the IRTP's objectives of walking and cycling modal share in the Shire.

Strategy 6.2.2: Establish cycling as an attractive, practical and safe form of transport.

Actions – Cycling

A6.12	Adopt the strategic walking and cycling network plan and progressively implement the recommendations of the Redlands Walking and Cycling Strategy, once it is completed and adopted by Council. Adoption should include publishing a detailed walking and cycling map that informs the public of walking and cycling facilities and services.
A6.13	Council should appoint a cycling and pedestrian coordinator to manage and implement the activities of the Walking and Cycling Strategy.
A6.14	Continue to support the activities of RedBAC and RedBUG and undertake cycling education and information programs, including those aimed at drivers. Strengthen Council's in-house capabilities to undertake activities such as cycling promotion projects and awareness campaigns.
A6.15	Acquire information on bicycling trips and bicycling behaviour as independent (all-the-way) modes and as an access mode to public transport through appropriate investigations and meetings with users.

6 Walking and Cycling

Actions – Cycling

A6.16	Prepare and update the Shire's inventory of bikeways – both on-road and off-road – and at the interface with other bordering Councils. Include these in a detailed walking and cycling network plan
A6.17	Engage in participatory community consultation to identify opportunities for commuter and recreational use and establish cycling desire lines in each suburb. This consultation will form a basis for progressively improving the walking and cycling network plan.
A6.18	Prepare a detailed local cycling and trail plan for all major suburbs of the Shire.
A6.19	Develop and launch bike riding benefit and awareness programs in collaboration with RedBUG and RedBAC.
A6.20	Develop and adopt codes to ensure all new development plans and proposals require secure bicycle storage facilities at major destinations – such as employment nodes, schools, shopping centres, social or recreational centres, and railway and bus stations. This should be done in accordance with Queensland Transport's draft State Interest Planning Policy (SIPP) for cycling.
A6.21	Propose and implement a bikeway safety audit of all the Shire's major bikeways – both on-street and off-street – and suggest corrective measures including lighting and uniform signage.
A6.22	Launch a demonstration conversion program to convert a roundabout in the Shire to a model walking and cycling-friendly roundabout consistent with Australian Standards. Gradually extend the program to cover other roundabouts.
A6.23	Adopt cycling design standards within Council. These national and State standards include Crime Prevention through Environmental Design principles, Austroads' Guide to Traffic Engineering Practices, Part 14 – Bicycles, and the Queensland Manual of Uniform Traffic Control Services, Part 9 – Bicycle Facilities. Adoption will ensure cycling is recognised as a viable mode of transport for local trips and will improve access to railway stations, bus interchanges and ferry terminals by: ▪ Avoiding conflict between pedestrians and cyclists on shared pathways; ▪ Requiring the development of these networks as part of new development; ▪ Integrating bikeways into open spaces; ▪ Requiring the provision of secure facilities for bicycle parking, showering facilities, change rooms in all school and major

6 Walking and Cycling

Actions – Cycling

institutions and water fountains along bikeways;

- Encouraging Bike on Bus and Bike on Train provisions; and
- Developing shady trees along all bikeways and walkways

.

A6.24 Create bicycle usage promotional programs (eg reward children who cycle to schools and reward employees who cycle to work.)

A6.25 Develop an action plan to construct newly identified bikeways, and improve and maintain existing bikeways in all suburbs of the Shire.

A6.26 Develop a cost proposal to develop bikeways and work with State agencies such as Queensland Transport to address additional funding requirements for bikeway construction within the Shire. This will help maintain the IRTP's objectives of walking and cycling modal share in the Shire.

A6.27 Continue to fund the development of on-street and off-street bikeways throughout the Shire. Undertake an Environmental Protection Agency search of the cultural heritage sensitivities of different areas for any off-street walkways or trail, to determine if a cultural heritage survey is required.

A6.28 Develop and launch a Bike for Health program as a means to raise awareness on the benefits of cycling. This will demonstrate how short trips of up to 30 minutes to work or to school can be fitted into a person's daily exercise needs for better health.

These bicycle racks and seats at Victoria Point Shopping Centre cater for the needs of both cyclists and pedestrians. End of trip facilities similar to these need to be provided at all major attractions and generators of walking and cycling, such as schools, hospitals, TAFEs, shopping centres and Council offices.

6 Walking and Cycling

This photo, at Eprapah Creek Bridge along Cleveland-Redland Bay Road, illustrates a squeeze point for on-road cyclists who are forced to use the road shoulder. Safety concerns for on-road cycling such as these at bridges and intersections need to be addressed on all major arterials in the Shire, with close liaison with Department of Main Roads.

This is an example of an off-road shared path for walkers and cyclists, with a signed and protected creek crossing in Thornlands. The design and condition of off-road pathways needs to be in accordance with current standards, especially when constructing new pathways or upgrading existing pathways.

On-road cycling facilities, such as this one along Colburn Avenue at Victoria Point, need to be progressively introduced on major roads within the Shire in close consultation with Department of Main Roads. Cycle ways provide direct and convenient routes for experienced cyclists and contribute positively to the environment.

6 Walking and Cycling

This pathway shows signs of low maintenance. Redland Shire Council needs to adopt maintenance practices to ensure safe, clean and smooth bikeways are maintained.

Roadside rear-end angled parking encroaches on the available clear pathway space. On-road parking design needs to be reviewed to prevent cyclists conflicting with parked cars.

7 Travel Demand Management

7.1 Existing Travel Demand Management Measures

Travel Demand Management (TDM) is a cost-effective way to deliver transport outcomes and better match demand with supply. It also provides environmental benefits. TDM aims to modify travel behaviour using incentives and restrictions:

- Soft measures (or incentives);
  - Education and awareness campaigns;
  - Workplace travel plans;
  - Teleworking opportunities;
  - Flexible working hours to facilitate peak spreading;
  - Car-pooling;
  - Destination travel plans;
  - School programs;
  - Household travel; and
  - Intelligent transport systems.

- Hard measures (or restrictions);
  - Parking supply;
  - Parking pricing;
  - Charging the price of individual trips;
  - Fuel pricing;
  - Regulations;
  - Enforcements;
  - Convert car lanes to High Occupancy Vehicle (HOV) lanes.

A detailed analysis of people's travel choices and their options carried out in Western Australia (James, 2000) demonstrated that about 40% of trips have no realistic alternative other than a car and 15% are constrained to walking, cycling or public transport. About 35% of trips, for which walking, cycling and public transport could have been realistically chosen, were made by car. A total 10% of trips were made by walking, cycling and public transport despite the availability of a car.

Hard measures, which seek to modify objective reality through means such as new infrastructure like road construction or modified systems, have the potential to reduce the 40% of trips for which there exists no option but cars. Soft measures, which seek to change perceptions or subjective reality through means such as education and behaviour change programs, have the potential to reduce the 35% of trips for which a realistic alternative exists but is not being chosen.

Soft measures, therefore, have the potential to convert about the same number of trips to walking, cycling and public transport, as do hard measures. Providing infrastructure and

systems to provide alternatives for most trips would clearly require vast investments, especially in public transport.

The major potential for short-term, cost-effective mode choice changes lies in applying behaviour change strategies that have demonstrated success in changing perceptions and motivating actual changes in mode choice.

Conventional transport option analysis usually promotes hard measures – such as new infrastructure or services. However, these measures are usually justified on the basis of a benefit to cost ratio of marginally higher than 1. Soft measures, by comparison, can effect behaviour change at a benefit to cost ratio as high as 20.

The Redland ILTP emphasises soft measures for travel demand management. Hard measures will be explored in the later stage when soft measures will not work out. This approach is also in consistent with the current Queensland Transport policy on travel demand management.

7.2 Strategies and Actions for Travel Demand Management

To date, there are very limited examples of travel demand measures being trialled or implemented in the Shire. However, both Shire residents and Council have voiced support for soft TDM measures to modify travel behaviour. There are no programs currently in place in the Council that are directed towards voluntary travel behaviour change. Interest has, however, been emerging within Council on travel behaviour change programs – called TravelSmart Suburbs – run successfully in Perth and Brisbane. TravelSmart School and TravelSmart Work are other smaller scale programs, which focus specifically on school trips and work trips.

There are opportunities in the southern parts of the Shire, such as Mt Cotton, or one of the Southern Moreton Bay Islands, like Macleay Island, to trial carpooling or ride-sharing programs.

Implementing TDM projects similar to the TravelSmart Suburbs pilot program in Brisbane could bring about significant changes in the way people in the Redlands would like to travel – thereby reducing or at least pushing back the need for new road infrastructure to accommodate more single occupant car trips.

TravelSmart is the brand for a program promoting voluntary travel behaviour change. The programs encourages people to reduce the number as well as the length of car trips and meet their travel needs by using sustainable modes of travel such as walking, cycling, public transport, ride-sharing and car-pooling, and by making shorter trips.

The TravelSmart Suburbs Brisbane pilot project used the Individualised Marketing (IndiMark®) technique developed by Werner Brog in a group of inner northern suburbs of Brisbane. The results from the project demonstrated that a large increase in use of walking, cycling and public transport could occur. There has been an increase in walking trips by 16%, cycling trips by 8% and public transport trips by 33%, leading to a reduction in private vehicle trips of 10%. The results replicated those obtained in the 1997 South Perth pilot and a subsequent large-scale application in Perth. The Brisbane project confirmed the applicability of the technique to Brisbane. Further monitoring works in Perth have provided evidence of sustained changes in travel behaviour. Details on the Travel Smart Suburbs

methodology, IndiMark® technique and the analysis of results, along with further references, are available in Marinnelli and Roth (2002). Queensland Transport can provide further technical advice on this matter in case Redland Shire Council would be interested in undertaking similar initiatives. Any opportunities to implement the TravelSmart program in the Shire need to be explored collaboratively with Queensland Transport, Queensland Rail and other transport service providers.

Walking, cycling and public transport were promoted as viable and healthy travel choices for short trips through a Shire awareness campaign in 2001. Queensland Transport is currently developing a TDM strategy for South-East Queensland. The strategy will assist Council and other local governments to determine which TDM tools could be considered for the Shire.

Goal: Reduce private car use, particularly by single occupants, by implementing actions that change and manage travel demands and travel behaviour.

Strategy 7.1: Examine pricing mechanisms to reduce the attractiveness of the private car as the dominant force of transport.

Actions – Travel Demand Management

A7.1	Develop and implement parking plans for the major centres of Capalaba, Victoria Point and Cleveland.
A7.2	Change parking pricing to discourage all-day commuter parking and to support short to medium-term business and shopping parking.
A7.3	Develop Council's funding policy in the transport sector. For example, identify whether Council should fund only the development, maintenance and operation of roads that are used primarily by private modes of transport, or whether it should fund public transport as well. Possibly, a cost benefit analysis approach can be used to fund programs.
A7.4	Support and advocate that the level of facilities development funding for general motor traffic, public transport and non-motorised transport – such as walking and cycling – at State and local levels should be consistent with the desired importance of these modes.
A7.5	Advocate to the State and Federal governments that they review the existing fuel subsidy and redirect the funds generated by relaxing subsidies to developing walking, cycling and public transport.
A7.6	Manage parking supply in major centres and investigate the feasibility of a car park charging policy in all major on-street and off-street places, based on a developed funding policy.
A7.7	Investigate, pursue and implement other revenue-generating mechanisms based on the actual cost of travel by private vehicles.

7 Travel Demand Management

Actions – Travel Demand Management

A7.8 Explore long-term, hard TDM measures with the State Government. These may include:

- Introducing an electronic area or corridor licensing system for separately pricing peak and off-peak period travel; and
- The concept of charging motor vehicle registration or renewal fees based on the amount of vehicle travel rather than a per vehicle basis.

Strategy 7.2: Shift demand from the private vehicle to other modes of transport.

Actions – Travel Demand Management

A7.9 Prepare and launch public awareness and education programs to raise awareness of transport issues. The programs should be started in a suburb or a community and gradually extended over the entire Shire.

A7.10 Carry out a stated preference survey and develop a mode choice model that would allow the greater understanding of the travel behaviour of Shire residents.

A7.11 Develop TDM measures that best respond to community needs and behaviour. Determine the percentage of people in the community who are using one or other forms of travel modes such as:

- Walking;
- Cycling;
- Car driving;
- Car-pooling;
- Ride-sharing (other than car-pooling);
- Walking and public transport (Walk 'n' Ride);
- Cycling and public transport (Bike 'n' Ride); and
- Driving and public transport (Park 'n' Ride).

Using a participatory community consultation process, find out the conditions under which people are prepared to change from car driving to any other alternative forms of transport. Also, undertake a comparative analysis of trials undertaken so far in South-East Queensland.

A7.12 With initiatives from Council, develop and implement community ride-sharing matching services for commuters' trips out of the Shire. This could include trialling a ride-share matching service in a suburb on the mainland, using one of the islands or developing a Workplace Travel Plan for Redland Shire Council staff.

7 Travel Demand Management

Actions – Travel Demand Management

A7.13 Advocate to the State Government and work with the business community to widely use e-shopping features within major departmental stores to limit shopping trips.

A7.14 Work with Council's major governmental and non-governmental clients to promote and use features such as video-conferencing, video-meeting and video-workshopping to reduce the need of staff to have a face-to-face presence.

A7.15 Produce and distribute educational brochures on ways to reduce car trips and the benefits of using other alternative forms of transport.

A7.16 Publish and distribute travel option bulletins by focusing on how people can go from the Shire to various major destinations within and beyond the Shire, using alternative forms of transport.

A7.17 Develop and implement staging of working hours and support moves to vary trading hours so that these do not clash with school and commuter travel hours.

A7.18 Develop and implement a workplace travel plan (includes ride-sharing and car-pooling) within Redland Shire Council.

A7.19 Conduct an annual car travel re-education competition within Redland Shire Council, based on the travel inventory data and in order to set an example in the Shire.

A7.20 Advocate with the State Government to promote telecommuting (working from home). Develop Council policy and guidelines for teleworking and reflect support for the initiative in the Redlands Planning Scheme.

A7.21 Facilitate the formation of community transport forums to regularly organise and interact with people in the community regarding various contemporary travel and transport issues affecting the community. This will encourage community members to change their travel habits.

A7.22 Encourage community ride-sharing programs. These programs can begin with schools, preschools and day care facilities, to encourage parents to drop off neighbouring children. The programs can then extend to local work trips and to longer travel for regular work and higher education trips, including dropping off and picking up family members and friends from public transport stops.

7 Travel Demand Management

Actions – Travel Demand Management

A7.23 Publish a public transport information brochure – including bus and rail travel information, and the TransInfo line and web address – and post to each household.

A7.24 Request the State Government include in its school curriculum materials that promote the importance of reducing car travel. Until this material is introduced in schools, Council can request Parents' and Citizens' Associations launch public education programs in all schools of the Shire.

A7.25 Review and investigate the possibility of integrating travel reduction programs, as developed by Queensland Transport. These include behavioural change, based on individualised marketing to increase public awareness of transport options and the financial benefits of reducing car trips. Selected elements of the Shire's community can trial the programs.

A7.26 Review and integrate Queensland Transport's community education programs to promote local benefits – such as personal savings and environmental benefits – of reducing and combining car trips to avoid unnecessary travel.

A7.27 As part of raising community awareness and educating the community to gain support for restraining car usage, prepare discussion papers on contemporary transport issues with facts and figures in plain language. Distribute the papers to community leaders and facilitators – such as peak lobby and stakeholder organisations – to disseminate these issues in the community.

A7.28 Develop and maintain a public transport web site to educate the community and raise awareness of the availability, importance and choice of alternative modes of travel to cars. Provide links to Council's intranet and internet sites, Queensland Transport's web site, and the sites of the world's leading public transport systems to showcase the latest information and materials on all aspects of public transport.

8 Road Network

8.1 Road Network

A high quality road network is needed to link people, goods and services internally and externally, to and from the Shire. A strategic road network hierarchy – including State-controlled roads, higher order Council-controlled roads like arterials, sub-arterials and trunk collectors, and future transport, green space and trail corridors – is shown in Map 8-1**.** The proposed hierarchy is derived from the Manual of Uniform Traffic Control Devices, published by Department of Main Roads, for the functional classification of urban roads as described in **Table 8-1.**

Table 8-1 Functional Classification of Urban Roads

Functional Classification	Functional Description	Maximum Traffic Flow (vehicles per day)
Access Street	Local access to property	1,000 vpd
Local Street	Access to property and other streets Access to local neighbourhoods	3,000 vpd
Trunk Collector	Transport of people and goods within suburbs District movement	10,000 vpd
Sub-Arterial	Transport of people and goods across suburbs Ideal intersection spacing: 0.3 km	20,000 vpd
Arterial	Transport of people and goods through and around metropolitan areas Ideal intersection spacing: >=0.5 km	30,000 vpd

(Source: Transitional Planning Scheme Policy – Impact of Transportation Systems on Urban Amenity, Redland Shire Council, 2001)

Key issues highlighted from investigations into the existing road network include:

- The use of transport, green space and trail corridors for future protected use is not clearly outlined;
- The geographical location of Redland Shire places much of the transport activity load on three major roads. The peak hour capacity and level of services of these roads needs to be managed with preference for public transport and High Occupancy Vehicle (HOV) lanes; and
- Road cross-sections do not always cater for cyclists, breakdowns or emergency parking.

8 Road Network

To develop the strategic road network hierarchy, the current network was evaluated using the best practice of urban road hierarchy and intersection control planning. The road network hierarchy has also considered the likely reduction of vehicular trips as a result of various measures in public transport, walking/cycling and travel demand management plans.

The stricter enforcement and removal of functional deficiencies in the road hierarchy does not eliminate the need for new road works in the system. However, it pushes the need to construct roads further back – as identified in modelling work under Redland the Shire Transport study (RSTS).

Installing coordinated signal systems at intersections along Finucane Road and Redland Bay Road, for example, will potentially increase the traffic capacity, thereby pushing back the need to widen the road, at least for a certain time period. Such measures – coupled with other better traffic management measures and measures for reducing car dependency – will contribute positively to the road network hierarchy.

The Northern Arterial and extended Moreton Bay Road transport/green space/trail corridors should be subject to detailed environmental impact assessments before their use as a corridor for public transport and a cycle/walk trail is confirmed. The Planning Scheme measures require that an Environmental Impact Study be carried out prior to any planning scheme designation to confirm the alignments. The corridors also present opportunities for limited access transport routes, and if implemented, would assist the current east-west arterials in the Shire.

Council continues to maintain its preferential policy of using the Northern Arterial and Moreton Bay extension transport/green space/trail corridors for greenways to cater for green modes of transport, such as public transport, walking and cycling. This policy will be subject to review between 2011 and 2016. The review will be planned following the investigation and implementation of Brisbane City Council's busway from Buranda interchange to Carindale (Action 1.5 of the Brisbane Transport Plan), tidal flow scheme (Action 4.27) and T2 lane initiatives in the Capalaba section of the Gateway Motorway (4.8) along the Old Cleveland Road corridor.

Detailed Environmental Impact Studies will be planned after determining the role and function of these preserved corridors. A clearer picture will be possible after the state policy review and TDM measures – such as a shift in travel demand to modes other than single driver cars – are implemented and evaluated.

The role and function of major east-west arterial road corridors – including future transport corridors such as the Northern Arterial and the Moreton Bay Road extension – will be largely determined by future land use and transport related-policies and initiatives of the State and adjoining local governments, particularly Brisbane City Council. The successful implementation of Redlands' ILTP actions, Brisbane Transport Plan's actions relevant to meeting Redland travel demands, and the State government's TransLink initiatives may create different travel scenarios. Therefore, the timing to develop new corridors may differ from the scenarios and timing suggested by the RSTS.

In defining the role and function of the proposed transport corridors, full consideration will be given to its multi-modal usage, including for walking, cycling and public transport modes.

8 Road Network

The strategic road network and its hierarchy assume that additional capacities in higher order road links will not be required within the Shire in the near future. The RSTS 2000 reported relatively manageable levels of congestion on major arterial roads by 2011. Addressing congestion on major east-west arterial links beyond the Shire's jurisdiction is more important than addressing congestion in sections within the Shire. The congestion on these roads within the Shire's jurisdiction is prominent mostly during peak periods and then only along the commuting directions. Such congestion could be best handled by demand management measures with a focus on reducing single occupant car trips and increasing public transport trips. Road network strategies – including a strategy on the use of designated future transport corridors – will be reviewed from 2011–2016 and will consider network developments in adjoining councils. The Redland ILTP has not suggested any new major links in its road network for the entire life of the plan.

