Southern Integrated Transport Plan 2010







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Foreword

The Southern Integrated Transport Plan is a collaborative initiative between the Tasmanian Government, Southern Tasmanian Councils Authority, and twelve member councils. It provides a coordinated and strategic framework to recognise and address transport issues within the Southern Region over the next twenty years.

The Plan focuses on the key challenges facing the Region in moving toward our vision of a safer and more sustainable transport system. These challenges include how to better integrate transport and land use planning; facilitate a greater, more integrated use of available transport modes including public transport, walking, cycling and cars, maximise the use of our existing infrastructure; and achieve a safer transport system. While these are long-term challenges, we need to start the process of implementing change now to ensure we are proactively putting in place the steps needed to achieve our longer term goals.

We recognise the Region's transport system is complex and dynamic, involving many different stakeholders. In this context, the Plan does not aim to address every transport issue facing the Region. Its focus is on providing a strategic foundation for developing cooperative transport responses as issues and needs emerge over the coming decades.

As strategic, collaborative-based frameworks, regional integrated transport plans have developed to be a key component of our strategic planning hierarchy. The approach enables us to better understand transport and planning issues at the regional and metropolitan level, and coordinate our efforts to achieve better outcomes. In this context, the Plan is a key component of the State and local government's overall transport planning hierarchy, linking to statewide initiatives such as the Tasmanian Infrastructure Strategy and Tasmanian Urban Passenger Transport Framework, and council strategies, including Kingborough and Hobart Council's sustainable transport strategies. It is essential the Plan integrates with a future Capital City Plan and the Southern Regional Land Use Strategy, both currently under development. Development of this integrated transport plan has considered the objectives and likely directions of both the plans above and it is recognised that continued monitoring of consistency with these – and the infrastructure and planning initiatives of other stakeholders – is required to ensure this Plan remains current and relevant.

The Tasmanian Government, STCA and member councils are committed to furthering the Plan, and have developed a five year Action Plan to identify, prioritise and take forward specific activities.

We encourage you to investigate the strategies identified within the Plan, which will contribute to improved longterm outcomes for the Region's community and industry.

Lava Didding

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Minister for Infrastructure

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Nick McKim Minister for Sustainable Transport and Alternative Energy

Ald. Rob Valentine Chair, STCA

Executive Summary

The Southern Integrated Transport Plan provides a collaborative-based, long-term framework to identify and respond to the transport challenges and opportunities facing the Southern Region. The Plan provides a context to pursue long-term improvements to our transport system to meet our desired outcomes, as well as identify and progress specific measures over the short to medium term.

A key focus of the Plan is the need for greater coordination between transport and land use planning if we are to maximise the outcomes of our investment in transport infrastructure and services. While improved coordination of infrastructure and land use planning is a complex and long-term challenge for any jurisdiction, it lies at the heart of improvements to our transport system.

We also need to take a system-wide, multi-modal approach, moving beyond the discrete planning of individual modes and parts of the network in isolation. We need to use our existing infrastructure and services more efficiently, through the use of technology and innovation, demand management and land use planning measures, rather than focusing too heavily on infrastructure solutions.

Both State and local government have invested significant resources in developing the Plan, focusing on an evidencebased approach that has involved extensive consultation with the community and key stakeholders.

Vision

We want a transport system that is safe, supports sustainable, liveable communities and promotes industry efficiency and productivity.

In this context, the vision is a regional transport system that:

- maximises the efficient use of current infrastructure, assets and services;
- is well maintained, resilient and managed in a sustainable manner for the long term;
- supports seamless inter-modal connections for passengers and freight;
- is capable of supporting future economic growth and meeting the needs of our communities, while supporting quality of life;
- · improves accessibility and safety for all users;
- provides an integrated and well connected transport system for rural and urban areas;
- improves environmental and health outcomes for our community;
- responds to climate change and an oil constrained future by lowering greenhouse gas emissions and reducing car dependency;
- is integrated with land use planning; and

• is planned, coordinated and funded through a cooperative partnership approach between different levels of government and the community.

Challenges and opportunities

Over the past decade, Tasmania – and the Region's – transport environment has undergone significant change.

The Region faces a growing freight task, and is now highly reliant on the three northern ports for exports and imports. Maintaining efficiency along the north-south freight corridor, and of major regional freight corridors such as the Brooker Highway, is critical. The sustainable maintenance of rural and regional road networks, which support both freight and passenger connectivity, will continue to be a major challenge for State and local government.

While significant investment has been made in the road and rail networks, reflected in major infrastructure development projects and proposals – Brighton and Bagdad bypasses, Brighton Hub, Bridgewater Bridge, and rail network upgrades – there have been recent calls for further investment in major regional networks to support future growth and redress a perceived funding imbalance within the region.

The future provision of industrial land, particularly within the metropolitan area, is highly constrained by suitable, available land. How this issue is addressed over the long term is critical, and includes how the Brighton Hub develops in relation to freight distribution and industry, and how it relates to other industrial areas, particularly the Region's major industrial centre in Glenorchy-Moonah.

Like many other jurisdictions, the Region's passenger task is car-based. This reflects the Region's highly dispersed settlement pattern, with many competing sub-regional and local urban centres, and dispersed residential suburbs. Overall population is comparatively low, and most households have diverse trip needs. In this context, a range of strategies to reduce car use is required, including the targeted provision of infrastructure and services to facilitate modal change; behavioural change strategies to encourage the use of other modes; and land use systems that support viable non-car alternatives for at least shorter trips. Addressing car parking as a key determinant of people's use of cars is also an important strategy.

Recently, a range of passenger transport frameworks have been released to guide future passenger transport planning – for example, the Tasmanian Urban Passenger Transport Framework, Tasmanian Walking and Cycling for Active Transport Strategy, Hobart City Council Sustainable Transport Strategy and Kingborough Integrated Transport Strategy. A number of proposals for the development of individual modes have also been developed – light rail, bus rapid transit, ferries, major cycleway expansion. A detailed feasibility study into the development of light rail through the northern suburbs will shortly commence. While the viability and applicability of some of these proposals is currently uncertain, it is clear that stronger integration of transport and land use planning is key to supporting a greater modal shift away from private cars. The challenges of reducing greenhouse emissions, ensuring resilience against future rises in transport costs and improving accessibility and liveability for all communities, requires real modal alternatives and land use patterns that make those alternatives viable.

In rural areas, connectivity to key regional centres and to metropolitan Hobart continues to be a major issue facing communities. While the provision of public transport to smaller rural centres is a challenge, it is important to acknowledge the significant impact limited passenger transport services have on the quality of life of the community within rural areas. This includes the ability to access higher education, employment, health services and social and recreational opportunities.

Some of the challenges above will take time to address. Creating the right circumstances for longer-term measures to be successful will require careful planning and consideration. However, it is important that we start to make those changes now; some measures to meet those challenges are well advanced, while other actions are relatively easy to implement.

The Plan identifies opportunities to improve our transport system, including adopting new approaches to managing travel demand, providing infrastructure and services to support modal choice, changes to vehicle technology and targeted investment to major corridors and assets. Better understanding passenger and freight travel demand, and using existing and future knowledge and technology to respond to this demand, is critical. Underpinning all is the need to significantly improve integration of land use and transport planning.

Structure of the Plan

The Plan identifies key challenges and priorities under six key policy areas – infrastructure, people, planning, freight, safety and environment. Reflecting the need for integration, many strategies and actions cut across more than one policy area.

A range of strategies inform the Plan, including:

- targeted infrastructure upgrades or better use of existing infrastructure using existing infrastructure more effectively to increase the capacity, efficiency and safety of the existing system and ensuring new infrastructure demonstrates and supports wider economic and social benefits;
- **demand management** encouraging more efficient use of the existing transport system by focusing on the movement of people over vehicles and reducing the number of single occupancy car trips using a mixture of infrastructure and non-infrastructure solutions;
- **technology** using technology such as intelligent transport systems (ITS) to improve the efficiency, safety and environmental performance of the transport system and modes through a mixture of policy and regulation responses;
- education and information helping people to better understand the implications of their travel behaviour and available transport choices, and managing people's expectations regarding infrastructure performance and responses required;
- **regulation** providing an innovative infrastructure substitute or support mechanism, including pricing strategies that facilitate changes in transport use by encouraging or discouraging particular choices and behaviours and that reflect the true cost of infrastructure provision; and
- engagement and partnerships engaging and developing partnerships across all spheres of government, industry and the community in order to develop innovative, bottom-up solutions.

A five-year action plan, updated annually, supports implementation of the Plan, and will be overseen by a joint State-local government steering committee.

The relationship of the Plan to other major state, regional and local initiatives is shown on the following page.

How does the Plan relate to other initiatives?

Tasmanian Infrastructure Strategy Tasmanian Road Safety Strategy Tasmanian Transport Policy (under development) Tasmanian Freight Policy (under development) Tasmanian Urban Passenger Transport Framework Core Passenger Services Review Tasmanian AusLink Corridor Strategy Tasmanian Walking and Cycling for Active Transport Strategy Tasmanian State Road Hierarchy

Regional/ Corridor

State

Regional integrated transport plans Regional land use strategies Southern Tasmania National Network Investment Programme Brooker Highway Transport Plan STCA passenger transport package Midland Highway Transport Plan Transit corridor plans (under development)

Local

COAG Capital City Plan Light rail feasibility study Metropolitan park and ride strategy Hobart City Council Sustainable Transport Strategy Kingborough Integrated Transport Strategy

Introduction

The Southern Integrated Transport Plan provides a strategic framework for planning and investing in Southern Tasmania's regional transport system over the next 20 years.

The focus is on high priority issues and strategies that will deliver the greatest benefits to the community and industry.

The Plan is a joint initiative of the Tasmanian Government, the Southern Tasmanian Councils Authority and 12 Southern Councils: Brighton, Central Highlands, Clarence, Derwent Valley, Glamorgan-Spring Bay, Glenorchy, Hobart, Huon Valley, Kingborough, Sorell, Southern Midlands and Tasman.

The Southern Integrated Transport Plan is part of an ongoing process to provide a strategic and integrated approach to transport planning across Tasmania's three major regions. The Tasmanian Government has previously worked with local government and regional authorities to develop the *Cradle Coast Integrated Transport Strategy* (2006) and the *Northern Tasmania Integrated Transport Plan* (2004).

The Plan is designed to be flexible; enabling us to respond quickly to changes in an evolving transport agenda. To ensure the Plan remains contemporary, it will be updated periodically to take into account new challenges and strategic objectives.

Links to planning frameworks and policies

The Southern Integrated Transport Plan recognises that other areas of government policy and planning influence transport and have a role to play in the delivery of transport outcomes. The Plan contributes to achieving goals set out in other key government policies, such as Tasmania Together, the Tasmanian Government's 20-year social, environmental and economic plan.

Key strategies to which the Plan links, include:

Tasmanian Infrastructure Strategy 2010

The Tasmanian Infrastructure Strategy coordinates our effort across the major economic sectors of transport, water, energy and digital. While the Strategy focuses on these sectors, many of the initiatives will have relevance across all infrastructure sectors. Importantly, the Strategy recognises the essential role land use planning plays in the location and provision of infrastructure. The Strategy guides future infrastructure priorities and decision-making for the planning, provision and use of infrastructure in Tasmania, and is key to infrastructure investment over the next ten years and beyond.

Tasmanian Framework for Action on Climate Change

The Tasmanian Framework for Action on Climate Change identifies the significant challenges climate change poses for the State, and identifies opportunities for Tasmania to show leadership in a low-carbon world. Transport is one of eight priority areas.

Tasmanian Urban Passenger Transport Framework 2010

The Tasmania Urban Passenger Transport Framework is a key initiative under the Tasmanian Infrastructure Strategy and Tasmanian Framework for Action on Climate Change. The Framework provides an overarching policy response to passenger transport issues and responses in our urban areas. The overall objective is to develop and support a safe and responsive passenger transport system that supports improved accessibility, liveability and health outcomes for our communities, and responds to the challenges of climate change..

The Framework recognises the need to significantly improve outcomes across a range of areas in order to deliver better modal choice to people, initiate real behavioural change, reduce environmental impacts, and facilitate greater integration of transport and land use planning.

Tasmanian State Road Hierarchy 2008

The classification of roads by function into a hierarchy assists DIER with ongoing transport system management by ensuring that the planned function and use of roads are clear across the State Road network. The Tasmanian State Road Hierarchy is based primarily on the need to provide connectivity at a State level for key corridors between cities, major towns, ports and rural catchments.

Under the Hierarchy, the State Road network is classified into 5 categories, with Category 1 and 2 covering the key routes linking population centres and carrying the highest volumes.

Southern Tasmania National Transport Network Investment Program 2007-15

The Southern Tasmania National Transport Network Investment Program is a comprehensive transport investment program for Southern Tasmania. The program covers a ten-year period and represents one of the biggest single improvements to land transport ever undertaken in Tasmania.

Major improvements to the Midland Highway's inadequate and outdated northern approaches to Hobart – Brighton and Bagdad Bypasses, and a new Bridgewater Bridge – and a new transport hub at Brighton are key components of the investment program.

Other relevant frameworks include:

- Tasmanian Road Safety Strategy 2007-2016
- Tasmanian Government submission to the National Infrastructure Audit 2008
- Tasmanian AusLink Corridor Strategy 2007
- Tasmanian Walking and Cycling for Active Transport Strategy 2010

The Southern Integrated Transport Plan must also link to plans and policies currently under development.

The Tasmanian Government and Southern Councils are currently developing a regional land use strategy and investment plan for the southern region. Both state and local government will work to ensure that the objectives and strategies in the regional transport and land use plans align. Future metropolitan, sub-regional and local level plans affecting transport planning should align with this plan and the regional land use strategy. The Tasmanian Government is also developing a Tasmanian Transport Policy and Tasmanian Freight Strategy.

The policies, plans and strategies developed by other infrastructure planners and providers, are also critical. To the greatest extent possible, we need to ensure these plans are consistent with the Southern Integrated Transport Plan. This will involve ongoing consultation with key infrastructure bodies, such as Metro Tasmania, TasRail and TasPorts, to ensure a collaborative and integrated approach to infrastructure planning.

Consultation

Development of the Southern Integrated Transport Plan reflects a lengthy process of information gathering and analysis, supported by consultation, including:

- Release of the *Draft Southern Integrated Transport Plan 2009* for a two month public consultation period. Issues and suggestions raised during the consultation period informed development of the final Plan.
- The Southern Transport Forum and the Regional Challenges Workshop held in 2008 enabled councils and key stakeholders to identify major transport and planning issues facing the region.
- Both the Southern Region Background Report 2007 and Southern Overview Report 2008 provide detailed information and analysis on the region's transport system. The reports assist all stakeholders to better understand the major challenges and opportunities facing the region.

Regional Characteristics and Trends

Transport planning responsibilities

From the user's perspective, the Region's transport system is a single, generally seamless network. In reality, responsibility for managing the system is undertaken by a complex matrix of service providers, asset owners, and regulators, spread across different levels of government, industry and the private sector. Reflecting this, investment in transport infrastructure and services comes from a range of funding sources.

State and local government have primary responsibility for planning and managing Tasmania's strategic transport system. However, it is important to recognise that many other stakeholders also influence our transport system outcomes.

The **State government** provides overall direction for the development and management of Tasmania's transport system through its strategic transport planning and policy frameworks, including the *Tasmanian Infrastructure Strategy* and *Tasmanian Urban Passenger Transport Framework*. Its primary responsibilities are:

- representation in national policy initiatives and reform agendas
- statewide, regional and corridor-level transport policy and strategic planning for all modes
- State roads— strategic planning, asset owner and manager, safety
- public passenger transport (including community transport) – policy, planning, part funding
- statewide climate change and environmental policies
- land use planning strategic policy direction; statutory oversight and decision-making at the state, regional, and local/site level

Local Government is primarily responsible for transport and land use planning at a local level. Its key responsibilities are:

- land use planning strategic and statutory planning;
- local roads owner and manager of assets, policy, planning and safety;
- local area transport local cycling and walking connections;
- community transport part funding, provider;
- · community road safety partnerships; and
- · local climate change and environmental policies.

The private sector and government business enterprises also play an important role in the transport system. In the Southern Region, these organisations provide public transport, road and rail freight services and own and manage Hobart's air and sea ports. Decisions by the private sector can have a significant impact on the Region's transport task, such as the mode used to transport freight, the volumes carried on particular routes, and the location of development. These decisions are commercial decisions that governments cannot always influence.

The Australian government leads national policy initiatives and regulatory reforms in the transport sector. These changes often occur through national bodies based on state representation (e.g. Council of Australian Governments, Australian Transport Council). Current major national initiatives affecting transport planning include the COAG road reform agenda, development of national policies (freight and port strategies), the policy and advisory role of Infrastructure Australia, and COAG Capital City planning process. The Australian Government is also a significant source of funding for transport infrastructure, particularly of major transport corridors such as the National Network.

Regional overview

Road is the dominant mode for freight and passenger transport in the Region, with an extensive road network connecting rural and urban areas, and linking to Tasmania's other regions.

While the majority of the road network is owned by local government, the State Government owned and managed road network carries the most intensive freight and passenger task and connects all major population centres, export points and major industrial areas. In 2005/06, the State Road network carried 72 percent of Tasmania's heavy freight task in tonne-kilometres.

Topography has been critical in defining many of the region's transport linkages and alignments. In metropolitan Hobart, Mount Wellington and the Derwent River have significantly limited road transport corridor options and restricted the location of arterial roads into and through central Hobart.

Key inter-regional links

The Midland Highway is the Region's major inter-regional, north-south freight and passenger route, supporting the strong import and export reliance of the southern region on the three northern ports. In 2005/06, the Highway carried between 1.9 - 2.4 million tonnes of freight.

Tasmania's rail network provides a key inter-regional and intra-state link for heavy freight transport. After a period of uncertainty under private ownership, on I December, 2009 the State-owned company TasRail was established, operating rail freight services across Tasmania. The rail system is primarily used to move containers and bulk import/export commodities between Hobart and the northern ports. In 2005/06, rail carried over 350,000 tonnes of containers and 660,000 tonnes of bulk freight between Hobart and Launceston. Rail remains a key modal alternative for inter-regional freight movements.

Key regional links

Regional roads play an important role in moving people from regional and rural areas, and in transporting freight from resource and industrial areas to export and processing points. In the Southern Region, regional roads move mainly forestry, agriculture/aquaculture and local construction materials. Strategic regional roads include:

- Tea Tree-Fingerpost Roads (high-productivity route, Brighton to Triabunna port)
- Tasman Highway (Swansea to Sorell)
- Huon Highway
- Channel Highway
- Lyell Highway
- Arthur Highway
- Lake Secondary Road (Bothwell to Midland Highway)

Key metropolitan links and urban transport corridors

Strategic urban roads are critical links in the Region's freight and passenger networks. There are four key metropolitan links in Greater Hobart, the:

- Brooker Highway: carries a high freight and passenger task, with sections of the Highway carrying over 50,000 vehicles a day and moving over two million tonnes of freight at a value of \$2.5 billion per annum. The Highway is the major urban network in the broader north-south freight and passenger link that connects southern distribution centres to the northern ports.
- Tasman Highway (central Hobart to Hobart International Airport): a strategic passenger route for the Hobart metropolitan area, with daily vehicle numbers now over

66,000 over the Tasman Bridge. The Tasman Highway provides access to eastern Hobart, including existing and expanding industrial and commercial areas at Rosny, Mornington, Cambridge and Hobart International Airport, and expanding residential areas.

- *Macquarie/Davey Streets Couplet:* the key link through central Hobart, linking southern municipalities to the Brooker and Tasman Highways.
- Southern Outlet: while the Outlet carries just over 30,000 vehicles per day, much less than the Brooker and Tasman Highways, it provides the major connection between growing residential areas in Kingborough and areas to the south in the Huon Valley, and the Hobart CBD.

Other key urban transport corridors include:

- Sandy Bay Road
- Clarence Street
- Main Road (Glenorchy to New Town)
- Kalang Avenue and Augusta Road
- Domain Highway
- East Derwent Highway
- South Arm Highway to Lauderdale
- Channel Highway from Kingston to Margate

Key sea ports

The role of Hobart Port in Tasmania's bulk freight and container market has declined over the past decade, with 86% of the exports and 99% of imports from the Southern Region moved via the northern ports. Macquarie Point's task is now generally less than 100,000 tonnes per year. This trend is expected to continue over the long term, reflecting international shipping trends such as the consolidation of services on major international routes and the additional cost of travel to Hobart.

The private company Gunns continues to export woodchips out of Triabunna port, shipping around I million tonnes annually. Other major ports include Nyrstar's private port facility and Self's Point, which imports around 400,000 tonnes of fuel each year.

Key airports

Hobart International Airport is Tasmania's major passenger airport, catering for over half of all passenger arrivals into the State. The high volumes of passengers moved through the Airport make it a critical part of Tasmania and the Region's tourism industry. Although only about 1% of Tasmania's freight (by mass) is carried by air, it is a critical transport mode for high value, time sensitive freight.

Passenger transport

The majority of private travel in the Region is undertaken by car. Initial results from the 2009 Greater Hobart Household Travel Survey show car-based trips account for around 75% of household trips in Greater Hobart. Over the past decade, the number of cars has increased by 14% and total car kilometres travelled has increased by 17%. Vehicle ownership is higher in rural areas, reflecting limited public transport options and the need to travel greater distances to access key services.

The Region's public transport system is bus-based. Metro Tasmania provides the majority of bus services within metropolitan Hobart, with bus services to urban fringe areas and regional communities provided by private operators. These core services are supplemented by school-bus services and community transport in rural and regional areas. Taxi services provide additional flexibility within the system, by providing highly responsive transport services and services when scheduled public transport services are not available.

Metro Tasmania experienced small but progressive declines in patronage from the 1990s. Patronage stabilised from 2000 onwards, with recent increases over the last year. As late as the mid-1980s, over 10% of people travelled to work on public transport; by 2006, that number had fallen to 6.3% in Hobart. This is different to the experience in other Australian cities, which have experienced significant growth in patronage over the last few years.

The existing bus networks in the Southern Region provide a service coverage and frequency commensurate with existing funding, with some higher frequency routes in major urban areas. The Region's highly dispersed urban settlement pattern, and very low population has impacted on the sustainability of public transport provision and use. The Tasmanian Government's *Tasmanian Urban Passenger Transport Framework* signals a far broader role for public transport in Tasmania's urban areas, focusing on creating a public transport system that offers greater choice and flexibility. Services to urban fringe communities were reassessed through the Core Passenger Services Review. Operators are now investing in new vehicles, and a standard fare structure is being introduced on the different urban fringe services, removing earlier inconsistencies. New contracts also provide a greater role for community consultation, and require operators to articulate their future service development plans.

Active transport

Many of our daily trips are under 2km, making walking and cycling a viable transport mode for most people. Walking and cycling can also complement other modes, such as walking or cycling to the bus stop, or combining walking or cycling with a car trip.

In February 2010, the Tasmanian Government released the *Tasmanian Walking and Cycling for Active Transport Strategy* to guide the development of transport and land use infrastructure and systems that are more supportive of pedestrians and cyclists.

Hobart already has the highest proportion of people walking to work of Australia's capital cities. Results from the Greater Hobart Household Travel Survey show walking accounts for nearly 20% of all trips across Greater Hobart, and is high in all metropolitan local government areas.

Cycling is also an important active transport mode, and comprises nearly 1% of trips across Greater Hobart. Journey to Work data from the Australian Census indicates that use of cycling as a transport mode to work in Greater Hobart has been increasing over the last 10 years.

Population growth and demographic change

The Southern Region is Tasmania's most populous area, containing almost half of the State's population. The majority of the population lives within the Greater Hobart metropolitan area, Tasmania's capital and administrative centre.

A series of regional and smaller towns act as service centres for surrounding rural communities – for example, Nubeena, Huonville, Bothwell and Swansea – with most being wellconnected to Hobart and other regions via the State Road network.

Clarence, Hobart and Glenorchy are the most populous local government areas, while Brighton, Sorell and Kingborough are experiencing the highest growth rates. These higher growth rates in outer-urban areas reflect higher land availability, more affordable housing and lifestyle reasons. In comparison to other capital city regions around Australia, Southern Tasmania has a relatively small population, dispersed across a wide area. Population growth in Greater Hobart over the last 10 years has been relatively low compared to other Australian cities, which are facing major land and housing shortages.

Tasmania – including the Southern Region – has an ageing population. Demographic projections indicate that the State's population is likely to age more rapidly than any other State. An older population will see an increase in off-peak travel, and greater numbers of people accessing smaller centres, closer to where they live, to shop and socialise, rather than travelling to major centres for work.

Residential development

The past two decades have seen major residential growth in Hobart's outlying urban areas, effectively increasing the urban footprint of metropolitan Hobart. The highest growth has been in Kingborough and Clarence, in suburbs such as Kingston, Tranmere, Rokeby, and Huntingfield.

Brighton and Sorell – once outlying rural towns – are now sub-regional service centres and form part of metropolitan Hobart. Both have also experienced strong residential growth, particularly in the affordable housing market, and are considered as being within commuting distance of metropolitan Hobart.

Hobart City and Glenorchy have older, more established residential areas with fairly stable populations. Hobart has experienced some residential growth, but a lack of vacant residential land has limited the expansion of new housing, with future opportunities largely focused on infill development. Residential growth in Glenorchy has predominantly been in the outer suburbs, such as Granton and Austins Ferry, with future development options reflecting a mix of infill and expansion.

Average household sizes in Tasmania, and the Region, are shrinking. This, together with an ageing population and ongoing issues related to housing affordability, will create demand for new housing types.

Commercial development

While Hobart CBD is the primary commercial and employment centre in the Region, commercial activity in the metropolitan region is increasingly decentralised. Residential growth in outlying areas has seen a corresponding growth in commercial activity, creating a hierarchy of competing subregional centres.

Glenorchy is continuing to increase its role as a major activity centre, with commercial development focused on shopping centres around Glenorchy, and recently, the revitalisation of commercial activity in Moonah. Rosny and Kingston continue to consolidate as major retail and service centres, the latter seeing significant expansion in shopping centres in central Kingston over the past five years.. More recently, large-scale greenfield development for commercial, office and some light industrial uses, has occurred at Cambridge, and to a smaller extent, at Hobart International Airport. Cambridge in particular is now a significant trip attractor in its own right. Further expansion is planned for both sites, with potentially significant commercial development at Hobart International Airport over the medium-term.

Established, and largely expanding, local commercial centres are located in Sorell, Brighton, New Norfolk and Huonville.

Industrial development

Agriculture, aquaculture and forestry are the major rural industries within the region, with a trend toward the production of high-value, niche market products. Historically, most of the region's rural towns developed as service centres to support primary industries; for example Huonville, New Norfolk, Geeveston and Oatlands. Many rural towns are now redeveloping or supplementing primary industry activity with tourism, while others have become attractive areas for residential development based on lifestyle.

Metropolitan Hobart has limited available industrial land. Small, relatively localised industrial estates have developed in a number of different locations (Huntingfield, Mornington and Kingston), but the region's major industrial and freight distribution centre remains the Glenorchy -Derwent Park area. There are also a number of other major industrial sites in the northern suburbs of Hobart, including Nyrstar's zinc smelter at Risdon and Cadbury's chocolate factory at Claremont.

The limited availability of industrial land has driven industrial development at Brighton, which has vacant, generally flat land and good direct access to strategic road and rail networks. The re-location of the Southern Region's primary intermodal hub to Brighton will see further growth in industrial activity in this area. Some light industrial development is also occurring at Cambridge.

A number of key industrial centres have developed around the forest industry in outer regional areas, including Norske Skog's Boyer paper mill, Huon Wood Centre (Newood) and Triabunna port (Gunn's woodchip mill).

Maps I and 2 show regional and metropolitan freight patterns

Map 1: Regional Freight Patterns







Maps 3 and 4 show regional and metropolitan freight patterns

Map 3: Regional Passenger Patterns







The Future Context

Over the past decade, Tasmania's transport environment has undergone significant change. The Southern Region, like the rest of Tasmania, has experienced strong economic growth, resulting in an increased intra- and inter-regional freight and passenger task.

The decisions that we make now will affect our region's transport system well into the future. There is a need to future-proof our transport systems through an integrated plan that will focus the development of our transport system to meet future challenges and take advantage of future opportunities.

Some of the key challenges facing the Region's transport system include:

- changes in transport costs;
- the need to reduce greenhouse gas emissions;
- increasing complexity of trip making and travel demand;
- reliance on car-based transport;
- an ageing population; and
- managing an increasing freight task.

While we can't always predict the nature and impact of these changes at specific points in time, the Southern Integrated Transport Plan uses the best data available to ensure that the region is prepared for future challenges.

In this context, the Southern Integrated Transport Plan focuses on the following key challenges.

Increased freight efficiency and productivity

Safe and efficient land transport connections to the northern ports, supported by efficient intermodal facilities and good access to freight distribution centres.

Tasmania has an export-oriented economy and relies heavily on interstate transport links to access markets, generally through the three ports in northern Tasmania. Improvements to the transport system that increase efficiencies or reduce operating costs for industry will help to drive economic growth.

Freight volumes through Tasmania's ports are forecast to increase 60% and port container movements by more than 80% by 2023. This growth will largely occur through the three northern ports, placing pressure on intermodal facilities and the land transport network.

The Southern Region is dependent on the northern ports for exports and imports – 86% of total exports from the

region move out of the northern ports. Infrastructure that supports the efficient movement of this task is critical.

The Southern Tasmanian National Network Investment Program outlines a series of projects to deliver significant efficiency and safety gains on the key northern approaches to Hobart. Construction of many of these projects has commenced, including the Brighton Bypass and Brighton Transport Hub. The Brooker Highway Transport Plan provides a long-term framework to plan, manage and target investment on this strategic freight route.