Developing a strategic road network hierarchy has taken into account the findings and recommendations of the Shire Transportation Study, Council's position on the study's recommendations, and Department of Main Roads' Draft Statement of Intent for State-controlled roads (which prescribes the vision for future function).

Capital works funding needs by Redland Shire Council and Department of Main Roads were available for three and five years respectively. Redland Shire Council's capital works funding is approximately $8 million per year and includes roads, bikeways, bus routes and facilities, car parks, drainage, intersections, marine transport, local area traffic management and SchoolSafe projects. The funding allocation for bikeways, footpaths, roads and related works are as shown in Table 8-2:

Table 8-2 Council's Funding for Transport Infrastructure

Type	01/02	02/03	03/04	04/05
Bikeways	$600K	$612K	$ 793K	$ 412K
Footpaths	$600K	$651K	$ 605K	$ 565K
Roads*	$6748K	$6197.5K	$5591K	$5559K

*This includes roads, residential streets, sealing of gravel roads, bus route facilities, car parks, drainage, local area traffic management and SchoolSafe Projects.

The component for bus routes and facilities within Redland Shire Council's capital works budget is fairly minor at this stage.

The Department of Main Roads outlines its capital works funding in the Roads Implementation Program (RIP) and allocates funds in the following categories:

- Other state-controlled roads (SCR)
- Transport infrastructure development scheme (TIDS).

The allocations in the last two years and next year as outlined in the RIP for Redland Shire are as shown in Table 8-3:

Table 8-3 State Fund for Trasnport Infrastructure in Redlands

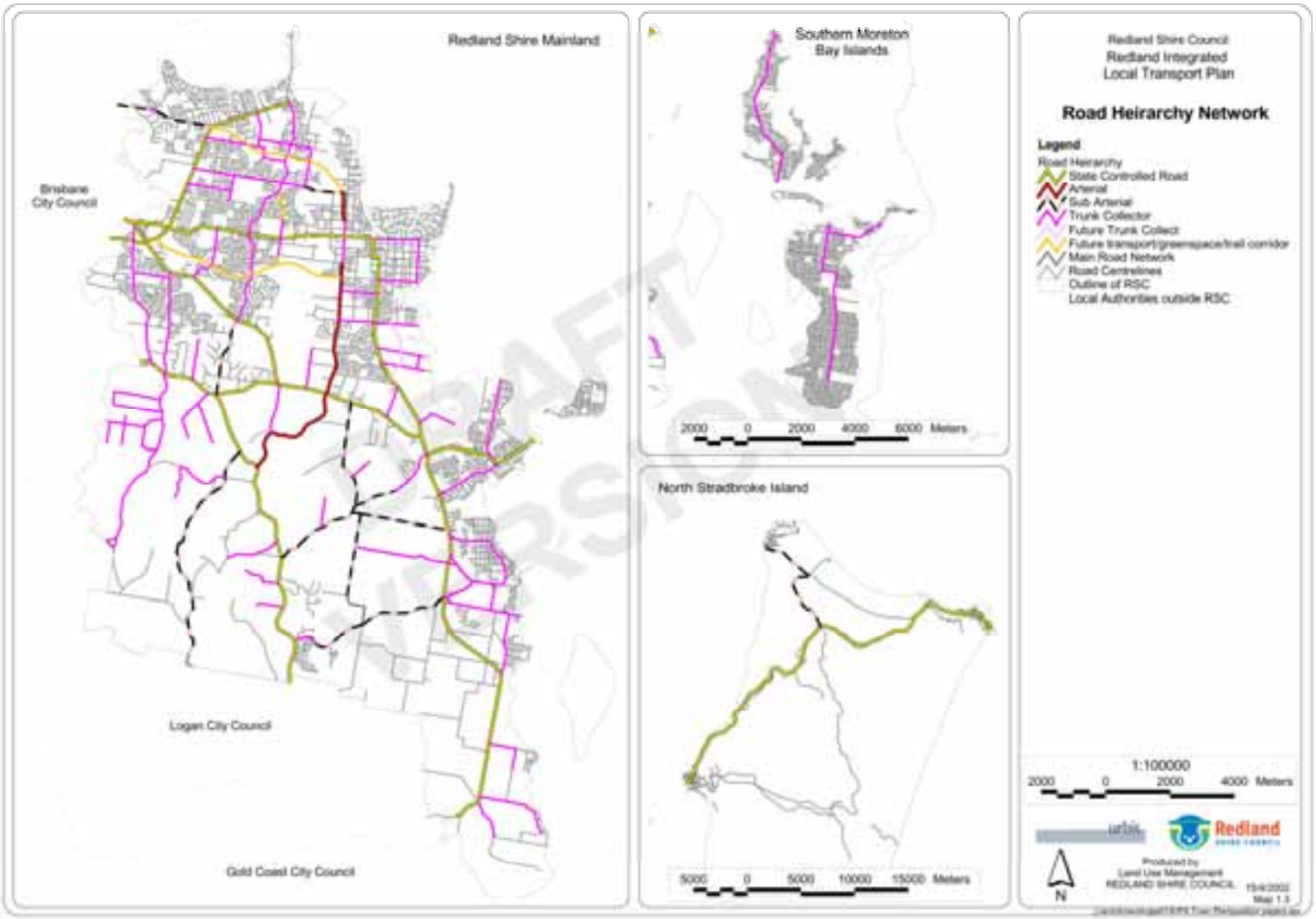
Source	99/00	00/01	01/02	02/03
SCR	$9m	$8.5m	$4.7m	$6m
TIDS	$580,000	$263,000	$755,000	$295,000

8 Road Network

Redland Shire Council's Community Plan sets out the following goal with respect to the road network in the Shire.

Goal: Continue to upgrade existing roads and restrain from constructing new roads (and associated infrastructure) to develop and maintain a safe and efficient road system that will accommodate the needs of road users and meet moderate demands for vehicular traffic.

Map 8-1 Strategic Road Network Hierarchy



8.2 Road Network Strategies and Actions

The strategies and actions outlined below cover State-controlled roads, Council-controlled roads and future transport, green space and trail corridors.

Strategy 8.2.1: Achieve and maintain an effective road network that recognises roads as an essential component of the transport system and ensures that the function of roads is reflected in their design and location and is related to the land uses they service.

Actions – Road Network

A8.1 Following Environmental Impact Studies of future trunk collectors and transport, green space and trail corridor areas to define alignment, arrange for the strategic road network hierarchy to be endorsed by Redland Shire Council and integrate the hierarchy into the new Planning Scheme.

A8.2 Ensure that a functional road hierarchy is maintained so that an appropriate length of trips is made on each element of the hierarchy. Regional and higher order traffic movements should be made predominantly on arterial and sub-arterial roads and local access movements should be on local streets.

A8.3 Develop, establish and/or work towards maintaining consistency in providing a road intersection and land access control strategy based on an adopted, functional, strategic road hierarchy structure.

A8.4 Continue to fund the upgrading of existing roads and associated infrastructure to maximise their use within the Shire.

A8.5 Using Infrastructure Change Plans (ICP) through the Shire Planning Scheme, in accordance with the Integrated Planning Act (IPA) and development assessment procedures:

- Require that local arterial road systems be designed and provided as part of urban development;
- Protect the role and function of regional roads to meet the needs of longer distance traffic;
- Ensure the road networks in new communities have a high degree of connectivity and fewer cul-de-sacs to encourage walking and cycling and to support effective public transport;
- Protect existing and future corridors as transport, green space and trail corridors;
- Protect and manage cultural heritage values in the Shire; and
- Require the road hierarchy within new developments supports the external road hierarchy.

8 Road Network

Actions – Road Network

A8.6	By applying existing or new codes (as required), ensure local road networks make an appropriate delineation between roads for movement of through-traffic and streets as shared spaces for people and slow moving vehicles. This will avoid or reduce conflict between residential amenity and through traffic.
A8.7	By applying existing or new codes, discourage tributary-style road networks, which mean public transport services have to follow circuitous routes to be able to service passenger demands.
A8.8	Support transportation system management activities such as metering, signalisation improvements, camera surveillance of congestion and incident queues, and bus priority treatments, in order to achieve maximum efficiency within the existing road network.
A8.9	Support the continued development and maintenance of State-controlled roads in the Shire as part of the arterial road system in the road hierarchy.
A8.10	Advocate with State Government agencies to focus the road improvement and development budget for roads in the Shire on the basis of the number of people travelling along the roads, and not on the number of vehicles using the roads.
A8.11	Develop a continuous capital works program for road construction and maintenance. Programs due for completion within five years are considered to be firm commitments, and timelines beyond five years as indications. This program can be combined with developer contributions for new developments and to address heritage concerns. (Any capital works program triggers an Environmental Protection Agency search of the cultural heritage sensitivities of road construction and maintenance.)
A8.12	Minimise the risks to utility services – such as electricity, water and sewerage – by coordinating with utility providers. Locating the services within the road reserve will assist in future planning for road upgrades.
A8.13	Develop an understanding and knowledge of Council's responsibilities for roads as detailed in the document, Agreement between Local Government Association of Queensland Inc and Department of Main Roads for Cost Sharing. This document is based on responsibilities within State-controlled roads. Work with Department of Main Roads and develop an understanding of the impact of the proposed Local Roads of Regional Significance Initiatives on Council's road program.

8 Road Network

Actions – Road Network

A8.14	Monitor and advocate the need to incorporate public transport, walking and cycling-friendly measures on State-controlled roads as part of road improvements, including road junctions along Finucane Road and other Shire roads that are under State control .
A8.15	Standards for walking and cycling-friendly measures – such as those outlined in the Department of Main Roads' Road Planning and Design Manual – shall be gradually implemented on roads in the Shire under both State and Redland Shire Council control.
A8.16	There are more than 40 roundabouts in the Shire. Conventional roundabouts are hostile to walking, cycling and wheelchair traffic. Choose a roundabout in the Shire and improve it to demonstrate how roundabouts can be converted to be walking and cycling-friendly. Prepare cost proposals and plans to gradually convert all existing major roundabouts to be walking and cycling-friendly in accordance with Austroads Standards.
A8.17	Delineate all Manual of Uniform Traffic Control Devices-compliant bicycle lanes with signs and road painting, together with road maintenance and traffic management activities. (This is in addition to a separate walking and cycling development program.) Develop mechanisms to include these activities in ongoing road maintenance and traffic management programs. This will ensure that all modes of transport are treated and managed in an integrated manner.

Strategy 8.2.2: Improve safety on all roads throughout the Shire.

Actions – Road Network

A8.18	Carry out a safety audit of roads in the Shire, considering the safety of pedestrians, cyclists and wheelchair users, as well as car drivers, on roads in the Shire.
A8.19	Develop and implement a Shire speed management plan in Council-controlled roads, consistent with Queensland Transport's Guide. The focus of the speed management plan in residential streets should be on changing driving behaviour and not on policing or enforcing. On arterial roads, the focus should be on frontage development and managing and controlling parking.
A8.20	Monitor drivers' speeds and lobby police to enforce speed limits.

8 Road Network

Actions – Road Network

A8.21	Develop campaigns with the community to address local speeding, using available brochures and material from Queensland Transport and the Department of Main Roads.
A8.22	Launch road safety education and awareness programs in schools.

Strategy 8.2.3: Develop a car parking policy or strategy to ensure there is adequate provision for parking, loading and access facilities to sustain the economic viability and vitality of commercial areas.

Actions – Road Network

A8.23 By developing the Redlands Planning Scheme:

- Provide a balance in employment areas that are well served by public transport, between providing sufficient parking to support commercial activities and excessive amounts of free parking which discourages public transport or civic improvements such as streetscape walks; and
- Consider limits on parking provision for commercial developments and other on or off-street parking provisions to discourage reliance on the car for work and other journeys where there are effective alternatives.

A8.24 Develop and gradually adopt a car parking and access code after establishing feasibility criteria to ensure consistency with other codes.

The code should ensure that:

- Sufficient and accessible on and off-street parking and loading facilities are designed to meet mobility and economic needs while limiting supply. This will the encourage the use of alternative transportation modes;
- All business premises have suitable areas for loading vehicles on site;
- Convenient parking is available for vehicles used by people with disabilities;
- Residential areas will have sufficient provision for off-street parking of cars;
- Developers provide less parking in areas well served by public transport, in return for contributions to public transport improvements;
- There are sufficient coach parking and set-down areas in major tourist precincts and destinations;
- Design standards for car parking spaces and car parking areas are in accordance with Austroads Guidelines; and

8 Road Network

Actions – Road Network

- Appropriate controls are provided for the number, size and position of vehicle access points to each property and land use to minimise safety and traffic problems.

A8.25 Consider making provision for a cash contribution in lieu of a parking provision for selected new developments.

A8.26 Investigate using transport or parking contribution funds from developments for local public transport or other travel modes facilities.

A8.27 Initiate discussion with the community and operators to find out ways, such as providing off-street parking, which help to prevent the entry and parking of trucks or large commercial vehicles in residential streets.

A8.28 Conduct a parking demand survey in the Shire.

8 Road Network

This is an example of a sufficient shoulder for on-road cycling along **Cleveland-Redland Bay Road**. Other State-controlled roads and Shire arterials/sub-arterials should have sealed shoulders to encourage on-road cycling

Bloomfield Street in Cleveland illustrates a typical arterial road cross-section, with an off-road pathway, shared parking, an on-road bikeway, traffic lanes and a landscaped median island. It is a good example of a transport corridor satisfactorily catering for the different uses.

A photo of Finucane Road and Shore Street West shows the roundabout intersection and access management treatments. Access management and intersection control of major suburban roads in the Shire are aspects that will need to be managed in the future in accordance with the strategic road network hierarchy.

8 Road Network

Pictured is Redland Bay Road, approaching a major signalised intersection. Lighting and noise fence controls are environmental aspects of transport corridors to be considered in all future road duplications in the Shire.

This parking facility at Victoria Point caters for boat trailers. Parking areas at all ferry terminals on the mainland will need to cater for different vehicle types, such as cars, cars with trailers, and buses.

9 Freight

9.1 Freight Movement

Redland Shire's freight is primarily moved by road. Freight movements within the Shire consist largely of extractive material and dredging material haulage, and commercial, rural and industrial products. There is no formal recognition of the freight network currently, and the freight task is affected by current road peak congestion and, in some locations, capacity restrictions and safety issues.

The major State-controlled roads and Council arterials accommodate the majority of freight movements. The effective movement of freight in the Shire is a contributing factor to economic development in the Shire. The freight network is illustrated on Map 9-1. Freight movement relating to local delivery and pickup (for example, farms and major supermarkets) occur daily by mixing commercial vehicle movements – ranging from commercial vans to articulated heavy vehicles – with other passenger movements.

Issues relating to heavy vehicle movement in the Shire are associated with industrial and commercial areas and extractive industry. Heavy truck movements are currently perceived to be impacting on the amenity and the environment. These movements are likely to increase if industrial, commercial and extractive industries expand beyond existing approvals. As well, there are disposal issues regarding dredge spoil from the ferry terminals at Victoria Point and Toondah Harbour. Managing truck movements within a preferred network of arterials and sub-arterials would ensure the transport system effectively provides for freight movement while minimising the environmental impact.

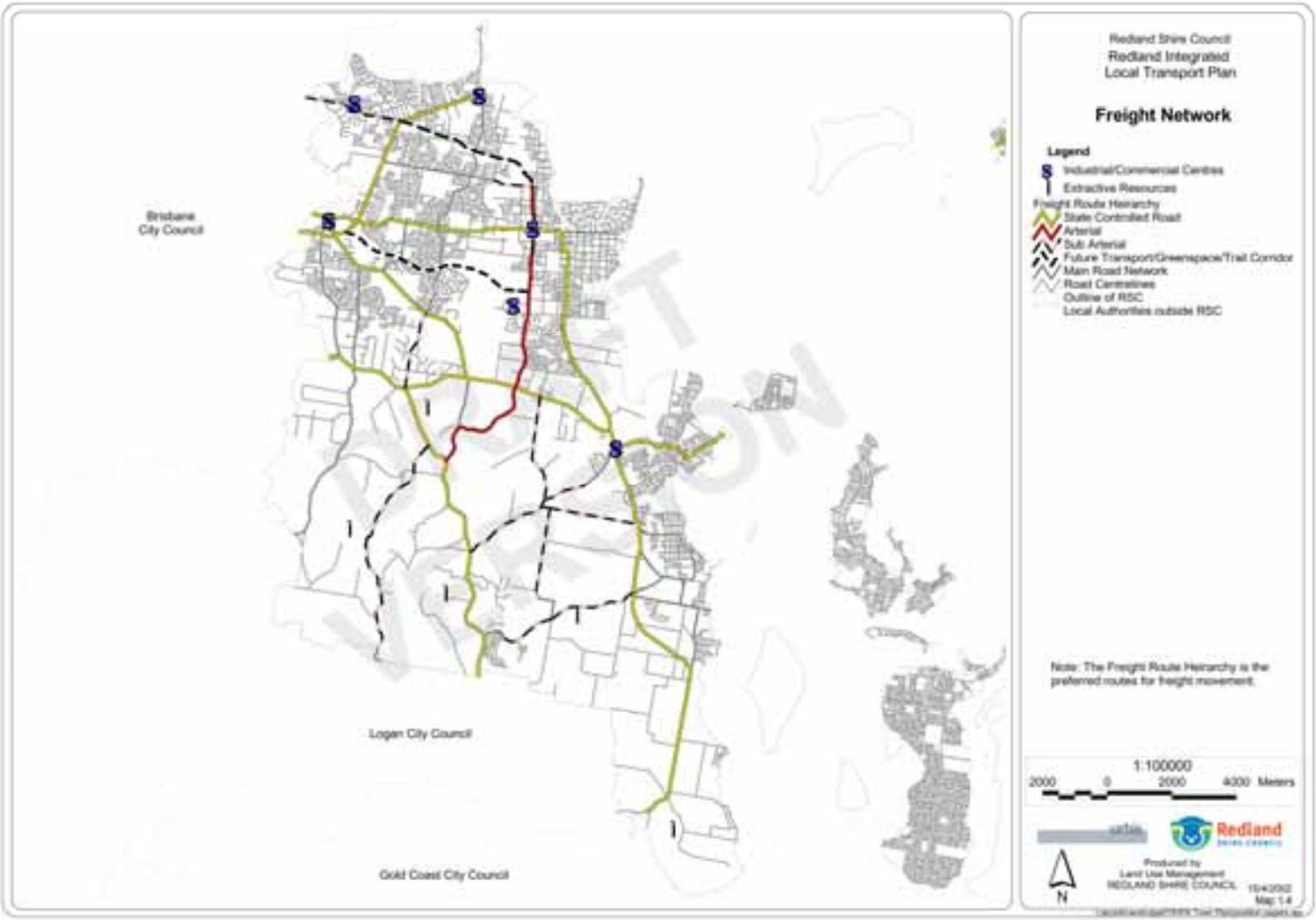
RS's Community Plan has set the following goal with respect to freight movement in the Shire.

Goal: Ensures the transport system effectively provides for the efficient movement of goods and services with minimum environment impact.

9.2 Freight Actions

Strategy 9.2.1: Through appropriate planning instruments, propose future commercial and industrial areas in suitable locations that can accommodate heavy vehicular traffic and manage heavy vehicle movements to minimise their impact on the environment

Map 9-1 Freight Network



9 Freight

Actions - Freight

A9.1	Identify major freight routes in the Shire and develop and implement the Freight Network Plan to ensure an efficient freight system that satisfies industry requirements and minimises freight movement impacts on safety and congestion by using a preferred network for heavy vehicle movements.
A9.2	Consolidate freight to specific corridors through: ▪ Land use planning (including encouraging freight-generating development to locate within 500m of the major freight network); ▪ Road infrastructure investment; and ▪ Reduction of freight transport impacts (including provision of noise barriers and investigating vehicle types and hours of operation).
A9.3	Maintain an ongoing maintenance program of freight routes to address the impact of heavily laden vehicles on pavement and roadside furniture conditions.
A9.4	Ensure road freight movements are not unnecessarily delayed by excessive congestion by implementing initiatives to facilitate improved freight movement efficiency.
A9.5	Remove barriers on routes that are acceptable for use by freight efficient vehicles (eg B-doubles). As an example, monitor movement of freight trucks from Toondah Harbour and develop a long-term strategy to use Shore Street.
A9.6	Ensure the transport of freight complies with the Australian Code for the Transport of Dangerous Goods by Road and Rail by: ▪ Developing appropriate transport routes for the safe transport of dangerous goods throughout the Shire; ▪ Creating emergency plans for the rapid response and clean-up of accidents involving dangerous or hazardous goods; and ▪ Catering for the movement of dredging material from canals and harbours to land fill sites.
A9.7	Through the use of existing Local Law No 30 – Parking of Heavy Vehicles in Residential Streets, the development of new codes, and in consultation with the industry and community, propose the parking of large, heavy vehicles away from sensitive land uses and residential streets. Potential impact on State-controlled roads and on safety will also be considered. It is acknowledged that Redland Shire Council has undertaken extensive industry and community consultation as part of preparing the Transitional Planning Scheme Policy.
A9.8	Review the performance of high usage, heavy vehicle routes, such as extractive material haulage routes, and discuss with Department of Main Roads strategies to improve traffic flow. This may include implementing passing lanes on Mt Cotton Road.

9 Freight

10 Social Aspects of Transport

Social Aspects of Transport

Queensland Rail's Easy Access Program is designed to modify and improve passenger access to rail services and CityTrain stations. Queensland Transport's Accessible Bus Program is aimed at improving the quality of life for people with reduced mobility. Both of these are examples of a whole-of-Government commitment to improving access to the transport network for people with a disability.

Within the Shire, community-based transport services also play an invaluable role in meeting the travel needs of people with disabilities. These services are typically provided by institutions such as retirement villages under a variety of funding arrangements, and are usually dedicated or exclusively available to well-defined groups. There are approximately 12 such services in the Shire. Council has also instigated the Special Transport Access Redland (STAR) service, which provides access to health facilities using private vehicles and volunteer drivers. This service is seen as the precursor to a more diverse, community-based bus service when funding becomes available.

Travel analysis conducted in connection with the Redland Shire Transport Study shows 55% of the total trips having both origins and destinations within a suburb – known as intra-suburb trips – are made by car. Of the total intra suburb car trips, 43% have origins and destinations within a suburb. These trips, which are mostly short, can be potentially made by active transport modes such as walking, cycling and public transport. These trips can easily satisfy the need for physical activity required to keep people healthy and fit.

The use of active transport has been shown to have a significant impact on individual health and wellbeing. Results of a recent Danish study (Anderson 2002) revealed that study participants who did not cycle to work had a 39% higher mortality rate than those who did, irrespective of other leisure-time physical activity. The huge health benefits, which are external to the transport systems and are associated with active and sustainable modes of transport, are never included in the transport option analysis. If accounted for, active modes of transport would certainly attract more funding support. The Redlands ILTP should give greater consideration to these modes, taking into account the external, unquantifiable health benefits that higher usage of these modes would bring to the Redland community.

In addition to the health benefits of active transport modes, there are substantial economic benefits – although people usually ignore these when they are deciding how they will travel. According to a recent NRMA study, the cost of operating a car for one year in Australia is $9760, almost 12% of the average annual household income (gross). By contrast, the cost of operating a bicycle is $120 per year and the cost of walking is equivalent to a good pair of shoes.

Having transport choices is important for the community. Transport-disadvantaged people – either economically or physically and with no access to private vehicles – rely on public transport for access to essential services.

10 Social Aspects of Transport

Issues such as accessibility and affordability of transport, personal safety and security, community amenity and the impacts of new developments all need greater consideration in transport planning. The role of public transport in providing equitable access to transport for all members of the community is important, as is catering for people with mobility difficulties.

Road traffic safety and local amenity are major issues raised by the community during the ILTP consultation process. These issues will be addressed by developing planning scheme codes, policies and area traffic management plans.

The ILTP needs to provide a fair and equitable transport system to ensure all members of the community have access to transport services to fulfil basic needs. Redland Shire Council, however, cannot set policies in isolation to achieve a socially just transport system. This is more likely to be effectively achieved by establishing a whole-of-Government policy position. The Queensland Government's Strategic Framework for Disability (1998), backed by Commonwealth and State legislation, has affirmed the right of people with disabilities to be fully integrated members of the community. This has clear implications for the provision of future transport. Redland Shire's Community Plan sets out the following goal with respect to social aspects of transport:

Goal: Develop an accessible transport system that equitably provides for the travel needs of all users.

Actions Addressing Social Aspects of Transport

Social aspects of transport in the future can be best addressed with continued involvement of the community. Actions for the future include:

Strategy 10.1.1: Provide equitable and safe transport opportunities to all members of the community, ensuring convenient access to affordable transport.

Actions - Social Aspects of Transport

A10.1	Continue State-level programs within the Shire (eg RailEasy Access Program, Accessible Bus Program and the Taxi Subsidy Scheme) for disabled mobility access.
A10.2	Continue State-level initiatives for a safe and secure transport network within the Shire. These include the Safe Station Program, Guardian Trains, gated mazes connected to train signalling at key pedestrian level crossings and the Queensland Road Safety Strategy.

10 Social Aspects of Transport

Actions - Social Aspects of Transport

A10.3	Adopt the latest standards for new or when upgrading any old road and pathway infrastructure, for example the Department of Main Roads' Road Planning and Design Manual, to ensure accessibility by wheelchair users. Conduct regular road safety audits to ensure walking and cycling networks are safe for users.
A10.4	Review facilities required for emergency services in the Shire and liaise with relevant agencies to allow for these. Examples include a helipad for hospitals and 'keep clear' zones on roads outside access points for emergency services.
A10.5	Increase the affordability of public transport by adopting fare structures that may – where and when appropriate – involve the payment of higher subsidy levels to public transport operators.
A10.6	Expedite initiatives to make public transport facilities, public transport vehicles and local infrastructure accessible to people with mobility difficulties.
A10.7	Ensure the quality and numbers of disabled parking facilities at major retail centres and public facilities (including educational facilities and hospitals) are in accordance with standards and are legally signed as per the standards outlined in Australian Standard AS1428 Parts 1 and 2 and AS4299. Encourage the enforcement of legal parking at these facilities.
A10.8	Increase levels of speed limit enforcement throughout the Shire, and if police resources are inadequate to achieve the desired outcome, investigate other options.
A10.9	Through the development approval process, require that all development applications meet the provisions of DDA Transport Standards, Queensland Traffic Act and other relevant codes for catering for the mobility needs of people with a disability.
A10.10	Through subsidies and other means, ensure transport providers utilise vehicles – buses, ferries or trains – that meet DDA Transport Standards and are convenient for use by wheelchair users, people with prams, strollers or children, and people with shopping bags.
A10.11	Continue to support the STAR (Special Transport Access Redland) Service.

11 Transport and Environment

11.1 Transport Impacts on the Environment

The ILTP initiatives should contribute towards protecting the environment and natural resources unique to the Shire. Strategies and systems associated with transport infrastructure and operations that minimise the environmental aspects of noise and air pollution have been released at a national and a state level. These need to be referred to as part of any future transport planning in the Shire.

Currently, about 70% of air pollution in South-East Queensland is caused by motor vehicles and greenhouse gas emissions, with the transport sector in Queensland accounting for 17% of the State's total greenhouse emissions. Other environmental impacts identified in South-East Queensland include traffic noise, urban sprawl and changes in land use patterns.

Redland Shire has sought to protect its natural resources – both fauna and flora – and ensure a liveable community by restricting the impacts of the transport infrastructure and encouraging a shift in modes of travel. This has included programs that aim to increase the use of public transport, walking and cycling, especially in areas of nature conservation significance. Within the Shire, some environmental areas of specific concern include:

- Transport corridors interfere with the movement patterns of wildlife;
- Road transport results in koala deaths and injuries;
- Parts of future road corridors are intact natural bushland or regrowth, and represent areas of high potential for cultural heritage. They stand to be disturbed by future road proposals, although options are available to change the extent and use of areas;
- Noise impacts arising from arterial road and rail corridors;
- Air quality is poor in urban centres where there are signals (idle traffic) and high traffic volumes; and
- Transport corridors destroy the visual amenity of areas.

Transport systems and services contribute to lessening environmental quality, both through noise, air and water pollution and depleting of natural resources like koalas and the natural reserves at Points. **Figure 11-1** shows the locations of koalas hit by cars from 1997-2000 in Redland Shire. The total number was about 800, with an average of 200 koalas hit each year.

The Environmental Protection Agency advises the results of radio-tracking more than 200 koalas in the past five years shows koala movements throughout Redland Shire are becoming impeded by roads and associated traffic. The agency suggests any future road development plans incorporate the need for koala movements, and appropriate funding is allocated.

11 Transport and Environment

The Department of Main Roads advises that speed zone signs – trialled during a five-year study – have not worked as very few drivers reduced their speed. Hence, there has been no discernible reduction in the number of koalas killed on the road. The trial indicated other factors influence the number of koalas killed on roads, particularly the clearing of adjoining properties for subdivisions and the number of vehicles on the road. The Koala Research Unit – part of the Queensland Parks and Wildlife Service – drafted a report, along with TTD on speed data, in relation to this trial. Signs on Redland Shire Council roads will remain to advise motorists of koala movements.

Little research is available into the environmental impacts of transportation and recreational vessels on Moreton Bay, although, as part of the Southern Moreton Bay Islands study, some erosion impacts were noted to be associated with foreshore ferry and barge terminals.

11 Transport and Environment

Figure 11-1 Koala Road Trauma (1997–2000)
(Source: Queensland Parks and Wildlife Service)

Redland Shire Council's current Strategic Plan specifies that integrated land use and transport planning initiatives will contribute towards protecting the environment and natural resources.

The Shire's Community Plan has set the following goals with respect to transport and the environment:

11 Transport and Environment

Goal: Implement transport actions that protect rather than harm the environment and which contribute to improvements in current amenity.

Goal: Vigorously protect and care for natural assets, including water, land, air and biodiversity, and recognise the role that each plays in the ecological, social and economic functioning of the area.

11.2 Action to Minimise Transport Impacts on the Environment

Strategy 11.2.1: Ensure transport systems have minimised environmental impacts associated with infrastructure and operations.

Actions for Protecting Environment from Transport Impacts

A11.1	Develop air pollution forecasts along major road corridors and update these forecasts as more data becomes available.
A11.2	Investigate the introduction of covenants on the titles of new allotments to require residential buildings to be designed and built to protect against noise from road and rail sources.
A11.3	Develop Noise Management Plans and Amelioration Schedules in line with the current Redland Shire Council Transitional Planning Scheme Policy – Impact of Transportation Systems on Urban Amenity – along major roads and railway lines in the Shire (Also refer to actions A4.8 and A9.5).
A11.4	Protect and enhance air quality within the Shire by developing ILTP strategies and actions to reduce vehicle usage and to increase in non-motorised trips.
A11.5	Introduce buses that run with more environment friendly fuel types.
A11.6	Reduce emissions from motor vehicles by developing urban form that encourages the use of public transport and advocates policies for stricter exhaust emission standards and enforces these standards.
A11.7	Reduce the consumption of non-renewable energy resources and minimise road construction through environmentally sensitive areas.
A11.8	Require compulsory best practice Environmental and Cultural Impact Assessment studies of transport sector projects.
A11.9	Develop a monitoring program to gauge the future environmental implications (eg impact of marine, water quality and foreshore environment) of water-based transport.

11 Transport and Environment

A11.10	Incorporate the need for koala movement and allocate appropriate funding for crossing facility (eg underpass) in any new transport corridors.
A11.11	Adopt Redland Shire Council's Koala Protection Policy and Strategy (drafts at this stage), once completed, and implement actions and measures to manage koala and vehicle interaction and consider the principles and policies of the State Coastal Management Plan.
A11.12	Consider water-sensitive urban design to address stormwater treatment associated with transport infrastructure.

Signs advising motorists to be aware of koalas are posted along Boundary Road. Transport impacts on wildlife and natural areas need to be monitored and managed in the Shire.

12 Implementation Program

The detailed actions of this ILTP provide Redland Shire Council and all transport agencies and operators with a strategic framework for providing an integrated transport system. The actions can now be implemented and it is imperative they be carried out with consultation and agreement between stakeholders.

12.1 Implementing the ILTP

The actions identified in the ILTP have been assembled in a consolidated list of actions, which assigns lead agencies, supporting agencies, priority and timing. This consolidated list is included in **Appendix C**. The priority listing relates to the planning horizon discussed in Section 1.2 – that is short-term to 2005, medium-term to 2011 and long-term beyond 2012. The schedule has been prepared with the participation of Queensland Rail, Queensland Transport and Department of Main Roads, although some specific actions may not be supported by these agencies because they do not match governmental or departmental policies. Notwithstanding, there is an expectation that all transport agencies and operators are committed to implementing most actions.

The following abbreviations are used in the schedule:

Redland Shire Council	Redland Shire Council
QT	Queensland Transport
QR	Queensland Rail
DMR	Department of Main Roads
DES	Department of Emergency Services
DLGP	Department of Local Government and Planning
EPA	Environmental Protection Agency, including Queensland Parks and Wildlife Services
BSO	Bus Service Operators
TI	Taxi Industry
FSO	Ferry Service Operators

12 Implementation Program

A list of short term actions considered to be of high priority are summarised as follows:

- Define and set up the Redland Transport Implementation Group to assist in implementing the ILTP actions.
- Review parking demand and supply at Weinam Creek ferry terminal, and as a first step, investigate how the demand can be minimised through improved coordination between ferry and bus services.
- Carry out preliminary engineering design and cost estimates for a multi-deck car park in the Cleveland CBD to cater for park and ride commuters, and to rationalise and manage long-term parking.
- Launch a demonstration conversion program to convert one or two roundabouts in the Shire to a model walking and cycling-friendly roundabout consistent with Austroads Standards. Possible roundabouts for trials could include the roundabout near Moreton TAFE and roundabouts in Cleveland being used by high levels of cyclists.
- In cooperation with relevant State Agencies, undertake a Travel Demand Management trial – including car-pooling or ride-sharing – in the southern parts of the Shire, such as Bayview or Mt Cotton, or one of the islands (for example, Macleay Island).
- In accordance with the IPA, develop a transport infrastructure charges plan (TICP) to provide a mechanism that will ensure future development proposals require contributions for pedestrian, bicycle, public transport and road infrastructure.
- In cooperation with the Department of Main Roads, undertake prerequisite studies and designs to implement traffic management system (TMS) activities on the three major east-west arterial roads in the Shire to manage peak capacity and level of services. Examples of the TMS activities include: Signal coordination along these roads; camera surveillance of congestion and incident queues; bus priority treatments at intersections and peak period clearway zones for buses in breakdown lanes.
- In cooperation with Queensland Transport, Department of Main Roads and Brisbane City Council, investigate and implement appropriate improvements. For example:
  - Sections of Transit Lanes (T2) along the Shire's east-west arterials and the external roads to Brisbane; and
  - Introduce a line haul bus system that links with Capalaba and other parts of the Shire.
- Undertake, in conjunction with Queensland Transport, a trial of a flexible bus service – such as a maxi-taxi – to provide a demand-responsive and fare-share hiring bus service on one of the islands.
- Investigate, develop and implement a Work Place Travel Plan for Redland Shire Council staff (including a ride-sharing and car-pooling program).

These high priority and other actions (Appendix C) will be gradually implemented over a period of 15 years. Lead agencies are expected to take the lead role in the implementation of these actions.

The proposed framework for implementing the Redlands ILTP is included in Appendix D, and the structure of the Redlands ILTP implementation process is shown in Appendix E. This structure takes into account the proposal for an institutional framework, which has been approved by Council and outlined in Appendix D.
The structure also retains existing working groups: Southern Moreton Bay Islands Transport Working Group (SMBI TWG). and Redlands Bicycle Advisory Committee (RedBAC). The SMBI TWG is to monitor the implementation of SMBI ILTP and RedBAC is to monitor the implementation of Redlands Cycling and Pedestrian Strategy.

12 Implementation Program

The Redlands Transport Implementation Group, which is the stepping body for Redlands ILTP implementation, has 22 members. The members are drawn from elected representatives, representatives of state agencies, adjoining local governments, transport providers, community members and council officers. The list of members, as at June 2003, is in Appendix F.

12.2 Funding ILTP Actions

As outlined in the South-East Queensland IRTP, high quality transport infrastructure and services cannot be funded from existing revenue sources, and this regional shortfall is quantified in the Plan at $10-12 billion over 25 years. Accordingly, Redland Shire Council urges the State Government to provide the necessary level of funding to meet this regional shortfall.

As the early identification of additional revenue is unlikely, the developed Implementation Program (Section 12.1) has unfunded elements. There is an overall shortfall in the Shire's requirements, as compared with Council's 2000/01 capital works budget, to fund facilities and other improvements for cycling, walking and public transport.

If Redland Shire Council's capital works budget remains stable at approximately $8 million and does not swing further towards improving facilities for cycling, walking and public transport, the shortfall of funding will continue to increase and will impede Council's ability to achieve future targets.

In addition to the shortfall in Council's funds, Queensland Transport's Public Transport Division has identified an ongoing annual shortfall of funds needed to improve bus services in the Shire.

Detailed costs will need to be developed for short-term priority actions in the implementation program. The program's cost estimates need to be finalised and considered in Council's and the Department of Main Roads' future works programs. Redland Shire Council has been identified as the lead agency to implement the majority of actions, but a significant number of ILTP actions should be achievable using existing resources – such as staff allocated to related tasks – and within existing budgets. There are also major benefits in addressing some actions through partnerships with others, such as a ride-sharing trial with Queensland Transport.

A preliminary estimate of costs relating to short-term priority items is listed in **Table 12.1**. The costs help to establish broad estimates for implementing similar facilities or improvements at a number of locations. However, these estimates will need to be reviewed for site-specific applications.

12 Implementation Program

Table 12-1 Indicative Estimates of Costs

Action	*Project Type/Composition*	*Estimate of Cost*
Bus kerbside infrastructure	▪ Steel lattice shelters with a concrete slab at bus stop, in accordance with relevant streetscape design guidelines ▪ Lighting to meet relevant Australian standards	$5,000 per shelter ($10,000 for larger shelters) $3,000 per shelter
	▪ Signs, timetable and bin	$1,000 per site
	▪ Real time bus information signs - display panel - instrumentation	 $2,000 per sign $1,000 per sign
Walking and cycling associated infrastructure	▪ Off-road shared pathway	$40/m or $80 a linear metre (figure dependent on project size)
	▪ On-road cycle lanes within existing seal width (includes five large bicycle symbols, 1km of edge line-marking, five signs and associated overheads)	$5,000/km (figure dependent on project size)
	▪ On-road cycle lanes, including provision of asphalt sealed shoulder	$10,000/km
Road network	▪ Bus lane (sizes, line-marking, symbols)	$5,000/km
	▪ Cycle lanes through signals (symbols/line-marking)	$5,000 per intersection
	▪ On-road cycling crossing facility	$10,000 per crossing
	▪ Bus priority at signals	$20,000 per intersection
	▪ Bike lanes within roundabouts (within existing geometry)	$5,000 per roundabout
	▪ Coordinating two sets of signals on arterial road (not including additional hardware)	$5,000 per coordination
	▪ Installation of camera at major function or along busy arterial to monitor peak congestion and incidents - standard camera plus communications - annual running cost (includes telephone line hire but not monitoring at the office)	 $50,000 $10,000
Travel demand management (car-pooling / ride-sharing)	▪ Investigating and establishing framework for a pilot project by liaising with Queensland Transport	$30,000 (approximate)

12 Implementation Program

Action	*Project Type/Composition*	*Estimate of Cost*
	▪ Resource and facility	$50,000 (approximate) or $100 per household + $15,000
Institutional	▪ Investigate – Formation of Redland Transport Working Group – Invitation/acceptance of members – Establish framework of group's role and tasks	$5,000/year
	▪ Implementation of Redland Transport Working Group – Meet twice a year with annual review of Performance Indicators (PI). Costs would go to Council for administration, reviews and catering.	$5,000/year
Resources	▪ Walking and Cycling Coordinator	Redland Shire Council to determine
	▪ Transport Planning Coordinator	Redland Shire Council to determine
Monitoring	▪ Data collection, review and reporting on ILTP PI	$5,000/year

Strategy 12.2.1: Develop mechanisms to provide additional funding for public transport, walking and cycling infrastructure.