Better managing travel demand and increasing modal choice

Supporting a greater modal choice and better managing the impacts of our car use.

Cars provide people with significant travel flexibility, supporting choice in where people live, work and shop. Conversely they can lead to disadvantage for those people unable to own, access or operate a car to the extent required to meet their travel needs. Business relies heavily on road transport for the movement of goods and to deliver services.

While our roads will continue to carry the highest number of private and business trips into the foreseeable future, the Region cannot accommodate unrestrained growth in car use. A significant challenge to this is Tasmania's high per capita car ownership, which has been increasing over the past few decades.

There is a need to better understand the travel needs and patterns of individuals and households, in order to develop effective alternatives to car-based transport. We are no longer just planning for point to point commuter journeys to our central business districts or for school based trips that see children travel to their nearest school. People are showing far greater choice in where they live, where their children go to school, and where they travel to access doctors, food or hardware stores. Results from the Greater Hobart Household Travel Survey show a relatively even split between trips to work, to shop and for recreational activities.

The Southern Integrated Transport Plan, in combination with the Tasmanian Urban Passenger Transport Framework, seeks to better understand and implement measures to support a greater modal shift to other transport modes. Better land use planning and measures to better manage travel demand are integral to reducing the number of car trips and distances travelled.

Better integration of land use and transport systems

Encouraging more compact urban areas and better integration of land use and transport

Decisions about land use directly affect both demand for travel and mode of travel. It is the starting point for thinking about how we manage and respond to demand for passenger travel.

The Southern Region has a relatively small, but highly dispersed population, which poses a significant challenge to providing a transport system that sustainability meets the travel needs of industry and the community.

The location of affordable housing (both public and market-driven) in outer urban areas where land is cheaper, continues to contribute to the dispersed nature of our urban areas. There are also significant lifestyle reasons motivating people to live in outer urban areas. At the suburb level, a trend away from mixed land uses within suburbs has resulted in greater distances between where we live, shop, work or conduct many of our daily activities.

The combined result is a reliance on cars to meet our travel needs. Distances travelled tend to be longer and households face higher transport costs as a result. The ability to provide public transport services or effective walking and cycling linkages are constrained.

We need to provide more contained urban areas and focus regional growth within existing regional and subregional centres. At the local level, better subdivision and neighbourhood design, supported by mixed-use development, will support walking and cycling as viable and safe options for local trips.

Meeting the challenges of sustainability

Ensuring our infrastructure is sustainable by better using the infrastructure we have and ensuring that it is climate change resilient.

New planning approaches will be needed to maintain economic growth through the transition to a carbon and oil constrained economy. Globalisation means the Region is not immune to fluctuations in the global environment. Volatility in petrol prices is an example of how global networks can affect individuals and households.

Climate change is a major challenge for all communities. The Tasmanian Government has a legislated target to reduce greenhouse gas emissions to at least 60% below 1990 levels by 2050. We are working to better understand the effect of climate change across all sectors within Tasmania, including impacts on the transport network to ensure our infrastructure is resilient. It is critical that we plan for climate change, building the benefits of ongoing improvements in our knowledge into our strategic planning frameworks.

Transport infrastructure is long lived and expensive to provide. The region has an extensive transport system, and while new infrastructure and major upgrades will be required, a sustainable future is about making better use of what we have, including providing networks to support transport modes other than cars. Investment in additional capacity in the transport system can represent significant cost to governments, and a sustainable future will involve clearly linking this investment to the egion's strategic needs.

Creating more liveable communities

Supporting stronger and socially inclusive local communities

To create more liveable communities, we need more compact, connected communities that reduce our use of cars and overall distances travelled. This requires better land use planning, including at the subdivision level, the provision of high-quality, safe walking and cycling infrastructure, and high quality, efficient public transport services. Compact urban areas and development that better integrates with the transport system will improve the attractiveness of a range of transport modes, including walking, cycling and public transport.

The current focus on car-based transport provides significant travel flexibility for those with access to a car, but this flexibility can generate negative impacts – higher transport costs, greenhouse emissions, and poor health outcomes. Many sections of the community do not have access to a car, such as young people, low income earners and the elderly, which restricts their ability to access employment, education, and recreational opportunities.

Building stronger, more liveable and socially inclusive local communities is an important buffer against broader challenges. This includes fostering communities where people can access essential goods and services and activities locally, within an acceptable amount of time, cost and effort, and safely.

2030: What type of regional transport system do we want?

We need to ensure that the Southern Region continues to be a desirable place to live, work, shop and socialise, and is attractive for industry and business to invest and locate in.

The Southern Region faces some significant transport planning challenges. While we are aware of the type and scale of some of these challenges, others require further analysis or are currently unknown.

Conversely, there are also major opportunities.

We need a framework capable of identifying and responding to these future challenges and opportunities.

Our vision

We want a transport system that is safe, supports sustainable, liveable communities and promotes industry efficiency and productivity.

Our guiding objective is a southern region transport system that:

- maximises the efficient use of current infrastructure, assets and services;
- is well maintained, resilient and managed in a sustainable manner for the long term;
- supports seamless inter-modal connections for passengers and freight;
- is capable of supporting future economic growth and meeting the needs of our communities, while supporting quality of life;
- improves accessibility and safety for all users;
- provides an integrated and well connected transport system for rural and urban areas;
- improves environmental and health outcomes for our community;
- responds to climate change and an oil constrained future by lowering greenhouse gas emissions and reducing car dependency;
- · is integrated with land use planning; and
- is planned, coordinated and funded through a cooperative partnership approach between different levels of government and the community.

Achieving this Vision requires a change in the way transport and land use planning is currently undertaken. A system-wide, multi-modal approach is required, moving beyond the discrete planning of individual modes and parts of the network in isolation.Transport and land use planning must be more closely integrated, with decisions reflecting the real impact of our development choices.

We need to focus on using our existing infrastructure and services more efficiently, through the use of technology and innovation, demand management and better integration of land use and transport planning rather than focusing too heavily on infrastructure solutions.

We have made steps toward this outcome, but more needs to be done.

Our focus

The Southern Integrated Transport Plan focuses on six strategic policy areas:

- Infrastructure
- People
- Freight
- Safety
- Planning
- Environment

The six strategic policy areas are linked, and the objectives and strategies within the Plan reflect the connections between each area.

Regional challenges define the key issues for the southern region. The focus is on key regional challenges only, targeting those challenges that will deliver the greatest economic, social and environment benefits for the whole region.

Objectives and strategies provide the 'what' and the 'how' to address our challenges. The objectives provide a long term focus for how we want our transport system to develop and the strategies identify the short, medium and long term responses required to achieve these.

Further actions toward achieving these objectives and strategies are outlined in the Five Year Action Plan.

A range of strategies inform the Plan, including:

- targeted infrastructure upgrades or better use of existing infrastructure using existing infrastructure more effectively to increase the capacity, efficiency and safety of the existing system and ensuring new infrastructure demonstrates and supports wider economic and social benefits;
- demand management encouraging more efficient use of the existing transport system by focusing on the movement of people over vehicles and reducing the number of single occupancy car trips using a mixture of infrastructure and noninfrastructure solutions;
- **technology** using technology such as intelligent transport systems (ITS) to improve the efficiency, safety and environmental performance of the transport system and modes through a mixture of policy and regulation responses;

- education and information helping people to better understand the implications of their travel behaviour and available transport choices, and managing people's expectations regarding infrastructure performance and responses required;
- **regulation** providing an innovative infrastructure substitute or support mechanism, including pricing strategies that facilitate changes in transport use by encouraging or discouraging particular choices and behaviours and that reflect the true cost of infrastructure provision; and
- engagement and partnerships engaging and developing partnerships across all spheres of Government, industry and the community in order to develop innovative, bottom-up solutions.

Strategic Policy Area One: Infrastructure

Target Outcome

Efficient, safe and reliable infrastructure that supports the movement of people and goods to and from population centres and industrial and commercial areas.

Transport infrastructure includes both physical assets, such as roads, rail or ports, and supporting or 'soft' measures, including policy, regulation and technology, which improve the performance of infrastructure assets.

Infrastructure provides both people and businesses with access to jobs, education and training, services, resources and markets. Transport infrastructure, such as roads, can support multiple modes, such as cars, motorcycles, trucks, buses and bikes.

Transport infrastructure typically has a long life span and is costly to replace, maintain and upgrade. The planning and development of new infrastucture often has very long lead times.

If infrastructure is at capacity it can impact upon productivity and efficiency, while an oversupply is an inefficient use of resources.

Key regional influences

- Extensive, substantially mature network.
- High maintenance costs.
- Road is the dominant freight and passenger mode.
- Passenger and freight volumes will continue to grow.
- Localised congestion during peak periods.
- The Brooker and Tasman Highways are the most significant urban roads by volume.
- The Southern Outlet provides the major road connection to Kingston and southern areas.
- Limited transport corridor options in metropolitan Hobart due to topography and land use.
- Budgetary constraints.

Context

The Southern Region, like the rest of Tasmania, has an extensive, substantially mature transport network, serving a dispersed urban settlement pattern.

The large extent of the current network, combined with high maintenance costs and budgetary constraints, has seen a shift towards maximising the use of the existing network, over new construction.

Road is the dominant freight and passenger mode in Tasmania. The State Road network, including the National Network, forms the core of the Region's road network and carries the highest volumes of passengers and freight.

Rail provides a vital link for high-volume, long haul elements of the freight task, primarily container and bulk freight between the Southern Region and northern ports. The future expansion of rail as part of the Region's freight network faces significant impediments, including past under-investment in track infrastructure and maintenance. In December 2009, the Tasmanian Government formed TasRail to manage freight rail services across Tasmania. Significant State and Commonwealth investment has also been made in rail track upgrades and intermodal improvements (see Freight).

Local roads play an important role in local passenger and freight movements. Local governments in rural areas, such as Central Highlands and Southern Midlands, have a very high road length per capita. In rural and regional areas, while volumes may be low, state and local roads provide critical transport routes to and between regional and rural towns, and in supporting tourist travel. Achieving sustainable maintenance of the road network is a key challenge for both local and State government.

What are intelligent transport systems (ITS?)

ITS refers to the application of computer and communications technology to improve transport systems.

ITS can be used by road managers and users to provide relevant and timely information such as variable speed limit signs, real time travel information, real time traffic control and car navigation systems. Passenger and freight volumes in the Region are forecast to continue to grow. The Midland Highway is the major north-south freight and passenger route, supporting the reliance of the Southern Region on the northern ports to access export markets. Regional and urban roads play an important role in moving freight from resource and industrial areas to export and processing points.

In metropolitan Hobart, passenger volumes on key metropolitan links are continuing to grow, with localised congestion on some sections of the network during peak periods. The Brooker and Tasman Highways are the most significant urban roads, with the highest current and forecast traffic volumes. Due to topographical and land use constraints, transport corridor options are limited in metropolitan Hobart, especially through central Hobart.

Although Hobart Port's role for containerised freight has declined, its role as a gateway to Antarctica and the Southern Ocean is becoming increasingly important.

Hobart International Airport is Tasmania's major passenger airport providing passenger access to the region from interstate destinations. Although the Airport has had strong growth in passenger numbers over the past five years, the infrastructure capacity at the Airport is generally very good. The Airport is part of the air transport link to Antarctica during summer.

The *Tasmanian State Road Hierarchy* provides a strategic basis for planning and managing State Roads across Tasmania. The Hierarchy reflects current and forecast

passenger and freight volumes, and function. The Hierarchy is updated every 5 years, based on a new analysis of traffic volumes and vehicle mix, review of function and in consultation with stakeholders.

Greater Hobart Household Travel Survey

In 2009-10, Tasmania's first household travel survey was undertaken in Greater Hobart. the Survey examined the travel patterns of 2500 households. This included the type frequency of trips undertaken, mode of transport used, and trip routes. Results will significantly inform network and local area planning across all modes.

Our challenges

- Managing increasing volumes of passenger and freight movements.
- Making better use of existing transport infrastructure.
- Targeting infrastructure investment to maximise regional outcomes.
- Improving analysis and understanding of travel patterns and needs.

What we want to achieve and how

There is an increasing community perception that major responses are required to manage existing problems within the transport system such as congestion. New infrastructure is often seen as the solution however existing infrastructure should operate as efficiently as possible before new infrastructure is provided.

When new infrastructure is required, it needs to be clearly linked to the region's strategic needs and integrate and complement the existing network.

Maximising the use of existing infrastructure can reduce the need for expensive upgrades and avoid duplicating existing assets. The operational efficiency and travel time reliability of existing infrastructure can be improved by:

- Managing land use to protect strategic transport assets.
- Demand management measures.
- Use of new technology.
- Targeted infrastructure solutions.

Use of intelligent transport systems (ITS) can increase the capacity of the system and enable people to better plan their journey. Targeted infrastructure solutions can also improve the efficiency of infrastructure such as upgraded intersections, controlling access onto the network and better using the

road space. More effective use of existing road space could involve increasing the passenger capacity of road infrastructure through improvements to public transport services.

There is a need to manage people's expectations in regard to travel times. The focus is on improving people's accessibility (the ability to safely reach a location using an acceptable amount of time, money and effort) as opposed to increasing people's mobility - getting people to where they want to go quickly.

Improving travel time reliability especially on key urban roads enables people to better plan their journey and adapt their travel behaviour patterns. For example if a person knows that it will take an extra 10 minutes by car to get to work during peak travel times they can factor this into their trip planning.

Both State and local government need to better understand and manage urban movements in metropolitan Hobart by understanding where, why and how people are travelling. For example we do not know why people decide to use their car, catch the bus, walk or cycle or how they 'trip chain' – the activities we do as part of the overall journey such as dropping children at school or shopping for food on the way home. Better analysis will enable both State and local Government to develop strategies that meet people's travel needs. Results from the Greater Hobart Household Travel Survey, which analyses the specific travel patterns of 2500 households, will significantly inform future network and modal planning.