Actions – Funding

A12.1 Advocate with State and Federal governments for appropriate funding levels to support a sustainable transportation system. For example, promote the policy of user charging for private vehicle use.

A12.2 Initiate a program to charge for all business parking lots, but reduce rental for business premises.

A12.3 Propose the State and Federal governments review their fuel subsidy policy by removing the rebate for the South-East Queensland region – approximately eight cents a litre – and spending this on improved transport services and infrastructure for walking, cycling and public transport.

A12.4 Charge for roadside advertising and advertisements for roadside businesses and on bus shelters.

A12.5 Charge utility providers – Telstra, Energex and Solid Waste – for using road space in locating their services.

12 Implementation Program

Actions – Funding

A12.6	Utilise an Infrastructure Charges Plan under IPA to require that developers contribute seed funding for public transport services to greenfield developments.
A12.7	Advocate funding support for community transport solutions for small or rural communities, such as seed funding for a ride-sharing project.

12.3 Institutional Arrangements

Changing the current institutional arrangements is one means raised by the community to improve public transport in the region. It has been suggested that one umbrella organisation should be responsible for organising and controlling public transport at State level, and within the Shire (eg Redland Transport Implementation Group [RTIG]). This would arrange service integration, coordinate timetabling, ensure inter-modal and integrated ticketing, and publicise and promote all public transport options. Lessons from Queensland Transport's TransLink project need to be incorporated within Redlands by the RTIG.

It has also been suggested that Redland Shire Council should boost its involvement in public transport by creating a separate section within Redland Shire Council specifically dedicated to improving public transport. A Public Transport Coordinator could work with providers to improve communication and promotion, to plan improvements, to liaise about network options and changes, to liaise about land use planning and developments, and to generally coordinate all interested parties. The coordinator would not become involved with the daily operational issues of providers – such as dealing with complaints, supply of timetable information and so on – but would direct these to the providers.

The role of a coordinator could be included in the duties of a Transportation Planner, who would also manage the implementation of Redland Shire Council's ILTP, the future Integrated Transport Model, the walking and cycling strategy and other transport-related tasks.

Actions – Institutional Arrangements

A12.8	Employ a transportation planner within Council to act, among other duties, as Council's Public Transport Coordinator and to be responsible for transport tasks
A12.9	Through the formation of the Redland Transport Implementation and Working groups (as outlined in Action 5.12) arrange for annual meetings to review and monitor progress on ILTP action implementations and outcomes.

12 Implementation Program

12.4 Monitoring and Review

Regular monitoring of the ILTP actions is required to maintain the plan as a dynamic document. It is inevitable the plan will encounter both unanticipated challenges and unexpected opportunities, therefore a flexible framework is required so that challenges can be accommodated. The ILTP document as a whole should be reviewed every three years.

An important attribute of a successful ILTP is the ability to monitor and evaluate its performance so corrective action can be taken should implementation activities begin to fail. The ILTP incorporates Performance Indicators (PI) to help evaluate progress towards a more suitable transport system.

A PI is a measure of an important attribute of the transport system that can be effectively monitored. It is a reporting mechanism not necessarily related to planning or providing transport infrastructure or services.

The RTIG would undertake further work on benchmarking and defining targets for the indicators. The PI suggested include:

- Public transport usage should be measured in the form of annual patronage or riding data from operators or Queensland Transport. If public transport is to increase its share of the mode of travel, usage must grow at rates that exceed the growth of the Shire's population.

  PI – Public transport usage to increase faster than population growth.

- Walking and cycling can be measured by the lengths or level of funding for walking and cycling facilities.

  PI – Lengths or level of annual funding for walking and cycling facilities to increase by a percentage to be determined.

- Measure Travel Demand Management through the performance of ride-sharing or car-pooling projects trialled in the Shire.

  PI – Numbers of people car-pooled or ride-shared, and the number of complaints in relation to coordination of bus and train or bus and ferry services.

- Road network performance can be measured by regular traffic counts and travel time surveys.

  PI – Traffic Growth: Rates of traffic growth calculated by averaging the traffic counts for key roads in the Shire. Indicative target should annually be less than the rate of population growth.

  Vehicle Travel Time: Travel times for vehicles along major arterials reducing by less than 1% per year.

- Environmental impacts due to transport can be measured by noise and air quality, and by monitoring the impacts on wildlife.

12 Implementation Program

PI -	*Noise:*	*The amount of noise along key roads and the rail corridor is not to increase by a percentage to be determined. (Results should be in accordance with Annexure 3 – Noise Criteria, Impact of Transportation Systems on Urban Amenity [Redland Shire Council Transitional Planning Policy – October 2001].)*
	Air:	*The amount of particulates in the air at key major road functions in Shire is not to increase by a percentage to be determined. (Aim for levels set by the Environmental Protection Agency's Environmental Protection Policy.)*
	Wildlife:	*The numbers of recorded collisions with koalas and marine fauna (eg turtles) should reduce yearly.*

Actions – Monitoring

A12.10	Design a monitoring and review program for transportation as a basis for guiding future actions and programs. The program will provide mechanisms through which the ILTP implementation can be monitored and updated, as required, on an ongoing basis.
A12.11	Report annually to Redland Shire Council on usage data: public transport (bus, rail and ferry) patronage, overall road network use, and lengths of walking and cycling facilities.
A12.12	Report annually to Redland Shire Council on the implementation of performance measures needed to achieve ILTP targets.
A12.13	Conduct regular reviews of capital works programs relevant to achieving ILTP targets.

Appendix A

Communication and Consultation Program

STAGE 1 - Inception

INTEGRATED LUGMS & ILTP PROCESS

REDLAND LAND USE AND GROWTH MANAGEMENT STRATEGY

SCHEME PREPARATION — PARALLEL PROGRAMS

DOCUMENTATION | COMMUNITY CONSULTATION | STATE AGENCY INTERESTS | STAKEHOLDER CONSULTATION | CORPORATE INPUT/ TRAINING

REDLAND INTEGRATED LOCAL TRANSPORT PLAN TRANSPORT PLAN

ILTP — PARALLEL PROGRAMS

CORPORATE INPUT/ TRAINING | STAKEHOLDER CONSULTATION | STATE AGENCY INTERESTS | COMMUNITY CONSULTATION | DOCUMENTATION

June 2001

1. Inception Reporting

Methodology Confirmation Report

Consultation Communications Strategy

Establish:
1. Contacts Database
2. Issues Database
3. Toll Free Line
4. Reply Paid Post
5. Project Email
6. Project Web Page

Prepare:
7. Newsletter Template

Prepare:
8. Newsletter No. 1

Prepare:
9. Media Kit No. 1

Prepare:
10. Stage 1 Consultation Report

Council Progress Report No. 1

Prepare:
1. State Agencies Inception Correspondence

Inception Consultation

Undertake:
2. State Agencies Inception Workshop
3. Meeting with State Agencies Core Group

Prepare:
1.Stakeholder Inception Correspondence

Prepare:
1. Internal Update Newsletter No.1

Undertake
2. Technical Staff Workshop No. 1
3. Councillor Consultation

Contribute to Urbis:
1. Internal Update Newsletter No. 1

Contribute to Urbis:
1. Stakeholder Inception correspondence

Undertake:
2. Meeting with Local Transport Providers / Users

Contribute to Urbis:
1. State Agencies Inception correspondence

Meeting with DMR & QT

Contribute to Urbis:
1. Contacts Database
2. Issues Database
3. Project Web Page

Contribute to Urbis:
4. Newsletter Template

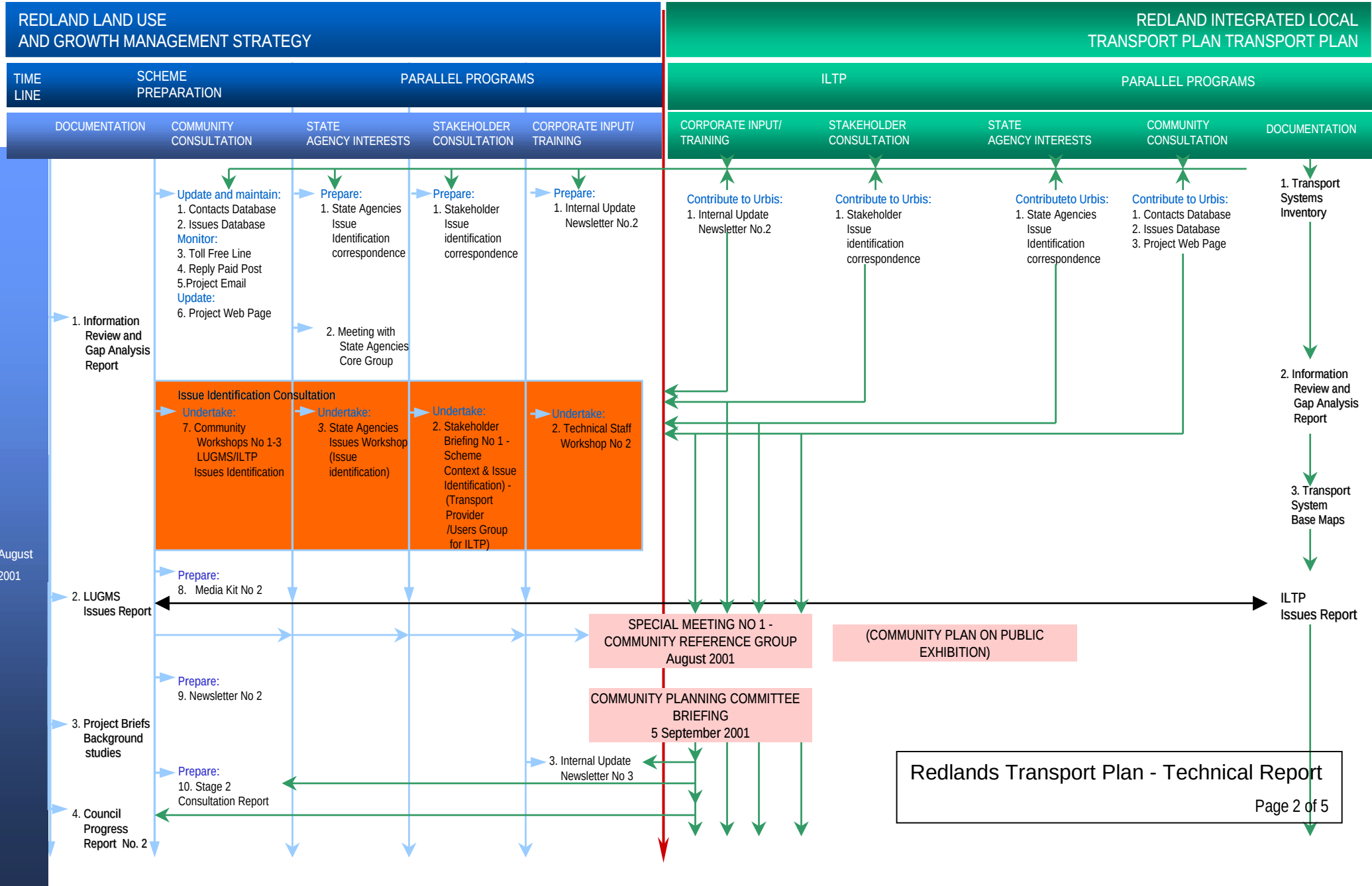
1. Inception Report

COMMUNITY PLANNING COMMITTEE
INCEPTION BRIEFING
4 July

Redlands Transport Plan - Technical Report

STAGE 2 - Where are we?

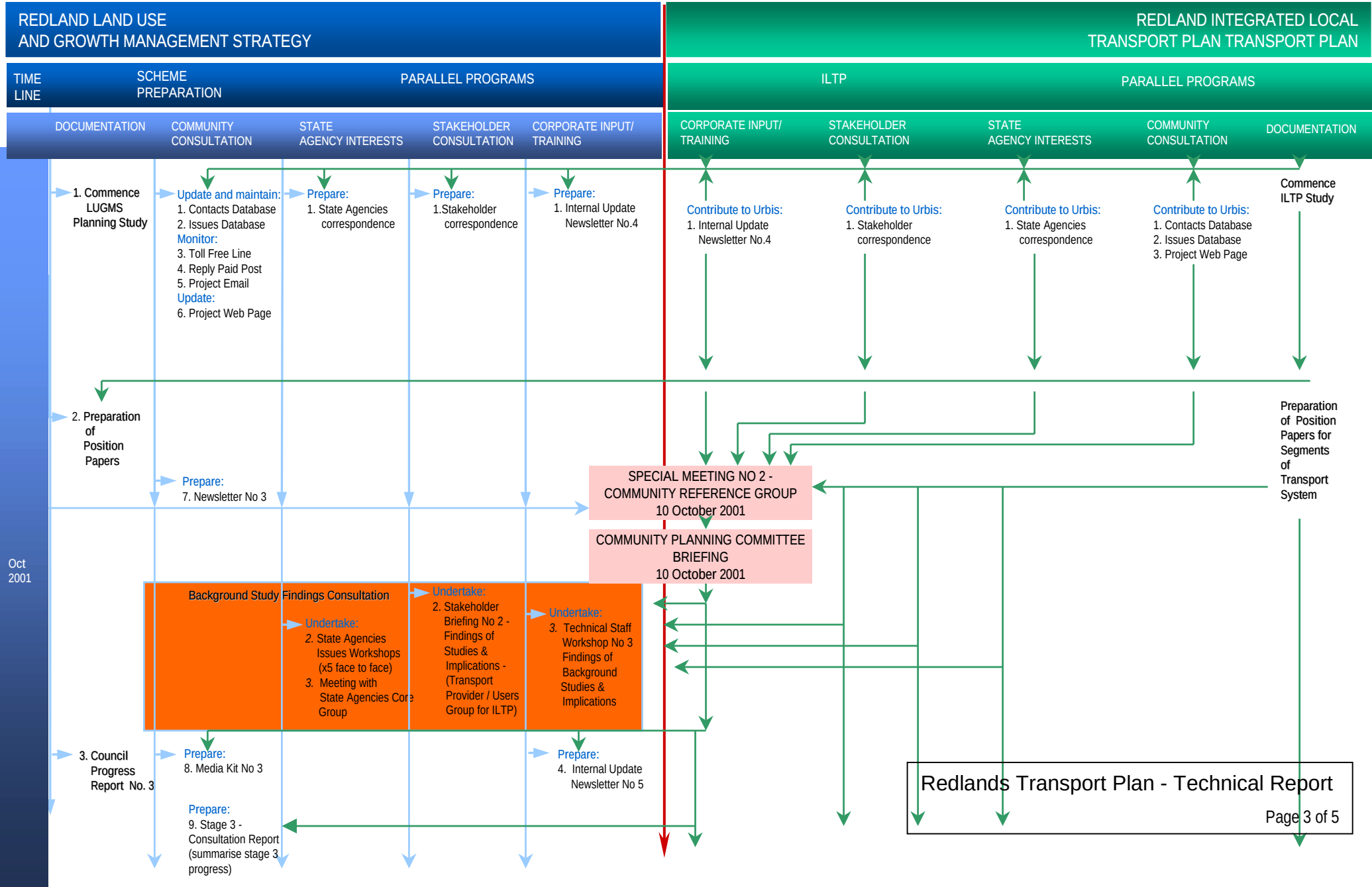
INTEGRATED LUGMS & ILTP PROCESS



Redlands Transport Plan - Technical Report

STAGE 3 - Background Reports

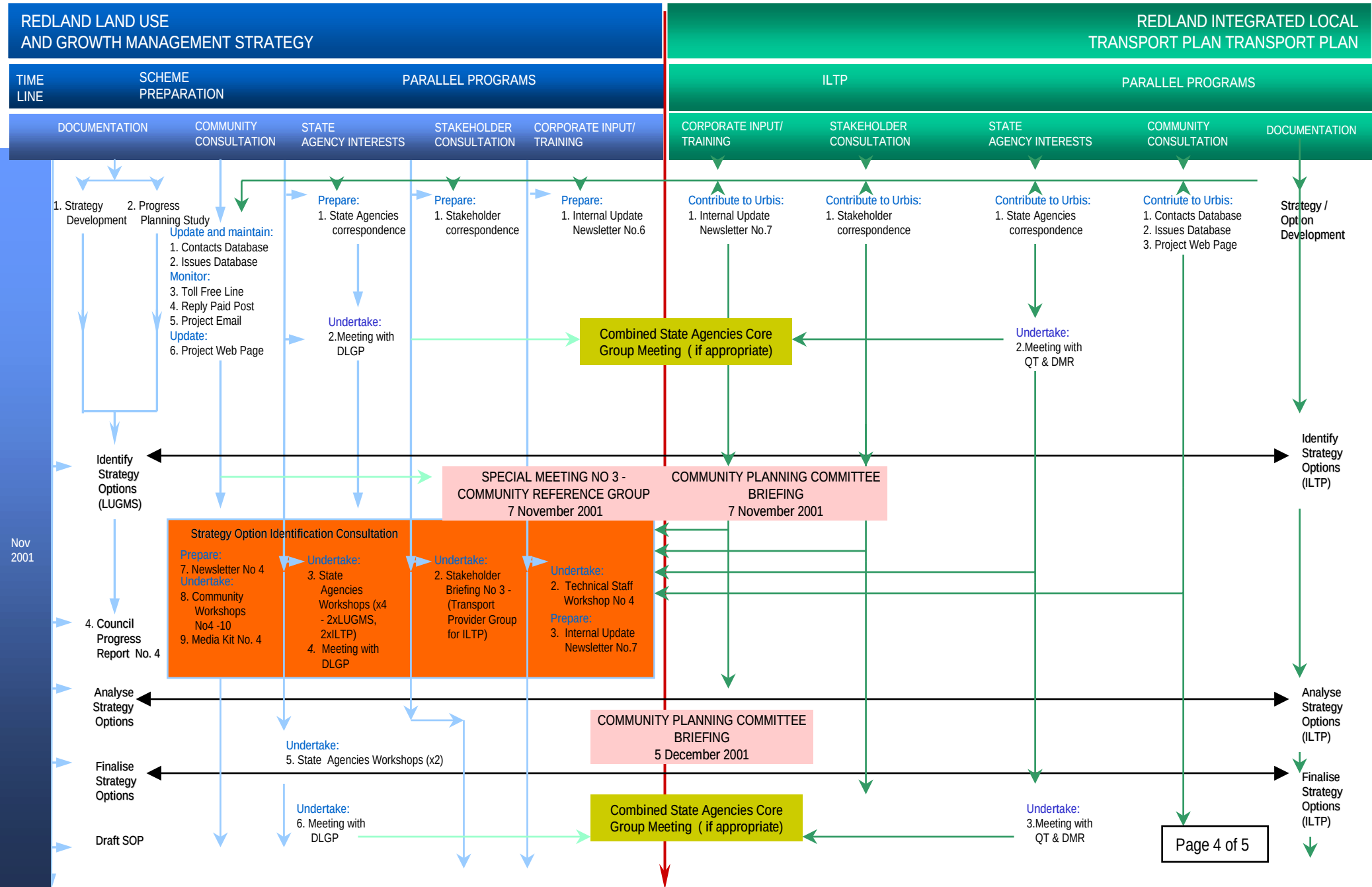
INTEGRATED LUGMS & ILTP PROCESS



Redlands Transport Plan - Technical Report

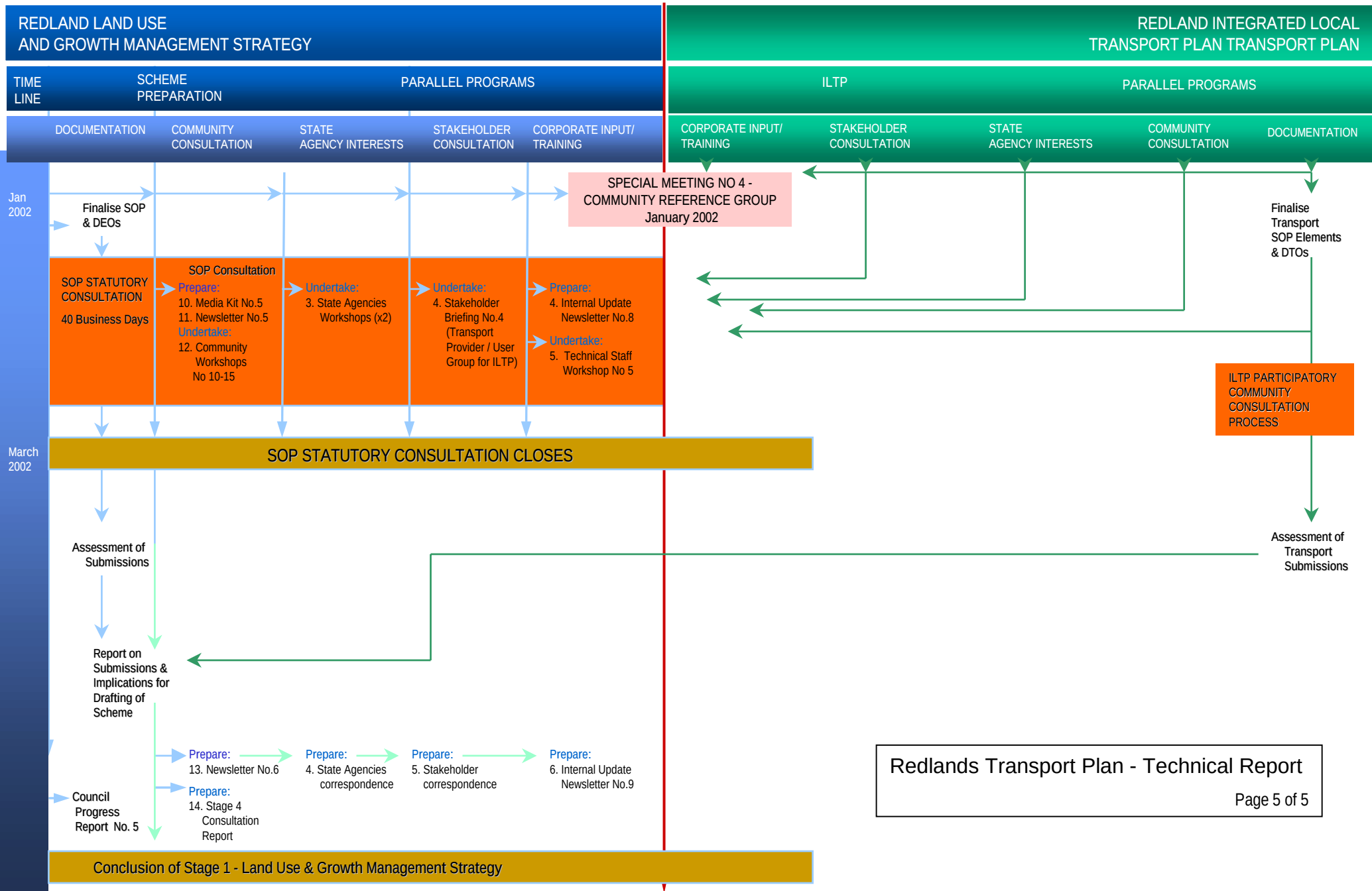
STAGE 4 - Determining the Strategic Framework

INTEGRATED LUGMS & ILTP PROCESS



Stage 4 - Determining the Strategic Framework (cont)

INTEGRATED LUGMS & ILTP PROCESS



Appendix B

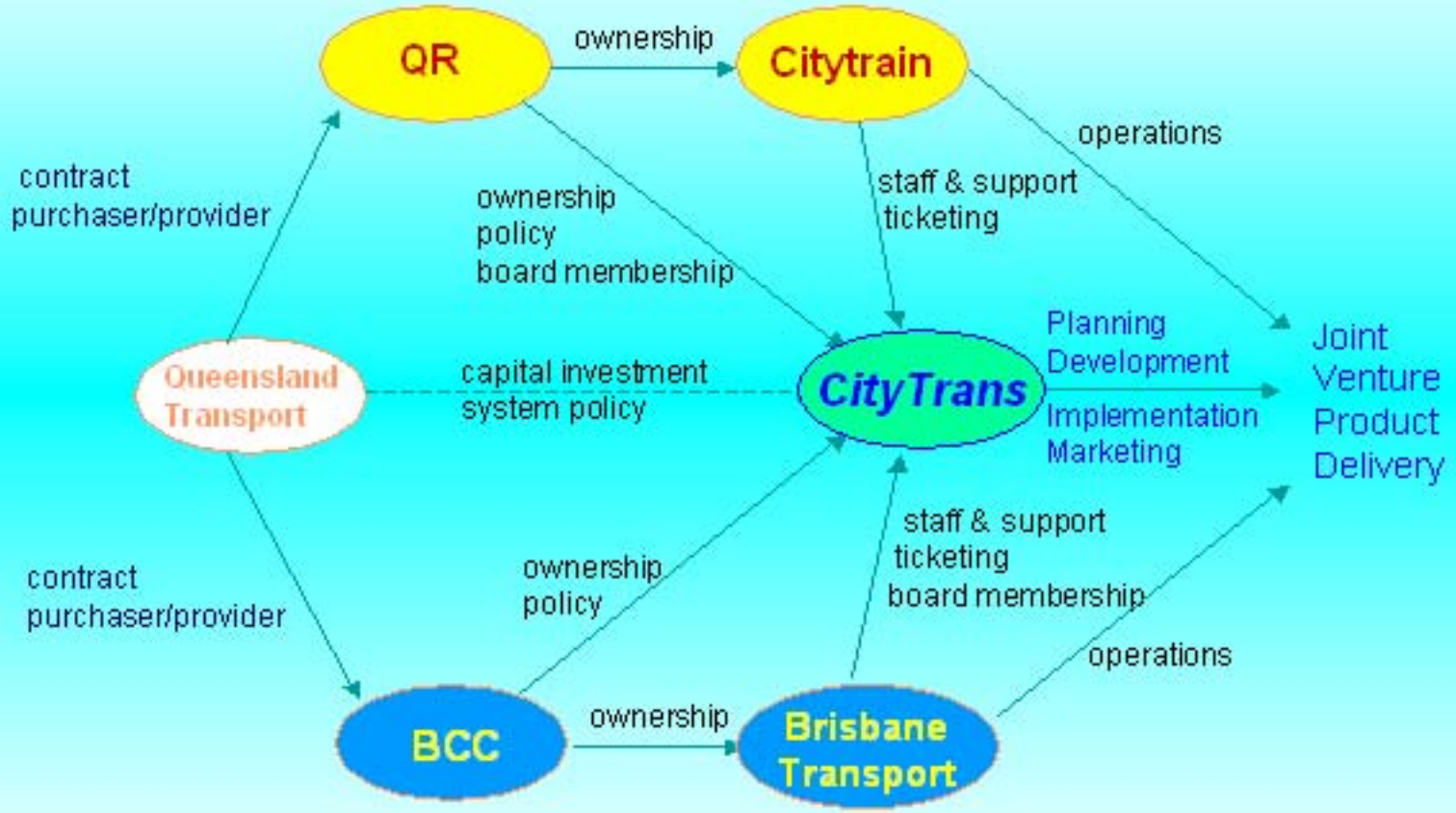
CityTrans Information

(Source: General Manager, CityTrans – Brisbane)

CityTrans at a Glance

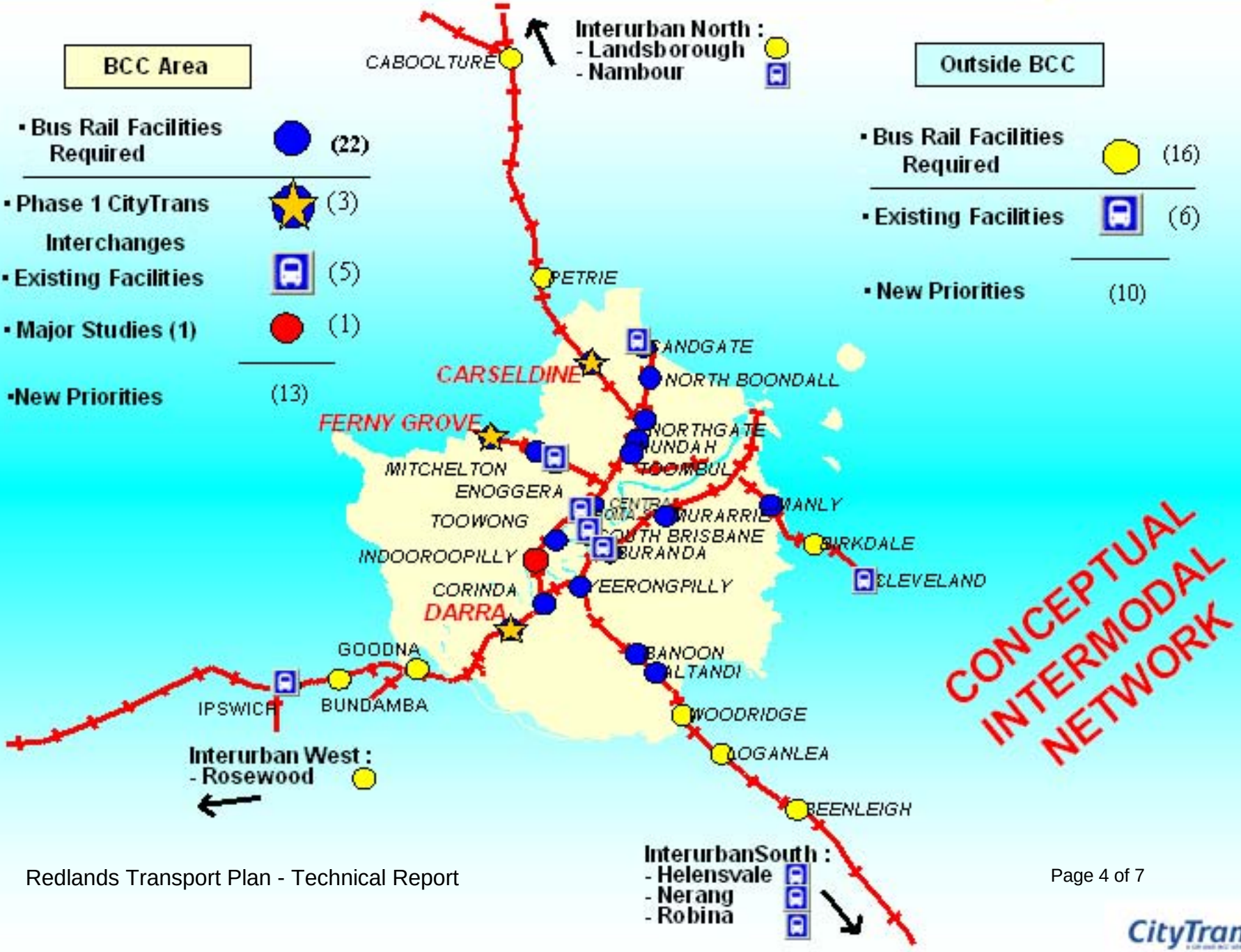
- A QR / BCC collaborative venture to deliver integrated transport services within BCC boundaries
- Staffed by existing QR Citytrain and Brisbane Transport Staff
- Services continue to be provided by existing operators
- Not intended to significantly alter existing operator service contracts with QT
- Capital funding initially provided by BCC, QR and QT
- CityTrans to focus on detailed service delivery role and not major transport infrastructure projects.

Institutional Arrangements



Key Objectives

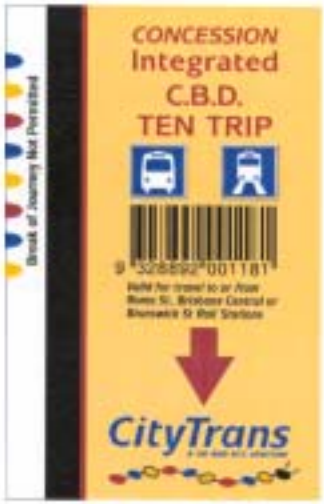
- Demonstrate the organisational capabilities of public transport operators;
- Better understand the commercial implications of introducing fully integrated services;
- Grow public transport businesses by commercially diversifying service appeal;
- Nurture an integrated service delivery culture within operational staff.


BCC Area
• Bus Rail Facilities Required (22)
• Phase 1 CityTrans Interchanges (3)
• Existing Facilities (5)
• Major Studies (1) (1)
•New Priorities (13)
Outside BCC
• Bus Rail Facilities Required (16)
• Existing Facilities (6)
• New Priorities (10)
Interurban North :
- Landsborough
- Nambour
CABOOLTURE
PETRIE
SANDGATE
NORTH BOONDALL
CARSELDINE
FERNY GROVE
NORTHGATE
HUNDAH
MITCHELTON
ENOGGERA
TOOWONG
MANLY
BURARRIE
SOUTH BRISBANE
BURKDALE
INDOOROOPILLY
BURANDA
CLEVELAND
CORINDA
YEERONGPILLY
DARRA
GOODNA
BANOON
ALTANDI
IPSWICH
BUNDAMBA
WOODRIDGE
LOGANLEA
BEENLEIGH
Interurban West :
- Rosewood
InterurbanSouth :
- Helensvale
- Nerang
- Robina
CONCEPTUAL INTERMODAL NETWORK

CityTrans Integrated Ticket Products

Integrated Ten Trip

Cost - $26.90



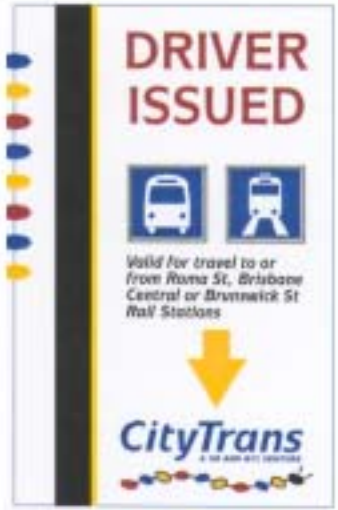
Cost - $13.50

Integrated Off Peak Return

Cost - $5.40

Cost - $2.70

Driver Issued



Cost - Various

Patronage Performance

CityTrans Summary

- The CityTrans model appears appropriate for Brisbane given the nature of its public transport system.
- CityTrans has demonstrated a willingness on the part of the two largest operators to embrace moves towards integrated service delivery.
- The venture has demonstrated, in its first year, that integrated services can be successfully established if they are carefully designed and delivered.
- By adopting a staged approach to implementation, valuable lessons can be learned and risks minimised for subsequent implementation stages.
- CityTrans has delivered benefits for both its stakeholder organisations and public transport users in a relatively short period and demonstrated that the major transport operators have an important role to play in the development of an integrated transport system for South East Queensland.

Appendix C

Consolidated List of ILTP Actions

CONSOLIDATED LIST OF ILTP ACTIONS

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
High Priority Actions (HPA): These actions form part of the consolidated list of actions.					
HPA1	Define and set up the Redland Transport Implementation and Working Group to assist in implementing ILTP actions.	RSC	QT DMR and other agencies	Short-term	2002
HPA2	Review parking demand and supply at Weinam Creek ferry terminal and, as a first step, investigate how demand can be minimised through improved coordination of ferry and bus services.	RSC	QT	Short-term	2004
HPA3	Review parking demand and supply in the Cleveland CBD and Capalaba centres and investigate mechanisms to manage or rationalise parking.	RSC	QT DMR	Short-term	2003
HPA4	Investigate and, if feasible, launch a demonstration conversion program to convert one or two roundabouts in the Shire to a model walking and cycling-friendly roundabout consistent with Austroads Standards. Possible roundabouts for trials could include the roundabout near Moreton TAFE and roundabouts in Cleveland, which have higher levels of cycle and pedestrian traffic.	RSC	DMR	Short-term	2003
HPA5	In cooperation with relevant State Agencies, undertake a travel demand management trial of car-pooling and ride-sharing in the southern parts of the Shire, such as Bayview or Mt Cotton, or one of the islands, like Macleay Island.	RSC	DLGP EPA QT	Short-term	2003
HPA6	In accordance with the IPA, develop a transport infrastructure charges plan (TICP) to provide a mechanism that will ensure development proposals would require the provision of contributions for pedestrian, bicycle, public transport and road infrastructure.	RSC	DMR QT DLGP	Short-term	2004
HPA7	In cooperation with the Department of Main Roads, undertake prerequisite studies and designs to implement traffic management system (TMS) activities on the three major east-west arterial roads in the Shire to manage peak capacity and level of services. Examples of the TMS activities include signal coordination along these roads, camera surveillance of congestion and incident queues, bus priority treatments at intersections and peak period clearways for buses on breakdown lanes.	RSC	DMR	Short-term	2003