I. Objectives and Strategies – Infrastructure

Objectives	Strategies
Improve known infrastructure weaknesses along strategic urban freight routes	 1.1 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecasts. Strategic urban freight routes include: Brooker Highway Tasman Highway Domain Highway Southern Outlet Midland Highway
 Provide a consistent, safe road environment on strategic transport routes from: regional centres to Hobart rural centres to regional centres 	 1.2 Ensure at least one appropriate road link between major population, industrial and commercial centres. 1.3 Improve the safety and consistency of key regional roads including: Midland Highway (Brighton to Launceston) Huon Highway Channel Highway Lyell Highway Tasman Highway (Swansea to Sorell) Lake Secondary Road (Bothwell to Midlands Highway) Arthur Highway Mudwalls Road
Improve travel time reliability on key urban transport corridors	 1.4 Provide en-route driver information, including expected travel times, delays and alternative route selection. 1.5 Better utilisation of available road space through: Improved access to key corridors at specific locations through targeted intersection upgrades. Use of ITS to monitor network performance and better respond to incidents which cause congestion and bottlenecks. Traffic management, including control of access points, improved traffic light coordination and priority treatment for certain modes. Key urban transport corridors include: Macquarie/Davey Streets Sandy Bay Road Main Road from Glenorchy to New Town Kalang Avenue and Augusta Road Brooker Highway Domain Highway East Derwent Highway South Arm Highway to Lauderdale Southern Outlet Channel Highway from Kingston to Margate

Optimise the performance of transport infrastructure through ensuring a sustainable level of funding for maintenance	 1.6 Maintain appropriate service standards for road infrastructure to optimise network performance through the development of asset management strategies. 1.7 Ensure the North-South and Derwent Valley (to Boyer) rail lines are maintained to a fit for purpose standard. 1.8 Strengthen Hobart sea and air ports role as the gateway to Antarctica.
Objectives	Strategies
Manage travel demand and influence travel choice in peak periods	 1.9 Encourage and support greater use of public passenger transport, multiple occupancy car trips, cycling and walking. 1.10 Investigate and implement bus priority measures within metropolitan Hobart 1.11 Manage land use to reduce travel demand on major arterial roads and encourage use of less infrastructure intensive, non-car modes. 1.12 Implement employment and education-based measures to manage peak travel demand, including work and school travel plans and flexible work arrangements. 1.13 Develop and implement a Greater Hobart parking strategy, including parking controls and pricing to discourage single occupancy car trips (excluding taxis) and encourage use of more
	sustainable transport modes (e.g. motorcycles and cycling).
Improved analysis of freight and passenger travel patterns	 1.14 Coordination of traffic count data at the metropolitan level between State and Local Government. 1.15 Shared transport and planning data between State and Local Government, including outputs from the Greater Hobart Household Travel Survey and Freight Demanders Survey.
Improve the tourism experience on the transport network	1.16 Consider visual amenity impacts on major tourist roads as part of infrastructure upgrades and assessment of adjacent land use and development.
	1.17 Improve strategic roadside facilities along major regional touring routes (Southern Region Touring Route Strategy) to enhance visitor experience.
	1.18 Ensure tourism intrastructure matches current and future needs
	1.19 Recognise Hobart port and airport as key tourism gateways
	1.20 Support the safe and efficient dispersal of tourists throughout the region.
Recognise the importance of the road corridor for other infrastructure	1.21 Develop a process to actively coordinate the activities of other infrastructure providers that require infrastructure to be located in transport corridors.

Strategic Policy Area Two: People

Target Outcome

A passenger transport system that provides people with choice in meeting their transport needs.

Transport is an essential part of our daily lives, supporting access to jobs, schools, shops, key services and enabling our participation in social and recreational activities.

For people, the focus is improving accessibility for all sectors of the community – providing transport choices to reach the places we need to go using an acceptable amount of time, money and effort, and safely. It is a broader concept than mobility, which focuses on moving large numbers of people quickly, generally by car.

Accessibility is affected by a range of factors.

- Our ability to access safe and efficient transport infrastructure and services including public transport, walking and cycling.
- Development patterns including where we choose to live and the location of workplaces, schools and essential services.
- Personal characteristics, including health, income and age.

Key regional influences

- Increasing car ownership and usage, and reliance on car-based travel to meet travel needs.
- Low density, dispersed development patterns designed around car use.
- Low use of public transport and active transport.
- Recent growth in the community transport sector resulting in a lack of co-ordination with other service providers.

Context

Car ownership and usage, including the number and average length of trips has steadily increased in the Southern Region over the last decade. This trend is likely to continue over the long term.

Where we live in relation to the places we need to go, such as shops, work and schools has a significant impact on our travel patterns and options. Over the past two decades, the urban area of Hobart has expanded

Core Passenger Services Review

The State Government condusted the review in 2008, which assessed the delivery of regular bus services across Tasmania.

The Review made recommendations impacting on the management and delivery of regular timetabled bus services, which are currently being implemented.

significantly, with strong housing growth at Brighton, Sorell, parts of Clarence and the urban areas of Kingborough. While lifestyle reasons party explain why people are choosing to live in outer areas, the affordability of land and housing is also a significant driver.

Inner areas such as Sandy Bay, West Hobart and Bellerive are higher-priced markets, with little available vacant land for housing. Outer suburbs generally have more affordable housing, with larger areas of vacant land. Housing costs are higher in inner areas, in part, because jobs, services and amenities are readily available within a short travel distance.

In outer urban and rural areas, people are further from employment, education and other services and amenities. Residents of these areas face higher transport costs due to longer distances travelled and often have limited alternatives to car use to meet their transport needs. For sections of the community on lower incomes living in outer areas, transport costs comprise a higher proportion of the household budget. In Hobart, areas of concern, based on the Australian Bureau of Statistics' Socio-Economic Index for Areas, include Gagebrook, Clarendon Vale, Bridgewater, Rokeby, Risdon Vale, Primrose Sands and Sorell. These areas have typically developed at relatively low densities, distant from major activity centres, with few mixed use areas.

Future settlement frameworks for Greater Hobart will need to balance the release of land in outer areas, with the need for greater consolidation in key urban centres, near major activity centres and adjacent to major transport corridors, particularly public transport.

The Southern Region has an ageing population. Forecasts show that Tasmania's population projected to age more rapidly than any other State. An ageing population creates challenges for planning a future transport system that meets changing transport needs. Our daily transport needs are increasingly complex. We have a diversity of trip purposes, such as work, school, shopping and visiting friends and relatives; make some trips more often; and combine different trip purposes as part of one longer journey. Understanding why, how and where people are travelling is critical. We are no longer just planning for point-to-point journeys to our central business districts. People now live more distant from activity centres, and there is greater choice in where we travel to access services and activities.

The region's public transport system is bus-based, which can be an effective means of travel, especially for those living in inner areas of metropolitan Hobart. Generally, a bus system is most effective when buses are frequent and provide direct routes to key destinations.

Tasmanian Urban Passenger Transport Framework

The Tasmanian Urban Passenger Transport framework provides future direction for passenger transport in tasmania's urban areas.

The framework follows the recommendations of the Hobart Passenger Transport Case Study into transport and land use planning issues and responses in the Hobart metropolitan area.

The Framework focuses on introducing a range of integrated measures over time to meet the future challenges for our trnsport system - reducing greenhouse gas emissions, better managing travel demand, and establising more liveable, compact urban areas.

The Framework is based on the Hobart Passenger Transport Case Study, which reviewed transport issues and resonses in the context of Hobart. This included the development of a modified travel demand model to assess different transport and planning options, and feasibility studies into light rail and passenger ferries.

More information on the Framework is available from:

www.dier.tas.gov.au passengertranspotframework

The region's small population and dispersed settlement pattern makes it difficult and less cost effective to deliver public transport services, regardless of mode. Dispersed, small populations can lead to poor patronage of services and longer, indirect routes, reducing the overall attractiveness of a service. While a bus-based public transport system is more flexible in responding to changes in demand (e.g. new residential development) compared to other modes (e.g. light rail, ferries), in any small to mediumsized city, the ability of public transport to support multipurpose and/or cross-town trips is difficult.

In rural areas, access to buses is often limited. It is important to recognise the impact this can have on rural communities, for example, the ability of young people to access higher education opportunities.

Taxis provide a convenient, personalised style of service, but at a higher cost. Taxis play a critical role at all times for people who have limited physical mobility, and provide the only readily available form of public transport late at night and on weekends in some areas.

Community transport services are important for people who are unable to use regular bus services due to physical, age and health related reasons. These services provide door-to-door transport services for individuals and small groups. There are complexities in the current system due to the number of organisations involved in the funding and delivery of services. These complexities often result in a lack of coordination and inefficiencies in meeting people's differing transport needs.

The capacity of community transport to respond to any increase in demand for passenger transport services is limited by the demand providers place on volunteer drivers, securing funding for additional vehicles and restrictions on eligibility to access services.

Our challenges

- Improving people's accessibility.
- Increasingly complex transport needs across the community.
- Dispersed settlement pattern and high car dependence.
- Supporting and encouraging modal choice.

What we want to achieve and how

Improving people's accessibility is the core focus, and this can be achieved through a range of approaches, including:

- targeted delivery of public transport services to meet people's accessibility needs;
- better integration between transport modes;
- increasing the range of people's transport choices;
- better land use planning; and
- managing people's demand for travel.

While cars will continue to be the major form of travel in the region, particularly in rural and remote areas, reflecting the flexibility cars provide, we need to make non-car transport modes, such as public transport, walking and cycling, into a more viable alternative for travel to substitute at least some of our car trips.

Increasing modal choice can also play a role in alleviating transport disadvantage, ease localised congestion, improve passenger capacity of the transport system and improve health and environmental outcomes.

Increasing the attractiveness of public transport requires measures such as more frequent and direct services, better information and communication of transport options (e.g. real time travel information) and bus priority measures. The Southern Integrated Transport Plan aligns with the Tasmanian Urban Passenger Transport Framework's vision to establish a safe and responsive passenger transport system that supports improved accessibility, liveability and health outcomes for our communities, in the context of the challenges of climate change.

Accessibility can be improved in both urban and rural communities by locating key services, employment, shops and housing in urban and town centres. More compact and mixed use development supports a broader range of transport options as distances are shorter and there is a critical mass of uses for public transport to service.

Better local and neighbourhood-level connections will increase the attractiveness of walking and cycling for short trips and help to increase public transport use. Safer roads, walking and cycle routes that better connect communities to local services and public transport routes will encourage more people to walk, cycle, or combine catching a bus with walking, instead of driving.

Various proposals have recently been made to improve Hobart's public transport system, including in a joint public transport proposal developed by the STCA as part of the 2010 federal election, by Hobart City Council in its Sustainable Transport Strategy and in a joint proposal for development of a Western Corridor public transport route. The types of modes suggested include light rail, bus rapid transit, ferries, and the significant expansion of cycle ways. MONA has recently commenced a private ferry service from the Hobart CBD to its Moorilla Estate, and local government has identified future opportunities to leverage off this service. The protection of ferry infrastructure to support the possible future development of river transport is identified within this Plan.

The Tasmanian Government will shortly commence a feasibility study into a potential light rail passenger service along the existing rail corridor from Hobart to Granton. The work will build on the objectives of the Tasmanian Urban Passenger Transport Framework and more detailed analysis within the Hobart Passenger Transport Study.

The Southern Integrated Transport Plan aligns with the Tasmanian Walking and Cycling for Active Transport Strategy, which aims to guide development of walking and cycling as transport options in our urban areas over the long-term by creating a more supportive transport system for pedestrians and cyclists. Measures to encourage walking and cycling include both infrastructure and non-infrastructure solutions, such as provision of end of trip facilities for cyclists or lower speed limits in shared urban spaces.

2. Our Objectives and Strategies – People

Objectives	Strategies
Improved public passenger transport services and supporting infrastructure	2.1 Implement Tasmanian Urban Passenger Transport Framework focusing on demand management measures and increasing the attractiveness of public passenger transport options.
	2.2 Improvements to urban and urban fringe bus services:
	for urban services: continued implementation of a services standard model
	for urban fringe services: ongoing development with operators to improve services
	2.3 Identify and improve priority bus stops for improvement to meet DDA standards.
	2.4 Improve information and communication of public passenger transport services including service availability, real time travel information, timetabling, and route choice.
	2.5 Implement pricing incentives to encourage a shift to public transport.
	2.6 Investigate local park and ride facilities in accessible locations to encourage ride sharing and greater use of public transport.
	2.7 Develop effective mechanisms for community access to information on services.
	2.8 Develop effective mechanisms to enable community input into service improvement.
Creating a more supportive	2.9 Implement the Tasmanian Walking and Cycling for Active Transport Strategy.
pedestrians and cyclists	2.10 Investigate the provision of safe and useable cycling routes and connections:
	 State roads (including those identified in the Draft Hobart Regional Arterial Bicycle Network)
	Local roads and pathways (identified in Council bicycle plans)
	2.11 Target priority infrastructure gaps, such as walking and cycling links, between State and Local Government roads and key destinations.
	2.12 Encourage the provision of supporting infrastructure for cyclists.

Objectives	Strategies
Improved accessibility in rural areas and for transport disadvantaged	2.13 Develop a process for State and local Government to identify public passenger transport service needs and responses for communities of need.
disadvantaged	2.14 Work towards maximising the effectiveness of Government funding to alleviate transport disadvantage.
	2.15 Assist people in rural areas to meet their basic service needs through:
	• the delivery of regular bus services for general community needs
	 working with relevant organisation to improve service delivery methods such as access to ICT, community transport, ride sharing and innovative sustainable transport options
	2.16 Facilitate access to a range of transport options, particularly for young people through the development of education and work travel plans.
	2.17 Promote accessible transport and ensure greater equity of access for those with a disability.
	2.18 Better understand the transport needs of an ageing population and their transport needs.
Integrate infrastructure and	2.19 Require major developments to develop travel plans to facilitate modal choice.
transport modes	2.20 Provide connections between modes and services for moving people, including connecting cycle ways and walking routes to high frequency public transport routes and locating park and ride facilities adjacent to high frequency public transport routes.
	2.21 Better service integration between different transport modes including
	Integrated ticketing
	Better information and communication of timetables
	Coordination of services between modes and different service providers

Strategic Policy Area Three: Planning

Target Outcome

A planning system that supports the efficient movement of goods and creates sustainable, liveable, accessible and well-connected communities

Land use planning defines where different uses are located, and in doing so, strongly influences:

- our demand for travel;
- the distances people and goods need to travel;
- the accessibility of major travel destinations including work, schools, shops and services;
- our mode of travel, particularly our ability to use more sustainable modes including public transport, walking and cycling;
- cost of providing transport infrastructure and services; and
- cost of travel.

Key regional influences

- An urban form designed around car use.
- A dispersed settlement pattern.
- Segregation of land use types.
- Poor integration of land use and transport planning decisions.
- Location of affordable housing in urban fringe areas.

Context

Decisions about land use directly affect our demand for travel. As an area develops –housing, shops, warehousing or schools – new traffic volumes and travel needs are created. Eventually, this leads to demand for additional capacity in the transport system.

Most jurisdictions are continuing to confront the issue of how to better integrate transport and land use planning. Historic approaches to resolving transport and land use issues have focused on the construction of new roads or major upgrades of existing road infrastructure. While infrastructure upgrades remain part of the Southern Integrated Transport Plan, the significant costs of providing new infrastructure and maintaining existing infrastructure emphasise the need to better use capacity within the existing transport system, rather than building capacity through network expansion. Land use planning can assist in reducing travel demand by locating growth areas and new developments in locations that either fit the function and capacity of the existing transport system or are a logical extension of the network. This includes considering existing public transport service services, whether buses can access a new development, the existing capacity of the road network and existing access points. As an area grows, so does the community's expectations for improvements in transport infrastructure and services.

Protection of strategic transport assets

Strategic road and rail corridors and transport hubs such as ports, airports and intermodals require protection from adjacent land use that may impact upon their function or limit opportunities for future infrastructure expansion or demand management opportunities such as cycle or bus lanes.