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
HPA8	In cooperation with QT, DMR and BCC, investigate and implement appropriate improvements. Areas could include sections of Transit Lanes (T2) along the Shire's east-west arterials and the external roads to Brisbane, such as Old Cleveland Rd. Introduce a line haul bus system that links with Capalaba and other parts of the Shire.	RSC	BCC QT DMR	Short-term	2003
HPA9	Trial, in conjunction with Queensland Transport, the option of a flexible bus service like a maxi-taxi for a demand-responsive and fare-share hiring bus services on one of the islands.	RSC	QT	Short-term	2003
HPA10	Investigate, develop and implement a Work Place Travel Plan for RSC staff, including a ride-sharing and car-pooling program.	RSC	QT	Short-term	2003
Strategy 4.2.1: Establish an integrated land use pattern and movement system based on a combination of road, rail and water transport and pedestrian and cycling systems.					
A4.1	Enhance and provide new activity centres by identifying new areas in the Shire that offer high accessibility and can be efficiently supported by public transport. These centres should be included in the land use plan as potential sites for major new employment attracters. A relatively low level of employment in the Shire is the contributor to low level of self-employment.	RSC	-	Short-term	Ongoing
A4.2	Identify and suggest policy measures that increase local employment opportunities and encourage the development of mixed use, pedestrian-friendly precincts or centres, where people can walk or cycle to employment, education and entertainment. This is known as self-contained development.	RSC	-	Short-term	Ongoing
A4.3	Propose and/or provide input to formulate a Priority Infrastructure Plan, which should be developed in accordance with the Integrated Planning and Other Legislative Act (IPOLA) in such a way as to minimise the need for new road infrastructure, vehicle trips and long car travel. The plan should also promote the construction of bikeways, walkways and public transport routes.	RSC	-	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A4.4	Distribute and promote the use of Shaping Up guidelines (or other similar documents) to developers and architects/planners involved in developing sites, to encourage them to adopt best planning practice in both land use and transport planning.	RSC	QT	Short-term	Ongoing
A4.5	In cooperation with Queensland Transport, organise workshops with potential developers involved in the Shire, following the Shaping Up guidelines or similar best planning practices.	QT	RSC	Short-term	Ongoing
A4.6	Develop a mechanism to ensure development proposals require contributions to pedestrian, bicycle and public transport networks. The Infrastructure Charges Schedule (ICS) – part of IPOLA – should include a method to support all modes of transport infrastructure.	RSC	QT	Short-term	Ongoing
A4.7	Develop codes for transport infrastructure planning and institutional or commercial building complexes and educational facilities, to ensure their development includes secure bicycle parking spaces, shower and change facilities.	RSC	DLGP	Short-term	Ongoing
A4.8	Analyse the functional hierarchy of the existing arterial road network in the Shire (in consultation with Department of Main Roads in the case of state-controlled roads) and suggest ways to protect the function and capacity of these major arterials. Special attention should be given to controlling direct access from properties adjoining these roads. Implement appropriate development control along these major arterial roads to protect the function and capacity of major roads. This is necessary so that the development does not rule out the possibility of developing feeder bus services along frontage roads that serve line haul mass transit and bus routes.	RSC	DMR	Short-term	Ongoing
A4.9	Include in the Planning Scheme a requirement for developments within an 85th percentile walking distance of rail stations and other high capacity public transport nodes to be built at a minimum residential density of 40 dwellings/ha.	RSC	DLGP QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A4.10	The Planning Scheme should require all new residential developments, except those close to high capacity public transport nodes, to achieve a residential density range of 12-15dwellings/ ha.	RSC	QT	Medium-term	Ongoing
A4.11	Council should identify, facilitate and promote local examples of transit-oriented development to the development industry and community.	RSC	DLGP	Medium-term	2006
A4.12	Propose the State Government (through state or joint funding, as decided by RSC) undertake a demonstration project within the Shire to promote public transport-oriented housing or mixed-use development. This would form part of IRTP initiatives to encourage local governments to use Shaping Up guidelines.	QT	RSC DLGP	Medium-term	2006
A4.13	Research and pursue increased employment opportunities within the Shire in order to improve self-containment.	RSC	DSD	Short-term	2003
A4.14	Ensure the higher order activity centres of the Shire are located near major line haul modes.	RSC	QT	Short-term	Ongoing
A4.15	Implement a process to coordinate strategic transport and land use planning to address cross-border issues. This should happen at a regional and sub-regional level.	RSC	DLGP BCC LCC	Short-term	Ongoing
Strategy 4.2.2: Ensure an urban form that allows for public transport to be developed to a level and efficiency that makes it more attractive than the use of the private motor vehicle.					
A4.16	Investigate alternative uses for the transport corridors that are identified on the current strategic plan so that alternative forms of transport (public transport, cycling) could equally enjoy these corridors for their development, not just for the development of roads.	RSC	DMR QT	Short-term	2004
A4.17	Promote the development of more compact urban form which will encourage and be able to support a higher level of public transport, while at the same time, reducing the overall average trip length required for work, shopping, school and other purposes.	RSC	QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A4.18	Ensure that any new major employment and visitor attractors be adequately supported by public transport such that car restrained policy would not adversely affect the mobility of the people and therefore the development of these activity centres.	RSC	QT	Short-term	Ongoing
A4.19	Encourage the development of mixed use, self-contained precincts, pedestrian and bicycle-friendly centres where people can walk or cycle from the places of residence to the places of employment, services and facilities and where people do not need to use their cars to meet their travel needs.	RSC	DLGP QT	Short-term	Ongoing
A4.20	Educate the developers to prepare their development proposals in accordance with the "Shaping Up" guidelines or other best practices for transit oriented development in order to make sure that the provision of public transport services in future could be made in a more cost-effective manner.	RSC	QT	Short-term	Ongoing
A4.21	Ensure in consultation with QT that planning of new residential development provides for early introduction of public transport services (line haul) integrated with walkways and bikeways in accordance with relevant Council and State government policies and Australian Standards.	RSC	DLGP	Short-term	Ongoing
Strategy 5.1.1: Improve public transport so that it becomes the preferred mode of travel for greater numbers of people.					
A5.1	Identify and adapt performance indicators to be used to evaluate public transport in the Shire. Performance indicators could include patronage, catchment, frequency of operation, inter-modal integration, reliability, comfort, and safety.	RSC	QT	Short-term	Ongoing
A5.2	Adopt the public transport network system plan and make annual improvements after reviewing performance indicators.	RSC	QT	Short-term	Ongoing
A5.3	Investigate mechanisms to promote and gain awareness of public transport to encourage and inform people to use it. For example, develop and launch community awareness and education programs on the benefits of using public transport, similar to TravelSmart in Perth.	QT	QR BSO FSO RSC	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A5.4	Implement and continually improve the clarity and presentation of public transport information. This includes public transport network map and bus stop information.	QT	QR BSO FSO RSC	Short-term	Ongoing
A5.5	Work in collaboration with the State Government to address the funding requirements of public transport improvement proposals for the Shire.	RSC	QT	Short-term	2003
A5.6	Work with Translink to improve bus, ferry and train linkages and coordination by introducing integrated public transport fares, electronic ticketing and coordinated timetables. For example, this integration could be encouraged via a Trainlink service between Birkdale/Moreton Institute of TAFE and Capalaba, and a Redland Bay/Victoria Point/Cleveland Ferrylink service.	QT	QR BSO FSO RSC	Short-term	Ongoing
A5.7	Work with Translink to develop a ticketing pricing strategy, reducing the number of ticket types and specifying or extending the number of hours passengers can travel with transfer ticket received at the start of journey. This will ensure public transport fares are simple to understand and represent good value for money.	QT	QR BSO FSO RSC	Short-term	Ongoing
A5.8	Develop a positive new image for public transport through marketing and promotion. For example, promote the TransInfo line of 13 12 30 and www.transinfo.qld.gov.au web site, ensuring information is regularly updated.	QT	QR BSO FSO RSC	Short-term	Ongoing
A5.9	Work with Translink to review opportunities for improved bus facilities at Capalaba and beyond, with a view to providing a longer term, line haul public transport development plan with staged implementation. For example, bus or HOV lanes could be followed by a dedicated bus way and then, when patronage demand existed, converted to a light rail system.	QT	QR BSO FSO RSC	Short-term	Ongoing
A5.10	Provide functional and aesthetic elements of public transport infrastructure in the Shire.	QT	QR BSO FSO RSC	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
Strategy 5.1.2: Establish institutional arrangements to monitor and proactively improve public transport services and facilities.					
A5.11	Define and set up a local level institutional framework to advocate for and incorporate local government input in defining public transport routes. The framework would also plan, coordinate, monitor and evaluate the system – such as the operator's performance and the system's performance – assist in commuter planning and implement TransLink's initiatives within Redland Shire. This group could be referred to as the Redland Transport Implementation Group (RTIG). The RTIG would be supported by the officer-level Redland Transport Working Group (RTWG).	RSC	QT DMR DLGP EPA BSO FSO and Other RTIG member agencies	Short-term	2002
A5.12	Support the State Government in its initiatives to address the necessary level of funding required to implement initiatives of the IRTP and ILTP.	RSC	-	Short-term	2003
A5.13	Provide local level input to Translink to develop or implement mechanisms for sharing revenue among operators, making modal coordination (eg rail, bus and ferry) a mandatory requirement of the service contracts, and arranging for meetings with CityTrans. Of immediate concern is the revenue-sharing arrangement between National and Brisbane City bus operators.	RSC	QT BSO FSO	Short-term	2004
A5.14	As an initial gesture of commitment to provide alternative forms of transport to Shire residents, Council should employ under contract an officer (eg a TDM coordinator) who would promote walking, cycling and public transport and provide input to public transport planning. The role would include coordinating and following up with Queensland Transport, operators, and adjoining local government agencies. This position would provide input for the development of public transport policy for RSC and oversee the performance of public transport services but not day-to-day operating issues.	RSC	-	Short-term	2003

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
Strategy 5.1.3: Ensure that the mobility requirements of disadvantaged groups are met through public transport.					
A5.15	Introduce low floor buses in the fleet by gradually replacing the current bus fleets in accordance with DDA Transport Standard.	BSO	QT	Short-term	Ongoing
A5.16	Apply pressure to the State Government to fund appropriate buses for physically impaired people, supporting provisions of the Disability Discrimination Act.	QT	BSO	Short-term	Ongoing
A5.17	Review and ensure wheelchair access to bus, ferry and train stations and associated facilities meet the requirements laid down by the prevailing Disability Discrimination Act.	QT	BSO QR FSO	Short-term	Ongoing
A5.18	By developing or applying existing codes, ensure local bus services are accessible to all people, regardless of physical disability.	QT	BSO	Short-term	Ongoing
Strategy 5.1.4: Improve local bus-based public transport to centres, employment areas and line haul transport system stops.					
A5.19	Designate Capalaba and Koala Park Bus Stations as major line haul bus interchange facilities in the Shire's public transport network and link the line haul bus routes with feeder bus routes.	QT	BSO RSC	Short-term	2003
A5.20	Investigate the option of a flexible bus service. For example, one that is demand-responsive and offers fare-share hiring in lower density rural areas.	QT	BSO RSC	Short-term	2003
A5.21	Work proactively and provide input to Translink to identify and implement measures to integrate bus services provided by bus operators in the Shire and Brisbane Transport. One measure would include coordinating routes and services at major interchanges such as those at Carindale, Garden City and Mt Gravatt.	QT	BSO RSC	Short-term	2003
A5.22	Develop integrated land use and transport plans that support Redlands Planning Scheme's desired environmental outcome (DEO 4), covering the Shire's transport systems performance. The plan embraces elements that: ▪ Encourage the planning of local communities that could be best served by bus service and that can be	RSC	BSO	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
	accessed by walking and cycling modes; ▪ Adopt appropriate road network and design standards in the development plan; ▪ Minimise walking distances to local bus stops by providing walkways (including design issues such as ramp design) and local road patterns; ▪ Provide appropriate amenities like bus shelters, bays and loops at bus stops to facilitate the provision of an efficient local bus service through development codes; and • Promote the establishment of public transport services at an early stage in the development of new urban areas.				
A5.23	Work with Translink to develop a long-term bus route structure (or map) for major transport corridors and bus routes. This will ensure that access to public transport and bus stops can be meaningfully considered when Council is approving new subdivision plans.	QT	BSO RSC	Short-term	Ongoing
A5.24	Work with Translink to plan and promote the development of an integrated local bus service which provides a high degree of accessibility to major centres, employment areas and to line haul transport systems.	QT	BSO RSC	Short-term	Ongoing
A5.25	Propose and pursue the feasibility study of a bus way to Capalaba Bus Interchange and its gradual extension to the Victoria Point Bus Interchange. Ensure the current development of interchange facilities would be suitable for integrating with this proposal.	QT	RSC	Medium-term	2007
A5.26	Work with Queensland Transport's Public Transport Division and Translink to examine funding arrangements to ensure that bus services are clearly cheaper to use than private cars. The tasks will include: ▪ Investigate, through an appropriate behavioural study, the level of fare that community members are willing to pay for bus or other transit services, given factors including frequency, wait time and ride time; ▪ Carry out a patronage survey to determine fare box revenue and determine the level of subsidy required for bus operation; ▪ Put into discussion whether a stratified	QT	RSC	Short-term	2004

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
	subsidy policy (by route) should be proposed, to ensure operators do not provide services only along profitable routes and that bus services would be made available in all localities of the suburbs for maximum spatial coverage; ▪ Investigate the feasibility of running zero or nominal fare local bus services to access line haul stations or to cater to local mobility needs. The investigation would need to start with a few high demand corridors and base its findings partly on a participatory community consultation process. It would be financed by the revenue generated from parking fees imposed on a Shire-wide basis; and ▪ Provide supplementary funding for a public transport subsidy to reduce fares and make public transport more attractive.				
A5.27	Through a participatory community consultation process, establish what types of bus services and what level of services are required to make community members willing to switch from driving the car to riding the bus. The community must be made aware of the implications of their desire to have a good bus service without using it (based on the analysis under Action 5.29).	QT	BSO RSC	Short-term	Ongoing
A5.28	Through a participatory community consultation process, obtain commitments from the community that each household would use an improved bus service for at least 75% of the intra-suburb trips currently being made by car (where bus services are available).	QT	BSO RSC	Short-term	Ongoing
A5.29	In collaboration with Translink, work out a cost proposal for providing improved local or feeder bus services. The participatory community consultation process, outlined in Action 5.27, will determine the improvements. The proposal should include a corresponding fare required for: Full cost recovery (zero subsidy); 50% cost recovery; and Nominal cost recovery (full subsidy). Establish at what level of patronage these services would be cost effective and put less demand on the public purse.	QT	BSO RSC	Short-term	2003

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
Strategy 5.1.5: Take maximum advantage of the opportunity to use the existing railway.					
A5.30	Through land use planning interventions, promote medium to high-density residential development, employment and community facilities in areas accessible to existing train stations. This should be done in accordance with Queensland Transport's State Interest Planning Policy (SIPP) for rail noise and consistent with Queensland Transport's Rail Network Strategy.	RSC	QT	Short-term	Ongoing
A5.31	With support from Queensland Transport, propose Queensland Rail initiate an in-depth study on requirements for operational improvements in the current line in order to increase frequency, zone stop and express operations, which are all necessary to reduce the overall journey time and to improve inter-modal integration through timetables.	QT	QR RSC	Short-term	2004
A5.32	Advocate to Queensland Rail the ongoing importance of increasing perceived public safety in train rides. Pursue installing surveillance cameras in trains, at stations and parking facilities, and other measures for improving safety.	QR	RSC	Short-term	Ongoing
A5.33	Investigate the adequacy – through qualitative and quantitative analysis – of Park and Ride facilities at train stations in the Shire. Advocate for the monitoring and progressive expanding of these facilities, taking into account the likely shift in access mode share to walking, cycling and feeder buses following the improvement or upgrading of the walkways and cycle ways infrastructures and feeder services around rail stations.	QR	RSC	Short-term	Ongoing
A5.34	In collaboration with Queensland Rail, investigate options for using rail or Government land for transit-oriented development.	RSC	QT QR	Medium-term	2006
A5.35	a) Investigate the feasibility and desirability of protecting a spur line from Murrarie to Capalaba via Chandler or b) "Train Link" to Murarrie using buses. This would allow an option for bus-rail co-ordination that caters for travel to Brisbane in case a busway to Capalaba via Carindale along Old Cleveland Road is not feasible.	QT QT	QR RSC QR RSC	Medium-term Short-term	2006 2004

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A5.36	Investigate the potential of an enhanced linkage to southern parts of the Shire and the feasibility of having a light rail system within the Shire as a long-term extension to the bus way program.	QT	RSC	Medium-term	2011
A5.37	Plan and provide further storage spaces for bicycles, wheelchairs and strollers on trains and stations to offer equity of access to all users.	QR	RSC	Short-term	Ongoing
A5.38	Incorporate the current Transitional Planning Scheme Policy – Impact of Transportation System on Urban Amenity – into the new planning scheme.	RSC	DLGP	Short-term	2003
Strategy 5.1.6:	**Ensure that the ferry services within the Shire are improved to provide an efficient, safe, reliable, accessible and cost effective form of transport for residents and visitors to the Shire.**				
A5.39	Identify any problems (eg licensing and regulation) associated with the improvement of water-based transport in the Shire and address them through RTIG.	QT	FSO QSC	Short-term	Ongoing
A5.40	Identify and initiate a promotion and awareness program (including reviewing the location and presentation of ferry information) of the ferry system to encourage greater use of this form of transport.	QT	FSO RSC	Short-term	Ongoing
A5.41	Develop, as a component of an overall public transport network plan, proposals to improve or upgrade existing facilities and identify the needs of new facilities.	QT	FSO RSC	Short-term	Ongoing
A5.42	Review the Toondah Harbour project with a view to upgrading the facility.	RSC	QT	Short-term	2003
A5.43	Install 'bund walls' in the vicinity of ferry terminals to allow safe movement of passengers to and from the ferries, and also to prevent erosion.	QT	FSO	Short-term	Ongoing
A5.44	Continue to monitor the impact of water-based transport on marine and foreshore environments. These impacts include turtle strikes by ferries, turbidity and channel dredging.	RSC	QT EPA	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A5.45	Carry out – or collect, if available – a passenger and freight movement survey and evaluate the adequacy of the currently available service. Issues covered may include protecting particular service routes and establishing new service routes).	QT	FSO RSC	Short-term	2004
A5.46	Identify and assess alternative sites for additional facilities – such as passenger jetties at Russell and Macleay Islands – including facilities for recreational boating.	QT	FSO RSC	Short-term	2005
A5.47	Identify and assess alternative sites for additional facilities suited to recreational boating.	RSC	-	Short-term	2004
A5.48	Develop and, over time, refine walking and cycling networks and public transport networks for the islands. As a first step, investigate sealing primary roads and carpooling or demand-responsive public transport for commuters.	RSC	QT	Short-term	Ongoing
A5.49	Continue to liaise with Queensland Transport and ferry and barge operators to improve the management of island ferry and barge services. This includes frequency, hours of operation and fares.	RSC	QT FSO	Short-term	Ongoing
A5.50	Investigate mechanisms to improve security of tenure to barge and ferry operators.	QT	FSO RSC	Short-term	Ongoing
A5.51	Endorse and implement strategies and actions from the SMBI – ILTP.	QT	FSO	Short-term	Ongoing
A5.52	Evaluate if, and ensure that, Council-owned water-based transport infrastructure in the Shire is accessible to all users, including people in wheelchairs.	QT	FSO	Short-term	Ongoing
A5.53	Undertake a review of all island and mainland ferry modes to ensure these facilities can accommodate increased usage. This includes the number of ferry terminals or barge landings required and the types of vessels, such as high capacity or high frequency.	QT	FSO	Short-term	Ongoing
A5.54	Review parking demand and supply on island and mainland ferry terminals and, as a first step, investigate how demand can be minimised by improving coordination between ferry and bus services.	RSC	FSO QT	Short-term	Ongoing
A5.55	Investigate opportunities for water-based transport for mainland residents.	QT	FSO RSC	Medium-term	2006