Land use can have a direct impact on the efficiency, safety and function of the transport system. Activities such as new residential subdivisions, shopping centres and freight depots all generate traffic, including different vehicle mixes, which can require new or upgraded accesses onto the road network.

The greater the distance between different land uses such as residential areas, schools and shops, the greater the likelihood people will rely on a car to meet their travel needs. While separation of land uses is appropriate in some circumstances – for example, between heavy industrial and residential areas – a mix of land uses within a concentrated location can support greater modal choice and decrease reliance on cars.

At the local level, there is a need to design our suburbs to include walking and cycle routes that enable people to move around their suburb, access local shops, parks and other services and public transport routes, safely and easily.

New infrastructure is not always the solution

Strategies to maximise the operational efficiency or extend the life of infrastructure include:

- demand management-reducing people's demand for travel and influencing travel choices;
- use of new technolgies such as intelligent transport systems; and
- managing land uses.

Our challenges

- Better integration of land use and transport planning.
- Protecting strategic transport infrastructure.
- Maximising the use of existing infrastructure.

What we want to achieve and how

Improved integration of land use and transport planning has the potential to significantly improve the efficiency of the Southern Region's transport system, as well as improve community and business accessibility by reducing the need to travel, reducing overall distances and supporting modal choice. By influencing the location, density and mix of land uses, we can create more liveable communities with a greater diversity of viable transport options. Maximising the use of existing or planned infrastructure and services can help to extend the asset life and efficiency of existing infrastructure, reducing the need for expensive upgrades or duplicated assets. Additionally, protecting the function of existing transport infrastructure will enable the region to maintain and enhance the efficiency and safety of its transport system.

Making better use of existing infrastructure and services does not mean new transport links are excluded. Expansion must be linked to a long-term land use strategy and the achievement of the objectives outlined in this Plan.

Despite recent levels of development in the Southern Region, particularly in the outer urban areas of Hobart, land use change evolves slowly and any land use planning strategies will generally provide medium to long-term rather than short-term results. However, it is important that we start to make those changes now, and identify opportunities and areas for our land use patterns to support improved outcomes for the transport system.

Objectives	Strategies
Match land use and development with existing or	Residential and commercial
planned transport infrastructure and services	3.1 Encourage new residential development within existing major residential suburbs and locate new growth areas in areas with good public transport services.
	3.2 Locate development that attracts high numbers of people (such as major commercial, employment, educational and health services) at locations that are highly accessible by public transport, walking and cycling.
	3.3 Locate everyday facilities (such as local shops, community health facilities and childcare) that are within walking and cycling distance of residential areas.
	3.4 In urban areas and regional service centres, encourage higher density residential and mixed use in and around town centres to maximise accessibility by non-car modes and reduce the demand for travel.
	3.5 In rural areas, encourage clustering and mixed use development (such as shops, key services and employment) in town centres to maximise accessibility by non-car modes.
	Industrial
	3.6 Encourage major industrial activities to locate in industrial areas with good access to the strategic transport network, such as Brighton and Glenorchy.
	3.7 Encourage consolidation of warehousing, transport depots and storage activities within existing major industrial areas.

3. Our Objectives and Strategies - Planning



Objectives	Strategies
Identify a preferred sequence and location for residential, commercial and industrial	3.8 Ensure growth corridors involve logical extensions of existing transport networks and public transport services.
development	3.9 Ensure new development integrates with the transport system, including public transport, cycling and walking routes.
	3.10 Develop consistent transport infrastructure pricing policies which reflect the true cost of servicing development.
	3.11 Coordinated planning of new industrial areas and freight intensive industries in relation to strategic transport routes.
Focus on maximising the use of existing transport infrastructure and services	3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.
	3.13 Limit access points onto strategic transport corridors through consolidation of existing accesses and use of lower category roads to access new development.
	3.14 Focus on maintaining existing infrastructure and minimising future asset duplication.
	3.15 Use of technology (ITS) and travel demand management initiatives to optimise the use of existing networks.
Identify and protect key transport sites and corridors	3.16 Protect existing and future strategic transport corridors from adjacent land use activities that affect the long-term operating function of the corridor, increase amenity conflicts or reduce opportunities for future upgrades.
	3.17 Undertake long term planning for existing and new strategic transport corridors and hubs focusing on demonstrated need and analysis in conjunction with local Government.
	3.18 Protect Hobart air and sea ports from adjacent incompatible uses that may affect future operations and viability, including maintaining strategic transport linkages to ensure ongoing efficiency.
	3.19 Retain the rail corridor from Hobart Port to Brighton.
	3.20 Retain ferry access points on the Derwent River, including Sullivans Cove and Kangaroo Bay.
Transport planning to consider tourism needs	3.21 Better understand visitor's needs and take into account tourism strategy (tourism trends, current visitation and expected trends) in transport planning.

Strategic Policy Area Four: Freight

Target Outcome

Efficient and safe freight networks that support the movement of goods to and from major export points, processing and industrial centres

The Southern Region's freight system encompasses the movement of goods from resource base to market, including processing and distribution centres, and import and export points, through the transport network.

Improved freight efficiency is both a driver and facilitator of economic growth, with business, industry and governments increasingly focused on improved transport productivity to ensure product costs remain competitive in a global economy.

Key regional influences

- Reliance on the northern ports for freight exports and imports.
- Forecast increase in the freight task.
- The majority of the freight task is moved on the road network.
- Viability of rail is affected by past volatility in ownership and historic under-investment.
- The majority of the region's resources are located remote from export points and processing facilities, and rely on local and regional roads.

Context

The Southern Region has an export-oriented, bulk freight economy dependent on the movement of goods by both sea and air to access export markets. The majority of the region's export and import activity is moved through the northern ports – Burnie, Devonport and Launceston (Bell Bay).

Tasmania's freight task by tonne-kilometres is growing at an average of 5% per year. Even if this growth slows, large volumes of freight will still move through Tasmania's ports, intermodal facilities and over the land transport network.

The majority of Tasmania's intrastate freight task travels by road, and is forecast to increase to around 43 million tonnes per annum by 2030. The road freight task is predominantly carried by heavy vehicles, with B-doubles and high productivity combination vehicles carrying around 48% of the road freight task, by tonnage. Rail provides a vital link for transporting containerised and bulk commodities between the Southern Region and the north of the State. Past volatility in rail ownership and historic under-investment in the network are significant issues affecting viability and attractiveness. In 2007, the State Government acquired ownership of the majority of the rail line in Tasmania and in December 2009, the remaining assets and the above rail operation passed to the State-owned company, TasRail.

The Tasmanian and Australian Governments have jointly funded a range of capital investment and maintenance projects (\$122 million) including the north-south main line and Rhyndaston capacity improvements. TasRail will be developing a 10 year rail strategy to guide the future operation of rail in Tasmania and outline future investments in the network. State ownership and targeted investment will offer clients a viable option to the road network.

In Tasmania, the intra-urban light commercial freight task is expected to grow at a significantly higher rate than the heavy freight task. Growth and consolidation of retail and industrial development in outer urban areas, such as Cambridge, Kingston and Brighton, will see changes to metropolitan Hobart's freight travel patterns, particularly the light commercial task.

Glenorchy is the region's major industrial freight and distribution centre, and the Brooker Highway is the key urban freight road, providing access to and from parts of the Southern Region. Limited availability of industrial land within metropolitan Hobart has seen strong industrial development at Brighton, and this will consolidate with development of the Brighton Transport Hub as the Southern Region's primary intermodal facility.

The Southern Region has a highly dispersed freight task, especially in rural areas. The majority of the region's key resource-based industries - forestry, agriculture and aquaculture- are located remote from export points and processing facilities. These industries make a significant contribution to rural economies and are reliant on the regional and local road network.

Any future increase in forestry plantation development in areas such as the Southern Midlands and Central Highlands will further impact on local and regional road infrastructure. Providing a safe and efficient road network to meet the forestry freight task is challenging due to the dispersed location of plantations and native forest resources and the transitional nature of harvesting activity.



Our challenges

- Supporting the efficient movement and transfer of freight.
- Managing an increasing and dispersed freight task.
- Maximising the efficiency of the north-south freight corridor.

What we want to achieve and how

Over the long term, export and industry growth will increasingly rely on productivity improvements through improved transport efficiency. Improvements to transport efficiency include improvements to infrastructure and more freight efficient vehicles. The freight supply chain linking to the northern ports is the key link for the Southern Region. This supply chain includes the Midland Highway, Brooker Highway and north-south rail line.

In 2007, the Tasmanian Government developed the Southern Tasmanian National Network Investment Programme to address transport safety and efficiency issues on the northern approaches to Hobart. Construction of two of these projects is now well underway – the Brighton Bypass and Brighton Transport Hub – with planning for the Bagdad Bypass and a new Bridgewater Bridge commenced.

Improving traffic flows and travel reliability on key strategic urban routes which have a significant freight function, particularly the Brooker and Tasman Highways, will support improved access to key industrial and commercial areas, and improve the north-south freight supply chain.

Heavy vehicle reforms to enable safer and more productive heavy vehicles will soon be implemented across Tasmania. These reforms are being driven at the national level, and include Intelligent Access Programs which aim to ensure vehicles are using the most appropriate route, adoption of vehicle technology (quad axles) to ensure vehicles can carry heavier loads more safely and the use of technology to facilitate cost recovery by asset owners of heavy vehicle use. A package of national reforms covering heavy vehicle safety compliance and enforcement is also underway, focusing largely on fatigue management, speed compliance and intelligent access.

Understanding freight movements across the region's transport network, including where freight is moving to/ from, type, and tonnage, is a key input into strategic freight planning. The Tasmanian Government undertakes the Tasmanian Freight Survey every three years, conducting face-to-face interviews with Tasmania's largest freightmoving companies. The Survey provides objective information regarding Tasmania's heavy freight task, allowing detailed freight movement analysis and forecasting. For example, the Survey identifies the volume of freight moving on a road, its specific origin and destination, allowing detailed transport planning, future freight forecasting and the ability to link freight movements to land use.

4. Our Objectives and Strategies - Freight

Objectives	Strategies
Improved freight connections between southern Tasmania and the northern ports	4.1 Improve safety, efficiency and level of service on the Midland Highway from Granton to Dysart.
	4.2 Target known infrastructure weaknesses on the north-south rail line.
	4.3 Recognise and plan for the impact of the future freight task on the Midland Highway and north-south rail line and target infrastructure investment plans accordingly.
Improve freight efficiency on strategic regional freight routes	 4.4 Ensure appropriate road standards to support higher productivity vehicles on key freight routes, including: Brooker Highway Domain Highway Midland Highway Tasman Highway Southern Outlet Huon Highway (Geeveston to Kingston) Lyell Highway (New Norfolk to Granton) Tea Tree/Fingerpost Road 4.5 Use of non-infrastructure solutions to increase freight efficiency: ITS solutions to support improved flexibility for freight operators over the longer term to carry higher masses and to optimise freight efficiency within urban areas
	Limit local access points to strategic freight routes
Improved efficiency of freight transfer between modes	4.6 Develop a new intermodal facility for Southern Tasmania - Brighton Transport Hub.4.7 Improve road and rail access to the Brighton Transport Hub
Enhanced ability to respond to an increasing freight task	4.8 Improve understanding of freight distribution patterns within metropolitan Hobart to identify future transport needs including:
	Intra-urban light commercial freight movements
	• Freight movements in and around Glenorchy as a result of the transport hub relocating to Brighton
	 Changes to the freight task as a result of ongoing retail development at Cambridge and Hobart International Airport.
	4.9 Manage the forestry freight task through improved analysis to inform future network responses based on changing forestry freight patterns.
	4.10 Investigate the impact of forestry freight on local and State Government road infrastructure in terms of asset life and maintenance costs.
	4.11 Identify preferred routes for freight, which maximise efficiency and limit impacts on local communities and minimise interaction with other road users.
Maximise freight efficiency on existing routes	4.12 Continue to work with industry to introduce vehicles that are more productive, safer and have less impacts on road infrastructure.
	4.13 Match the location of freight generating industries to strategic freight routes.

Strategic Policy Area Five: Safety

Target Outcome

A safer transport system for all users

Safety is a major externality cost associated with our use of the transport system. Road-based transport is a key focus of safety policy in Tasmania and the Southern Region due to the dominance of road transport.

Tasmania has a well-developed road safety policy framework, focused on the current Tasmanian Road Safety Strategy 2007-2016. Specific policies have been developed for vulnerable road users, such as motorcyclists. The Tasmanian Government continues to work with the motorcycling community to improve existing safety measures for motorcyclists such as licensing, training and infrastructure initiatives.

Key regional influences

- Young people are at higher risk of serious casualty crashes.
- Addressing the role of driver behaviour in determining the likelihood and severity of crashes.
- An inconsistent road environment caused by hilly terrain and an extensive road network.
- An older vehicle fleet.

Context

In the ten years from 1996 to 2005, most crashes in the Southern Region that led to serious casualties were:

- run-off-road 39%;
- intersection 20%;
- head-on 10%.

Young people (16-25 year olds) are most at risk of serious casualties. Other high risk users are motorcyclists and their passengers, pedestrians and older road users (66+ years). Males are also over-represented in serious casualty crashes, accounting for 58% of crashes.

Driver behaviour, such as driving under the influence of alcohol or drugs, inattention, failure to wear seatbelts or a helmet and speeding can influence the likelihood of a crash occurring and the severity of injuries sustained.

Between 1996 and 2005, inattention and speeding were the highest contributing behaviours towards serious casualty crashes. Serious casualties involving excessive speed comprised significant numbers of young people – 50% – and predominantly involved males – 69%. Young road users represented 41% of all serious casualties involving alcohol.

Other contributing factors to road safety in the region include:

- an extensive road network, serving a dispersed population;
- high proportion of rural roads;
- an inconsistent road environment caused by hilly terrain;
- an older vehicle fleet compared to the rest of Australia;
- limited funding for safety-related road infrastructure improvements;
- increasing traffic volumes, including higher freight volumes; and
- a diverse road user mix, with key freight routes often also used for tourism or commuting purposes.

Our challenges

- Improving safety for all transport users.
- Enhancing vehicle safety.
- Safer transport infrastructure.
- Safer travel speeds.

What we want to achieve and how

Improving road safety outcomes is best addressed through a range of measures, focusing on the four key strategic directions in the Tasmanian Road Safety Strategy. These include:

- safer travel speeds;
- best practice infrastructure;
- increased safety for young road users; and
- enhanced vehicle safety.

Speed is the most critical factor in determining the likelihood of a crash occurring and the severity of injury. Research has shown that travelling at safer speeds or matching the speed to the road environment can reduce the incidence of serious casualty crashes, as drivers have more time to take evasive action and there is a reduced crash impact. A number of mechanisms can be used to provide safer travel speeds. Road infrastructure is a significant factor for improving road safety. In designing our roads we need to take into account the fact that human error is inevitable and crashes will occur. Our roads should be designed to minimise the risk of injury. Numerous effective infrastructure measures are available to target these types of crashes and reduce crash severity.