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A5.56	Plan new bicycle, motorcycle and car parking facilities at ferry terminals and suggest and implement security measures.	QT	FSO RSC	Short-term	Ongoing
A5.57	Investigate ways to improve and integrate coordination of water-based and land-based transport systems in the Shire.	QT	FSO	Short-term	Ongoing
Strategy 5.1.7: Ensure taxi services continue to be reliable, efficient, accessible, and improved within the Shire.					
A5.58	Introduce innovations to create a flexible taxi service, such as demand-responsive fare-share hiring – which could be subsidised in lower density areas – using maxi-taxis.	QT	TI	Short-term	Ongoing
A5.59	Provide supporting infrastructure for taxi ranks at shopping centres.	RSC	TI	Short-term	Ongoing
Strategy 5.1.8: Ensure the function of Interchanges encourages efficient and reliable co-ordination for passengers.					
A5.60	Develop interchanges with walking, cycling and wheelchair access, and with bicycle lockers.	QT	RSC QR	Short-term	Ongoing
A5.61	Enhance safety and security at interchanges with better lighting levels, video surveillance, duress buttons and commercial outlets.	QT	QR	Short-term	Ongoing
A5.62	Include real-time passenger information at interchanges.	QT	BSO QR	Medium-term	Ongoing
A5.63	Provide direction signs (consistent with Manual of Uniform Traffic Control Devices) at appropriate points on the road network to indicate the location of interchanges.	RSC	DMR	Short-term	2003
A5.64	Identify the needs and develop a plan for gradually expanding Park and Ride and Bike and Ride facilities at all interchanges – including ferry terminals, railway stations and shopping centres – with wheelchair accessibility as a priority.	QT	QR BSO FSO	Short-term	Ongoing
A5.65	Enhance the provision of parking facilities and drop-off areas for commuters at all stations within the Shire.	QR	BSO	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A5.66	Work with Translink to plan and provide an integrated public transport system. This includes developing inter-modal transfer facilities at existing train and ferry stations, and integrating bikeways, walkways and bus routes from respective catchments.	QT	QR BSO FSO TI RSC	Short-term	Ongoing
A5.67	Investigate the option of using the existing Capalaba Bus Interchange site for a Park and Ride facility to support the functioning of the interchange.	QT	BSO RSC	Short-term	2003
Strategy 6.2.1:	**Take measures to improve existing pedestrian facilities and develop and maintain new ones throughout the Shire so that more people walk to their destinations.**				
A6.1	Prepare and update the Shire's inventory of pathways – including at the interface with other bordering Councils – and include these in a detailed walking and cycling network plan.	RSC	DMR QT	Short-term	Ongoing
A6.2	Develop and implement a mechanism to ensure all applications for development proposals meet the requirements of the Disability Discrimination Act, Australian Standards for Disabled Access and relevant Council policies.	RSC	-	Short-term	Ongoing
A6.3	Through the land use Planning Scheme, ensure the urban form supports walking as a mode of travel and that all new developments and subdivisions provide pathways in accordance with the walking and cycling network plan and the IPA Infrastructure Charges Plan. Walking is suited to trips under 2 km and ideally 90% of potential passengers should live within 400m of their nearest bus stop for peak period services or within 800m of rail services.	RSC	QT	Short-term	Ongoing
A6.4	Develop a plan to progressively improve and provide new walking facilities in the Shire by adopting State and National standards and guidelines. These include Crime Prevention through Environmental Design principles and Austroads' Guide to Traffic Engineering Practice, Part 13 for Pedestrians). Include a requirement within the Redlands Planning Scheme that new developments must facilitate an interconnected network of pathways, open spaces and public spaces. Existing developments must at least not impede this network.	RSC	QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
	The network will meet the requirements of pedestrian connectivity and outdoor recreational and social activities while contributing to the identity and environmental health of the community.				
A6.5	Examine constraints that hinder the promotion of walking as a viable mode of travel, and suggest or implement measures to remove those constraints.	RSC	QT	Short-term	Ongoing
A6.6	Evaluate the road network in terms of the adequacy of walking facilities, such as signs, signals, refuge islands and other traffic control devices, to ensure that urban roads allow for safe walking.	RSC	DMR	Short-term	Ongoing
A6.7	Formulate and devise an in-house mechanism within Council to gradually implement a local area traffic management plan favouring walking. Examples include developing interior streets into walking precincts or malls, and completely restricting car movements in these streets. The mechanism should include a requirement that the impact on the surrounding road network system be fully considered.	RSC	QT	Short-term	2005
A6.8	Through a local walkways and bikeways plan, integrate walking facilities with cycling facilities to assist in developing an integrated walking and cycling network throughout the Shire.	RSC	QT	Short-term	Ongoing
A6.9	Continue to fund the development of walkways and trails (on-street, as well as off-street) throughout the Shire and allow for EPA search of the cultural heritage sensitivities of area for any off-street walkway or trail.	RSC	DMR	Short-term	Ongoing
A6.10	Develop and launch a Walk for Health program and support the National Heart Foundation's Just Walk It program as means of raising awareness of the benefits of walking. This will help to demonstrate how short trips of up to 30 minutes (or less than 2km) duration to work or to school can be fitted into a person's daily exercise to keep healthy.	RSC	QT	Short-term	Ongoing
A6.11	Work with the State Government to address additional funding requirements for walkway construction in the Shire, as this helps to maintain the IRTP's objectives of walking and cycling modal share in the Shire.	RSC	DMR QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
Strategy 6.2.2: Establish cycling as an attractive, practical and safe form of transport.					
A6.12	Adopt the strategic walking and cycling network plan and progressively implement the recommendations of the Redlands Walking and Cycling Strategy, once it is completed and adopted by Council. Adoption should include publishing a detailed walking and cycling map that informs the public of walking and cycling facilities and services.	RSC	DMR QT	Short-term	2003
A6.13	Council should appoint a cycling and pedestrian coordinator to manage and implement the activities of the Walking and Cycling Strategy.	RSC	QT DMR	Short-term	Ongoing
A6.14	Continue to support the activities of RedBAC and RedBUG and undertake cycling education and information programs, including those aimed at drivers. Strengthen Council's in-house capabilities to undertake activities such as cycling promotion projects and awareness campaigns.	RSC	QT	Short-term	Ongoing
A6.15	Acquire information on bicycling trips and bicycling behaviour as independent (all-the-way) modes and as access mode to public transport by appropriate investigations / meetings with users.	RSC	QT	Short-term	Ongoing
A6.16	Prepare and update the Shire's inventory of bikeways – both on-road and off-road – and at the interface with other bordering Councils. Include these in a detailed walking and cycling network plan.	RSC	QT	Short-term	Ongoing
A6.17	Engage in participatory community consultation to identify opportunities for commuter and recreational use and establish cycling desire lines in each suburb. This consultation will form a basis for progressively improving the walking and cycling network plan.	RSC	QT	Short-term	Ongoing
A6.18	Prepare a detailed local cycling and trail plan for all major suburbs of the Shire.	RSC	QT	Short-term	Ongoing
A6.19	Develop and launch bike riding benefit and awareness programs in collaboration with RedBUG and RedBAC.	RSC	QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A6.20	Develop and adopt codes to ensure all new development plans and proposals require secure bicycle storage facilities at major destinations – such as employment nodes, schools, shopping centres, social or recreational centres, and railway and bus stations. This should be done in accordance with Queensland Transport's draft State Interest Planning Policy (SIPP) for cycling.	RSC	QT	Short-term	Ongoing
A6.21	Propose and implement a bikeway safety audit of all the Shire's major bikeways – both on-street and off-street – and suggest corrective measures including lighting and uniform signage.	RSC	QT	Short term	Ongoing
A6.22	Investigate and if feasible, launch a demonstration conversion program to convert a roundabout in the Shire to a model walking and cycling friendly roundabout consistent with Australian Standards. Gradually extend the program to cover other roundabouts.	RSC	DMR	Short term	2003
A6.23	Adopt cycling design standards within Council. These national and State standards include Crime Prevention through Environmental Design principles, Austroads' Guide to Traffic Engineering Practices, Part 14 – Bicycles, and the Queensland Manual of Uniform Traffic Control Services, Part 9 – Bicycle Facilities. Adoption will ensure cycling is recognised as a viable mode of transport for local trips and will improve to access railway stations, bus interchanges and ferry terminals by: ▪ Avoiding conflict between pedestrians and cyclists on shared pathways;	RSC	DMR QT	Short-term	Ongoing
	▪ Integrating bikeways into open spaces; ▪ Requiring the provision of secure facilities for bicycle parking, showering facilities, change rooms in all school and major institutions, water fountains along bikeways; ▪ Encouraging Bike on Bus and Bike on Train provisions; and • Developing shady trees along all bikeways and walkways.				
A6.24	Develop promotional reward programs for bike users, such as children who cycle to schools, and employees who cycle to work.	QT	RSC	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A6.25	Develop an action plan to construct newly identified bikeways, and improve and maintain existing bikeways in all suburbs of the Shire.	RSC	DMR	Short-term	Ongoing
A6.26	Develop a cost proposal to develop bikeways and work with State agencies such as Queensland Transport to address additional funding requirements for bikeway construction within the Shire. This will help maintain the IRTP's objectives of walking and cycling modal share in the Shire.	RSC	QT	Short-term	Ongoing
A6.27	Continue to fund the development of on-street and off-street bikeways throughout the Shire. Undertake an Environmental Protection Agency search of the cultural heritage sensitivities of different areas for any off-street walkways or trail, to determine if a cultural heritage survey is required.	RSC	DMR	Short-term	Ongoing
A6.28	Develop and launch a Bike for Health program as a means to raise awareness on the benefits of cycling. This will demonstrate how short trips of up to 30 minutes to work or to school can be fitted into a person's daily exercise needs for better health.	RSC	QT DMR	Short-term	Ongoing
Strategy 7.1: Examine pricing mechanisms to reduce the attractiveness of the private car as the dominant force of transport.					
A7.1	Develop and implement parking plans for the major centres of Capalaba, Victoria Point and Cleveland.	RSC	QT	Short-term	2004
A7.2	Change parking pricing to discourage all-day commuter parking and to support short to medium-term business and shopping parking.	RSC	QT	Medium-term	2006
A7.3	Develop Council's funding policy in the transport sector. For example, identify whether RSC should fund only the development, maintenance and operation of roads that are used primarily by private modes of transport, or whether it should fund public transport as well. A cost benefit analysis approach could be used to fund programs.	RSC	QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A7.4	Support and advocate that the level of facilities development funding for general motor traffic, public transport and non-motorised transport – such as walking and cycling – at State and local levels should be consistent with the desired importance of these modes.	RSC	QT	Short-term	Ongoing
A7.5	Advocate to the State and Federal governments that they review the existing fuel subsidy and redirect the funds generated by relaxing subsidies to developing walking, cycling and public transport.	RSC	QT	Short-term	Ongoing
A7.6	Manage parking supply in major centres and investigate the feasibility of a car park charging policy in all major on-street and off-street places, based on a developed funding policy.	RSC	QT	Short-term	Ongoing
A7.7	Investigate, pursue and implement other revenue-generating mechanisms based on the actual cost of travel by private vehicles.	RSC	-	Short-term	Ongoing
A7.8	Explore long-term, hard TDM measures with the State Government. These may include: • Introducing an electronic area or corridor licensing system for separately pricing peak and off-peak period travel; and • The concept of charging motor vehicle registration or renewal fees based on the amount of vehicle travel rather than a per vehicle basis.	QT	RSC	Medium-term	2011
Strategy 7.2: Shift demand from the private vehicle to other modes of transport.					
A7.9	Prepare and launch public awareness and education programs to raise awareness of transport issues. The programs should be started in a suburb or a community and gradually extended over the entire Shire.	QT	RSC	Short-term	Ongoing
A7.10	Carry out a stated preference survey and develop a mode choice model that would allow the greatest understanding of the travel behaviour of Shire residents.	RSC	QT	Short-term	Ongoing
A7.11	Develop TDM measures that best respond to the community needs and behaviour. Determine the percentage of people in the community who are using one or other forms of travel modes such as:	QT	RSC	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
	▪ Walking; ▪ Cycling; ▪ Car driving; ▪ Car-pooling; ▪ Ride-sharing (other than car-pooling); ▪ Walking and public transport (Walk 'n Ride); ▪ Cycling and public transport (Bike 'n Ride); and ▪ Driving and public transport (Park 'n Ride). Using a participatory community consultation process, find out the conditions under which people are prepared to change from car driving to any other alternative forms of transport. Also, undertake a comparative analysis of trials undertaken so far in South-East Queensland.				
A7.12	With initiatives from Council, develop and implement community ride-sharing matching services for commuters' trips out of the Shire. This could include trialling a ride-share matching service in a suburb on the mainland, using one of the islands or developing a Workplace Travel Plan for RSC staff.	RSC	QT	Short-term	2004
A7.13	Advocate to the State Government and work with the business community to widely use e-shopping features within major departmental stores to limit shopping trips.	RSC	QT	Medium-term	Ongoing
A7.14	Work with Council's major governmental and non-governmental clients to promote and use features such as video-conferencing, video-meeting and video-workshopping to reduce the need of staff to have a face-to-face presence.	RSC	QT	Medium-term	Ongoing
A7.15	Produce and distribute educational brochures on ways to reduce car trips and the benefits of using other alternative forms of transport.	QT	-	Short-term	Ongoing
A7.16	Publish and distribute travel option bulletins by focussing on how people can go from the Shire to various major destinations within and beyond the Shire, using alternative forms of transport.	QT	-	Short-term	Ongoing
A7.17	Develop and implement staging of working hours and support moves to vary trading hours so that these do not clash with school and commuter travel hours.	QT	-	Medium-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A7.18	Investigate, develop and implement a work place travel plan (includes ride-sharing and car-pooling) within RSC.	RSC	QT	Short-term	2004
A7.19	Conduct an annual car travel re-education competition within RSC, based on the travel inventory data and in order to set an example in the Shire.	QT	RSC	Short-term	Ongoing
A7.20	Advocate with the State Government to promote telecommuting (working from home). Develop Council policy and guidelines for teleworking and reflect support for the initiative in the Redlands Planning Scheme.	RSC	QT	Medium-term	2006
A7.21	Facilitate the formation of community transport forums to regularly organise and interact with people in the community regarding various contemporary travel and transport issues affecting the community. This will encourage community members to change their travel habits.	RSC	QT	Short-term	Ongoing
A7.22	Encourage community ride-sharing programs. These programs can begin with schools, preschools and day care facilities, to encourage parents to drop off neighbouring children. The programs can then extend to local work trips and to longer travel for regular work and higher education trips, including dropping off and picking up family members and friends from public transport stops.	RSC	QT	Short-term	2004
A7.23	Publish a public transport information brochure – including bus and rail travel information, and the TransInfo line and web address – and post to each household.	RSC	QT	Short-term	Ongoing
A7.24	Request the State Government include in its school curriculum materials that promote the importance of reducing car travel. Until this material is introduced in schools, Council can request Parents' and Citizens' Associations launch public education programs in all schools of the Shire.	RSC	QT	Short-term	Ongoing
A7.25	Review and investigate the possibility of integrating travel reduction programs as developed by Queensland Transport. These include behavioural change based on individualised marketing to increase public awareness of transport options and the financial benefits of reducing car trips. Selected elements of the Shire's community can trial the programs.	RSC	QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A7.26	Review and integrate Queensland Transport's community education programs to promote local benefits – such as personal savings and environmental benefits – of reducing and combining car trips to avoid unnecessary travel.	RSC	QT	Short-term	Ongoing
A7.27	As part of raising community awareness and educating the community to gain support for restraining car usage, prepare discussion papers on contemporary transport issues with facts and figures in plain language. Distribute the papers to community leaders and facilitators – such as peak lobby and stakeholder organisations – to disseminate these issues in the community.	RSC	QT	Short-term	Ongoing
A7.28	Develop and maintain a public transport web site to educate the community and raise awareness of the availability, importance and choice of alternative modes of travel to cars. Provide links to Council's intranet and internet sites, Queensland Transport's web site, and the sites of the world's leading public transport systems to showcase the latest information and materials on all aspects of public transport.	RSC	QT	Short-term	Ongoing
Strategy 8.2.1: Achieve and maintain an effective road network that recognises roads as an essential component of the transport system and ensures that the function of roads is reflected in their design and location and is related to the land uses they service.					
A8.1	Following Environmental Impact Studies of future trunk collectors and transport/ green space/ trail corridor areas to define alignment, arrange for the strategic road network hierarchy to be endorsed by RSC and integrate the hierarchy into the new Planning Scheme.	RSC	DRM QT	Short-term	Ongoing
A8.2	Ensure that a functional road hierarchy is maintained so that an appropriate length or type of trips is made on each element of the hierarchy. Regional and higher order traffic movements should be made predominantly on arterial and sub-arterial roads and local access movements should be on local streets.	RSC	DMR	Short-term	Ongoing
A8.3	Develop, establish and/or work towards maintaining consistency in providing a road intersection and land access control strategy based on an adopted, functional, strategic road hierarchy structure.	RSC	DMR	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A8.4	Continue to fund the upgrading of existing roads and associated infrastructure to maximise their use within the Shire.	RSC	DMR	Short-term	Ongoing
A8.5	Using ICPs through the Shire Planning Scheme, in accordance with IPA and development assessment procedures: ▪ Require that local arterial road systems be designed and provided as part of urban development; ▪ Protect the role and function of regional roads to meet the needs of longer distance traffic; ▪ Ensure the road networks in new communities have a high degree of connectivity and fewer cul-de-sacs to encourage walking and cycling and to support effective public transport; ▪ Protect existing and future corridors as transport, green space and trail corridors; ▪ Protect and manage cultural heritage values in the Shire; and ▪ Require the road hierarchy within new developments supports the external road hierarchy.	RSC	DLGP QT DMR	Short-term	Ongoing
A8.6	By applying existing or new codes (as required), ensure local road networks make an appropriate delineation between roads for movement of through-traffic and streets as shared spaces for people and slow moving vehicles. This will avoid or reduce conflict between residential amenity and through traffic.	RSC	DMR	Short-term	Ongoing
A8.7	By applying existing or new codes, discourage tributary-style road networks, which mean public transport services have to follow circuitous routes to be able to service passenger demands.	RSC	QT BSO	Short-term	Ongoing
A8.8	Support transportation system management activities such as metering, signalisation improvements, camera surveillance of congestion and incident queues, and bus priority treatments in order to achieve maximum efficiency within the existing road network.	DMR	RSC	Short-term	Ongoing
A8.9	Support the continued development and maintenance of State-controlled roads in the Shire as part of the arterial road system in the road hierarchy.	DMR	RSC	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A8.10	Advocate with State Government agencies to focus the road improvement and development budget for roads in the Shire on the basis of the number of people travelling along the roads, and not on the number of vehicles using the roads.	RSC	QT DMR	Short-term	Ongoing
A8.11	Develop a continuous capital works program for road construction and maintenance. Programs due for completion within five years can be regarded as commitments, and timelines beyond five years as indications. This program can be used with developer contributions for new developments and to address heritage concerns, as it should trigger an Environmental Protection Agency search of the cultural heritage sensitivities of road construction and maintenance.	RSC	DMR	Short-term	2002
A8.12	Minimise the risks to utility services – such as electricity, water and sewerage – by coordinating with utility providers. Locating the services within the road reserve will assist in future planning for road upgrades.	RSC	DMR	Short-term	Ongoing
A8.13	Develop an understanding and knowledge of Council's responsibilities for roads as detailed in the document, Agreement between Local Government Association of Queensland Inc and Department of Main Roads for Cost Sharing. This document is based on responsibilities within State-controlled roads. Work with Department of Main Roads and develop an understanding of the impact of the proposed Local Roads of Regional Significance Initiatives on Council's road program.	RSC	DMR	Short-term	Ongoing
A8.14	Monitor and advocate the need to incorporate public transport, walking and cycling-friendly measures on State-controlled roads as part of road improvements, including road junctions along Finucane Road and other Shire roads that are under State control.	DMR	RSC QT	Short-term	Ongoing
A8.15	Standards for walking and cycling-friendly measures – such as those outlined in the Department of Main Roads' Road Planning and Design Manual – shall be gradually implemented on roads in the Shire under both State and RSC control.	RSC	DMR	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A8.16	There are more than 40 roundabouts in the Shire. Conventional roundabouts are hostile to walking, cycling and wheelchair traffic. Choose a roundabout in the Shire and improve it to demonstrate how roundabouts can be converted to be walking and cycling-friendly. Prepare cost proposals and plans to gradually convert all existing major roundabouts to be walking and cycling-friendly in accordance with Austroads Standards.	DMR	RSC	Short-term	2003
A8.17	Delineate all MUTCD-compliant bicycle lanes with signs and road painting, together with road maintenance and traffic management activities. (This is in addition to a separate walking and cycling development program.) Develop mechanisms to include these activities in ongoing road maintenance and traffic management programs. This will ensure that all modes of transport are treated and managed in an integrated manner.	RSC	DMR	Short-term	Ongoing
Strategy 8.2.2: Improve safety on all roads throughout the Shire.					
A8.18	Carry out a safety audit of roads in the Shire, considering the safety of pedestrians, cyclists and wheelchair users, as well as car drivers, on roads in the Shire.	RSC	DMR	Short-term	2003
A8.19	Develop and implement a Shire speed management plan in Council-controlled roads, consistent with Queensland Transport's Guide. The focus of the speed management plan in residential streets should be on changing driving behaviour and not on policing or enforcing. On arterial roads, the focus should be on frontage development and managing and controlling parking.	RSC	DMR QT	Short-term	2004
A8.20	Monitor drivers' speeds and lobby police to enforce speed limits.	RSC	QT	Short-term	Ongoing
A8.21	Develop campaigns with the community to address local speeding, using available brochures and material from Queensland Transport and the Department of Main Roads.	RSC	-	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
Strategy 8.2.3:	**Develop a car parking policy / strategy that ensures adequate provision for parking, loading and access facilities to sustain the economic viability and vitality of commercial areas.**				
A8.22	Launch road safety education and awareness programs in schools.	QT	RSC	Short-term	Ongoing
A8.23	By developing the Redlands Planning Scheme: ▪ Provide a balance in employment areas that are well served by public transport, between providing sufficient parking to support commercial activities and excessive amounts of free parking which discourages public transport or civic improvements such as streetscape walks; and • Consider limits on parking provision for commercial developments and other on or off-street parking provisions to discourage reliance on the car for work and other journeys where there are effective alternatives.	RSC	DMR DLGP	Short-term	Ongoing
A8.24	Develop and gradually adopt a car parking and access code after establishing feasibility criteria to ensure consistency with other codes. The code should ensure that: ▪ Sufficient and accessible on and off-street parking and loading facilities are designed to meet mobility and economic needs while limiting supply. This will the encourage the use of alternative transportation modes; ▪ All business premises have suitable areas for loading vehicles on site; ▪ Convenient parking is available for vehicles used by people with disabilities; ▪ Residential areas will have sufficient provision for off-street parking of cars; ▪ Developers provide less parking in areas well served by public transport, in return for contribution to public transport improvements; ▪ There are sufficient coach parking and set-down areas in major tourist precincts and destinations; ▪ Design standards for car parking spaces and car parking areas are in	RSC	DMR DLGP QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
	accordance with Austroads Guidelines; and ▪ Appropriate controls are provided for the number, size and position of vehicle access points to each property and land use to minimise safety and traffic problems.				
A8.25	Consider making provision for a cash contribution in lieu of a parking provision for selected new developments.	RSC	QT	Short-term	Ongoing
A8.26	Investigate using transport or parking contribution funds from developments for local public transport or other travel modes facilities.	RSC	QT	Short-term	Ongoing
A8.27	Initiate discussion with the community and operators to find out ways, such as providing off-street parking, which helps to prevent the entry and parking of trucks or large commercial vehicles in residential streets.	RSC	DMR	Short-term	Ongoing
A8.28	Conduct parking demand survey in the Shire.	RSC	DMR QT	Short-term	2005
Strategy 9.2.1: Through the development of appropriate planning instruments propose future commercial and industrial areas in suitable locations that can accommodate heavy vehicular traffic and manage heavy vehicle movements to minimise their impact on the environment.					
A9.1	Identify major freight routes in the Shire and develop and implement the Freight Network Plan to ensure an efficient freight system that satisfies industry requirements and minimises freight movement impacts on safety and congestion by using a preferred network for heavy vehicle movements.	RSC	DMR QT	Short-term	Ongoing
A9.2	Consolidate freight to specific corridors through: ▪ Land use planning (including encouraging freight-generating development to locate within 500m of the major freight network); ▪ Road infrastructure investment; and Reduction of freight transport impacts (including provision of noise barriers and investigating vehicle types and hours of operation).	RSC	DMR QT	Short-term	Ongoing
A9.3	Maintain an ongoing maintenance program of freight routes to address the impact of heavily laden vehicles on pavement and roadside furniture conditions.	RSC	DMR	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A9.4	Ensure road freight movements are not unnecessarily delayed by excessive congestion by implementing initiatives to facilitate improved freight movement efficiency.	RSC	DMR	Short-term	Ongoing
A9.5	Remove barriers on routes that are acceptable for use by freight efficient vehicles (eg B-doubles). As an example, monitor movement of freight trucks from Toondah Harbour and develop a long-term strategy to use Shore Street.	RSC	DMR	Short-term	Ongoing
A9.6	Ensure the transport of freight complies with the Australian Code for the Transport of Dangerous Goods by Road and Rail by: ▪ Developing appropriate transport routes for the safe transport of dangerous goods throughout the Shire; ▪ Creating emergency plans for the rapid response and clean-up of accidents involving dangerous or hazardous goods; and ▪ Catering for the movement of dredging material from canals and harbours to land fill sites.	QT	RSC	Short-term	Ongoing
A9.7	Through the use of existing Local Law No 30 – Parking of Heavy Vehicles in Residential Streets, the development of new codes, and in consultation with the industry and community, propose the parking of large, heavy vehicles away from sensitive land uses and residential streets. Potential impact on State-controlled roads and on safety will also be considered. It is acknowledged that RSC has undertaken extensive industry and community consultation as part of preparing the Transitional Planning Scheme Policy.	RSC	DMR	Short-term	Ongoing
A9.8	Review the performance of high usage, heavy vehicle routes, such as extractive material haulage routes, and discuss with Department of Main Roads strategies to improve traffic flow. This may include implementing passing lanes on Mt Cotton Road.	DMR	RSC	Short-term	2003
Strategy 10.1.1: Provide equitable and safe transport opportunities to all members of the community ensuring convenient access to affordable transport.					
A10.1	Continue State-level programs within the Shire (eg RailEasy Access Program, Accessible Bus Program and the Taxi Subsidy Scheme) for disabled mobility access.	QT	QR RSC	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A10.2	Continue State-level initiatives for a safe and secure transport network within the Shire. These include the Safe Station Program, Guardian Trains, gated mazes connected to train signalling at key pedestrian level crossings and the Queensland Road Safety Strategy.	QT	QR RSC	Short-term	Ongoing
A10.3	Adopt the latest standards for new or when upgrading any old road and pathway infrastructure, for example the Department of Main Roads' Road Planning and Design Manual, to ensure accessibility by wheelchair users. Conduct regular road safety audits to ensure walking and cycling networks are safe for users.	RSC	DMR	Short-term	Ongoing
A10.4	Review facilities required for emergency services in the Shire and liaise with relevant agencies to allow for these. Examples include a helipad for hospitals and 'keep clear' zones on roads outside access points for emergency services.	QT	RSC	Short-term	Ongoing
A10.5	Increase the affordability of public transport by adopting fare structures that may – where and when appropriate – involve the payment of higher subsidy levels to public transport operators.	QT	QR BSO FSO RSC	Short-term	Ongoing
A10.6	Expedite initiatives to make public transport facilities, public transport vehicles and local infrastructure accessible to people with mobility difficulties.	QT	BSO FSO TI RSC	Short-term	Ongoing
A10.7	Ensure disabled parking facilities and numbers at major retail centres and public facilities (including educational facilities and hospitals) are in accordance with standards and are legally signed as per the standards outlined in Australian Standard AS1428 Parts 1 and 2 and AS4299. Encourage the enforcement of legal parking at these facilities.	RSC	-	Short-term	Ongoing
A10.8	Increase levels of speed limit enforcement throughout the Shire, and if police resources are inadequate to achieve the desired outcome, investigate other options.	RSC	QT	Short-term	Ongoing
A10.9	Through the development approval process, require that all development applications meet the provisions of DDA Transport Standards, Queensland Traffic Act and other relevant codes for catering for the mobility needs of people with a disability.	RSC	QT	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A10.10	Through subsidies and other means, ensure transport providers utilise vehicles – buses, ferries or trains – that meet DDA Transport Standards and are convenient for use by wheelchair users, people with prams, strollers or children, and people with shopping bags.	RSC	QT	Short-term	Ongoing
A10.11	Continue to support the STAR (Special Transport Access Redland) Service.	RSC	QT	Short-term	Ongoing
Strategy 11.2.1: Ensure transport systems have minimised environmental impacts associated with infrastructure and operations.					
A11.1	Develop air pollution forecasts along major road corridors and update these forecasts as more data becomes available.	RSC	QT	Short-term	Ongoing
A11.2	Investigate the introduction of covenants on the titles of new allotments to require residential buildings to be designed and built so as to be protected against noise from road and rail sources.	RSC	DMR	Short-term	Ongoing
A11.3	Develop Noise Management Plans and Amelioration Schedules in line with the current RSC Transitional Planning Scheme Policy – Impact of Transportation Systems on Urban Amenity along major roads and railway lines in the Shire (Also refer actions A4.8 and A9.5).	RSC	DMR	Short-term	Ongoing
A11.4	Protect and enhance air quality within the Shire by ILTP strategies and actions for the reduction in motor vehicle usage and the increase in non-motorised trips.	RSC	QT	Short-term	Ongoing
A11.5	Introduce buses that run with more environment friendly fuel types.	QT	BSO	Short-term	Ongoing
A11.6	Reduce emissions from motor vehicles by developing urban form that encourages the use of public transport, advocating policies for stricter exhaust emission standards and enforcement of such standards.	QT	RSC	Short-term	Ongoing
A11.7	Reduce the consumption of non-renewable energy resources, minimise the road construction through environmentally sensitive areas.	QT	RSC	Short-term	Ongoing
A11.8	Require compulsory best practice Environmental and Cultural Impact Assessment studies of transport sector projects.	RSC	DMR	Short-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A11.9	Develop a monitoring program to gauge the future environmental implications (e.g. impact of marine, water quality and foreshore environment) of water-based transport.	QPWS Marine Parks Office	RSC QT	Short-term	Ongoing
A11.10	Incorporate the need for koala movement and allocate appropriate funding for crossing facility (e.g. underpass) in any new transport corridors.	DMR RSC	QPWS QT	Short-term	Ongoing
A11.11	Implement RSC's Koala Protection Policy and Strategy (drafts at this stage) once completed and implement actions and measures to manage koala and vehicle interaction and consider the principles and policies of the State Coastal Management Plan.	DMR RSC	QPWS QT	Short-term	Ongoing
A11.12	Consider water-sensitive urban design to address stormwater treatment associated with transport infrastructure.	DMR RSC	EPA QT	Short-term	Ongoing
Strategy 12.2.1: Develop mechanisms to provide additional funding for public transport, walking and cycling infrastructure.					
A12.1	Advocate with State and federal governments for appropriate funding levels to support a sustainable transportation system. For example, promote the policy of user charging for private vehicle use.	QT	RSC	Medium-term	Ongoing
A12.2	Initiate a program to charge for all business parking lots, but reduce rental for business premises.	RSC	QT	Medium-term	Ongoing
A12.3	Propose the State and federal governments review their fuel subsidy policy by removing the rebate for the South-East Queensland region – approximately eight cents a litre – and spending this on improved transport services and infrastructure for walking, cycling and public transport.	RSC	QT	Medium -term	Ongoing
A12.4	Charge for roadside advertising and advertisements for roadside businesses and on bus shelters.	RSC DMR	-	Medium-term	Ongoing
A12.5	Charge utility providers – Telstra, Energex and Solid Waste – for using road space in locating their services.	RSC DMR	-	Medium-term	Ongoing