To maximise safety benefits from infrastructure investment, infrastructure treatments need to be targeted to areas where the greatest protection can be provided based on crash frequency and type, location, terrain and traffic volumes. While infrastructure treatments are relatively expensive, they can be effective in reducing crash severity and the benefits are long lasting.

Young road users are heavily over-represented in crash statistics. This over-representation is attributed to factors including inexperience, immaturity and increased risk exposure. Strategies that focus on improving the graduated licensing system, such as increasing the number of hours of supervised driving experience, peer passenger and curfew restrictions, could significantly improve road safety outcomes.

Improving the safety features of vehicles can also significantly improve road safety outcomes. Research shows that if everyone drove the safest car in each vehicle class, road trauma could be reduced by 26%.

There are a number of successful road safety strategies already in place at statewide and local levels that have contributed to reducing serious casualty crashes:

- Road programs such as Safer Roads Program, Tasmanian and Australian Government Black Spot Programs and targeted maintenance and traffic management programs have all contributed to improving the safety of the road network in the Southern Region.
- Community road safety partnerships with individual Local Governments in the Southern Region are also an important component of any road safety strategy. The partnerships enable the community to participate and identify local safety issues, communicate information and promote road safety programs.



5. Our Objectives and Strategies – Safety

Objectives	Strategies
Improved safety for young passengers and drivers	5.1 Improve the graduated licensing system.
	5.2 Limit exposure to high risk behaviours and situations through continued development of education and community road safety programs.
	5.3 Continue implementation of programs to provide safe forms of transport including cab-it and nominated driver.
Improved safety for vulnerable road users	5.4 Targeted traffic calming and speed management in shared spaces to minimise conflict between vehicles, pedestrians and cyclists.
Enhanced vehicle safety to reduce serious casualty crashes.	5.5 Mandated purchasing of minimum four star ANCAP rating safety standards for the State and Local Government vehicle fleet.
	5.6 Continued trials of safer vehicle technologies to enhance road safety outcomes including alcohol interlocks and speed alert systems.
	5.7 Educate people about the benefits of owning safer vehicles.
Improved safety profile and consistency of the driving environment	5.8 Focus investment on roads with high vehicle volumes and with a high incidence or risk of casualty crashes, including providing an adequate level of road delineation such as guideposts, warning signs and pavement marking techniques.
	5.9 Installation of best practice infrastructure on road sections with a high casualty crash rate to reduce off-road and head-on crashes eg flexible barriers, delineation or sealed shoulders.
	5.10 Minimising interaction between freight and passenger vehicles, on roads with a high freight function. Where interaction continues, the focus will be to improve the road environment to allow safe interaction.
Encourage safer travel speeds through driver behaviour and	5.11 Continued development of community education initiatives to raise awareness of the risks associated with speeding.
saler speed limits	5.12 Match travel speeds to the road environment through:
	Safer travel speeds on rural roads
	 Introduction of variable speed limits - activated during specific times, locations or in adverse conditions



Strategic Policy Area Six: Environment

Target Outcome

A transport system that supports better environmental outcomes

There are a number of environmental impacts associated with the transport system. Air and noise emissions from vehicles can affect people's health and well-being, especially people living close to transport corridors, ports, airports and hubs. Transport is also a major contributor to the State's overall greenhouse gas emissions. Transport can also affect environmental values in areas adjacent to the transport network.

Key regional influences

- Continued increase in car ownership and usage.
- Low density, dispersed development patterns designed around car use.
- Road transport is a significant contributor to greenhouse gas emissions.
- Transport activities cause noise and air pollution and affect environmental values alongside transport networks and hubs.
- Transport infrastructure is vulnerable to the impacts of climate change.

Context

Tasmania has a high rate of car ownership per capita and this is increasing. Total vehicles registered increased by 2% between 2006 and 2007. We are also travelling more, with kilometres travelled for both freight and passengers increasing.

Cars provide significant flexibility in meeting our personal travel needs, and our dependence on cars partly reflects this modal advantage. However, it also reflects the region's dispersed settlement pattern and limited modal choice options.

Transport is the second largest producer of greenhouse gas emissions in Tasmania, contributing around 21% of Tasmania's overall emissions in 2007.Transport emissions have grown by over 12% since 1990, with road transport contributing 92% of the State's transport greenhouse gas emissions, with cars being the largest contributors.

Emissions from road freight, such as heavy and light commercial vehicles, are projected to increase faster than passenger vehicles. However, by 2020 cars are forecast to remain the largest contributor of transport greenhouse gas emissions.

A major challenge for the Southern Region will be to reduce greenhouse gas emissions in an environment where freight and passenger vehicle volumes are increasing, while ensuring accessibility and efficiency objectives continue to be met.

Cars and trucks, particularly diesel vehicles, are a major source of air pollutants. In Tasmania, air pollution is more likely to be an issue around arterial roads with higher concentrations of traffic, than in suburban or rural areas. Air quality in metropolitan Hobart is generally considered very good, due to favourable meteorological conditions, however air pollution from transport emissions still presents a significant health risk to some members of the community.

Tasmania has the oldest vehicle fleet in Australia. The condition and age of a vehicle affects fuel efficiency, the amount and quality of air pollution emissions and noise emissions. Over 45% of vehicles in the Southern Region are more than 10 years old.

Noise has become an increasingly significant environmental issue and can affect our work, sleep and social activities. Localised increases in traffic volumes and intensification of land use around transport corridors can result in increased exposure to traffic noise. Vehicle type (including age and condition), road and traffic conditions, the proximity and design of buildings adjacent to the road corridor and individual tolerance levels are all factors in how people experience exposure to transport noise.

The construction, management and operation of transport infrastructure can result in other environmental impacts including:

- visual impacts landscape values and roadside litter;
- fragmentation of natural environments, including loss of natural and cultural values;
- polluted run-off entering waterways;
- wildlife road kill; and
- weed invasion.

The Southern Region is vulnerable to the impacts of climate change, particularly those parts of the region such as Clarence and Glamorgan-Spring Bay that have low lying coastal areas. Transport infrastructure is vulnerable to the impacts of climate change through sea level rise and also changes to climate variables such as temperature, rainfall and wind. This can impact on the asset life, operation and safety of infrastructure.

The State government has developed risk management strategies for key transport links and assets, reflecting the importance of some transport links to overall network function (e.g. Tasman Bridge).

Our challenges

- Managing the environmental impacts of transport.
- Understanding and planning for climate change.

What we want to achieve and how

Developing a more sustainable transport system requires the development and implementation of measures to avoid, minimise or mitigate the environmental impacts of transport.

Environmental outcomes can be influenced by a range of factors, including people's travel behaviour and modal choices, the design and location of activities near transport assets and innovative and new technologies to reduce pollution associated with transport.

For example, encouraging the use of more sustainable transport, through the use of travel demand management measures, supportive land use policies and targeted infrastructure will assist in reducing environmental impacts associated with high car usage.

Land use planning processes that better integrate development with the transport system facilitate modal shifts toward more sustainable transport options and reduce people's travel distances.

More sustainable forms of transport such as walking, cycling, ride-sharing or using public transport not only reduces greenhouse gas emissions but also reduces the amount of people exposed to noise and air pollution by reducing the number of cars on the road.

Encouraging the use of more sustainable transport, through the use of travel demand management measures, supportive land use policies and targeted infrastructure will assist in reducing environmental impacts associated with high car usage.

Both air and greenhouse gas emissions can be reduced through the use and application of new technologies that increase fuel efficiency or reduce exhaust emissions. Government policy at all levels plays a role in encouraging the adoption of low emission and fuel efficient vehicles through mechanisms such as emission control standards, encouraging the uptake of low emission fuels and vehicle procurement practices.

DIER will shortly release the State Road Noise Strategy, covering the policy, planning, and management of noise-related issues on the state road network. Local government and other infrastructure managers are encouraged to adopt the principles and strategies within the Strategy, where relevant. Approaches to reducing noise from transport can be achieved through controlling noise at the source – for example, improvements to vehicle technology, mitigation measures associated with the design and operation of transport infrastructure and noisecompatible land use planning.

Transport planning needs to recognise the importance of natural and cultural values. The State Government makes a concerted effort to continue to use and manage transport heritage assets. The State Government is also developing processes to address heritage issues early in the planning phase, including Aboriginal heritage.

A better understanding of the impact of climate change on transport infrastructure will enable both State and Local Government to mitigate and adapt to climate change processes and to ensure our infrastructure is more resilient. Improved information on likely changes to climate variables such as temperature and sea level rise will enable asset owners to better plan and respond to change.

6. Our Objectives and Strategies – Environment

Objectives	Strategies
Reduce greenhouse gas and other emissions associated with transport	6.1 Encourage purchasing of minimum greenhouse ratings for new State and Local Government fleet vehicles.
	6.2 Investigate the purchase and trialling of hybrid and alternative-fuel vehicles for use in the State and Local Government vehicle fleet and public passenger transport fleet.
	6.3 Investigate and implement pricing incentives and regulatory improvements for low emission vehicles, including motorcycles.
	6.4 Encourage more sustainable travel choices through modifying people's travel behaviour.
	6.5 Investigate complementary measures eg freight productivity reforms to manage emissions from freight.
	6.6 Undertake planning for an oil and climate change constrained future.
Protect environmental and amenity values along transport corridors	6.7 Develop and implement the Tasmanian State Road Noise Strategy that focuses on reducing noise at the source as well as mitigating the effects of excessive transport noise.
	6.8 Manage bio-diversity within transport corridors.
	6.9 Identify and protect significant cultural and heritage sites within transport corridors and hubs.
	6.10 Develop processes to proactively consult on heritage issues, including aboriginal heritage early on in the transport planning phase.
	6.11 Build environmental management systems into infrastructure development and management of transport systems.
Ensure climate change is considered in decision-making	6.12 Ensure climate change considerations are taken into account in the planning, design, development of specifications, construction, operation and ongoing maintenance of State and Local Government transport infrastructure.
Better understand the impact	6.13 Identify and assess climate change variables and their likely affect on infrastructure.
infrastructure	6.14 Develop risk management plans to mitigate or manage future impacts.
	6.15 Ensure transport infrastructure is designed to be more resilient against climate change and extreme weather events.

Implementation and Review: A Shared Responsibility

Implementation

Implementation of the Southern Integrated Transport Plan is a shared responsibility, and will only be successful through a collaborative, integrated approach.

State and Local Government will work together proactively to implement the Plan. Both levels of government will work with key regional stakeholders including private sector transport providers, industry and the community to improve transport outcomes. This is essential in meeting the Plan's vision for a cooperative partnership approach between different levels of government for planning, coordination and funding of the transport system.

A Five Year Action Plan has been developed to support implementation of the Plan, and this will be updated on an annual basis by a joint state-local government steering committee. State and local government will implement the Action Plan as resources, opportunities and priorities allow.

The funding and implementation of further actions will be determined as part of normal budget processes, and this may involve more detailed investigation to ensure strategies achieve their intended outcomes. Further investment in the transport system will be made in line with the Plan's Investment and Planning Principles. It is important that the Plan is used in the ongoing management and development of the region's transport system. Both State and local governments must adopt the Plan's investment and planning principles in their own decision-making processes and ensure that both existing and future transport plans, such as local transport plans and corridor studies, align with the Plan.

Currently, State and Local Governments separately identify the transport issues they are responsible for in their own investment strategies and work programmes. We need to work more closely together to implement and integrate the strategies to achieve a whole-of-system approach.

Review

Periodic reviews of the Plan will support continuous improvement and help to respond to an evolving transport agenda. Three years after the release of the Plan, both State and Local Governments, through the Steering Committee, will review the Plan to determine:

- the success of the Plan in providing a framework to manage the region's transport system;
- progress toward implementation of the objectives and strategies in the Plan and whether they are still relevant; and
- other emerging transport issues and opportunities for the region that should be incorporated into the Plan.

Investment and Planning Principles

Sustainable, targeted investment and improved planning are key to the successful implementation of the Southern Integrated Transport Plan. The following investment and planning principles will guide better planning and decision making at all levels of Government, shaping the way we plan, develop and implement transport solutions for the Southern Region.

Directions	Principles
Focus on long term economic, social and environmental outcomes	Decision making which incorporates economic, social and environmental considerations, and accounts for the needs of future generations.
	Take an evidence-based approach to identifying and responding to transport issues.
	Focus on the implementation of planning frameworks that provide guidance and flexibility to respond to emerging issues over the long term.
Effective partnerships and	Early stakeholder engagement, actively seeking and considering stakeholder views.
industry and community	Cooperation between spheres of government and across municipal boundaries to address issues of common interest.
	Work with industry in the planning, provision and management of transport infrastructure and services.
A system wide approach	Planning that considers all transport modes within an integrated system
	Adoption of a network approach, regardless of who owns and operates transport infrastructure and services
Innovative approaches	Influence and manage demands on the transport system.
	Consider a broad range of non-infrastructure solutions in addressing transport issues.
	Investigate and implement a range of complementary measures.
	Improve accessibility for people and goods.
Integrate transport and land use	Ensure that land use and transport planning are undertaken concurrently and not in isolation.
	Integrated land use and transport planning to make best use of existing infrastructure and services,, and protect transport assets and systems.
Viable and sustainable	Decision making that is financially responsible, sustainable and benefits multiple users.
provision	Direct resources to the areas of greatest need and benefit.
	Maximise use of existing infrastructure and services to optimise performance.



Appendix I. Five Year Action Plan 2010 - 2015 -Southern Integrated Transport Plan

Development of five year action plan

A Five Year Action Plan has been developed to support the implementation of the Southern Integrated Transport Plan. The Plan identifies actions to be pursued by relevant organisations over the next five years. Some of the actions identify projects that are committed or underway. Other actions are only at the conceptual or investigation stages. Not all of the strategies identified in the Plan require an action, as the strategies contain sufficient direction for implementation.

An annual one year action plan will be developed to identify priorities over the short-term.

Implementation of the action plan

Both State and local government will work towards implementing the actions as resources, opportunities and priorities allow. In current economic circumstances, securing additional funding will be a significant challenge for the region; resources will need to be targeted to high priority projects which deliver the greatest benefit to the region's people and businesses.

The Action Plan enables us to make best use of available funding, ensure an appropriate return on investment and provides a coordinated program to address agreed and justified objectives and strategies. Investment in the transport system under the Action Plan will be consistent with the Plan's Investment and Planning Principles. At this stage, many of the actions are unfunded, and potential funding has not yet been identified.

The Action Plan's implementation will be co-ordinated by a steering committee representing both State and local government. The steering committee will meet regularly to guide and determine progress on the Action Plan.

Community input

Effective community access to information in relation to transport services is critical, as is opportunity for community input into actions under the Plan. It is a priority for State and local government to have mechanisms in place that will encourage and incorporate community input.

Action plan review

Annual reviews of the Action Plan will support continuous improvement and help to respond to an evolving transport agenda. The review will be undertaken by the steering committee overseeing the Action Plan and will provide an opportunity for actions to be updated as progress occurs and for new actions to be included as new priority issues emerge.