Action No	Action Description	Lead Agency	Support Agency	Priority	Timing
A12.6	Utilise an Infrastructure Charges Plan under IPA to require developers contribute seed funding for public transport services to greenfield developments.	RSC	QT	Short-term	Ongoing
A12.7	Advocate funding support for community transport solutions for small or rural communities, such as seed funding for a ride-sharing project.	RSC	QT DLGP	Medium-term	Ongoing
A12.8	Employ a transportation planner within Council to act, among other duties, as Council's Public Transport Coordinator and to be responsible for transport tasks.	RSC	QT	Short-term	Ongoing
A12.9	Through the formation of the Redland Transport Implementation and Working groups (as outlined in Action 5.12) arrange for annual meetings to review and monitor progress on ILTP action implementations and outcomes.	RSC	QT QR DMR	Short-term	2002
A12.10	Design a monitoring and review program for transportation as a basis for guiding future actions and programs. The program will provide mechanisms through which the ILTP implementation can be monitored and updated, as required, on an ongoing basis.	RSC	QT	Short-term	2002
A12.11	Report annually to RSC on usage data: public transport (bus, rail and ferry) patronage, overall road network use, and lengths of walking and cycling facilities.	RSC	QT	Short-term	Ongoing
A12.12	Report annually to RSC on the implementation of performance measures needed to achieve ILTP targets.	RSC	QT	Short-term	Ongoing
A12.13	Conduct regular reviews of capital works programs relevant to achieving ILTP targets.	RSC	DMR	Short-term	Ongoing

Appendix D

Proposal for Institutional Framework for Implementation

Proposal for Institutional Framework for Implementation

(Approved 13/11/2002)

Background

A recommendation of the draft ILTP report is to establish a working group (Action A12.9) of key stakeholders, including state, local, private sector and community representatives. (This is further outlined in Section 12 of the report.)

The role of the group, as identified in the report, is to review and monitor progress on the implementation of the ILTP.

However, in a workshop with Councillors held on October 11, 2002, it was suggested Council should establish a two-tier institutional framework for implementing the Redlands ILTP:

- Redland Transport Implementation Group (RTIG)
- Redland Transport Working Group (RTWG)

It was suggested a proposal for this institutional framework – defining the purpose, role, reporting arrangements and composition of the groups – be developed and taken to Council for its consideration.

Purpose

This proposal outlines the role, reporting arrangement and composition of RTIG and RTWG.

The RTIG will be the higher-level steering body for implementing the Redlands ILTP. The RTIG is responsible for undertaking ILTP consultation and agreement with stakeholders.

The RTWG will be a lower-level working body, responsible for technical analysis and for providing information support to RTIG. RTWG is essentially a group of working officers from the Council and representatives from state transport agencies, such as Queensland Transport and the Department of Main Roads. It is expected that the group's input will assist RTIG in making informed policy level decisions for ILTP implementation in a coordinated and concerted manner across state agencies, adjoining councils, industry and the community.

RTIG and RTWG will be constituted in consultation with the stakeholders involved in developing and implementing the Redlands ILTP.

Role of the RTIG

The role of the RTIG is to:

- Review draft ILTP actions:
  - Identify visionary (longer-term or aspirational) and realistic (achievable in short to medium-term) actions from the list of actions proposed in the draft Redlands ILTP;
  - Identify actions that are (or can be) funded and that are unfunded (or cannot be funded) with the current level of federal, state and local funding and policy constraints. Advise the Council on strategies for unfunded actions;
  - Resolve ownership issues of identified actions (agree lead and support agencies);
  - Review suggested priority and timing of actions and agree to implementation;
- Finalise and forward or recommend the Redlands ILTP report for adoption by Council;

- Oversee implementation of the Redlands ILTP;
- Influence the strategic, corporate, business and operational plans as required of lead and supporting agencies to include actions identified in the Redlands ILTP.
- Influence the allowance of necessary funding for implementing actions;
- Review the appropriateness of the suggested performance indicators and define performance indicators, including benchmarking and setting targets;
- Monitor progress in implementing actions;
- Monitor outcomes against performance indicators;
- Review and update Redlands ILTP actions as required from time to time as major land use or transport initiatives are implemented elsewhere. For example, Transit Development at a State level, and the Brisbane Transport Plan at a local level. Reviewing and updating the plan is important to make it a dynamic, living document;
- Report to the Council – frequency to be confirmed – on key technical, policy, project and resource issues that need resolution, and recommend ways in which these should be resolved;
- Provide overall guidance and advice to Council to ensure effective coordination and integration when implementing ILTP actions.

Membership of the RTIG

The proposed membership of the RTIG is as follows:

State Government Representatives:

1. Queensland Transport – South East Queensland (SEQ) Integrated Transport Planning Division
2. Queensland Transport – Transit Development Division
3. Queensland Transport – Public Transport Division
4. Queensland Transport – Travel Demand Management
5. Department of Main Roads – Metropolitan District
6. Queensland Rail – Citytrain
7. Department of Local Government and Planning
8. Department of Public Works and Housing (ad hoc)
9. Department of Sports and Recreation (ad hoc)
10. Environmental Protection Agency

Transport Providers/Users within the Shire:

1. National Bus – to represent bus industry
2. Major Ferry Operators – to represent all ferry operators
3. Bicycle User Group – to represent bicycle users
4. Major Taxi Operator – to represent all taxi operators

Adjoining Local Governments:

1. Brisbane City Council
2. Logan City Council

Redland Shire Council:

1. Councillor 1 – Chair
2. Councillor 2
3. General Manager – Planning and Policy
4. Manager – Land Use Planning
5. Manager – Infrastructure Development
6. Transport Planning Officer – Land Use Planning
7. Principal Planning Engineer - Infrastructure Development

Role of the RTWG

The RTWG supports the RTIG. The role of the RTWG includes to:

- Undertake technical analysis to define, benchmark and set targets for key performance indicators (KPI);
- Carry out background studies and prepare technical papers and discussion papers as required to support Redlands ILTP actions;
- Oversee project management of TDM initiatives as decided by the Council;
- Coordinate Council's planning and delivery initiatives of sustainable transport infrastructure (for example, construction of multi-modal ways, walkways and bikeways) and services (demand responsive transport, community shuttles, ride-sharing and car-pooling);
- Design an initial program to monitor, review and define reporting frequency;
- Discuss and take corrective action on the usage data – such as public transport patronage, traffic growth, travel time and mode share – and other KPIs;
- Discuss outcomes of trials and progress on implementing High Priority Actions and other actions;
- Provide any other technical and management support required to RTIG; and
- Report on progress in implementing Redlands ILTP actions and outcomes.

Membership of RTWG

The proposed membership of the RTWG is as follows:

1 Manager, Land Use Planning Group, Redland Shire Council – chair;

2 Manager, Infrastructure Development, Redland Shire Council – member

3 Transport Planning Officer, Land Use Planning, Redland Shire Council – member;

4 Regional and Local Area Planning Officer – member;

5 Principal Planning Engineer, Infrastructure Development – member;

6 Pedestrian and Bikeways Coordinator - member

7 Any other officer with responsibility for transport or travel issues as appointed by the Council time to time – for example, Sustainable Transport Officer, TDM/TravelSmart Officer, Accessibility and Mobility Officer) – member;

8 Queensland Transport officer – member

(It is preferable this officer is nominated by the person from Transport Planning -SEQ, who is in the RTIG);

9 Officer from the Department of Main Roads – member

(It is preferable this officer be nominated by the person who is in the RTIG.)

Reporting

The RTIG reports to the Planning and Policy Committee as necessary on contentious issues. It will liaise with the Regional Industry Public Transport Working Group. The RTWG will report to the RTIG and/or its chair.

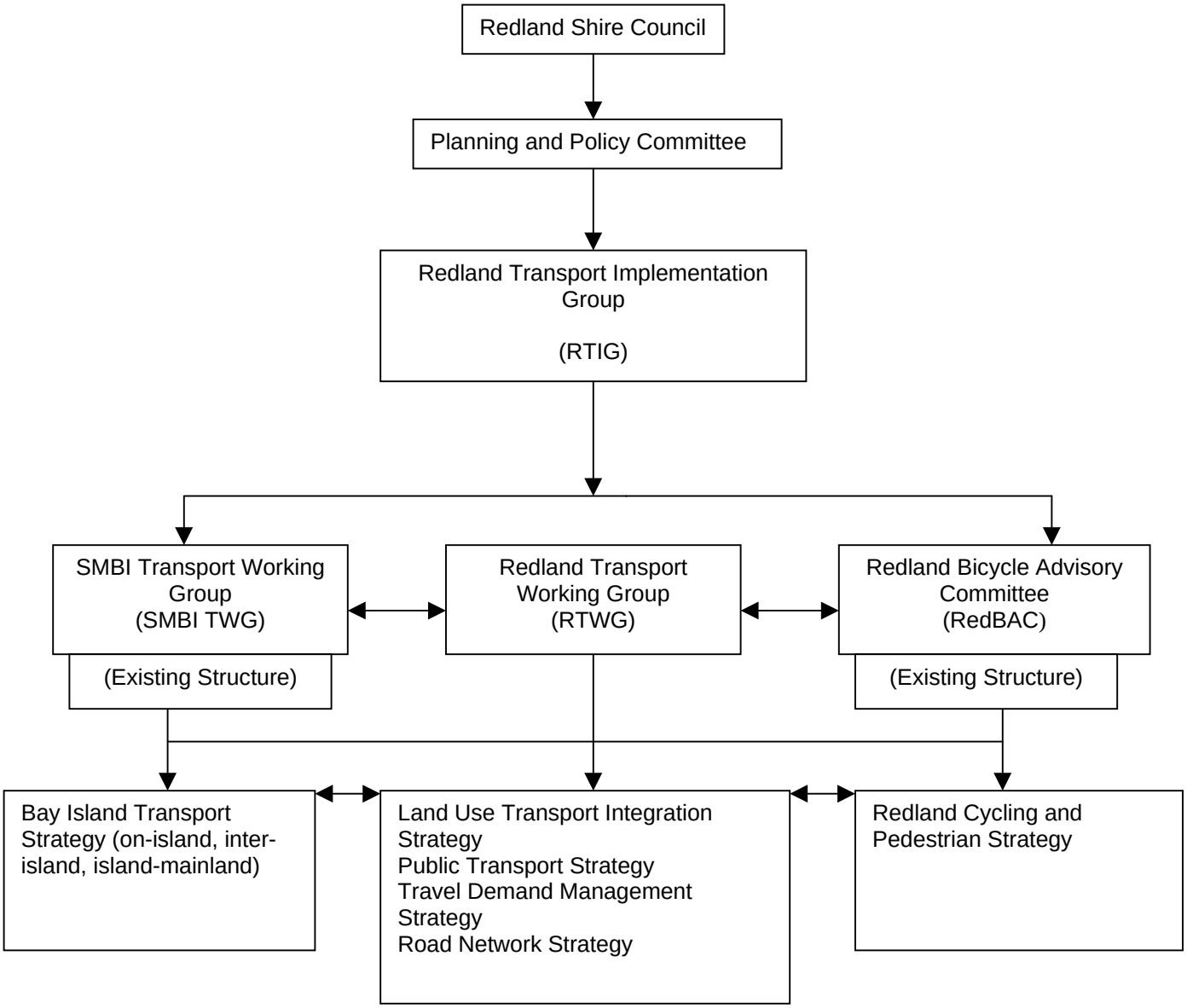
Meeting Frequency

It is proposed that the RTIG meet quarterly for the first 12 months and every six months from the second year. RTWG will meet monthly or as needed to support the meeting of RTIG.

Appendix E

Structure of the RILTP Implementation Process

Structure of the RILTP Implementation Process



Appendix F

Redland Transport Implementation Group Members

Redland Transport Implementation Group Members

Followings are the members of the Redland Transport Implementation Group, as at its second meeting of 5 June 2003.

Cr. Don Seccombe	-	Mayor, Redland Shire Council (Group Chairperson)
Cr Murray Elliott	-	Councillor, Division 7, Redland Shire Council
Barry Briggs	-	National Bus Company
Barry Moore	-	Queensland Rail
Bill Croft	-	Logan City Council
Blair Davis	-	Taxi Council of Queensland
Dennis Sinkinson	-	Redland Bicycle Users Group
Greg Fentiman	-	Stradbroke Ferries
Hans Westerman	-	Community Reference Group
Allan Parsons	-	Queensland Transport
Keith Ingerman	-	Redland Shire Council
Luke Franzman	-	TransLink
Mark Moro	-	Queensland Transport
Mark Piorkowski	-	Brisbane City Council
Michelle Teoh	-	Queensland Transport
Partha Parajuli	-	Redland Shire Council
Patrick Chin	-	Redland Shire Council
Patrick Dennehy	-	Department of Main Roads
Phil Hennessey	-	Redland Shire Council
Robyn Hesse	-	Environmental Protection Agency
Sue McCafferty	-	Department of Local Government & Planning
Wayne Dawson	-	Redland Shire Council