		Key initiat	ives, next I-5 yea	LrS
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
Progressive implementation of	Lead – DIER	Southern Councils	Infrastructure	1.10 Encourage and support greater use of public passenger transport, multiple
i asmanian Urban Fassenger i ransport Framework		Tasmanian Planning Commission		occupancy car trips, cycling and walking.
Initiatives of the Framework are covered under:				
Establish collaborative processes				
Greater Hobart Car Parking Strategy		rrivate dus operators		
 High Frequency Passenger Transport Conridors 		Tasmanian Climate Change Office	People	2.1 Implement the outcomes of the urban public transport study focusing on demand management measures and increasing the attractiveness of public passenger transport options.
Bus priority				
Park and Ride			Planning	3.1 Encourage new residential development within existing major residential suburbs or new growth areas that have good public transport services.
Urban fringe public transport services				3.8 Ensure growth comidors involve logical extensions of existing transport networks
 Implementation of urban service standards for Metro 				and public transport services 3.9 Ensure new development integrates with the transport system, including public
 Transit oriented Development 				transport, cycling and walking routes
Off-bus infrastructure			Environment	6.4 Encourage more sustainable travel choices through modifying people's travel behaviour.
Travel Behaviour				6.6 Undertake planning for an oil and climate change constrained future.
Active transport				5

		Key initiat	ives, next I-5 yea	S
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
Progressive implementation of the Tasmanian Infrastructure Strategy	DIER	Southern Councils	Infrastructure	 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecasts.
Implement planning and transport initiatives in the Tasmanian Infrastructure Strategy with a key focus on immoving infrastructure devision	lasmanian Planning Commission			 Ensure at least one appropriate road link between major population, industrial and commercial centres.
making processes. Key early initiatives include:				1.3 Improve the safety and consistency of key regional roads.
 Establishing an Infrastructure Advisory Council; 				 Maintain appropriate service standards for road infrastructure to optimise network performance through the development of asset management
Introducing State of Infrastructure reporting;				su ategies
Reviewing the DIER road delivery model				1.15 Shared transport and planning data between State and local government, including outputs from the Greater Hobart Household Travel Survey and Freight Demanders Survey.
 Enhancing integration of infrastructure planning and land use planning 				1.18 Develop a process to actively coordinate the activities of other infrastructure
Improving infrastructure data and analytical systems.				providers that require initastructure to be located in transport compors.

Coordinated transport planning	DIER	Southern Councils	Infrastructure	1.15 Shared transport and planning data between State and local government, including the second
Work with the Southern Tasmanian Regional	Tasmanian Planning	State owned entities		including outputs indiri ure of eater Froud it Frouseriold in aver our vey and regime Demanders Survey.
namming myeet to better to out an act of an apply that and land use planning.	STCA			1.18 Develop a process to actively coordinate the activities of other infrastructure providers that require infrastructure to be located in transport corridors
Establish collaborative processes across State	-))			
and local government and stakeholders that includes:			People	2.13 Develop a process for State and local Government to identify public passenger transport service needs and responses for communities of need.
Establishing an Urban Transport Advisory				
Council to guide implementation of the Urban Passenger Transport				2.17 VVOIR LOWALUS MAXIMINING UNE ENECLIVENESS OF GOVERNMENT INFENTION ROMANALE transport disadvantage.
Integrated Land and Transport Committee			Planning	3.1 Encourage new residential development within existing major residential suburbs
Commission and the three land use strategy				or new growth areas that have good public transport services.
projects.				3.2 Locate development that attracts high numbers of people such as major commercial employment educational and health services at locations that are
 Develop and commit to a process to 				bightly accessible by public transport, walking and cycling.
coordinate infrastructure providers that				
require intrastructure to be located in transport corridors.				3.3 Locate everyday facilities such as local shops, community health facilities and childcare in local centres that are within walking and cycling distance of residential areas
				el (70.5)
				3.4 In urban areas and regional service centres, encourage higher density residential and mixed use in and around town centres to maximize accessibility by non-car modes and reduce the demand for travel.
				3.5 In rural areas encourage clustering and mixed use development, such as shops,
				key services and jobs in town centres to maximise accessibility by non-car modes.
				3.6 Encourage major industrial activities to locate in industrial areas with good access to the choracic transcort pervort such as Briddron and Clanorchy
				נט נווב אנו מנבפור נו מואטטו ר וובניאטו א, אנירו מא טו ואוינטו מווט סובווטו טון.
				3.7 Encourage consolidation of warehousing, transport depots and storage activities within existing major industrial areas.
			Erreight	4.1.3 Match the location of freight generating inclustnes to strategic freight muttes
				ויוס ו ומנטו גור וסרמנוסו סו ויכוצור צטונט מווצ וויטטטורט נס זגו מנעצר ויכוצור וסנונט.

		Key initiat	ives, next I-5 yea	2
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
Greater Hobart car parking strategy IDevelop and implement a Greater Hobart car parking strategy including parking controls and pricing to discourage single occupancy car trips.	Lead – DIER Greater Hobart Councils – Hobart, Clarence, Glenorchy, Kingborough, Brighton		Infrastructure	 11.14 Develop car parking strategy – key component to support use of non-car modes, including public transport. 1.10 Encourage and support greater use of public passenger transport, multiple occupancy car trips, cycling and walking.
car parking spaces at workplaces, commencing with State Government agencies with possible extension to local government.	and Sorell		People	 2.1 Implement the outcomes of the urban public transport study focusing on demand management measures and increasing the attractiveness of public passenger transport options. 2.5 Implement pricing incentives to encourage a shift to public transport.
High Frequency Transit Corridors	Lead – DIER	Southern Councils	Infrastructure	11.10 Encourage and support greater use of public passenger transport, multiple occupancy car trips cycling and walking
IInvestigate opportunities to develop high frequency transit corridors between key destinations and high-density residential areas in Greater Hobart's major urban centres including the strategic corridors identified in the Hobart Passenger Transport Study.	Metro Tasmania			 1.11 Develop and implement bus priority within metropolitan Hobart. 1.14 Develop car parking strategy – key component to support use of non-car modes, including public transport.
Key strategic corridors include: • Main Road – connecting Claremont, Glenorchy, Moonah and Hobart			People	2.1 Implement the outcomes of the urban public transport study focusing on demand management measures and increasing the attractiveness of public passenger transport options
 Clarence Street – connecting Howrah, Bellerive, Rosny and Hobart Sandy Bay Road – connecting University of 			Planning	3.17 Undertake long term planning for existing and new strategic transport corridors and hubs focussing on demonstrated need and analysis.
Tasmania, Sandy Bay and Hobart			Environment	66.4 Encourage more sustainable travel choices through modifying peoples travel behaviour.

Bus priority	Lead – DIER	_	nfrastructure	1.10	Encourage and support greater use of public passenger transport, multiple
Ilnvestigate options for bus priority in Greater Hobart, focusing on high frequency transit corridors, and share findings.	Glenorchy, Hobart, Clarence, Kingborough Councils			Ξ.	Investigate and implement bus priority measures within metropolitan Hobart.
Investigate and implement if feasible, the extension of the Southern Outlet bus lane through Macquarie Street.			Environment	66.4 6.6	Encourage more sustainable travel choices through modifying people's travel behaviour. Undertake planning for an oil and climate change constrained future.
Park and ride strategy	Lead – DIER	-	eople	2.6	Investigate local park and ride facilities in accessible locations to encourage ride
Identify suitable park and ride sites on within Greater Hobart.	Metropolitan Councils: Clarence, Kingborough, Glenorchy and Sorell councils			2.20	Provide connections between modes and services for moving people, including connecting cycleways and walking routes to high frequency public transport routes and locating park and ride facilities adjacent to high frequency public transport routes.
	Metro Tasmania				
			Environment	66.4 6.6	Encourage more sustainable travel choices through modifying people's travel behaviour. Undertake planning for an oil and climate change constrained future.
Public transport fares – students	Lead – DIER		eople	2.5	Implement pricing incentives to encourage a shift to public transport
Implement flat concession fare for all travel by school-aged students.					
Implement adult concession fares for university students.					

		Key initiat	ives, next I-5 yea	Ŋ	
Actions	Responsible organisations	Stake-holders	Policy area	Related strate	gy (Southern Integrated Transport Plan
Urban fringe public transport services	Lead – DIER		People	2.2 Improvements ⁻ development w	to urban and urban fringe bus services, including on-going vith operators to improve services
INew service contracts for urban fringe services to invest in new vehicles, including low floor wheelchair accessible buses.	Private bus operators			13 Develop a proc transport servic	ess for State and local Government to identify public passenge ce needs and responses for communities of need.
These contracts also require operators to prename service development plans for actions				.15 Assist people in	h rural areas to meet their basic service needs through:
the operators intend to take to build services in their area These require operators to work				• the delivery c	of regular bus services for general community needs
with local communities to identify service needs and actions.				 working with such as access sustainable tra 	relevant organisation to improve service delivery methods s to ICT, community transport, ride sharing and innovative ansport options
				.21 Better service in	ntegration between different transport modes including
				 Integrated tick 	keting
				Better inform	ation and communication of timetables
				Coordination	of services between modes and different service provider
			Infrastructure	.10 Encourage and si occupancy car tr	upport greater use of public passenger transport, multiple ips, cycling and walkin
Implementation of urban service standards for Metro Tasmania	Lead – DIER	Hobart, Glenorchv	People	.2 Improvements to	o urban and urban fringe bus services:
Work with service norviders to ensure that	Metro Tasmania	Clarence, Kindhormilah		for urban serv	vices: continued implementation of a services standard model
the delivery of services appropriately reflects communities' transport demands and needs.		Brighton		 for urban fring services 	ge services: ongoing development with operators to improve
				21 Better service in	itegration between different transport modes including
				 Integrated tick 	keting
				Better inform	ation and communication of timetables
				Coordination	of services between modes and different service providers

Work towards maximising the effectiveness of Government funding to alleviate							Improve information and communication of public passenger transport services including convice availability real time travel information timetrahing and mute	choice.	Facilitate access to a range of transport options, particularly for young people through the development of education and work travel plans.	Require major developments to develop travel plans to facilitate modal choice.	Encourage more sustainable travel choices through modifying people's travel behaviour.	Undertake planning for an oil and climate change constrained future.	Implement employment and education-based measures to manage peak travel demand, including work and school travel plans and flexible work arrangements
22.14							2.4		2.16	2.19	6.4	6.6	1.12
People							People				Environment		Infrastructure
Metro Tasmania	Private bus operators	Southern Councils					Southern Councils						
Lead –DIER	DHHS						LLead – DIER	Tasmanian Climate Change Office	0				
Passenger transport planning	Better understand the complexities of	passenger transport provision, py working with passenger transport providers and funding organisations to:	 improve integration of passenger transport modes 	 better coordinate efficiencies between providers 	 improve information and communication of service availability 	 address barriers to transport including cost, availability and accessibility; 	Travel behaviour	Investigate travel behaviour change initiatives, including region-wide initiatives (e.g. marketing	of public transport) and local-level programs (e.g. TravelSmart)	Review how major developments are assessed to include travel planning information	Develop guiding material for workplace travel plans		

ars	Related strategy (Southern Integrated Transport Plan)	1.12 Manage land use to reduce travel demand on major arterial roads.	2.1 Implement the outcomes of the urban public transport framework focusing on demand management measures and increasing the attractiveness of public passenger transport options.	3.1 Encourage new residential development within existing major residential suburbs or new growth areas that have good public transport services.	3.2 Locate development that attracts high numbers of people such as major commercial, employment, educational and health services at locations that are highly accessible by public transport, walking and cycling.	6.4 Encourage more sustainable travel choices through modifying people's travel behavior.	11.9 Encourage and support greater use of public passenger transport, multiple occupancy car trips, cycling and walking.	2.1 Implement the outcomes of the urban public transport framework focusing on demand management measures and increasing the attractiveness of public passenger transport options.	2.3 Identify and improve priority bus stops for improvement to meet DDA standards	2.17 Promote accessible transport and ensure greater equity of access for those with a disability.
ves, next I-5 ye	Policy area	Infrastructure	People	Planning		Environment	Infrastructure	People		
Key initiativ	Stake-holders	Metro Tasmania					Hobart, Glenorchy, Clarence, Kinchomulich	Brighton		
	Responsible organisations	DIER	Tasmanian Planning Commission STCA	Hobart, Glenorchy, Clarence,	Kingborough		Lead – DIFR Metro Tasmania	Private bus operators		
	Actions	Transit Oriented Development	Investigate opportunities (through the Southern Tasmanian Regional Planning Project) for promoting transit oriented development along high frequency corridors including smart growth and location efficient development				Off-bus infrastructure Investigation and implementation of off- bus infrastructure to anoxide high visibility	comfortable, safe, environment for passengers. Identify and improve priority bus stops to meet		

		Planning	<u> </u>	2 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.
		Environment	6.9	Encourage more sustainable travel choices through modifying people's travel behaviour.
			6.6	Undertake planning for an oil and climate change constrained future.
		Infrastructure		2 Implement employment and education-based measures to manage peak travel demand, including work and school travel plans and flexible work arrangements.
toad and Rail Asset Schedule	Lead – DIER	Planning		3 Limit access points onto strategic transport corridors through consolidation of existing accesses and use of lower category roads to access new development.
Develop and implement a standard road nd rail asset schedule, to be used by local overnment in the preparation of new planning chemes, as part of the review of Planning	Tasmanian Planning Commission Southern Councils		М	Protect existing and future strategic transport corridors from adjacent land use activities that affect the long-term operating function of the corridor, increase amenity conflicts or reduce opportunities for future upgrades.
outhern Tasmanian Regional Planning Project	Lead – STCA	Infrastructure		I Manage land use to reduce travel demand on major arterial roads.

		Key initiat	ives, next I-5 yea	rs
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
			Planning	3.1 Encourage new residential development within existing major residential suburbs or new growth areas that have good public transport services.
				3.2 Locate development that attracts high numbers of people, such as major commercial, employment, education and health services, at locations that are highly accessible by public transport, walking and cycling.
				3.3 Locate everyday facilities, such as local shops, community health facilities and childcare in local centres that are within walking and cycling distance of residential areas.
				3.4 In urban areas and regional service centres, encourage higher density residential and mixed use in and around town centres to maximise accessibility by non-car modes and reduce the demand for travel.
				3.5 In rural areas encourage clustering and mixed use development, such as shops, key services and jobs, in town centres to maximise accessibility by non-car modes.
				3.6 Encourage major industrial activities to locate in industrial areas with good access to the strategic transport network, such as Brighton and Glenorchy.
				3.7 Encourage consolidation of warehousing, transport depots and storage activities within major industrial areas.
				3.8 Ensure growth corridors involve logical extensions of existing transport networks and public transport services.
				3.11 Coordinated planning of new industrial areas and freight intensive industries in relation to strategic transport routes.

ears	Related strategy (Southern Integrated Transport Plan	3.2 Locate development that attracts high numbers of people such as major commercial, employment, educational and health services at locations that are highly accessible by public transport, walking and cycling	3.3 Locate everyday facilities such as local shops, community health facilities and childcare in local centres that are within walking and cycling distance of residential areas	3.4 In urban areas and regional service centres, encourage higher density residential and mixed use in and around town centres to maximize accessibility by non-car modes and reduce the demand for travel	3.5 In rural areas encourage clustering and mixed use development, such as shops, key services and jobs in town centres to maximise accessibility by non-car modes	5.4 Targeted traffic calming and speed management in shared spaces to minimise conflict between vehicles, pedestrians and cyclists.	4.4 Ensure appropriate road standards to support higher productivity vehicles on key freight routes.	4.7 Improve road and rail access to the Brighton Transport Hub4.13 Match the location of freight generating industries to strategic freight routes.	 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecast 	3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.	3.17 Undertake long term planning for existing and new strategic transport corridor and hubs focusing on demonstrated need and analysis.
ives, next I-5 ye	Policy area	Planning				Safety	Freight		Infrastructure	Planning	
Key initiati	Stake-holders										
	Responsible organisations						Lead – DIER	Glenorchy, Hobart, Brighton Councils			
	Actions						Brooker Highway	Develop and implement agreed Brooker Highway Plan including need and options for road upgrades.			

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 Target infrastructure upgrades (road and major intersections) to sections with high freight will mee and forecasts 	1.3 Improve the safety and consistency of key regional roads	5.8 Focus investment on roads with high vehicle volumes and with a high incidence or risk of casualty crashes, including providing an adequate level of road delineation such as guideposts, warning signs and pavement marking techniques.	5.9 Installation of best practice infrastructure on road sections with a high casualty crash rate to reduce off road and head on crashes eg flexible barriers, delineation or sealed shoulders.	4.1 Improve safety efficiency and level of service on the Midland Highway from Granton to Dysart.	4.3 Recognise and plan for the impact of the future freight task on the Midland Highway and north-south rail line and target infrastructure investment plans accordingly	4.4 Ensure appropriate road standards to support high productivity vehicles on key freight routes	4.6 Develop a new intermodal facility for Southern Tasmania - Brighton Transport Hub.	4.7 Improve road and rail access to the Brighton Transport Hub	3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.	3.17 Undertake long term planning for existing and new strategic transport corridors and hubs focusing on demonstrated need and analysis.
Infrastructure		Safety		Freight					Planning	
Lead – DIER	Brighton, Southern Midlands and Glenorchy Councils									
Midland Highway	Ongoing implementation of commitments under Southern Investment Programme, including:	Construction of Brighton Transport Hub and Brighton Bypass, and	 Planning and design for Bagdad Bypass and new Bridgewater Bridge. Develop and implement an agreed Midland 	Highway Plan.						

		Key initiat	ives, next I-5 yea	S
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
Tasman Highway Determine and minimities framine memory fram	DIER-lead		Infrastructure	 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecasts
the Tasman Bridge to Sorell.	Sorell Council			 Ensure at least one appropriate road link between major population, industrial and commercial centres.
				 Better utilisation of available road space. Better utilisation of available road space through:
				 Improved access to key corridors at specific locations through targeted intersection upgrades.
				 Use of ITS to monitor network performance and better respond to incidents which cause congestion and bottlenecks.
				 Traffic management, including control of access points, improved traffic light coordination and priority treatment for certain modes.
			Planning	3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.
				3.17 Undertake long term planning for existing and new strategic transport corridors and hubs focusing on demonstrated need and analysis.
South Arm Highway	DIER-lead		Infrastructure	 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecasts
Identify and prioritise projects from Oceana Drive to Pass Road (includes upgrade of existing alignment, Pass Road intersection upgrades, connection of Tollard Drive).	Clarence City Council			 Ensure at least one appropriate road link between major population, industrial and commercial centres.
Protect southern bypass corridor around Rokeby commercial area.			Planning	3.1 Encourage new residential development within existing major residential suburbs or new growth areas that have good public transport services
				3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.
				3.17 Undertake long term planning for existing and new strategic transport corridors and hubs focusing on demonstrated need and analysis.

 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecasts Ensure at least one appropriate road link between major population, industrial and commercial centres. 	 Target infrastructure upgrades (road and major intersection) to sections with high freight volumes and forecasts Ensure at least one appropriate road link between major population, industrial and commercial centres. 	3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.3.17 Ensure growth corridors involve logical extensions of existing transport networks and public transport services	 4.4 Ensure appropriate road standards to support high productivity vehicles on key freight routes 5.10 Minimising interaction between freight and passenger vehicles, on roads with a high freight function. Where interaction continues, the focus will be to improve the road environment to allow safe interaction 	 Ensure at least one appropriate road link between major population, industrial and commercial centres. Improve the safety and consistency of key regional roads. 	5.8 Focus investment on roads with high vehicle volumes and with a high incidence or risk of casualty crashes, including providing an adequate level of road delineation such as guideposts, warning signs and pavement marking techniques.
Infrastructure	Infrastructure	Planning	Freight Safety	Infrastructure	Safety
Kingborough Council	Clarence City, Brighton, Sorell, Derwent Valley, Huon Valley Councils			Huon Valley, Tasman, Clarence City, Central Highlands, Sorell, Southern Midlands Councils	
DIER-lead	DIER-lead			DIER – lead	
Southern Outlet – Channel Highway Construct the Kingston bypass	Review of future transport linkages Using freight and passenger information, progressively determine future linkages/ upgrades, including the connection between:	 Brighton and Cambridge Derwent and Huon Valleys (for forestry transport, including road and rail linkages) Glenorchy and Cambridge 		Rural and regional roads Develop options for upgrades to rural and regional roads.	

		Key initiati	ives, next I-5 yea	S
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
Intelligent Transport Systems (ITS)	DIER-lead	Southern Councils	Infrastructure	1.4 Provide en-route driver information, including expected travel times, delays and
Develop options for intelligent transport system (ITS) across the transport network, especially about two transport considers and at high				1.5 Better utilisation of available road space through:
arong hey known u anapor i comou s and at might crash density locations.				 Improved access to key corridors at specific locations through targeted intersection upgrades.
				 Use of ITS to monitor network performance and better respond to incidents which cause congestion and bottlenecks.
				 Traffic management including control of access points, improved traffic light coordination and priority treatment for certain modes.
			Planning	3.15 Use of technology (ITS) and travel demand management initiatives to optimise the use of existing networks
			Safety	5.12 Match travel speeds to the road environment through:
				Safer travel speeds on rural roads
				 Introduction of variable speed limits - activated during specific times, locations or in adverse conditions
			Freight	4.5 Use of non-infrastructure solutions to increase freight efficiency:
				 ITS solutions to support improved flexibility for freight operators over the longer term to carry higher masses and to optimise freight efficiency within urban areas.

Tourism	Lead – DEDT	STCA	Infrastructure	I.I6	Consider visual amenity impacts on major tourist roads as part of infrastructure
Assess key infrastructure issues affecting the growth and development of the tourism industry and prioritise infrastructure priorities through the Tourism Infrastructure Investment	DIER	Southern Councils		1.17	uppi aues and assessment of adjacent land use and development. Improve strategic roadside facilities along major regional touring routes (Southern Region Touring Route Strategy) to enhance visitor experience.
Strategy project.			Planning	3.21	Better understand visitor's needs and take into account tourism strategy (tourism trends, current visitation and expected trends) in transport planning.
Rail infrastructure maintenance and planning	Lead – DIER Tasmanian Railways	Southern Councils	Infrastructure	<u>L:</u>	Ensure the North-South and Derwent Valley (to Boyer) rail line are maintained to a fit for purpose standard.
Develop 10 year rail strategy	Pty Ltd		Freight	4.2	Target known infrastructure weaknesses on the north-south rail line.
On-going implementation of the rail maintenance program, including rail bridges and level crossing improvements and re-sleepering.				4.3	Recognise and plan for the impact of the future freight task on the Midland Highway and north-south rail line and target infrastructure investment plans accordingly.
Planning, design and implementation of capacity and safety improvements and upgrades on the North-South line.					
Identification of other maintenance works including the ongoing assessment of landslip areas within the rail alignment					
Adoption of National Transport Reforms	Lead - DIFR		Freight	4.12	Continue to work with industry to introduce vehicles that are more productive, safer and have less impacts on road infrastructure.
(PBS) and quad axle vehicles.			Environment	6.5	Investigate complementary measures eg freight productivity reforms to manage emissions from freight.
program, including heavy vehicle pricing.					

S	Related strategy (Southern Integrated Transport Plan	 I.14 Coordination of traffic count data at the metropolitan level between State and Local Government. 	1.15 Shared transport and planning data between State and local government, including outputs from the Greater Hohart Household Travel Survey and	Freight Demanders Survey.	2.13 Develop a process for State and local Government to identify public passenger transport service needs and responses for communities of need.	2.14 Work towards maximising the effectiveness of Government funding to alleviat transport disadvantage.	2.18 Better understand the transport needs of an ageing population and their transport needs.	3.12 Targeted infrastructure improvements that improve broader network function and meet demonstrated future demand.	4.8 Improve understanding of freight distribution patterns within Metropolitan Hobart to identify future transport needs including:	Intra-urban light commercial freight movements	 Freight movements in and around Glenorchy as a result of the transport hut relocating to Brighton 	Changes to the freight task as a result of ongoing retail development at Cambridge and Hobart International Airport
ives, next I-5 yea	Policy area	Infrastructure			People			Planning	Freight			
Key initiat	Stake-holders											
	Responsible organisations	DIER -	southern Councils									
	Actions	Sharing transport information	Levelopment of regional, metropolitan and local government profiles from:	Freight Demanders Survey 2009	Greater Hobart Household Travel							

Forestry freight modelling	Lead – DIER	Central Highlands, Dervent Valley, Huon	Freight	4.9 ح	Manage the forestry freight task through improved analysis to inform future retwork responses based on changing forestry freight pattems.
Develop long-term forecasts for forestry freight.		Valley, Southern Midlands, Tasman and Glamorgan Spring Bay		1 01.4 1 i	nvestigate the impact of forestry freight on local and State Government road infrastructure in terms of asset life and maintenance costs.
		2 2 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		4.II 0 0	dentify preferred routes for freight, which maximise efficiency and limit impacts on local communities and minimise interaction with other road users.
Noise Strategy	Lead – DIER	Southern Councils	Environment	6.7	Develop a Tasmanian transport noise strategy that focuses on reducing noise at
Finalise and implement the Tasmanian Transport Noise Strategy.				Þ	he source as well as mitigating the effects of excessive transport noise.
Government Vehicle Emissions Policy	Lead – DIER/ Tasmanian Climate		Environment		Encourage purchasing of minimum greenhouse ratings for new State and Local
Introduction of minimum Greenhouse				9	
Ratings for all fleet vehicles in order to reduce the carbon footprint of State and local Government's fleet of vehicles.	Southern Councils			6.2 Ir fo	nvestigate the purchase and trialling of hybrid and alternative-fuel vehicles or use in the State and local Government vehicle fleet and public passenger ransport fleet.
Participate in information exchange regarding				6.3 Ir	nvestigate and implement pricing incentives and regulatory improvements for
electric vehicles and alternate fuels with other states and Australian Government.				0	ow emission vehicles, including motorcycles.
				9.9	Undertake planning for an oil and climate change constrained future.
Work with the Australian Government to implement national reforms to improve vehicle fuel efficiency					
Climate Futures Tasmania –	Lead – DIER		Environment	0.6 L	Undertake planning for an oil and climate change constrained future.
Imrastructure project	Southern Councils			Ц СГ У	ter interstant change concidentions are taken into account in the planning
Continue to undertake the Climate Futures Tasmania – Infrastructure project to assess the					ansure diminate change consider auons are taken mud account in ure planimity, lesign, development of specifications, construction, operation and ongoing naintenance of State and local Government transport infrastructure.
local scale.				6.13 in	dentify and assess climate change variables and their likely affect on nfrastructure.
				6.14 D	Develop risk management plans to mitigate or manage future impacts.
				6.15 ch	insure transport infrastructure is designed to be more resilient against climate change and extreme weather events.

		Key initiati	ives, next I-5 yea	S
Actions	Responsible organisations	Stake-holders	Policy area	Related strategy (Southern Integrated Transport Plan)
Cultural heritage Engage early on with key stakeholders in respect of cultural heritage, including aboriginal heritage early on in transport projects.	DIER - lead		Environment	6.9 Identify and protect significant cultural and heritage sites within transport corridors and hubs.6.10 Develop processes to proactively consult on heritage issues, including aboriginal heritage early on in the transport planning phase.
Safer travel speeds Implement programs which result in safer speeds (e.g. Kingborough Safer Speeds demonstration), flashing lights in school zones, variable speed limits in high crash locations	Lead – DIER Southern Councils		Safety	 5.11 Continued development of community education initiatives to raise awareness of the risks associated with speeding. 5.12 Match travel speeds to the road environment through: Safer travel speeds on rural roads Introduction of variable speed limits - activated during specific times, locations or in adverse conditions
Safety education and promotion programs Continue work on education and promotion programs, including Community Road Safety Partnerships and the Road Safety Task Force	Lead – DIER Southern Councils		Safety	5.2 Limit exposure to high risk behaviours and situations through continued development of education and community road safety programs.5.3 Continued development of community education initiatives to raise awareness of the risks associated with speeding.
Infrastructure upgrades to reduce crash severity Continue to work on the Safer Roads Program and Black Spot Programs to implement safety improvements to State and local roads with crash history.	Lead – DIER Southern Councils		Safety	 Focus investment on roads with high vehicle volumes and with a high incidence or risk of casualty crashes, including providing an adequate level of road delineation such as guideposts, warning signs and pavement marking techniques. Installation of best practice infrastructure on road sections with a high casualty crash rate to reduce off road and head on crashes eg flexible barriers, delineation or sealed shoulders.

Safety 5.1 Improve the graduated licensing system.		Safety 5.5 Mandated purchasing of minimum four star ANCAP rating safety state the State and local Government vehicle fleet.	5.6 Continued trials of safer vehicle technologies to enhance road safety including alcohol interlocks and speed alert systems.	5.7 Educate people about the benefits of owning safer vehicles.	Infrastructure 1.8 Strengthen Hobart sea and air ports role as the gateway to Antarcti	Planning 3.18 Protect Hobart air and sea ports from adjacent incompatible uses t	affect future operations and viability including maintaining strategic tu linkages to ensure ongoing efficiency.
Lead - DIER		Lead - DIER			Lead – DEDT	DIER	
wice driver reforms	evelop and implement novice driver reforms ough the second three-year Tasmanian Road fety Action Plan.	afer vehicles	evelop and implement sater vehicle retorms rough the second three-year Tasmanian Road fety Action Plan.		obart air and sea port	upport and grow Hobart's position as ustralia's Antarctic gateway.	evitalise Hobart Port to cater to activity snerated by the Antarctic gateway and cruise lip visitation.



Department of Infrastructure, Energy and Resources

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